Standards and Trade
Development Facility

Public-Private Partnerships to enhance SPS capacity: What can we learn from this collaborative approach?

Joint document of the Standards and Trade Development Facility and the Inter-American Development Bank

WTO OMC

Joint document of the Standards and Trade Development Facility and the Inter-American Development Bank

April 2012

Table of Contents

Acronyms

ADEX	Exporters Association, Peru
AGAP	Peruvian Association of Producers and Agro-exporters Guilds
AHA	Animal Health Australia
APA/ASPROCER	Poultry-Pork Producers Trade Association, Chile
APA	Peruvian Poultry Association
APHIS	Agriculture, Animal and Plant Health and Inspection Service, United States
AUPSA	Panamanian Food Safety Authority
BLPA	Belize Livestock Producers' Association
BMZ	German Federal Ministry for Economic Cooperation and Development
BRC	British Retail Consortium
CADEXCO	Chamber of Exporters of Costa Rica
CESVBC	Baja California Plant Health Committee, Mexico
CIAGRO	Association of Agricultural Engineers, Costa Rica
CNAA	National Chamber of Agriculture and Agribusiness, Costa Rica
CODOPESCA	The Dominican Council of Fisheries and Aquaculture
COFEPRIS	The Federal Commission for Protection against Sanitary Risk, Mexico
COHEP	Honduran National Business Council
COMEXPERU	Small and Medium-Sized Enterprises' Foreign Trade Association of Peru
CONARE	National University Presidents Council, Costa Rica
EU	European Union
DAFF	Department of Agriculture, Forestry and Fisheries, South Africa
DIGESA	General Directorate of Environmental Health, Peru
DIRECON	General Directorate for International Economic Relations, Chile
FAO	Food and Agriculture Organization of the United Nations
FENAGH	National Federation of Farmers and Ranchers of Honduras
FVO	Food and Veterinary Office, European Union
CAADP	Comprehensive Africa Agriculture Development Programme
CBS	Citrus Black Spot
CIES	Food Business Forum
CONEFA	National Commission to Eradicate Foot and Mouth Disease, Bolivia
FAO	Food and Agriculture Organization of the United Nations
FBO	Food Business Operator
FEDAVIH	Poultry Federation of Honduras
FFV	Fresh Fruits and Vegetables
FMD	Foot and Mouth Disease
FPEAK	Fresh Produce Exporters Association of Kenya
FSA	Food Standards Agency, UK
FUNBAPA	Patagonian Zoo-Phytosanitary Barrier Foundation, Argentina
GAP	Good Agricultural Practices
GFSI	Global Food Safety Initiative
GIZ	German Agency for International Cooperation
GMP	Good Manufacturing Practices
HACCP	Hazard Analysis and Critical Control Point
ICA	Colombian Agricultural Institute
IDB	Inter-American Development Bank
IDEAM	Institute of Hydrology, Meteorology and Environmental Studies, Colombia
IITA	International Institute for Tropical Agriculture
INS	National Institute of Health, Colombia
INAN	National Institute of Food and Nutrition, Paraguay

INTA	National Institute of Agricultural Technology, Argentina
INTN	National Institute of Technology, Standardization and Metrology, Paraguay
INVIMA	National Institute for Drug and Food Surveillance, Colombia
IPM	Integrated Pest Management
IPPC	International Plant Protection Convention
ITP	Institute of Fisheries Technology of Peru
JAD	Dominican Agribusiness Board
KEPHIS	Kenya Plant Health Inspectorate Service
LDC	Least Developed Country
MAGFOR	The Ministry of Agriculture and Forestry, Nicaragua
MAWG	Market Access Working Group for Fresh Fruit and Vegetables, South Africa
MIDA	Ministry of Agricultural Development, Panama
MIFIC	Ministerio de Fomento Industria y Comercio, Nicaragua
MINCETUR	Ministry of Foreign Trade and Tourism, Peru
MINSA	Ministry of Health, Nicaragua
MINSA	Ministry of Health, Panama
MOU	Memorandum of Understanding
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental organization
OIE	World Organisation for Animal Health
PHA	Plant Health Australia
PIP	Pesticide Initiative Programme
PPP	Public-Private Partnership
PRRS	Porcine reproductive and respiratory syndrome
SADC	Southern Africa Development Community
SAG	Agricultural and Livestock Service of Chile
SAGARPA	Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food, Mexico
SE	Ministry of Economy, Mexico
SEMARNAT	Ministry of Environment and Natural Resources, Mexico
SERNAPESCA	National Fisheries Service, Chile
SFE	State Phytosanitary Service, Costa Rica
SEMARNAT	Ministry of Environment and Natural Resources, Mexico
SENACSA	National Service of Animal Health and Quality, Paraguay
SENASA	National Agricultural Health Service, Honduras
SENASA	National Agricultural Health Service, Peru
SENASICA	National Service of Agro-Alimentary Health, Safety and Quality, Mexico
SENAVE	National Plant and Seed Quality and Health Service, Paraguay
SEPLAN	Ministry of Planning and External Cooperation, Honduras
SME	Small and Medium-Sized Enterprise
SNE	National Society of Exporters, Peru
SNP	Peruvian Society of Fisheries
SRE	Ministry of Foreign Affairs, Mexico
SPS	Sanitary and Phytosanitary
STDF	Standards and Trade Development Facility
VWA	Food and Consumer Product Safety Authority, The Netherlands
UNAH	National Autonomous University of Honduras
US	United States
USAID	United States Agency for International Development
WHO	World Health Organization
WTO	World Trade Organization
WSSD	World Summit on Sustainable Development

Acknowledgements

This paper was written by Marlynne Hopper, STDF Secretariat and Juliana Salles Almeida, Integration and Trade Sector, Inter-American Development Bank (IDB) with Marian Garcia, Kent Business School, University of Kent, who prepared the section on co-regulatory approaches in food safety.

The STDF would like to express its appreciation to several organizations and individuals who provided inputs and guidance during the preparation of this document. In particular, the STDF would like to recognize the role of the IDB, with the assistance of Horacio Rodríguez Vázquez to identify, analyse and document examples of public-private partnerships in a number of Latin American countries through in-country research and face-to-face interviews with a wide range of public and private stakeholders. The contribution of Juarta Gilpin to the initial work for this document is also acknowledged.

Special thanks are due to all the speakers and participants who shared their perspectives and expertise during the STDF workshop on PPPs in the SPS area, organized in cooperation with the Ministry of Agriculture, Nature and Food Quality (LNV)[1] of The Netherlands and the World Bank Institute in The Hague from 4-6 October 2010. Lastly, but not least, the STDF is grateful to all the individuals from the public and private sector who shared information on PPPs in which they are involved, as well as the members of the STDF Working Group who provided comments on a draft version of this document.

1 Since October 2010, part of a new Ministry of Economic Affairs, Agriculture and Innovation.

Executive Summary

1. Over recent years, increased attention has focused on the role and potential of partnerships between the public and private sector (PPPs) to promote investment, improve food safety, animal and plant health, and facilitate trade. Partnerships engage stakeholders in collective action based on shared objectives. The goal is to achieve more together, than would be possible alone, and to improve the effectiveness of the results generated. Experiences indicate that countries with more capacity to manage sanitary and phytosanitary (SPS) risks have a better understanding of the importance of close cooperation between the various public and private sector stakeholders involved, and are proactive in developing and implementing collaborative initiatives and partnerships.

2. This publication analyses the emergence, operation and performance of selected SPS-related partnerships between government agencies responsible for food safety, animal and plant health and/or trade and the private sector. It has been prepared by the Standards and Trade Development Facility (STDF) and the Inter-American Development Bank (IDB) to raise awareness about the potential value and role of PPPs in enhancing SPS capacity and to provide practical guidance to facilitate and promote PPPs for SPS capacity development. The aim is to identify and disseminate pertinent experiences and lessons that could be replicated to improve the development and performance of partnerships to enhance SPS capacity in the future. It is expected that this work will be of particular use to authorities responsible for food safety, animal and plant health in developing countries, as well as private sector experts involved in the agriculture sector, who are interested to develop new PPPs or enhance the operation and performance of existing ones.

3. The case studies included in the analysis cover a broad sample of different types of partnerships from both developed and developing countries. These include examples of PPPs focused on SPS dialogue, networking and coordination, SPS infrastructure, value chain development, trade facilitation, joint public-private companies for SPS implementation, and co-regulation. These partnerships range from very informal, flexible arrangements to highly defined relationships based on full sharing of risks, resources and responsibilities. Their characteristics and complexity depend on the organizations involved, as well as the objectives, duration and scope of the collaboration in question. Several provide interesting and innovative approaches to SPS policy-making and the implementation of SPS controls, often accompanied by new financing and/or legal arrangements. While some are relatively new, others have existed for several years.

4. The document addresses the objectives of these PPPs, the organizations involved and their respective roles and responsibilities, the implementation modalities, outputs and results achieved, as well as the challenges faced and lessons learned. Efforts are made to consider both successful and less successful cases in order to learn from experiences and identify good practices.

5. Evidence points to the benefits of many of these partnerships in strengthening the implementation of SPS measures, improving SPS outcomes, enhancing market access and raising competitiveness, for instance by stimulating innovation, leveraging knowledge and resources, and addressing SPS infrastructure deficits. At the same time, the case studies highlight some of the key challenges (e.g. different organizational cultures, inadequate trust and transparency, communication problems, differing expectations, limited funding, staff turn-over) inherent in developing and effectively implementing and managing PPPs in the SPS area. In addition, expertise and skills to develop and manage PPPs are frequently in short supply.

6. The analysis identifies a number of preconditions for successful PPPs including: (i) ownership, commitment and trust of the key stakeholders involved; (ii) identification of a common interest, agreement on clear objectives and alignment of expectations; (iii) clarity on how the PPP will be implemented and managed, including the roles, responsibilities and obligations of the stakeholders involved; (iv) good governance and transparency; (v) high-level support, leadership and capable partners; and (vi) clarity on the financial costs and contributions required. Donors and development partners can play a useful role in some cases in facilitating the emergence and/or operation of PPPs. However, it is crucial to ensure that partnerships are firmly based on local demand and the full commitment of the relevant public and private sector stakeholders for them to remain relevant and sustainable.

7. Partnerships allow public and private sector stakeholders to combine their expertise to share the risks and costs of designing, implementing and maintaining activities to improve SPS compliance. While they are by no means a panacea, when well-designed and managed, experiences show that they can enhance the delivery and quality of SPS public goods. Given the extent of SPS capacity constraints in many developing countries, and the insufficiency

of resources to address all the challenges faced, policy-makers should actively consider the potential of PPPs focused on specific objectives as an option to optimise and modernize the implementation of SPS measures and management systems.

8. As an initial step, it is important to be able to identify partnership opportunities that are likely to make a practical and useful difference in terms of SPS capacity improvements and outcomes. Subsequently, it is essential to have skills to design, implement and manage these partnerships. For countries with limited experience in public-private collaboration in the SPS area, simplicity and flexibility are key preconditions for success. This includes partnerships with clear and relatively limited objectives that are based on common expectations, and uncomplicated decision-making structures and implementation mechanisms. It is generally easier to introduce changes and improvements as the PPP matures, when the stakeholders have become more familiar with each other and how to work together, and the functioning structure has demonstrated its effectiveness.

9. In conclusion, the document makes a number of recommendations to enhance the future development and implementation of PPPs in the SPS area. These include: (i) the creation of a favourable, enabling environment; (ii) the identification of a common interest and win-win situation; (iii) the existence of clear institutional and management arrangements; (iv) agreement on the resources needed; (v) transparency and effective communications; and (vi) monitoring and evaluation of performance and results.

10. This document was prepared in follow-up to an STDF workshop on "Public-Private Partnerships (PPPs) in Support of SPS Capacity", organized in collaboration with the Ministry of Agriculture, Nature and Food Quality (currently the Ministry of Economic Affairs, Agriculture and Innovation), The Netherlands and the World Bank Institute. It is based on desk research and consultations with representatives of government agencies and the private sector involved in PPPs in different parts of the world, including a series of face-to-face interviews in selected countries in Latin America. This document represents an initial effort to compile and analyse experiences with PPPs in the SPS area, with particular focus on Latin America, and to identify and disseminate some of the key lessons learned. More rigorous work to identify and assess PPPs in the SPS area, particularly from Africa, Asia and the Pacific, and other regions, and to measure their impacts would be useful.

1. Introduction

1. Partnerships engage stakeholders in collective action based on shared objectives. The goal is to achieve more together, than would be possible alone, and to improve the effectiveness of the results generated. Various types of partnerships to improve sanitary and phytosanitary (SPS) capacity and compliance have emerged in recent years, with governments, the private sector and others deciding to engage in collaborative efforts in pursuit of a common goal. Several of these partnerships are based on the creation of fora for dialogue and information exchange among diverse public and private sector stakeholders at the national level. Others go much further to create and implement a collaborative public-private approach to policy-making and the implementation of SPS controls, often accompanied by new financing and/or legal arrangements.

2. This study focuses on partnerships in the area of food safety, animal and plant health, and agricultural trade in general. It describes and analyses the emergence, operation and performance of selected SPS-related PPPs from both developing and developed countries. Attention focuses on the objectives of these PPPs, the organizations involved and their respective roles and responsibilities, the implementation modalities, outputs and results achieved, as well as the challenges faced and experiences and lessons learned. Efforts are made to consider both successful and less successful PPPs in order to identify good practices and learn from challenges and available experiences.

3. This study aims to raise awareness about the potential value and role of PPPs in enhancing SPS capacity and provide practical guidance to facilitate and advance PPPs for SPS capacity development. It seeks to determine if and how SPS-related PPPs have reached their goals and added value to the partners involved. The specific aim is to identify and disseminate pertinent experiences and lessons that could be replicated in other countries in order to improve the development and performance of partnerships in the future. This study will be of particular use to authorities responsible for food safety, animal and plant health in developing countries, as well as private sector experts involved in agriculture and SPS, who are interested to develop new PPPs or enhance the operation and performance of existing ones.

4. This is a joint publication of the Standards and Trade Development Facility (STDF) and the Inter-American Development Bank (IDB). It builds on presentations and discussions at an STDF workshop on "Public-Private Partnerships (PPPs) in Support of SPS Capacity",[2] desk research on PPPs in the area of SPS, as well as agricultural development and market access in general, and consultations with representatives of government agencies and the private sector involved in PPPs in different parts of the world. This included a number of in-depth face-to-face interviews during 2011 with stakeholders directly involved in selected PPPs in Latin America.[3]

5. This document is organized in four sections. Following this introductory section, the second section provides a preliminary discussion on the emergence and scope of PPPs, including their general characteristics and main stakeholders involved. The third section presents and analyses a number of specific PPPs in the SPS context, including PPPs focused on dialogue and communication, value chain development, infrastructure, trade facilitation, implementation of animal and plant health controls and co-regulation. Based on this analysis, and the experiences and lessons of the PPPs considered, the final section summarizes the main conclusions and makes a number of action-oriented recommendations, which may be useful to enhance the development and performance of partnerships in support of improved SPS capacity.

2 Information on this workshop, organized by the STDF in collaboration with the Ministry of Agriculture, Nature and Food Quality (LNV) of The Netherlands and the World Bank Institute, in The Hague in October 2010 is available on the STDF website: http://www.standardsfacility.org/TAPPP.htm.

3 In Latin America, a total of 59 PPPs to enhance SPS capacity were analysed. Information on these PPPs was gathered through desktop research (24 PPPs, 40.7%), personal interviews in Argentina, Chile and Mexico (20 PPPs, 33.9%), and questionnaire surveys received from SPS-related stakeholders in Argentina, Bolivia, Chile, Costa Rica, Mexico, Paraguay, Peru and Uruguay (15 PPPs, 25.4%).

2. Emergence, scope and funding of public-private partnerships

2.1 What are PPPs and who is involved?

6. The term "partnership" does not have a single definition but is used in different ways by different people. Partnerships can range from very informal, flexible arrangements to highly defined relationships based on full sharing of risks, resources and responsibilities. The characteristics and complexity of these partnerships depends on the organizations involved, as well as the objectives, duration and scope of the collaboration in question. Sometimes, partnerships are accompanied by new financing and/or legal arrangements.

7. Public-Private Partnerships (PPPs) is a generic term for the relationships formed between the private sector and public bodies. Public-private partnerships have been defined as a "collaborative venture between the public and private sectors built on the expertise of each partner that best meets clearly defined goals through the appropriate allocation of resources, risks and rewards" (Bettignies and Ross, 2004 in Hartwich et al., 2007). These arrangements generally entail "reciprocal obligations and mutual accountability, voluntary or contractual relationships, the sharing of investment and reputational risks, and joint responsibility for design and execution" (World Economic Forum, 2005 cited in FAO, 2009a.

8. Though the term PPP initially referred to collaborative arrangements between national government agencies and the private sector, normally focused on large infrastructure projects, it is increasingly used to describe a wider range of partnerships, which may include international, national and/or regional agencies, donor organizations or other stakeholders working together to bring solutions or dialogue around a common interest. Several development partners, including donor agencies and international organizations, are involved in, and often catalyse, public-private development partnerships (see Box 1 for examples). In addition to financial assistance, these partnerships may provide knowledge sharing, technical support, training or linkages to small producers and other stakeholders in local supply chains, etc. Many of these partnerships emerged in follow-up to the 2002 United Nations World Summit on Sustainable Development (WSSD), which emphasized the critical role of the private sector as a development partner, especially with regard to issues of capacity building, technology transfer and development financing, in tackling problems on a global scale and improving the living standards of the world's poor. [4]

9. Depending on the context, different stakeholders play the driving role in the emergence and development of partnerships in the area of agricultural development, trade and SPS. In some instances, especially where government agencies in developing countries are particularly weak, development partners and donor governments have taken on the role of the "public sector" to complement the role of local government agencies. Some research has indicated that as partnership facilitators, donors and international organizations can have an important role in strengthening the capabilities of small producers and motivating them to become involved in partnerships (Hartwich et al., 2008). This role is believed to be especially valuable in Least Developed Countries (LDCs), particularly in situations when partnerships seek to engage small-scale producers and/or where the capacity of national government agencies is especially limited, for instance in "fragile" and "weak" states following civil war or protracted conflicts. An evaluation of PPPs supported by the Dutch Government in East Africa has highlighted the role of donor organizations in supporting institutional capacity for partnerships through creating tools and encouraging better understanding on how to govern PPPs (Pfisterer, et al. 2009, see section 3.2 below). However, others view these arrangements as blurring the lines with traditional donor programmes and projects.

10. In a number of countries, both developed and developing, PPPs have been triggered by governments to get the private sector more involved in addressing specific challenges, and/or to strengthen public-private collaboration. Significant developments and innovations in such PPPs have occurred in several countries in Latin America as illustrated in the case studies in section 3. Some of these PPPs were created to address specific challenges, such as outbreaks of plant pests or animal diseases or trade embargoes, or to comply with SPS requirements in importing countries. Others address strategic issues such as better implementation of SPS national policies and regulation, or improved market positioning, and have a more medium to long-term duration.

4 Voluntary, non-negotiated partnerships for sustainable development, referred to as "Type-II" outcomes, were a major outcome of the WSSD. Over 220 partnerships (with US$235 million in resources) were identified in advance of WSSD and about 60 partnerships were announced by countries during the Summit (Doran, 2002).

11. In other cases, transnational corporations (TNCs) primarily involved in agricultural production or other related segments of the value chain are initiating PPPs with governments, foundations and NGOs aimed at increasing smallholders' competitiveness by, inter alia, providing greater access to inputs (such as seeds, fertilizer, crop protection products, market information and finance), links to larger value chains and improved agronomic practices (Hildebrand, 2011). For instance, Nestlé and the International Institute for Tropical Agriculture (IITA) have been working together to address challenges facing agriculture development in Africa, notably aflatoxins in grains. The presence of aflatoxins hinders exports and prevents West African farmers from selling their surpluses to Nestlé and other food processing companies, limiting their access to urban consumer markets in their own countries. Nestlé is partnering with IITA, which has developed aflatoxin control technologies, to help farmers in West Africa monitor and evaluate their crops for contamination and adopt sustainable management practices. Nestlé estimates that this training programme will help some 3,000 farmers earn US$900,000 in direct revenue from increased sales, and produce approximately US$126 million in indirect social and economic benefits for the West African region.[5] In 2010, IITA and Nestlé formalized their collaboration by signing a Confidentiality Agreement, which is expected to pave the way for more formal collaboration on research to boost yields and improve the prosperity of farmers in Africa (IITA, 2010).

12. The stakeholders involved approach partnerships from their own perspectives. For governments, they are often a way to cut expenditures, share risks, stimulate innovation and foster private sector ownership and engagement with national SPS programmes. For industry, they are frequently seen as a new business model to shift towards chain responsibility in international supply chain management. For donors, partnerships often represent a means to encourage new "actors in development" and better reach small-scale producers. NGOs are usually more interested in the social or sustainability aspects of PPPs, and often play an important role in strengthening the capabilities of small producers and motivating them to become involved in partnerships.

13. Most PPPs in the SPS area involve public and private actors based in the same country. Although less common, transnational PPPs that involve stakeholders from more than one country also exist. An interesting example was the trilateral agricultural partnership created in 2002 by the governments of The Netherlands, Malaysia and Indonesia. The objective was to enhance market access through capacity building and to identify and address bottlenecks in the production chains for palm oil, shrimp and fruits and vegetables. Yet, the complexity of this PPP (involving three countries, three sectors and three different types of stakeholders, i.e. government, NGOs and corporations) proved to be an inefficient mechanism taking into account the time and energy consumed in the decision-making and implementation process (Pfisterer et al., 2009).

Box 1: Public-Private "Development" Partnerships

Several bilateral donors and international organizations engage in partnerships with the private sector to promote, among other goals, economic development and poverty reduction in developing countries. These partnerships have been categorized into five major types of collaboration: (i) mechanisms that help businesses in finding business partners in development countries or implementing partners for development projects; (ii) funding mechanisms that provide financial support to companies' investments in development countries; (iii) programmes that offer technical support to companies; (iv) initiatives that promote knowledge sharing, policy dialogue or advocacy; and (v) programmes through which businesses can directly contribute to bi- or multilateral development projects (DCED, 2010). Some examples of these types of partnerships supported by donors and development agencies are presented below.

The **German Federal Ministry for Economic Cooperation and Development (BMZ)** initiates development partnerships with the private sector (develoPPP.de) to address mutual interests and combine the innovative power of business with the resources, knowledge and experience of German development agencies. Partnerships under the "develoPPP" programme tackle obstacles to development, minimize risks and combine the resources of partners in areas such as vocational training and infrastructure, in a bid to mobilise resources and know-how and thereby contribute to improved living conditions in developing, emerging and transition countries. The scope of these initiatives varies from small-scale measures carried out by individual companies to strategic alliances that affect a whole industry sector, involving several countries and several million Euros in investments. Some focus on implementation of standards in particular value chains to tap previously neglected markets. For instance, in

5 See: www.nestle.com/CSV/CreatingSharedValueCaseStudies/AllCaseStudies/Pages/Fighting-crop-disease-West-Africa.aspx

Egypt one partnership implemented by the Federation of German Wholesale and Foreign Trade and other partners established a "Fruit Trading Academy" to train 120 employees of Egyptian trading companies in all aspects of the German and European fruit business to enhance access of fresh fruit and vegetables from Egypt to the EU.

The **Danish International Development Agency (Danida)** initiated its Public Private Partnership (PPP) Programme in 2004 in response to the recommendations of the World Summit on Sustainable Development. Danida has four main programmes through which it cooperates with the business sector to promote social and economic development and reduce poverty in developing countries. These include: (i) the mixed credits programme which provides incentives to companies for participation in large development projects in developing countries which would not be carried out without financial subsidies; (ii) the business-to-business programme in which Danida serves as a facilitator between companies in Denmark and developing countries to promote technology transfer, access to new markets, etc.; (iii) the innovative partnership programme which provides grant support to advance Corporate Social Responsibility; and (iv) the Danish import promotion programme which aims to assist producers in developing countries to enter the Danish market.

The **Ministry of Foreign Affairs in The Netherlands** provides support to a number of public-private development partnerships including through: (i) the Sustainable Trade Initiative (STI) which aims to improve the social, economic and ecological sustainability of international supply chains that link developing countries with Western Europe; (ii) the Private Sector Investment Programme which encourages companies to set up innovative, sustainable investment in developing countries together with local business as a means to strengthen the local private sector; (iii) the Partnership Resource Centre, which provides a platform for research and knowledge sharing on cross-sector partnerships (including for global value chains development) for poverty eradication and sustainable development.

In 2001, the **United States Agency for International Development (USAID)** created the Global Development Alliances programme (GDA) to foster public-private partnerships to improve social and economic conditions in developing countries in recognition of the importance of private sector flows to developing countries. By early 2011, USAID had registered some 1,200 signed partnerships. These partnerships span the geographic and sectoral reach of USAID, with an emphasis on economic growth, health and environment. Several focus on agricultural development, market access and compliance with international standards. For instance, one recent initiative links USAID's support for small farmers with Kraft Foods' Cocoa Partnership[6] in a joint effort to increase local cocoa yields and quality, promote production of Fair Trade cacao, encourage more young adults to work along the cacao supply chain, and help more than 10,000 farmers in the National Confederation of Dominican Cacao Producers to increase their incomes. In May 2011, the OECD Development Assistance Committee (DAC) recognized the role of the US as a leader in developing public-private partnerships that increasingly go beyond corporate philanthropy to address core business interests and promote "development beyond aid" (OECD, 2011).

Source: Own elaboration based on relevant organizational web sites.

14. The importance of expanding and enhancing public and private cooperation for broad-based, inclusive and sustainable growth was recognized at the Fourth High-level Forum on Aid Effectiveness (Busan, Korea, 2011).[7] The Busan Joint Statement on "Expanding and enhancing public and private sector cooperation for development" recognized the critical role of the private sector as a key partner in development, including through establishing new enterprises, creating jobs, providing goods and services, generating income and profits and contributing to public revenues, and called on governments and other public development actors to enable and leverage private sector activities. Promoting public-private collaboration to achieve improved results has also been highlighted in a number of initiatives focused on food security, agricultural development and market access more broadly including the Aid for Trade Initiative, the Comprehensive Africa Agriculture Development Programme (CADDP)[8], the G20 Conference on Agricultural Research for Development, the Pacific Food Summit Framework for Action and the IDB Trade Facilitation Initiative.

6 Through its Cocoa Partnership, created in 2008, Kraft Foods committed to invest US$70 million over 10 years to improve farming and harvesting practices in the communities from which it sources cacao.

7 See: http://www.oecd.org/dataoecd/25/36/49211825.pdf

8 See: http://www.nepad-caadp.net/

15. In the area of Aid-for Trade, a number of opportunities have been identified for public-private partnerships to set and formulate the national agenda for international trade negotiations and to implement trade agreements and commitments, including joint initiatives for reforming and strengthening national legal and institutional frameworks for trade and making them WTO-consistent. Businesses have an important stake in the successful outcome of negotiations, while governments need in-depth knowledge of the needs and requirements of businesses to be able to formulate the intended outcome and negotiation strategies. Serious and inclusive dialogue, it is argued, would enhance the acceptance of international trade obligations at the national level and hence their implementation and compliance (ESCAP, 2007).

16. The Aid-for-Trade work programme (2012-13) recognizes that "engagement of the private sector in partner countries is essential to the success of the Aid-for-Trade Initiative, and a harmonious and productive public private partnership is an essential component of that success". The Fourth Global Review of Aid for Trade, envisaged for 2013, will focus, inter alia, on private sector development and investment, and public private partnerships in support of trade-capacity building, notably in specific areas such as trade finance, particularly for Small and Medium-Sized Enterprises (SMEs) (WTO, 2011).

17. The Inter-American Development Bank (IDB) has included the development of PPPs in its priorities and, in the last five years, increased funding support for related initiatives and projects. Since 2006, through grants of US$12 million, the IDB Multilateral Investment Fund has driven more than US$600 million in investments in PPP projects, assisted in the identification of over 80 potential PPP projects, and helped train more than 2,200 public and private sector professionals. The focus in these PPPs has been on infrastructure and, more recently, trade facilitation.[9] The World Bank is also a major promoter of PPPs in all sectors from social to economic, including agriculture development.[10]

18. PPPs are also used in developing supply-side capacity. For instance, in the agriculture sector, governments (which provide the incentive and the enabling legal environment), farmers (who need access to markets) and businesses (which sell seeds and provide farmers with technical support) could combine market potential, technical competence and managerial skills in order to build the supply-side capacity of the sector. Agricultural growth corridors, such as the Beira Agricultural Growth Corridor and the Southern Agricultural Growth Corridor of Tanzania launched at the World Economic Forum in 2010 and 2011 respectively, aim to guide public and private sector investment towards specific regions to boost productivity in clusters of existing infrastructure and to create new support infrastructure (Hildebrand, 2011). Actively supported by the governments of Mozambique and Tanzania, international organizations, donors and foundations, as well as TNCs, SME and smallholder cooperatives, these growth corridors, if successful, will "take public-private partnerships to a new level of ambition, aspiring not only to increase agricultural productivity but also to create vast infrastructure improvements and functioning markets" (Hildebrand, 2011).

19. The need for public-private partnerships to, inter alia, raise value-chain competitiveness, develop the capacity of smallholder farmers, respond to the institutional, infrastructural and technological needs for value-chain addition are highlighted in the Comprehensive African Agricultural Development Programme (CAADP), an Africa-owned and Africa-led initiative to accelerate agricultural growth, reduce poverty and achieve food and nutrition security. Yet while private sector participation was identified as central to implementation of CAADP's Pillar II (focused on the improvement of rural infrastructure and trade-related capacities for market access), a 2010 review of implementation highlighted the need for more strenuous efforts to fully engage the private sector (NEPAD, 2010). Innovative public-private research partnerships were also identified as essential to stimulate access to the best knowledge, achieve efficiency and effectiveness, and deliver widespread and lasting impact, by the G20 Conference on Agricultural Research for Development in 2011. The meeting encouraged G20 members to explore the development of new "scientific partnerships", serving development and food security, which would create an enabling environment and a stimulus for agricultural research and innovation with an emphasis on fragile states where research and innovation is lacking (GDPRD, 2012).

---

9 Example of recent initiatives include: (i) CAFTA-DR Public-Private Sector Dialogue on Trade Facilitation; (ii) the Program to Promote Public-Private Partnerships in Latin America and the Caribbean; and (iii) PPP Americas, the largest annual conference on PPPs in Latin America. For more on PPP projects and initiatives supported by the IADB, see: http://www.iadb.org/en/topics/public-private-partnerships/public-private-partnerships,%201714.html. For the 2011 PPP Americas Conference "Lessons Learned for Successful Public-Private Partnerships", see: http://events.iadb.org/calendar/eventDetail.aspx?lang=es&id=3023&SP=W.

10 Examples of relevant World Bank initiatives include: (i) the Global PPP Network, an online platform of PPP practitioners to exchange knowledge, discuss, learn and connect around global best practices on PPPs (http://pppnetwork.ning.com); (ii) "PPP Days", an annual global meeting for PPP practitioners from different parts of the world, initiated by the World Bank Institute and now organized in collaboration with a number of other international and regional organizations; and (iii) World Bank Institute PPP training programmes (http://wbi.worldbank.org/wbi/about/topics/public-private-partnerships).

20. Reflecting the increased attention to PPPs at the regional and international level, a number of countries have developed national PPP policies and laws, and/or established PPP units in an effort to promote and support PPPs. For instance, 20 sub-national governments in Mexico have developed their own PPP laws. In Africa, Nigeria has developed a National Policy on Public Private Partnerships (N4P) and Operational Guidelines for PPP Project Development, and Mauritius established a PPP Unit in the Ministry of Finance and Economic Development in 2002. In 2011, the Southern Africa Development Community (SADC) launched a PPP Strategy and PPP Network to promote the development of PPPs in the infrastructure area through, inter alia, enhancing understanding of PPPs, sharing experiences and best practices, building capacity and skills, etc. Efforts are also underway in Africa to convene an African PPP network to bring together the various PPP units on the continent to develop and harmonize PPP frameworks that will support the implementation of large-scale infrastructure projects. Typically such PPP units provide guidance to formulate policies on PPPs, assess whether PPP projects provide value for money and are affordable, support administrative procedures, develop best practice guidelines, and raise awareness. While normally focused on infrastructure, more recently laws and regulations to enhance PPPs in the agricultural sector have started to become more common. [11]

2.2 How do PPPs become established and consolidated?

21. Public-Private Partnerships emerge for various reasons. In some cases, they are developed spontaneously from interactions between individuals in the private and public sector who are open to the idea of collaboration, and see opportunities for potential benefits to be achieved. In several other cases, they appear to be driven by crises, such as trade bans or outbreaks of food safety diseases, animal diseases or plant pests. In such cases, the public and private sector realize that they need to work together in order to more effectively solve problems which would be more difficult, if not impossible, to be resolved by working alone. In other cases, partnerships appear to be driven by development partners and donors, as discussed above, as a tool for fostering development in developing countries. In the agricultural sector, in particular, the public sector directs its efforts toward goals related to economic growth, social improvement in rural areas and environmental sustainability. Agribusinesses are generally motivated by measurable goals such as increased productivity, product quality and profitability, aimed at getting or improving market position. Small farmers usually seek to reduce vulnerability, supplement their scarce resources and access better knowledge and technologies.

22. Based on in-depth research of PPPs for agricultural research and development in Latin America, Hartwich et al. have identified a number of phases involved in the development and consolidation of partnerships (see Box 2). They argue that partnerships begin when a common interest arises and end when the proposed results are achieved, or when the partners decide to terminate the arrangement. Experiences show that this process is iterative. Some phases may overlap and, as the partnership evolves, it may also change requiring attention to some of the phases that had previously been completed (Hartwich, F. et al., 2007).

Box 2. The Partnership Cycle

Phase 1: Identifying a common interest. In the SPS area, as in agricultural research and development, the "point of departure" is normally the identification of a technical problem or technological or market opportunity to be resolved or addressed. At the outset, the stakeholders involved need to discuss and define their common interest(s). These interests may change as the partnership develops and membership changes.

Phase 2: Designing the partnership (negotiating the partnership contract). During this phase, the partners involved review the goal of the partnership and the interests and capabilities of the potential partners. Attention focuses on how the partnership will operate in terms of governance and organizational design, finance and legal arrangements, as well as the specific partnership activities. Some of the key questions considered include: (i) funding needs and sources, and the contributions of each of the partners involved; (ii) distribution of benefits and profits (if appropriate); (iii) structure and organization of the partnership including processes for decision-making and communications; (iv) specific activities to be carried out. These discussions may result in a formal (e.g. contract or MOU) or informal agreement among the partners involved.

11 Examples of laws promoting PPPs in the agricultural sector in Latin America include: Peru's Agricultural Health General Law (Article 4), Costa Rica's Plant Protection Act (Articles 7 and 10), and Paraguay's National Law No. 2459 (Article 9-f). In Bolivia, national laws require SPS related programmes to have a public-private commission for their management (Articles 17 and 27, Decree No. 25729, April 2000).

Phase 3: Operation of the partnership. Based on the agreement reached in the preceding phase, the partnership is operationalized.

Phase 4: Monitoring and evaluation. The partnership may be evaluated for a number of different reasons, for instance, to justify the use of the funds, to understand whether the expected results were generated and how efficiently, etc.

Phase 5: Termination or continuation. After evaluating the partnership and examining whether the expected results have been achieved, the partners must decide whether to continue or to terminate the partnership. The partnership may be continued where the partners' original interests have been broadened and consolidated or where the initial problem has not yet been resolved. On the other hand, it may be terminated if the partners believe that it has satisfactorily achieved the desired results or if they determine that the initial goals cannot be attained without incurring additional, prohibitive costs.

Source: Hartwich et al., 2007.

2.3 Funding mechanisms

23. Financing arrangements for PPPs are as diverse as PPPs themselves. In the large-scale infrastructure sector, PPPs are financed through a variety of instruments including loans from commercial or public sector banks, investments by the private sector and/or grants and subsidies provided by government, etc. For PPPs in the area of agriculture development and trade, funding and financing arrangements vary according to the purpose of the partnership and stakeholders involved. Those that are focused on the provision of public goods or involve small-scale producers are often dominated by public sector funds, which may come from development partners and donors, as well as national governments. PPPs involving large agri-business tend to be financed by the private sector, depending on the scope and goals involved. In some cases, for instance, PPPs created to address outbreaks of plant pests or animal diseases are likely to receive a higher share of public funds than those aimed at market branding or positioning. This happens because the first case involves provision of a public good (human, animal or plant heath), which may not be provided effectively by the private sector on its own, and is frequently linked to a government strategy. The second case pursues a private or a sectoral interest to improve market access of a particular agricultural product.

24. Some PPPs also generate their own financing, in whole or in part, though subscriptions paid by members and revenues from the sale of services to users. For instance, not-for-profit, public-private companies created to manage animal and plant health in Australia are financed by subscriptions from federal and state governments and industry associations, as well as cost-recovery of certain activities (e.g. training) used by members, in addition to grants from the national government (which represent approximately 25 per cent of the total budget of each organization).

25. In Latin America, since the 1990s, governments have made substantial use of competitive grants for agricultural research and innovation to foster partnerships. Such grants require research projects to involve public and private sector organizations. In recent years, decreased availability of financing from private banks, as well as caution on the part of lenders, has led to a considerable increase in the role played by Latin American governments in supporting PPP programmes through different mechanisms, such as private, hybrid and pension funds, guarantees, subsidy funds and innovative financial products.

26. A considerable number of PPPs in the agricultural sector in Latin America obtain most of their financial resources from national governments and development institutions through specific funds and projects. Partnerships for agricultural research and innovation have also been funded primarily by the public sector. Research in 2005 on PPPs for innovation and research in the agro-chain found that in 101 partnerships in 12 Latin American countries, private funds constituted 34 per cent of the total amount of the projects analysed. Of the private funding, 55 per cent came from businesses and the remaining 45 per cent from producer associations (Hartwich, et al 2005).

27. Some countries in Latin America have created special public programmes for co-financing projects to enhance SPS capacity. Examples include the "Fondo SAG" in Chile or the "Support Program for Agricultural Health and Food Safety" in Mexico (Box 3). These programmes represent an interesting and innovative mechanism to promote public and private sector collaboration in pursuit of enhanced SPS outcomes. They have created strong foundations

for interaction and coordination between the public and private sectors, and facilitated the identification and implementation of joint SPS projects, even if not all the projects financed have resulted in the creation of formal PPPs.

Box 3. Key public-private funding mechanisms to enhance SPS capacity in Chile and Mexico

Sanitary Heritage Improvement Fund, Chile

The Sanitary Heritage Improvement Fund, known as the "SAG Fund", is a public instrument designed to finance PPP projects on food safety, plant and animal health, sustainable agriculture practices, etc. through an annual announcement calling for projects. Since its launch in 1999, the SAG Fund has mainly financed projects in the plant health area (see Table 1).

Table 1. Scope of SPS projects supported by SAG Fund, 1999-2009

Year	Total Projects	Plant Health	Animal Health	Food Safety	Environment	Others
1999	25	48%	16%	16%	16%	4%
2000	13	46%	31%	8%	15%	-
2003	23	39%	26%	13%	13%	9%
2006	10	80%	-	10%	10%	-
2007	12	25%	58%	-	17%	-
2009	10	57%	29%	-	-	14%

Source: Own elaboration with information from the SAG Fund (2010), www.sag.gob.cl.

The SAG Fund is managed by the National Director of the Agricultural and Livestock Service (SAG), with the support of a public-private advisory committee made up of representatives of the Agricultural Development Institute (INDAP), the Agricultural Studies and Policies Office (ODEPA), the Faculty of Agricultural Sciences of the University of Chile, the Chilean Economic Development Agency (CORFO), the Foundation for Agricultural Innovation (FIA), the National Society of Agriculture (SNA), the Chilean Fruit Exporters Association (ASOEX) and some other private stakeholders. The Director of SAG and the advisory committee are responsible for selecting the projects to be co-financed. Up to $65,000,000 Chilean pesos (around USD$120,000) is provided by SAG per project. The private sector must account for a minimum of 35 per cent of the total cost. Projects can operate for a maximum period of four years and must be evaluated periodically to determine the continuity of the public funding.

Support Program for Agricultural Health and Food Safety, Mexico

The National Development Plan of Mexico (2007-2012) created a Support Program for Agricultural Health and Food Safety aimed at strengthening the adoption of SPS measures in accordance with international standards, through the provision of public (federal and state) financing. This programme allocates public resources for projects to improve food safety, animal and plant health. Up to 65 per cent of funds for particular projects are provided by SENASICA, with state governments contributing 35 per cent. Private sector contributions to project costs are optional. The funds are transferred to private "auxiliary entities" (normally producer associations), which are responsible for the implementation of national SPS-related programmes or campaigns at the local level. Since 2006, this programme has mainly financed projects related to animal and plant health, although the number of approved food safety projects is growing (see Table 2).

Table 2. Scope of SPS projects supported by SENASICA and State Governments, 2006-2009

Year	Total Public Funds (million MXN) a/	Plant Health	Animal Health	Fisheries Health	Food Safety
2006	1 191.7	45.1%	48.1%	3.3%	3.5%
2007	1 763.9	48.9%	44.3%	2.8%	3.9%
2008	1 772.8	44.2%	45.5%	4.8%	5.5%
2009 b/	1 782.2	42.1%	46.7%	4.7%	6.6%

Source: Own elaboration with information provided by SENASICA (2011). a/ Federal and state governments contributions. b/ Initial annual budget.

28. Many development organizations, including multilateral and regional development banks and bilateral donors, have their own programmes to finance, directly or indirectly, the creation and implementation of PPPs in various sectors including infrastructure, agriculture, health and sanitation, etc. For instance, since 2006, the IDB, through its Multilateral Investment Fund, has invested more than US$600 million in PPPs, mainly related to infrastructure.[12] Resources are generally provided through these programmes in one of two ways: (i) provision of resources directly to the parties involved; or (ii) provision of grants or loans to governments to finance public strategies to boost PPPs.

3. Public-Private Partnerships in support of enhanced SPS capacity: categories and case studies

29. Public and private sector stakeholders design and implement SPS measures to protect against food safety, animal and plant health risks for domestic purposes, and to facilitate access to external agri-food markets. SPS measures are defined in Annex A of the SPS Agreement as measures intended to protect human, animal or plant life or health against risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms; or to protect human or animal health against risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs; or otherwise to prevent or limit damage from the entry, establishment or spread of pests.

30. Effective implementation of SPS measures requires capabilities and competencies in the public and private sector, as well as good communication and collaboration between the various public sector organizations involved, and with the private sector. Typically governments are responsible for the establishment and oversight of an enabling regulatory framework for food safety, animal health, veterinary services, plant health and/or trade, and for ensuring the compliance of agri-food exports with SPS requirements of trading partners. Ultimately, it is the private sector that plays the leading role in food and agricultural production and trade, and that is responsible for meeting SPS requirements in export markets.

31. Greater recognition of the complementary roles of the public and private sector, and focus on the benefits of public-private partnership, has occurred in parallel with the move towards a "food chain approach". The food chain approach involves the application of regulatory and non-regulatory measures (e.g. good agricultural practices, post-harvest handling and treatment, good manufacturing practices and the Hazard Analysis and Critical Control Point or HACCP system) at appropriate points in the food chain from pre-production practices to the point of sale or distribution to consumers to ensure that food meets prevailing norms (FAO, 2005). Effective implementation of the food chain approach requires the various stakeholders responsible for implementation of these measures (including food regulatory agencies, associated government agencies, farmers and producers, food business operators, vendors and consumers) to have the necessary knowledge, skills and capacities. It also requires effective information exchange, collaboration and cooperation among them.

12 Information on all PPP related projects and initiatives supported by the IDB is available at: http://www.iadb.org/en/topics/public-private-partnerships/public-private-partnerships,1714.html.

32. Experiences indicate that SPS stakeholders in countries with more capacity to manage SPS risks have a better understanding of the importance of cooperation between the various public and private sector stakeholders involved, and take action to ensure effective communication and collaboration. In several cases, they have developed a range of collaborative initiatives and partnerships in the SPS area. While some of these partnerships are relatively new, others have existed for several years.

33. This document discusses and analyses a number of partnership case studies in the SPS domain between the public sector, specifically government agencies responsible for food safety, animal and plant health and trade, and the private sector. The private sector partners typically involved include local, national and multinational companies, as well as associations representing particular agri-food industries, producers and/or exporters. The examples discussed provide a broad sample of different types of SPS partnerships in both developed and developing countries in different regions of the world. Other SPS partnerships are known to exist. While they could not be reviewed in detail in this document for practical reasons, examples of some of these PPPs are provided in Annex 1. Further research and analysis could be undertaken in the future to document, review and assess other relevant partnerships.

34. The partnerships presented here were driven by different stakeholders. Some were driven by the public sector's desire to harness the expertise and innovation of the private sector to achieve public policy goals or to respond to particular problems affecting market access. Some were driven by the private sector's desire to improve SPS compliance and performance, and maintain or expand market access. And others, often less formal partnerships, emerged spontaneously from random interactions between visionary leaders in the private sector and public institutions. An analysis of the 59 SPS-related PPPs in 17 Latin American countries studied in this paper reveals that 50.8 per cent were initiated by the public sector, 15.3 percent by the private sector and 33.9 percent by both the public and private sector.

35. The following "working" categorization has been developed to help structure the analysis; it should not be regarded as definitive. Some of the PPPs have a number of different functions, and could therefore fit in more than one category.

- **SPS dialogue, networking, coordination**: PPPs in this category bring together representatives of the public and private sector in informal or formal mechanisms to discuss and/or proactively address cross-cutting or specific (e.g. food safety/Codex) SPS issues. Some of these PPPs operate at the national level, for instance, as committees focused on cross-cutting or broad SPS issues (see Table 3) or particular subjects such as the Market Access Working Group for Fresh Fruits and Vegetables (FFV) in South Africa.

- **SPS infrastructure**: Partnerships have traditionally been instrumental in the provision of goods and services that have public goods aspects, for example roads, ports, irrigation and other infrastructure. Partnerships exist also for the provision of SPS infrastructure, such as diagnostic laboratories in Chile and Uganda, and SPS check-points in Mexico, as well as infrastructure for cold storage and food processing.

- **Value chain development**: This category of partnerships brings together private and public sector stakeholders with an interest in increasing capacity to address issues affecting a particular value or supply chain, such as horticulture products in Kenya or tomatoes in Mexico, to expand production and increase exports. Often these partnerships address a range of issues including, but not limited to, SPS requirements.

- **Trade facilitation**: Facilitating trade is about streamlining and simplifying international trade procedures to allow for easier flow of goods and trade at both national and international level (OECD). Broadly defined, trade facilitation refers to at-the-border and behind-the-border measures, which make trade easier, less costly and more efficient. The SPS partnerships in this category typically focus on SPS documentation and transparency in the operations of regulatory agencies and customs, such as electronic certification or traceability.

- **Joint public-private companies for SPS implementation**: In some cases, public and private sector actors have established non-for-profit companies that are jointly financed by government and industry. They are generally highly-developed and sophisticated PPPs, based on legally binding agreements, responsible for the planning and delivery of a range of SPS functions. The examples of Animal Health Australia, Plant Health Australia and the Patagonian Zoo-Phytosanitary Barrier Foundation (FUNBAPA) in Argentina are discussed here.

- **Co-regulation**: Co-regulation is an approach in which a mixture of instruments is brought to bear on a specific problem, typically involving both primary legislation and self-regulation or, if not self-regulation, at least some form of direct participation of bodies representing stakeholders in the regulatory decision-making process (Eijlander, 2005 in Garcia Martinez, 2007). An essential element of a co-regulatory approach to SPS governance is cooperation between the public and private sectors in the process of creating new rules. The focus is often on self-inspection to check compliance with food safety requirements, which moves the burden of auditing and inspection from government to industry.

36. On the basis of the examples considered in this document, it is possible to identify a continuum of partnerships, which range from less to more sophisticated in terms of scope, implementation, formality, etc.

3.1 PPPs for SPS dialogue, networking and coordination

37. All PPPs are established in principle to facilitate dialogue and coordination among the public and private sector partners involved. Public-private partnerships in this category include a variety of committees, tasks forces, platforms, working groups and other mechanisms, established as fora to simply bring together public and private sector actors with an interest in various SPS issues. A space for dialogue, networking and coordination between the public and private sector is increasingly essential to enable countries to proactively and effectively address SPS and other market access requirements, as well as emerging issues.

38. National SPS committees, as well as committees with a more limited mandate (focused for instance on food safety/Codex standards, animal health or horticultural exports) fall in this category. Such committees already exist in a number of developing countries, and are being actively promoted in others, in some cases by donors and development partners as indicated below. These mechanisms have different roles and responsibilities, which reflect why and how they were established, as well as the context in the country in which they operate. An STDF study on national SPS coordination mechanisms highlights that they also have diverse mandates (STDF, 2012). While the most common role is generally to exchange and disseminate information on SPS matters, other functions may include, inter alia, raising awareness on SPS issues, facilitating, coordinating country positions for international/regional meetings, provision of advice on SPS policy and strategy development, coordinating SPS-related technical cooperation, and/or communication and coordination of WTO notifications.

39. In the last decade, the number of national SPS committees in Latin America has increased substantially (see Table 3). Initially most of these committees were created to address specific SPS challenges (e.g. animal disease outbreaks), although later they expanded their scope and goals to embrace other issues. While most started out as public sector initiatives based within different public institutions or ministries, more recently most of these committees have incorporated the private sector. Nowadays, they work as consultative bodies on most SPS-related matters, ranging from technical advice on the development of SPS regulations to support on their implementation.

Table 3. National SPS Committees in Latin America and the Caribbean

Country	Year created	Members		Regularity of the meetings
		Public sector	Private sector	
Belize	2004	Ministries of Agriculture and Fisheries, Health, Economic Development, and Foreign Trade.	Representatives of the Citrus Growers Association, BLPA, Chamber of Commerce, and other agribusiness associations.	Monthly
Chile	2001	Ministries of Economy and Public Health, DIRECON, SAG, SERNAPESCA.	Companies and producers associations.	Average of 7 meetings / year

Country	Year created	Members		Regularity of the meetings
		Public sector	Private sector	
Colombia	2006	Ministries of Agriculture and Rural Development, Social Protection, Environment and Housing, Commerce, Industry and Tourism. INVIMA, ICA, IDEAM, INS.	There are no formal members, but representatives of the private sector may participate but not vote.	Quarterly
Costa Rica	2010	SFE, Ministry of Agriculture	CIAGRO, CNAA, CADEXCO, CONARE	Monthly
Dominican Republic	2003	Ministries of Agriculture, Public Health, Commerce and Industry, Foreign Affairs, and Environment; Centre for Export and Investment	JAD, CODOPESCA	Quarterly
Honduras	2004	SENASA, SEPLAN, Ministries of Public Health, Foreign Affairs, Commerce and Industry.	COHEP, FENAGH, FEDAVIH, UPNFM, UNAH.	-
Mexico	Pending approval	SE, SAGARPA, SEMARNAT, SENASICA, SRE, COFEPRIS-SALUD	No formal private members yet, but it contemplates interaction with private stakeholders to implement SPS measures.	-
Nicaragua	2004	MAGFOR, MINSA, MIFIC	No formal members, but some actions may include private sector stakeholders, like producers and/ or laboratories.	-
Panama	Pending approval	MINSA, AUPSA, MICI, MIDA	In the last revision of the decree proposal (August 2011) it was suggested to incorporate private stakeholders as formal members.	-
Paraguay	2005	SENAVE, SENCSA, INTN, INAN, Ministries of Agriculture, Foreign Affairs, Public Health, and Commerce and Industry.	Representatives of agribusiness, universities, NGOs.	Monthly
Peru	2011	MINCETUR, SENASA, DIGESA, ITP.	ADEX, AGAP, APA, SNP, COMEXPERU	Monthly

Source: Own elaboration.

40. SPS and other related committees provide an important vehicle to promote and facilitate public-private SPS dialogue on broad and cross-cutting SPS issues, more specific SPS issues (e.g. horticulture) or related topics such as Codex standards. In countries with few if any other forms of regular public-private interaction, such committees are likely to increase awareness among the public and private sector members about the complementarities and synergies inherent in their respective roles and responsibilities, as well as the benefits of working together more closely, and foster trust. In some cases, this may represent a first step towards more sophisticated, advanced or "deeper" types of collaboration and partnerships.

41. An environment characterized by trust between public and private sector actors with an interest in SPS issues and market access is a precursor to good public-private partnerships. To be successful, potential parties in any partnership may need to overcome "traditional" perceptions about the intentions and interests of the government and business sectors. For instance, some reports indicate that the trade community frequently hesitates to meet with government representatives and express its thoughts and concerns for fear of possible retribution through government

action, while government often shares this type of reluctance, but for fear that the trader might somehow find a technicality in regulations that enables non-compliance with the rules (ESCAP, 2007). Experiences show that the establishment of an SPS committee, task force or working group, that brings different types of stakeholders together to discuss issues of common interest, whether formally or informally, can help to build mutual understanding of their respective roles in a sector or in tackling a particular problem and of the long-term development vision of a sector or economy (FAO, 2009a). However, research has also shown that, on its own, the existence of a mechanism for public-private dialogue is unlikely to be sufficient to encourage greater private investment in sectors that have a history of state intervention, notably in Africa, as long as there are no mechanisms to sanction state agencies that continue to intervene in an unpredictable and damaging manner (FAO, 2009a).

42. Development partners and donors sometimes play a useful role as a "neutral facilitator" in bringing together public and private sector stakeholders with an interest in cross-cutting or specific SPS issues, and helping to foster trust. This assistance can comprise expert advice to set up, organize and/or finance meetings, or to support the development and consolidation of particular public-private initiatives. For instance, a public-private partnership programme for capacity building and market access in the export-oriented horticulture sector in East Africa, supported by The Netherlands, helped to introduce and/or strengthen dialogue between the government and industry in selected countries (Box 4). In Tanzania, the STDF supported the development of the Horticulture Development Council of Tanzania (HODECT), an apex public-private institution to promote the development of the horticulture sub-sector in the country. [13] In Vietnam, an STDF-funded project has established partnerships between vegetable growers and local/international retailers in an effort to enhance the quality and safety of fresh produce for local consumption as well as export.

43. The PIP is a programme financed by the European Development Fund to maintain and, if possible, increase the contribution made by export horticulture to the reduction of poverty in Africa, Caribbean and Pacific (ACP) countries. PIP facilitates the development of public-private sector platforms (also known as task forces) to provide a space for dialogue enabling stakeholders to address shared problems, carry out joint actions and lobby and advocate on behalf of the horticulture export sector. These platforms generally act more as advisory bodies that identify what is needed, and commission and supervise activities implemented by others, rather than implementing actions themselves. In Africa, the EU-funded "Participation of African Nations in Sanitary and Phytosanitary Standard-setting Organizations" project (PAN-SPSO) has also provided support to establish national SPS committees.

44. The long-term sustainability of donor-supported mechanisms for SPS dialogue and coordination at the country level is a concern. Some donors have clear criteria to address this. For instance, PIP support for national stakeholder platforms depends, inter alia, on the ability of these potential/existing platforms to demonstrate that they have the capacity to implement the project, and can meet the cost sharing element, and that they can put in place the necessary infrastructure and human resources to ensure the sustainability of the platform. [14]

45. Two examples of PPPs established as mechanisms for SPS dialogue, networking and coordination are presented below. Both the Market Access Working Group (MAWG) for Fresh Fruit and Vegetables in South Africa and the National Commission to Eradicate Foot and Mouth Disease (FMD) in Bolivia (CONEFA) are national initiatives with clear local ownership that were driven and continue to be led by public and private stakeholders at the country level.

46. While focused on SPS communication, coordination and networking, the cases presented below were established for quite different, but specific, purposes. It is notable that both the MAWG in South Africa and CONEFA in Bolivia have existed for more than a decade, and continue to be active. Both emerged in response to particular SPS challenges faced, and have successfully identified and defined clear objectives that provide a sufficient basis and incentive for active participation by the government and industry partners. While CONEFA was established with a clear legal basis, in line with Bolivian law for public programmes, the MAWG operates effectively based on a Terms of Reference to which all members subscribe, but without a legal agreement.

13 See http://www.standardsfacility.org/en/PGProStat.htm and http://hodect.org/.

14 For more on PIP's role in facilitating national public-private platforms for the horticulture export sector, see the PIP website: http://pip.coleacp.org/en/pip/benefit-pip/17421-benefit-pip.

Case 1: Market Access Working Group (MAWG) for Fresh Fruit & Vegetables in South Africa[15]

Period: 1995 to date.
Objective: Enhance the delivery of services by the Department of Agriculture, Forestry and Fisheries (DAFF)
Key players:
- Public sector: DAFF, specifically the directorates comprising the National Plant Protection Organization (currently the Directorate for Plant Health and the Agricultural Products Inspection Services, APIS).
- Private sector: Citrus Growers Association of Southern Africa (CGA), Citrus Research International South Africa (CRI), the Deciduous Fruit Producers' Trust (HortGro), South African Table Grape Industry (SATI), Subtropical Fruit Industry, Alternative Fruits Industry (AlternaFruit), Fresh Produce Exporters Forum (FPEF) and the Perishable Products Export Control Board (PPECB), the latter being an official assignee of DAFF and responsible for cold chain management as well as implementation and record-provision for all mandatory phytosanitary cold treatments. Industry representatives are officially nominated, in writing, by the head of the concerned industry.

Background / goals

MAWG is a partnership between DAFF and the South African horticulture (mainly fresh fruit) industry. It was launched in 1995 to coordinate phytosanitary issues related to market access/maintenance for horticulture exports. Its objective is to enhance the delivery of services by the National Plant Protection Organization (i.e. DAFF), based on South Africa's obligations as a signatory to the International Plant Protection Convention (IPPC). Prior to the creation of the MAWG, DAFF participated in an industry-led horticulture forum (Horticulture Industries Technical Team, HITT). While this industry-led forum was responsible for several achievements, the need was identified for stronger government leadership and policy direction to access new markets. DAFF took the lead in setting up the MAWG and developing terms of reference. DAFF also provides the secretariat and chairs meetings.

Organization, activities

MAWG's main role is to provide a forum for face-to-face dialogue and coordination between the public and private sector on SPS issues affecting the horticulture sector. MAWG discusses compliance with market access procedures and seeks solutions to issues affecting compliance with phytosanitary import requirements of trading partners. For instance, following an interception by the US Agriculture, Animal and Plant Health and Inspection Service (APHIS) of a live False Codling Moth (FCM) in a South African citrus fruit, swift action by MAWG helped keep the United States (US) market open. In a telephone conference with APHIS, DAFF and industry members of MAWG discussed the consequences of this interception for five ships en route to the US with citrus consignments, as well as large volumes of packed fruit awaiting phytosanitary inspection and certification. After a protracted and hard discussion, APHIS agreed to accept all five ships, although with stricter phytosanitary requirements.

The Working Group also discusses and provides technical views on SPS issues to support the negotiation of new bilateral trade agreements. More specific committees and sub-groups are created for particular tasks, reporting back to the Working Group as appropriate. For instance, a Citrus Black Spot (CBS) sub-committee addresses specific issues related to CBS and exports. This sub-committee led the preparation of the draft Pest Risk Analysis for CBS for the European Community, and subsequent technical communications on this topic, and drafted and established a CBS risk management system, needed to export citrus to EU member countries. It also drafted and adopted a support document for CBS management, which is edited annually.

Members of the Working Group meet six times per year. Four meetings are held at DAFF's home base (Pretoria) and two meetings take place linked to the annual export coordination meetings for deciduous and citrus fruits, usually held in Stellenbosch (Western Cape). Costs associated with meetings of the Working Group and its sub-groups are shared between DAFF and the industries involved, with members covering their own travel costs, as needed. DAFF covers costs associated with the venue and refreshments. DAFF staff chair the meetings and provide secretarial services from DAFF funds and communication facilities.

15 Based on information provided by the Department of Agriculture, Forestry and Fisheries, South Africa.

Results

MAWG has provided an effective platform to coordinate and harmonize all market access activities, undertaken by the public and private sector, for fresh fruit exports. Its activities have helped to facilitate access to new markets and help maintain existing markets (valued at approximately R20 billion or US$3 billion per year), which has contributed towards job creation and rural economic development. For instance, in the early stages of the citrus export programme for the US market, 70 per cent of all fruit presented for inspection in South Africa was rejected for non-compliance with export requirements. Through ongoing collaboration and work by members of MAWG, the situation has dramatically improved (during the last season of 2011, the rejection rate was reduced to less than 10 per cent). MAWG has also played a key role in the negotiation of new bilateral protocols (e.g. with China and South Korea) to open up new markets for South African fruit. In such cases, public and private members of MAWG discussed and agreed on the protocols and the responsibilities of different stakeholders to comply with export requirements.

Challenges, experiences, lessons learned

MAWG plays a useful role in addressing SPS issues in the horticulture sector. For the government, MAWG provides a practical and cost-effective means to consult and engage private sector actors in the horticulture sector. For the private sector, MAWG offers a valuable opportunity to stay fully informed about export requirements in specific markets, to provide its technical inputs, to monitor progress made in addressing industry's requests to government, and to ensure that industry has a "fair chance". Organizing MAWG meetings at regular intervals has provided a useful monitoring and evaluation mechanism to measure progress against set objectives and agree on corrective action as required. Establishing small teams within MAWG to collaborate and share work on specific tasks has proved a practical and productive approach to deliver specific outputs needed for market access (e.g. pest risk assessments). Based on MAWG's achievements and success, DAFF is considering how this model could be replicated for other export commodities and products (e.g. seeds, potatoes, ornamental plants and propagation plant material).

One of the challenges faced has been to keep smaller industries engaged in Working Group meetings where some of the topics discussed do not directly relate to their interests/needs. However, since many of the issues discussed are cross-cutting, it is important and cost-effective from a DAFF perspective to bring together all private horticulture stakeholders in one forum. Discussions in the Working Group meetings are frank, and sometimes tough and critical. Another challenge has been to keep the MAWG active despite human resource constraints in the public sector (attrition and loss of key staff to the private sector) and a drastic increase in the number of trade requests and demands from members of MAWG and trading partners.

Factors that have been important in enhancing the Working Group's success have included clarity on roles and responsibilities of the various stakeholders involved, good communication and a willingness of the public and private sector to cooperate and work together as a team. Clarity on roles was achieved through agreed terms of reference, accepted and signed by members. The Working Group's experiences have highlighted the importance of shared responsibility and effective public-private collaboration in achieving SPS compliance and retaining confidence in South African exports. One of the main lessons learned has concerned the need for all stakeholders to be fully aware of their responsibilities in terms of participation, as well as communications with their own constituency.

Case 2: National Commission to Eradicate Foot and Mouth Disease (CONEFA), Bolivia

Period: March 2001 to date.
Objective: Coordinate the implementation of the National Foot and Mouth Disease (FMD) Eradication Program (PRONEFA).
Key players:
- Public sector: National Service of Agri-Food Health and Quality (SENASAG), Association of Municipalities of Bolivia (AMB), provincial governments and the national police.
- Private sector: Representatives of the Bolivian Livestock Farmers Confederation (CONGABOL), Veterinary Supplies Importers Association, Zebu Breeders National Association (ASOCEBU), Federation of Milk Producers, and National Veterinary School.

Background/goals

Since the 20th century, Foot and Mouth Disease (FMD) has been a challenge in Bolivia, affecting economic development in rural areas as well as restricting regional and international trade of live animals and livestock products. Addressing FMD in Bolivia is strategic for the Hemispheric Program for FMD Eradication (PHEFA) in South America. Bolivia shares its borders with three PHEFA zones (Andean, Amazonia and the South Cone zones) given its central location. Thus, the eradication of FMD in Bolivia could open opportunities for regional and international trade. In order to assist PHEFA's goal to eradicate this animal disease, SENASAG created the National FMD Eradication Program (PRONEFA) and established a PPP entitled National Commission to Eradicate FMD (CONEFA) in 2001 through the regulation "Ley de la Republica N° 2215/Junio 2011".

Organization, activities

CONEFA's main responsibility is the full management of the national FMD eradication program, which includes systematic vaccination campaigns. SENASAG's veterinarians conduct vaccinations, with producers covering the cost of the vaccines. Additionally, CONEFA provides technical support and advises SENASAG on designing and implementing public policies regarding FMD and other SPS related issues. CONEFA acts as a coordination and advisory committee, however it is not permitted to manage funds.

This PPP has the following structure: the president of the livestock farmers' federation CONGABOL is the leader of CONEFA. The vice-president is the SENASAG's National Chief of Animal Health, and the secretary general is PRONEFA National Coordinator. Representatives of partner institutions have seats in CONEFA and its executive board is formed by eight members from the public and private sectors. CONEFA is represented at the local level by two different dimensions: nine departmental commissions (CODEPAs) and 120 provincial commissions (COPEFAs).

The members meet regularly before the vaccination campaign to advise on scheduling and planning. After the vaccination cycle, CONEFA members meet again to evaluate the performance of the campaign. Each member finances its own travel expenses to attend CONEFA's meetings and the expenses of the coordination related activities involved.

Results

CONEFA succeeded in controlling and subsequently eradicating FMD in some zones where vaccination is practiced. As a consequence, the prices for the live animals and livestock products have improved, as well as the profits of the rural producers.

Challenges, experiences, lessons learned

One of the major challenges has been political interference in technical decisions. CONEFA's leaders are revising the regulatory framework to establish more transparent guidelines and requirements on PRONEFA's implementation in order to prevent discretionary selection of technical officials and the use of vaccination campaigns for political purposes by the local governments. Another important challenge has been weak support from small and medium livestock farmers to implement the proposed FDM eradication measures. Bolivia has not traditionally been a major meat exporter, therefore an important number of farmers lack awareness of the importance of addressing FMD for international trade or even for animal health purposes. CONEFA has worked to enhance awareness among the stakeholders involved in the meat supply chain by sharing information and encouraging debate about the implications of FMD in CONEFA's meetings. Besides the management of PRONEFA, CONEFA's members want to extend the mandate of this partnership to address other sanitary emergencies and other animal disease outbreaks.

Finally the lack of authority to manage funds has proved to be a key constraint to the adequate functioning of this PPP. Thus CONEFA's executive board is currently working on the development of institutional capacities and the creation of a regulatory framework that would allow this Commission to access and manage financial resources. The key lesson learned, according to CONEFA, is that the success in addressing any animal outbreak depends on the full participation of the private sector in decision-making and implementation processes, and that this is only possible through a permanent coordination mechanism that allows full representation of all the key private sector organizations. Another factor that contributed to the success of this partnership was the visible existence of a common goal which allowed an easier commitment from all stakeholders, although the financial benefit was not entirely clear in the early stage to all of them, as mentioned above.

3.2 PPPs for value chain development

47. A number of examples exist of PPPs focused on the development of value (or supply) chains, such as horticulture, dairy, meat products, etc. Value chains encourage economies of scale and help to expand the scope of markets beyond what individual suppliers would achieve on their own. For instance, in the horticulture sector, value chains can help to stabilize prices and volumes, given the perishability of such products, and reinforce the competitive advantage of a group of firms by reducing risks for participants, reinforcing cooperation and serving as a source of mutual innovation (Woods, 2004). Value chain management places a premium on effective coordination and linkages among stakeholders in support of information exchange, production processes, standards, innovation, product development and other business activities (Van Roekel et al., in Rich and Narrod 2010). This often creates special opportunities in which stakeholders can identify common interests around which partnerships can emerge and flourish.

48. Some research has pointed to the importance of new institutional arrangements, such as public-private partnerships, in enabling smallholders to remain competitive in international markets for high-value fruit and vegetable supply chains given the increase in the number and stringency of food safety requirements in developed country markets (Narrod et al, 2009). It argues that PPPs can play a key role in creating farm to fork linkages that satisfy market demands for food safety, while retaining smallholders in the supply chain. In addition, they assert that organized producer groups that monitor their own food standards through collective action complement PPPs and are also attractive to buyers looking for ways to ensure traceability and reduce transaction costs (Narrod et al, 2009).

49. Rich and Narrod (2010) assert that because supply chain management requires the coordination of actors and activities, the most appropriate interventions for correcting market failures – and ensuring that they are equitable and reach smallholders – may be those that combine public intervention in one portion of the small chain, with private participation in the other. In the presence of market failures where some sort of intervention is required, it is argued that PPPs that rely on the strength of the public and private sectors to deliver certain functions along the supply chain may result in the optimal correction of market failures (i.e. an orientation towards efficiency and optimal resource use) and the meeting of societal objectives (Spielman and von Grebmer, 2003 in Rich and Narrod, 2010). Rich and Narrod identify several possible areas for PPP involvement including the organization of producer organizations for marketing and credit, development of public-private research consortiums for disseminating new varieties, brokerage of linkages between smallholders and processors, creation of third-party certification, all with a combination of public and private resources.

50. A World Bank study analysing key value chain innovations that facilitated mango exports from Mali highlighted the importance of PPPs in effectively developing export-oriented value chains and the catalytic role of development partners in this context (World Bank, 2010b). This research pointed to the role of project aid in providing financial resources (with the necessary flexibility) and know-how required to share risks in order to facilitate innovation, for instance, in the provision and management of infrastructure (such as a multi-purpose logistics centre for fresh fruit and vegetables in Mali, known as the "PLAZA"). Another important element of the PPP in Mali was the creation of the "Task Force Mangue", which provided a space for public–private cooperation, as well as an opportunity for exporters to coordinate their respective shipments vis-à-vis a common buyer. In the difficult environment faced by such emerging value chains, this study underlined the important role of PPPs and development partners in helping to address market failures, emphasizing that it is not about edging out the private sector, which has a leadership role to play, but about proactively combining efforts and interventions.

51. The importance of complementary private and public investments has been highlighted in the context of the development of agricultural value chains in Africa, as well as the need for mechanisms for coordinating investments where significant private investment is forthcoming. While some public role is considered necessary to facilitate such coordination, experiences point to the often low starting level of trust between the private sector and governments

in most of Africa, as well as limited mutual understanding or "common knowledge" (FAO, 2009a). These factors serve as critical constraints to the development and operationalization of partnerships, as illustrated in the case of the export-oriented horticulture PPPs supported by The Netherlands in East Africa (Box 4).

Box 4: Public-Private Partnerships in East African Export-Oriented Horticulture

In follow-up to the World Summit on Sustainable Development, the Dutch Government facilitated a public-private partnership programme for capacity building and market access in the export-oriented horticulture sector in five East African countries (Ethiopia, Kenya, Tanzania, Uganda and Zambia). The goal was to facilitate access to the European market and contribute to sustainable development. By working in a partnership, the programme aimed to address underlying accountability gaps in the national horticultural system. The programme followed a strategy to address two types of failures: market failure to innovate and governance failure based on a lack of accountability between decision makers and the horticultural industry. The exact scope and objective of the partnerships differed depending on the circumstances in each country.

An evaluation of these partnerships demonstrated that there was a clear need for commitment of both the public and private sectors to solve the problems faced. In the countries with strong export growth and openness for public-private dialogue, the partnership strengthened public-private relations and contributed to sector upgrading. For instance, in Tanzania the partnership successfully introduced dialogue between the government and industry and resulted in joint agenda setting in the horticulture sector. In Ethiopia, the partnership supported the floricultural industry to build up capacity for innovation. In Kenya, where export horticulture is a large and strong sector, the partnership strengthened closer inter-organizational relationships for better coordination. In Uganda, on the other hand, the partnership had difficulties to develop dynamism and add value to the sector, largely due to a lack of commitment of key stakeholders. In Zambia, the partnership project benefited the organizations involved but missed the opportunity to achieve a broader impact on the horticulture sector.

Experiences with these partnerships indicated that joint decision-making and implementation by the public and private sector and civil society is a novel approach in many African countries, and traditional power imbalances are difficult to overcome, particularly when the parties have had limited experience in collaborating. Governing partnerships in these contexts requires flexible mechanisms and institutional capacity which can be supported by donors through creating tools and better understanding on PPP governance arrangements. Some of the key lessons learned during these partnerships included the following:

- The performance of these partnerships were strongly influenced by the context including the willingness of governmental organizations to participate actively, the existence of an enabling environment for public-private dialogue, knowledge of specific sector characteristics and the ability to intervene at the appropriate moment.
- The commitment of high-level government representatives to enhance credibility and legitimacy. Partnerships without this support were more difficult but not impossible.
- The success (or failure) of the partnership process was highly dependent on individuals. Facilitating mutual respect and developing trust was important. Trust cannot be considered as a given and needs time to develop within partnerships.
- Factors like leadership, committed individuals, frequent and open communication and clear incentives were critical success factors.
- These partnerships included a relatively modest sharing of risk and financial commitment given the financing role of the Dutch Government. Where donors provide initial seed funds for partnerships, it is important to clearly identify follow-up financing needs, as required, before these funds have been used up.
- Partnerships with a high level of perceived ownership could more effectively influence negative environmental factors that affected their ability to succeed.

Source: Pfisterer et al. 2009.

52. Two examples of PPPs focused on value chain development, one focused on horticulture sector in Kenya and the other on tomatoes in Baja California, a state in Mexico, are described and analysed below. Both of these partnerships were established to enable the respective industry and government regulatory agencies to discuss, reach consensus on and better respond to emerging issues affecting SPS compliance and market access. The Horticulture Task Force in Kenya is an example of a successful PPP, initially supported by donor funding, which has outlived donor funds based on its high level of perceived ownership and its clear usefulness to the various public and private partners involved. Similarly, the Baja California Plant Health Committee provided an effective mechanism for government agencies and tomato growers and packing companies/exporters in Baja California to quickly take coordinated and targeted action following identification of salmonella outbreaks in tomato exports to the United States, helping to limit negative effects on exports to key markets.

Case 3: National Horticulture Taskforce in Kenya[16]

Period: 2002 to date
Objective: To enable industry and government to respond in a coordinated way to emerging issues affecting market access in regard to SPS compliance
Key players:
- Public sector: Kenya Plant Health Inspectorate Service, Pest Control Products Board, Horticulture Crops Development Authority, Ministry of Agriculture, National Environmental Management Authority, Ministry of Public Health, Ministry of Trade, Kenya Bureau of Standards, Export Promotion Council and Kenya Agricultural Research Institute.
- Private sector: Fresh Produce Exporters Association of Kenya (FPEAK), Kenya National Federation of Agricultural Producers, Kenya Flower Council, Agrochemical Association of Kenya, grower representatives (e.g. Homegrown, Sunripe, Lake Naivasha Growers Group, Kenya Horticulture Producers Association) and Kenya Organic Agriculture Network.
- Development partners: Kenya Horticulture Development Programme (Chair of the donor coordination group); PIP provided support for the establishment of the Taskforce and attended some meetings during the start-up period.

Background/goals

The National Horticulture Taskforce was created in July 2002 as an informal coordination mechanism to enable the horticulture industry (producers, processors and exporters) and government regulatory agencies to discuss, reach consensus on and better respond to emerging issues affecting SPS compliance and market access. With some 150,000 small-scale producers and some 240 exporters involved in the horticultural sector, the Taskforce provided a practical way for government and representatives of the industry to connect and find solutions to emerging SPS issues.

Individuals from the Kenya Plant Health Inspectorate Service (KEPHIS) and the Fresh Produce Exporters Association of Kenya (FPEAK) took the lead in developing this partnership. Financial support to get the Taskforce established and operational was provided by the EU-financed PIP for approximately three years.

Organization, activities

The initial focus of the Taskforce was on concerns related to pesticide residues and phytosanitary issues. Over time, the Taskforce has also worked on other matters including the development of a strategy on carbon/food miles, validation of data in the horticulture sub-sector, horticulture policy, market standards, search for new markets, capacity building (through projects in various institutions).

Members of the Taskforce have also worked together to develop a framework for a pesticide residue monitoring plan, implement smarter phytosanitary checks through a move from end-point to production site inspections, and conduct studies needed for continued market access (e.g. baseline status of Kenya's preparedness to meet market requirements, diagnostic study for EU regulation 882/2004, status of donor projects in the horticulture sub-sector (July 2005)).

16 Based on information provided by Dr Stephen Mbithi, Fresh Produce Exporters Association of Kenya and Dr Washington Otieno, STDF developing country expert, 2010-11.

The Taskforce operates through meetings, which are now held on an as-needed basis according to the issues to be discussed. Attendance has averaged between 65 per cent and 80 per cent over the past five years. Since the end of donor funding in 2005, the costs of operating the Taskforce are covered by KEPHIS and the Ministry of Agriculture.

Results

The Taskforce is recognized as an effective public-private partnership that has achieved a number of important results, which have helped Kenya maintain and expand its horticulture exports in the international market. Over time, the Taskforce has become recognized as a reference point to respond to cross-cutting issues that no single stakeholder can handle alone. Specific results have included:

- Improved coordination of SPS measures that affect horticultural production and trade
- Private sector engagement in government policy directions that have impacts on trade
- High level of responsiveness to notifications of SPS non-compliance
- Donor support to projects that build capacity for SPS management
- Increased value of earnings from horticultural trade

Based on its results, neighbouring countries have looked to the Taskforce to identify how they might replicate it in their own countries. In addition, in 2008, a regional Africa Horticulture Council (AHC) was established to foster collaborative research and technology, information sharing, environmental sustainability and collective bargaining. At the end of 2011, this Council includes national horticultural associations from Ethiopia, Kenya, Rwanda, Tanzania, Uganda, Zambia and Zimbabwe, and is currently chaired by FPEAK. The AHC promotes engagement with national government agencies, through Export Promotion Councils (EPCs), and with regional business councils such as the East African Business Council (EBC). Among other things, the EBC provides liaison between governmental departments and private sector with regard to standards, though within the EAC these have been largely in the area of standardization, metrology, quality assurance and testing (SQMT) including grading of horticultural products (TBT). These operations have largely been outside the SPS domain. One of the challenges to SPS coordination in the region and within countries has been emphasis of quality standards at the expense of SPS standards.

Challenges, experiences, lessons learned

Since its creation, the Taskforce has encountered and addressed a number of challenges. The two main challenges were: (i) to work out how overcome the conflict of mandates among government agencies; and (ii) to build trust of the private sector in the intentions of the government regulatory agencies. Other challenges faced related to the need to identify ways to enable the Taskforce to outlive the donor support initially provided, ensure consistency in the participation of members in taskforce meetings and keep focused on the core mandate.

Factors that have been important in ensuring the success of the Taskforce have included: (i) mutual respect among members, without the public sector agencies playing an overbearing role; (ii) recognition of the value of information exchange (and openness even among competitors) about the market situation and comparative advantage of the various stakeholders involved; (iii) private sector willingness to pay for public sector services that meet certain quality requirements; and (iv) increased recognition and awareness that, in overseas markets, individual or company brand names are less important than the reputation and reliability of the country's name.

Experiences with the Taskforce have highlighted the tangible benefits of a mechanism that brings together private and public sector stakeholders to respond to emerging SPS issues. They have also demonstrated the need to put emphasis on self-regulation and increase the awareness of industry players about regulations in destination markets to ensure the sustainability of SPS compliance.

Case 4: The Baja California Plant Health Committee (CESVBC), Mexico

Period: 1995 to date.
Objectives: Maintain access of fresh tomatoes from Baja California/Mexico to the U.S. market.
Key players:
- Public sector: Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria (SENASICA), Baja California State Government, Baja California Secretary of Agriculture.
- Private sector: Baja California Agricultural Council, Baja California Coast Regional Agricultural Union of Vegetable Producers (UAREDA), Autonomous University of Baja California (UABC).

Background / goals

In April 2008 there was an outbreak of salmonella (Salmonella Saint Paul) in the U.S., which was first detected in New Mexico and Texas and then extended to other US states and Canada. Since this outbreak was first linked to the consumption of contaminated red, raw tomatoes, and later with the association to jalapeno and serrano peppers, the U.S. Food and Drug Administration (FDA) emitted a national alert to avoid eating these products. Due to early implication of raw tomatoes in the outbreak, FDA initially advised consumers not to eat Roma and red, round tomatoes. In an attempt to limit the impact on the tomato industry, FDA included lists of sources of tomatoes that were not implicated, including tomatoes from regions where production had not yet started when the outbreak began and that, therefore, could not have been the source of illness. Despite this, the economic cost to the Mexican tomato industry was estimated to have been high (up to US$200 million). Following the advisories, many restaurants stopped serving raw tomatoes, others switched from using raw to canned tomatoes in dishes such as salsa.

In June 2008 the Government of Baja California requested the FDA to revoke the ban and include this Mexican state in the FDA Tomato Safe Suppliers List, arguing that tomatoes from Baja California were not harvested and shipped to the U.S. at the time of the incident. The tomato season/harvest in Baja California begins at the very end of April, after the outbreak took place. The FDA requested the following steps be taken to approve the request:

- Provision of a list of certified tomato producers and packaging companies authorized to export tomatoes into the U.S.
- Issuance of official certificates of origin to attest that tomatoes were grown/harvested/packaged in Baja California (including place and date of harvest, packer name and location).
- Limit the number of entry points of Baja California tomatoes to the U.S. to the Otay Mesa and Calexico ports in California, facilitating the tracking of the shipments.

After negotiations with the FDA, the government of Baja California held meetings with the local representative of SENASICA, tomato producers and packaging companies to implement the FDA recommendations. In July 2008, Baja California stakeholders designed the Baja California Fresh Tomato Protocol, which regulated the Food Safety Certification. This label involved the adoption of Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP) in the production, harvest, packaging and handling of red raw tomato for export. On September 12, 2008, the Baja California Fresh Tomato Protocol was published and the Food Safety Certification became mandatory for all the tomato growers/packaging companies wishing to export fresh tomato to the U.S. The Baja California Plant Health Committee (CESVBC), a PPP created in 1995, became responsible for preparing the tomato producers to obtain the Food Safety Certification.[17] Therefore, the outbreak of salmonella boosted the importance and mandate of this PPP that was created some years before this event.

Organization, activities

The Baja California Fresh Tomato Protocol and the Official Mexican Norms (NOM) regulate the current mandate and activities of the Baja California Plant Health Committee (CESVBC). The protocol also establishes all the requirements to obtain the Food Safety Certification and for the production/packaging of red raw tomato (water, fertilizers, packaging boxes, etc.).

17 More information on this Committee is available at: http://www.cesavebc.com/

The Baja California Plant Health Committee is responsible for training farmers on GAP and GMP to obtain the Food Safety Certification issued by SENASICA. Once the producers/packers meet all the requirements included in the protocol, SENASICA issues an official certificate attesting that they comply with FDA requirements, which allows them to export to the US market. After the issuance of the certificate, the Baja California Plant Health Committee publishes an online approved list of growers/packaging companies. This PPP is also in charge of up-dating this list, so the FDA authorities can verify the origin of the products. A website was created to disseminate regulations, GAP, GMP and training activities.[18]

Results

The CESVBC has achieved the following results with regards to the salmonella outbreak, besides others not associated with this particular event:

- Support the design/implementation of the Baja California Fresh Tomato Protocol and Food Safety Certification.
- 90% of the tomato producers/packers in Baja California are currently certified.
- The model is being replicated with hot peppers growers, since they were also implicated in the salmonella outbreaks.
- Inclusion of the state of Baja California in the FDA safe suppliers list for fresh tomatoes.

Challenges, experiences, lessons learned

The existence of this PPP prior to the occurrence of the salmonella outbreaks allowed the Mexican Government and private associations to promptly address the US market ban, effectively implement the Baja California Fresh Tomato Protocol and regain FDA trust in a short period of time. It is worth mentioning the expedited response from the local authorities avoided the possible time consuming negotiations that would have taken place at the federal level. This partnership facilitated ongoing dialogue and interaction between the public and private sector during the negotiation process with the FDA. Producers became more conscious that they need state support to deal with food safety issues and to successfully negotiate with foreign authorities. Additionally the involvement of academia (Universidad Autónoma de Baja California) in this PPP has proven to be a great asset, especially to implement training to help farmers meet the GAP and GMP related requirements.

Experiences in addressing the salmonella outbreak affecting the tomato industry helped CESVBC to be better prepared to address similar challenges subsequently faced by the hot pepper sector. In these later events, the private sector's willingness to adopt GAP and GMP had increased enormously.

An important challenge faced by this PPP was to convince the farmers to absorb the financial costs to meet the requirements related to food safety certification. The cost to adapt the production and processing techniques and infrastructure to fulfil the GAP and GPM requirements represented a major challenge, mainly for small farmers. To make it feasible, the certification process was subsidized by the state government (costing about US$1,200 per farmer). While this raised some concerns about financial sustainability, the government regarded this support to farmers as a necessary and justifiable investment to avoid substantial economic damages.

Another challenge faced was the negotiation with the federal Mexican government (through SENASICA) to accept the Baja California fresh tomato protocol, a state regulation. Overcoming this difficulty was possible because the private and public actors at the state level were pushing the issue in a coordinated way through the PPP.

18 See: http://www.cesavebc.com/

3.3 PPPs for SPS infrastructure

53. Access to improved infrastructure for agri-food production, processing and/or export is a common objective of many PPPs. Some PPPs are created primarily to address infrastructure constraints, for instance in food processing, cold storage, analytical testing, and attract new investments. Others focus on infrastructure within the scope of a wider range of activities, as discussed in the previous section. In some cases, PPPs for infrastructure development bring together stakeholders in developing countries with international agri-food companies in an effort to enhance the quality and safety of production for local consumption and/or export. In India, PPPs are regarded as an opportunity to address critical problems affecting the food processing sector (e.g. inadequate cold storage and quality conformity infrastructure) to improve local supply and facilitate exports. The Indian government has taken steps to encourage PPPs in food processing to promote investment in infrastructure (e.g. cold storage and food processing units), and some state governments have established "food parks" with private investment to promote exports of processed fruits and vegetables (Ray, 2010). For instance, in the state of West Bengal, six food parks are under implementation, with investment worth more than US$20 million. In addition, the state of West Bengal has set up eight Agri-Export Zones (AEZs), involving an investment of US$47 million (72 per cent of which comes from the private sector) to promote exports of processed vegetables and fruits. Prominent private sector investors in West Bengal's food processing industry include TNCs such as Pepsico (through Frito-Lay India) and Del Monte Pacific Ltd., which is setting up a pineapple and mango processing plant with an investment of US$1.1 million (Ministry of Finance, Government of India). [19]

54. The cost of infrastructure to enable countries to demonstrate the compliance of their food and agricultural exports with international standards and other requirements of trading partners, is one of the major costs of upgrading and sustaining SPS capacity at the country level. Designing and establishing surveillance and testing systems for food safety, animal and plant, that meet international standards, is expensive. The recurrent costs of maintaining these systems and keeping them up-to-date are also considerable. This is especially problematic given the resource constraints facing public budgets in developing countries. Public resources are frequently overstretched and unable to support the large, upfront capital investments needed for SPS infrastructure, often in the face of other seemingly more urgent development priorities. In some cases, particularly in small countries with limited agri-food exports, users' demand and the volume of tests performed may simply be inadequate to cover operational costs or payback capital investments, which is needed to ensure the financial viability of a laboratory.

55. A recent World Bank report analysing the operational costs of trade-related SPS activities in Lao PDR estimated that approximately US$1 million per year is needed to cover the operational cost of a minimum sized SPS system (World Bank, 2010a). It further estimated the operational costs for small, medium, and large laboratories at US$78,000, US$217,000 and US$630,000, respectively. In comparison, government budgets available for these purposes are generally severely limited, particularly in least developed countries. In the case of Lao PDR, the World Bank study indicated that some US$50,000 was available in the government budget for trade-related SPS activities in 2010, as little as 5 per cent of the annual funding needed.

56. In the context of market-oriented agricultural infrastructure, FAO asks two key questions: (i) can the private sector play a role in increasing the quality and/or lowering the cost of existing market-oriented infrastructure, or in bringing investment to rehabilitate or construct new infrastructure that then promotes private investment by agricultural producers and processors alike?; and (ii) if the private sector "can" help, what is the role for the public sector in realizing this participation (FAO, 2009b)? These questions are very relevant for any analysis of SPS infrastructure. The case studies presented below on Uganda, Chile and Mexico offer some guidance on the necessary role of the public sector to facilitate private sector participation in SPS infrastructure provision.

57. Yet while PPPs can have a number of advantages, they are "by no means a panacea" for problems of rural infrastructural investment. Potential pitfalls identified include: (i) lack of real political will and the risk of politicians reneging on agreements that turn out to be politically unpopular (e.g. due to high user fees charged); (ii) lack of capacity (on both sides, but particularly within public agencies) to structure and negotiate deals that deliver value for money for the state and its citizens, whilst still providing a sufficient return on investment to be attractive to private investors; (iii) high fixed costs of competitive bidding processes to ensure transparency in contract allocation; (iv) need to offset the set-up costs of a PPP, which also include the costs of negotiating a final contract with the selected bidder, against any efficiency gains from private sector involvement; and (v) the risk that, in the absence of a suitable regulatory framework, private investors may pursue pricing policies that exclude poor groups, thereby undermining the "public" nature of benefits from the infrastructure investment (Warner et al. 2008, quoted in FAO 2009a).

19 See: http://www.pppinindia.com/business-opportunities-west-bengal.php

58. The case studies below analyse PPPs for the development and operation of SPS-related infrastructure in Uganda, Chile and Mexico. The first two cases provide interesting examples of PPPs for the provision of laboratory tests. These PPPs emerged in the context of financial constraints in the public sector to maintain all laboratory facilities needed, limited human capacity and the convenience of accessing expertise and infrastructure facilities available elsewhere (private sector or academia).

59. Given the high costs associated with laboratories, including the costs of keeping personnel trained and equipment updated to undertake increasingly sophisticated tests, it is often most cost-efficient for governments to concentrate on the provision of more traditional or common tests, and outsource others to the private sector. In some countries, governments fully outsource analytical testing, relying on the infrastructure and personnel of laboratories owned and operated by academia or the private sector. In other cases, they adopt a hybrid approach by sharing infrastructure and/or agreeing on a division of responsibilities for different laboratory analyses. For instance, the Laboratory Network of SERNAPESCA in Chile is totally outsourced to the private sector, i.e. private laboratories carry out all tests for fishery and aquaculture products. However, tests on food, meat and meat products and products of vegetal origin are performed by public and private laboratories depending on the diagnostic analysis required (Table 4).

Table 4. Partnerships with private laboratories in Chile

	Public laboratories (a)	Private laboratories (b)
Plant Health	"Lo Aguirre" National Laboratory: analysis to identify fungi, bacteria, virus, weeds, nematodes, and insects of economic importance; certain tests on seeds	-3 labs perform analysis of soil to detect nematodes. -4 labs conduct seed analysis. -2 labs authorized to detect Plum Pox Virus D (PPV D) in fruit crops. -1 lab to perform analysis for forestry nurseries to detect Fusarium circinatum.
Animal Health	"Lo Aguirre" National Laboratory: analysis of endemic and exotic animal disease (mainly PRRS, salmonella, tuberculosis, and brucellosis).	-3 labs to detect avian influenza (ELISA). -32 labs to detect bovine brucellosis. -There are also testing unities in livestock fairs to detect bovine brucellosis.
Food Safety	"Lo Aguirre" National Laboratory: i) physical and chemical analysis of vinegars, alcohols, spirits, liquors and other distilled beverages to verify compliance with Chilean standards (Law No. 18.455); ii) analysis of agrochemical residues in fresh agri-food products; iii) chemical and physical analysis of water, and animal feed; iv) prevalence of pathogens in agri-food products (salmonella, E.coli, *Staphylococcus aureus, etc.); v*) Genetically Modified Organisms (GMOs); vi) levels of varietal purity in corn seeds for export.	-13 labs to determine the prevalence of pathogens in agri-food products (mainly E.coli and salmonella). -10 labs authorized to perform quality analysis of alcohols, wines, and vinegars for export. -Labs classified under "pesticides and fertilizer" facilities perform analyses to evaluate the physical and chemical of agrochemicals, as well as to determine prevalence of residues in agricultural products.

(a) SAG has one Central Public Laboratory ("Lo Aguirre") and nine regional laboratories, with different departments to support public programmes in three SPS areas: plant and animal health, and food safety.
(b) Number of authorized private laboratories as October 2011.
Source: Own elaboration.

Case 5: Public-private partnership for the provision of laboratory testing services in Uganda[20]

Period: 2000
Objective: To provide high-quality and objective laboratory testing services to certify exports of fish and fishery products from Uganda
Key players:
- Public sector: Department of Fisheries
- Private sector: Laboratory Chemiphar

Background/objectives

In 1999 the EU banned imports of fish and fishery products from Lake Victoria due to the reported use of pesticides by fishermen. The ban had a huge effect on Uganda and other countries bordering Lake Victoria. Prior to the ban, Uganda exported US$18 million of fish and fisheries products to the EU. To get the ban lifted, Ugandan authorities had to demonstrate that they could guarantee the safety of fish and fisheries product in line with the EU's demands. This required a number of related interventions along the supply chain including the implementation of good manufacturing practices and HACCP in fish processing plants, development and implementation of a residue monitoring plan for fish, sediment and water, and improvements in laboratory diagnosis.

Given the limited capacity of the public testing laboratories and their inability to meet the required standards for testing official samples, the government turned to the private sector to help respond to the challenges faced. The purpose of the partnership that emerged was to provide high-quality and objective laboratory testing services to certify fish and fishery products originating from Uganda.

This partnership was initiated by the Department of Fisheries, the competent authority in Uganda for exports of fish and fisheries products. Chemiphar (U) Ltd., a private and independent international analytical laboratory that is part of the Chemiphar Group of Laboratories, with a head office in Belgium, was the main private sector partner. Under a Memorandum of Understanding (MOU) signed in 2000 with the Department of Fisheries, Chemiphar (U) Ltd. was designated to carry out laboratory tests, including tests for pesticide residues, on all samples of fish and fish products for export. The Uganda National Bureau of Standards played a role in the laboratory recognition scheme for proficiency testing certificates before Chemiphar (U) Ltd. was accredited by the Belgian Organization for the Accreditation of Testing Laboratories (now the Belgian Accreditation Council, BELAC).

Organization, activities

The partnership focuses on the provision of high-quality, client-oriented laboratory services. Since the partnership was launched, Chemiphar (U) Ltd. has upgraded its services and capacity on an ongoing basis in order to respond to market requirements and demonstrate the safety and quality of Ugandan exports. The laboratory ensures the quality of its services by using only internationally accepted test methods, modern equipment and quality reagents, implementing a management system that complies with international standards, and ensuring highly qualified laboratory staff. In cases where tests cannot be performed locally and/or for the optimization of analytical methods, Chemiphar (U) Ltd. sends samples to its parent laboratory in Belgium.

While the MOU with the Department of Fisheries focused on testing fish and fishery products, Chemiphar (U) Ltd. has since expanded the range and scope of services provided following international third party accreditation (Chemiphar (U) Ltd. was accredited to international standards (i.e. ISO/IEC 17025:2005 and ISO/IEC 17020:2004) by BELAC and the International Seed Testing Association).

Customer satisfaction combined with international accreditation helped to increased demand from other government services and food business operators in Uganda and elsewhere in the East African Region and Horn of Africa. As such, Chemiphar (U) Ltd. now offers: (i) a wider range of chemical, biochemical and microbiological testing services for other exports of plant and animal origin, as well as other sectors (e.g. environmental monitoring, pharmaceuticals and cosmetics, forensic, industrial and food toxicology); and (ii) consultancy services to help food industries improve the quality of their products or production processes through the creation, monitoring and implementation of HACCP and hygiene control programmes, good hygiene and/or manufacturing practices, and traceability.

20 Based on a presentation by Dick Nyeko at the STDF/LNV/WBI workshop (The Hague, 5 October 2010).

The initial investments (approximately US$3 million) required to establish the laboratory in Uganda came from Chemiphar's parent laboratory in Belgium. Since the outset, the laboratory has been operated as a for-profit business. Users from the public and private sector have been willing to pay for the high-quality services delivered, which are essential to access international markets.

Results

The establishment of Chemiphar (U) Ltd. provided local access to objective and reliable laboratory testing services, accredited to international standards, which was essential to regain access to the EU market. Combined with attention to resolve other problems in the supply chain, this led to the EU lifting its ban on imports of fish and fish products from Uganda in October 2000. This has had important benefits for the communities and companies involved in the fishing sector in Uganda.

The laboratory has improved the ability of food and business operators to meet market requirements and objectively verify the safety and quality of their products.

Challenges, experiences, lessons learned

In 1999, the notion of partnering with the private sector was relatively new in Uganda. As such, it was quite difficult and time-consuming for the Department of Fisheries to sell this proposal to high-level policy makers and government officials whose approval was required. This was achieved by reviewing the Standard Operating Procedures and the Fish Quality Assurance legal instrument prior to an inspection mission of the European Food and Veterinary Office (FVO) in October, 2000. Having a MOU was important to clearly define the scope of the partnership and the roles and obligations of the public and private sector actors involved.

The experience of this partnership has been overwhelmingly positive. It has demonstrated the benefits of outsourcing specific services needed to demonstrate compliance with SPS requirements to reputable private sector providers. A number of factors contributed to its success. Firstly, clear commitment to the partnership from both the public and private sector partners guaranteed the success of the business module of Chemiphar (U) Ltd. and supported the certificates issued by the government authority. Secondly, the ability of Chemiphar (U) Ltd. to satisfy users' demands and guarantee access to high-quality and reliable services on an ongoing basis (including testing services and prompt delivery of results even outside regular business hours), as well as third party accreditation, generated a steady supply of business from the public sector and industry, which ensured profits and the laboratory's financial viability. Thirdly, efforts by the government to encourage a good investment climate were important for the private sector laboratory to succeed.

Case 6: SERNAPESCA Fish Health Department Private Laboratory Network, Chile

Period: November 1987 to date.
Objectives: Delegate laboratory analysis and sampling of fishery products to private laboratories allowing better efficiency in performing lab tests.
Key players:
- Public sector: National Fisheries Service/ Servicio Nacional de Pesca (SERNAPESCA); Ministry of Economy, Development and Tourism.
- Private sector: Private and university laboratories, fish producers/exporters.

Background / goals

In Chile, SERNAPESCA is the entity responsible for controlling the safety and quality of fishery products for export. The fishery regulation (Ley de Pesca y Acuicultura) states that SERNAPESCA is entitled to delegate laboratory-related activities to third parties who comply with the requirements stated in the regulation (Article 122, para b and c). Given SERNAPESCA's limited budget to build and maintain adequate lab infrastructure, it decided to delegate this activity to authorized private and/or university entities as the regulation allow this delegation of

mandate. Thus, the Government created the SERNAPESCA Fish Health Department Private Laboratory Network, a partnership managed by the public sector and implemented by the private sector. Currently private laboratories are responsible for performing microbiology and chemical analysis of fish products, test of antibiotic residues and contaminants, diagnosis of diseases, etc.

Organization, activities

The Decree No. 5 (DFL-5) establishes that SERNAPESCA has the authority to audit/control the operation of private laboratories that perform fishery products related lab tests to ensure they comply with national and international SPS standards and regulation (Article 32, no.4, letter g). This responsibility is reinforced in SERNAPESCA Fishery Sanitary Manuals (INS/MP1 and LAB/MP1), which establish that this entity is entitled to audit these private labs periodically and has the power to sanction or cancel the authorization provided to those laboratories that do not comply with the regulation.

Laboratories that want to provide services to SERNAPESCA must apply and demonstrate compliance with all the requirements in order to be included in SERNAPESCA Fish Health Department Private Laboratory Network (currently there are around 40 laboratories in total accredited).[21] The labs approved by the Public Health Ministry and the National Institute of Standards (INN), which oversee the compliance with quality standards and technical norms (i.e. ISO 17025), can provide its services to SERNAPESCA.

Box 5. Categories of laboratories in Chile

- **Services Laboratories**. Private laboratories authorized by SERNAPESCA to offer their services directly to fish producers/exporters. They perform microbiology and chemical analysis of fish products, tests of pharmaceutical residues and contaminants, marine toxins, packaging assessment, and diagnosis of diseases. SERNAPESCA performs at least one audit every three months to control labs under this classification.

- **Official Verification Laboratories**. Laboratories from universities or laboratories linked to public institutions. They perform the same laboratory analysis listed above, but offer their services directly to SERNAPESCA not to fish producer/exporters. SERNAPESCA performs, at least, one audit every three months to control laboratories under this classification.

- **Fish Plant Laboratories**. Private laboratories located in the facilities of the fishery processing plants. They perform the same analyses listed above for their own production, but are not allowed to offer their services to other producers/exporters. Nevertheless, they have to be validated by SERNAPESCA to perform such analysis. SERNAPESCA performs at least one monthly visit to audit laboratories under this classification.

- **Phytoplankton Laboratories**. Specific private laboratories that offer phytoplankton analysis which is a requirement imposed by the U.S. FDA National Shellfish Sanitation Program and the European Union Sanitary Program for Bivalve Molluscs (91/492/CEE)

- **Organoleptic Evaluation**. Besides the normal requirements to obtain SERNAPESCA authorization, these laboratories must have qualified staff members (veterinarians) with a specialization in physical and organoleptic inspection of fresh fishery products.

SERNAPESCA determines the type of analysis required and the number of samplings, depending on the type of product and the country of destination of the product to be exported. When fish producers/exporters apply to obtain the export certificate they must indicate which laboratory is conducting the analysis so that SERNAPESCA can request the results from the laboratory. The cost of the analysis/services offered by the laboratories is covered by the interested fish producers/exporters. SERNAPESCA does not provide any financial support to these laboratories. However, laboratories can apply to the "SAG Fund" to update their equipment or train their staff (see Box 3).

21 For more information on the Chilean laboratory network and list of accredited private laboratories see: http://www.achipia.cl/prontus_achipia/site/artic/20111130/asocfile/20111130160451/informe_final.pdf

Besides the laboratory network, SERNAPESCA can also delegate official sampling activities to monitor the quality of the test performed by the laboratories accredited. These are known as Private Sampling Entities. These entities need to be certified by the INN (NCh 17020/2009).

Results

The delegation of the mandate to the private sector through this laboratory network has allowed the country to meet international SPS standards for analysis of fishery products, allowing the country to export fishery products to key markets. Additionally this network has allowed the improvement of laboratory related infrastructure and technical expertise through the investment provided by the private sector. By October 2011, there were 36 authorized laboratories (28 private laboratories and 8 linked to the university).

Challenges, experiences, lessons learned

The main challenge faced was to ensure a reliable network of private laboratories that comply with the official requirements of SERNAPESCA and are approved by the Public Health Ministry and the National Institute of Standards (INN). This has been possible by creating an ongoing monitoring mechanism (regular audits), which requires that SERNAPESCA keeps trained staff to carry out these actions as well as an efficient communication with the laboratory network.

The delegation of responsibility for laboratory analysis to the private sector has been a positive experience for the Chilean Government since it has allowed the creation of an efficient service provided by private laboratories equipped with modern technology and well prepared specialists. This would be more difficult if dependent on the public sector investment. Additionally, the existence of a wider range of private laboratories accredited to perform tests (instead of one or two public laboratories) has created a positive competitive environment among them in order to provide better service at a lower cost. Further, this experience has proved that the private sector is in much better position to maintain and upgrade laboratories and related technology than the Government.

Case 7: SPS Inspection and Verification Checkpoints, Mexico

Period: 2004 to date.
Objectives: Verify that agricultural import products comply with Mexican SPS standards. Prevent the introduction of pests and/or animal diseases into Mexican territory.
Key players:
- Public sector: National Service of Agro-Alimentary Health, Safety and Quality (SENASICA).
- Private sector: Zoosanitary Verification and Inspection Checkpoints for Import/ Punto de Verificación e Inspección Zoosanitaria de Importación (PVIZI), and Phytosanitary International Inspection Checkpoints/ Puntos de Inspección Fitosanitarios (PIIMSV).

Background/goals

Mexican regulations require all agricultural products entering the country to be inspected to ensure compliance with national plant and animal health and food safety related standards. SENASICA is responsible for conducting inspections at checkpoints located at the entry borders. Checkpoints are divided in two categories: Zoosanitary Verification and Inspection Checkpoints for Import (PVIZI) and Phytosanitary International Inspection Checkpoints (PIIMSV).

Due to the importance of trade with the U.S. and Canada, most of the checkpoints are located along the Mexico-U.S. border. Previously, some checkpoints were located in U.S. territory. A modification of the Federal Law of Animal Health in 2004 (articles 4 and 47) required all zoosanitary verification checkpoints to be relocated inside Mexican territory since it is the responsibility of SENASICA to assure animal and plant health and food safety in Mexico, a mandate that cannot be delegated to a foreign country. This change in the regulatory framework led to the creation of PPPs to develop zoosanitary related inspection infrastructure inside Mexico. Today all PVIZI are located in Mexican territory.

Phytosanitary inspections still take place at checkpoints outside Mexico, mainly in the U.S., since there has not been a change in the Mexican regulatory framework for plant health inspection. However, SENASICA is preparing to implement a pilot project for a PIIMSV located in Mexico. Meanwhile, some private facilities in Mexico have been granted authorization, currently only on a limited short-term basis, to serve as checkpoints where SENASICA staff can develop plant health inspection and control.

Organization, activities

The Federal Law of Animal Health (LFSA) and the Federal Law of Plant Health (LFSV) allow SENASICA to authorize private checkpoints to verify compliance of agricultural import products with Mexican SPS standards. The official norm (NOM-058-1999) establishes all the technical requirements that a zoosanitary checkpoint (PVIZI) has to comply with to get SENASICA's authorization. Unlike what happens with the PVIZI, there are no official guidelines that define the technical requirements to be fulfilled by a Phytosanitary International Inspection Checkpoint (PIIMSV).

PVIZI and PIIMSV are private inspection facilities located at entry points (terrestrial borders, ports, or airports) with laboratory infrastructure, or with collaborative agreements with authorized laboratories, to conduct tests required by Mexican SPS standards for the import of agricultural products. SENASICA officials perform the inspection at these checkpoints. Private partners are responsible for the maintenance and operational expenditures, as well updating and renovating equipment, materials and facilities. Importers pay the private managers of these checkpoints for the services provided. They also pay SENASICA for the issuance of the import certificate. SENASICA conducts systematic audits and supervision of the private checkpoints to verify compliance with technical SPS requirements.

Any interested private association that wants to set up a checkpoint should present a request to SENASICA, which evaluates the technical and economic viability of the inspection point. Once compliance is verified, SENASICA grants an authorization and publishes it. For PVIZI, the authorization is valid for five years; for PIIMSV it is valid for six months. An initiative to update the regulatory framework for phytosanitary inspection is underway, which should enable PIIMSVs to be authorized for longer periods.

Results

This PPP has improved the coverage of checkpoints along the main entry borders, facilitating the movement of agricultural products and trade in Mexican states served by such facilities. The increased coverage of checkpoints has reduced transport and time costs of the import of agricultural products. The improvement of the coverage of this service would not be possible if dependent only on public resources. Nowadays there is a checkpoint under construction in the Guadalajara Airport and the facilities existing at the Mexico City Airport are being renovated to meet SPS inspection requirements.

Challenges, experiences, lessons learned

Lack of infrastructure to comply with SPS inspection requirements, mainly in Southern Mexico. While Mexican legislation requires all livestock products to be inspected by the PVIZI and issued with an import certificate issued by SENASICA, there are no terrestrial checkpoints along Mexico's southern border. The closest PVIZI is maritime (located at Puerto Morelos/Quintana Roo), increasing the costs of transport for Central American meat exporters. Some private stakeholders conducted analysis showing that the amount of traded products entering the country by the southern border is insufficient for cost-effective investments in checkpoint infrastructure. To deal with this, SENASICA is evaluating options to allocate public resources to build the checkpoint facility in Suchiate (Chiapas), with operations outsourced to the private sector. Based on the experiences to date, in some cases the public sector may need to provide the minimum infrastructure needed to make it feasible for the private sector to become involved.

Deficiencies in the regulatory framework. With regards to plant health inspections, there is no official norm that specifies the technical requirements for private checkpoints of agricultural products, thus limiting the number of authorized PIIMSVs. Since the Mexican regulation requires the inspection of all agricultural products, SENASICA has granted temporary authorization to private facilities that performed a risk assessment to function as a PIIMSV for a maximum period of six months. However, most checkpoints are still located abroad, mainly in the US, since the Mexican regulatory framework for phytosanitary inspection has not yet been updated.

Compliance with SPS requirements of private facilities. Private stakeholders are responsible for maintaining checkpoint equipment and keeping facilities up-to-date and in adequate condition. Key lesson learned from this PPP experience is the need to perform frequent official audits and supervision of private checkpoints, thus ensuring compliance with national and international SPS standards, as well as transparency and accountability of the activities and services provided by private entities. SENASICA also learned that it is better to provide authorization to producers or export organizations instead of individual stakeholders in order to avoid corruption and to be more inclusive.

3.4 PPPs for trade facilitation

60. Facilitating trade is about streamlining and simplifying international trade procedures in order to allow for easier flow of goods and trade at both national and international level (OECD). The WTO defines trade facilitation as the "simplification of trade procedures", understood as the "activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade". Broadly defined, trade facilitation therefore refers to a wide range of at-the-border and behind-the-border measures, based on transparency, predictability, non-discrimination and simplification, which aim to make trade easier, less costly and more efficient. For many practitioners, trade facilitation revolves around improving trade procedures from a regulatory point of view ("better regulation") and utilising information and communication technology to reduce trade-related transaction costs.

61. Trade facilitation covers a broad range of activities in the area of official procedures related to customs controls and trade such as information and procedures related to import, export and transit, provisions related to transportation, official documentation, health and safety, payment procedures, commercial practices or the use of international standards, etc. As such, SPS is one of many elements involved in trade facilitation, yet an important one. The SPS partnerships presented in this category focus on the simplification, standardization and harmonization of SPS procedures and information systems to facilitate the movement of goods from sellers to buyers. These partnerships have made an important contribution in the provision of sophisticated new services using modern information and communication technologies. They demonstrate how trade facilitation has the potential to improve SPS management and increase competitiveness. For instance, in addition to improving the safety of exported food products, the electronic traceability system in Thailand discussed below, has helped businesses to better monitor their operations, optimise resources and improve the quality of raw materials, driving efficiencies in the supply chain and the overall competitiveness of exports.

62. Compliance with customs and trade procedures demands a great deal of coordination between all the business entities involved in moving the goods. It is rare for any one party to have full view or knowledge of all operational steps. At each stage of the movement, different types of data are generated and different types of information (often containing the same or similar data) are submitted to customs and other government agencies. Trade transaction costs occur every time one of the parties within the supply chain is required to submit information to government agencies. These costs might be direct (e.g. preparation and submission of documents, charges and fees, inspection costs) or indirect (e.g. border delays, uncertainty about procedures and requirements, inadequate or contradictory documentation) (Grainger, 2008). Strong trade facilitation policies, resulting in more efficient levels of service, have the potential to reduce delays and bring down costs for importers and exporters, with benefits for the economy as a whole.

63. While there may be long-term benefits in investing in trade facilitation activities, financial cost is an issue. Such activities tend to required fixed, up-front investments, for instance for the purchase and instalment of specialist IT systems and dedicated staff. Large companies with larger transaction volumes are generally better able to afford and offset these costs than smaller companies. Advocacy and promotion is generally needed to encourage and convince the private sector to make these investments, and to provide financial support and/or incentives to assist smaller companies to benefit. Institutional limitations and inadequate knowledge serve as another challenge. Identifying, evaluating and implementing trade facilitation activities require a wide range of experience and skills, which is seldom found within one single organization. Partnerships between government and industry can be instrumental in identifying innovative solutions to such challenges. For instance, in Thailand, the government has provided assistance to reduce the financial costs involved for small and medium sized enterprises to participate in the electronic traceability system. In the Chilean case, the poultry and pork industry provided technical support for the public sector to implement an electronic export certificate tailored to the private sector's needs and particularities, as well as national sanitary requirements.

Case 8: Electronic Zoosanitary Export Certificates for Livestock Products, Chile

Period: January 2010 – December 2011
Objectives: Develop an electronic tool to speed up and reduce the cost of issuing Zoosanitary Export Certificates (ZCE) and minimize the risk of errors in the capture and transmission of information on zoosanitary inspection and certification.
Key players:
- Public sector: Agricultural and Livestock Service of Chile (SAG), Production Development Corporation (CORFO).
- Private sector: Poultry-Pork Producers Trade Association (APA/ASPROCER), Lemontech, S.A.

Background / goals

Chilean regulations require all livestock products for export to be accompanied by a Zoosanitary Certificate of Export (ZCE), issued by the SAG. In the past, ZCEs were issued manually, which involved a less effective and time consuming procedure. On different occasions, SAG tried unsuccessfully to improve this process by developing electronic tools in-house. After some failed attempts from the public sector, the Poultry-Pork Producers Trade Association (APA/ASPROCER) took the lead and partnered with SAG to expedite the certification process. Successful previous experiences in using IT solutions to implement a Veterinary Drugs Residues Control Program in 1999 contributed to the leadership assumed by APA/ASPROCER. This private association encouraged Lemontech, a private IT firm, to apply for public funding to design and implement the ZCE software and online database.

Organization, activities

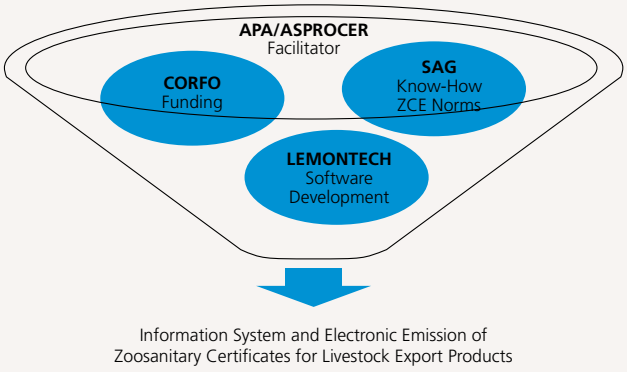
Lemontech was granted $246.2 million Chilean pesos (around US$500 000) by CORFO Innova, a public fund for IT projects, to develop the ZCE software/database between January 2010 and December 2011. SAG contributed the know-how on sanitary inspection and certification process to assure that the software fulfilled official requirements and needs. APA/ASPROCER ensured that meat producers and exporters provided the necessary facilities and logistics to implement the different trials/pilots of the system developed by Lemontech (see Figure 1). In addition to CORFO funding, APA/ASPROCER and SAG provided equipment and technical expertise (worth an estimated US$1.5 million) to support the development of this tool.

This successful experience in Chile demonstrates that the design and use of IT solutions to enhance food safety requires coordination and cooperation among the public and the private sector. In this case, the IT developer and the "clients" (the government and the agricultural producers) signed an agreement governing their interactions. The public sector provided the context, procedures and requirements to be solved using IT solutions. APA/ASPROCER acted as the link between the public sector and the IT developer, and provided in-kind resources (infrastructure, workers, knowledge, etc.) to assist in creating the tool.

Results

Since June 2011, the software enabling the electronic issuance of the ZCEs is available for pork and poultry exports, contributing to speed-up the export process of these products. It is expected that other industries, such as bovine meat producers and exporters, will join this effort by 2012, once the software is adapted to their specific characteristics and requirements. Thus the online ZCEs has created important precedent, which can help to expand the initiative for the benefit of other sectors.

Figure 1. Institutional framework of the Information System and Electronic Emission of ZCE, Chile



Source: Own elaboration.

Challenges, experiences, lessons learned

The large amount of time needed to reach an agreement among the partners, especially at the early stages, posed a challenge to the development of this PPP. The clear definition of roles and responsibilities of each stakeholder involved and the establishment of deadlines for each activity to be accomplished helped them to overcome this challenge.

Although the export process has improved significantly at the national level with the electronic ZCE, paper certificates continued to be provided to importing SPS authorities since most of Chile's trading partners are not connected electronically to the Chilean system. From a long-term perspective, SAG and APA/ASPROCER are keen to further enhance and expedite the electronic process of issuing certificates by enabling relevant authorities in importing country to connect to this electronic platform. For instance, there are plans to discuss this with Mexican, South Korean and Chinese SPS authorities. However, public and private stakeholders in Chile are aware that these negotiations may be challenging due to data transfer requirements, such as digital signature, data security and electronic codes, compatibility of technologies, etc. Reaching agreement on the use of these electronic systems will require an active role of the public sector in discussions with trading partners. The involvement of the private sector would be essential in the implementation phase.

The key aspects for success have been to: i) identify common goals and objectives and clarify the roles of each partner in the early stage; ii) determine and respect deadlines for each activity; iii) raise awareness among all stakeholders of the importance of facilitating trade in order to speed up the clearance process at entry/exit border points; and iv) build on previous experiences.

Case 9: Harnessing smart IT solutions for food traceability in Thailand[22]

Period: 2002 - present
Objectives: To enhance food safety along particular supply chains, facilitate compliance with trading partners' requirements and increase the competitiveness of high-value agri-food exports
Key players:
Public sector: National Bureau of Agricultural Commodity and Food Standards (ACFS), Department of Livestock Development (DLD), Department for Agriculture (DOA), Department of Fisheries (DOF), National Electronics and Computer Technology Centre (Nectec) in the Ministry of Science and Technology
Private sector: Thai food producers and exporters, IT companies including IBM, CDG Systems Co., FXA

Background/objectives

Thailand is one of the world's largest producers and exporters of food and agricultural products such as shrimp, cooked chicken, mangoes and other high-value fruit and vegetable products. In 2002, in response to concerns about the impact of Avian Influenza on exports, and the EC General Food Law Regulation 178/2002, the Thai government developed a new electronic traceability system, in collaboration with major poultry exporters, to demonstrate that chicken exports came from areas free of bird flu. Based on its success, the system was expanded to cover shrimp and high-value fresh fruit and vegetable (FFV) exports, and there are plans to include beef and pork exports in the future. The current system aims to enhance food safety along particular supply chains, facilitate compliance with trading partners' requirements and increase the competitiveness of high-value agri-food exports. It enables regulatory authorities, importers, manufacturers and others involved in the supply chain to manage and exchange information on the safety, quality and origin of food products.

Organization, activities

The electronic traceability system provides a platform to support food safety and/or quality objectives and facilitate exports of cooked chicken products, FFV and shrimp, based on the Thai government's regulations. In particular, it identifies the origin of products as well as the responsible organizations in the feed and food supply chains, facilitates

22 Based on information provided by Dr Chaweewan Leowijuk (STDF developing country expert, 2010-11), Dr Ponprome Chairidchai (National Bureau of Agricultural Commodity and Food Standards, Thailand), Chatta Udomwongsa and Suporn Kaewtipaya (FXA Group), and desk research (http://www-03.ibm.com/press/us/en/pressrelease/29756.wss, http://www.youtube.com/watch?v=b8x4JGpF6Es and http://www.fxagroup.com/news-regulationsB42007.html).

verification of specific information about the product, communicates this information to relevant stakeholders and consumers, and facilitates the withdrawal and/or recall of products. In the case of food safety outbreaks, this system provides the means to quickly locate the source of outbreaks and apply appropriate corrective measures.

Agricultural producers and companies involved in the supply chain use the traceability technology to record relevant information about each batch of their products including the product identification number, originating farm, point of processing, shipment number, current location and temperature, etc. Participating producers and enterprises at each step in the supply chain contribute relevant information about the product batch via the Internet. For instance, food processing companies, often working in remote parts of the country, make use of handheld computers, GIS systems and GPS technology to track the source of the farm produce they use and incorporate this information into the packaging. In this way, the system can quickly and accurately trace back to the origin of raw materials from products at any stage of in the production process.

The National Bureau of Agricultural Commodity and Food Standards (ACFS) coordinates the overall strategic development and operation of the online traceability system, working closely with relevant government line departments and private sector partners. ACFS accredits government agencies and private sector operators that certify the standards of agricultural commodities and food for export and serves as the focal point for information technology and traceability of agricultural commodity and food standards. ACFS develops the data and information standards for the system, while DLD, DOA and DOF work with producers and food business operators in the relevant supply chains to promote the system and encourage its adoption, and to deliver training and roll out the system. ACFS partnered with Nectec and prominent IT companies to access state-of-the art technology. For instance, IBM was contracted to provide most of the system's hardware needs. Other companies (such as CDG Systems Co. and FXA) support the operation of the system through their IT traceability solutions, barcode technology and related Web-based, data-tracing software that enables agricultural-product exporters to electronically collect and trace all data related to the processing of their products (e.g. OpsSmartTM).

The Thai government financed the development of the central electronic traceability system, and continues to provide some training support to assist private sector operators, particularly small and medium-sized enterprises, to meet national regulations on the traceability of agri-food products for export and join the electronic traceability system. The OpsSmart system is hosted by a state enterprise (CAT Telecom), which provides access to SMEs for nominal fee. Approximately 10 SMEs were participating as of February 2012, and this number is expected to grow significantly with the service provided by CAT Telecom.

Individual producers and companies need to have their own internal IT systems and terminals, connected to the government's server, to manage and feed their data on their products into the central electronic traceability system. The costs for producers and companies vary. For instance, one leading Thai exporter (Betagro Group) spent 50 million baht (approximately Euro 1.2 million) on development of its traceability system, which enables European buyers to enter the invoice and product code numbers to trace where a shipment of meat was produced, the farm location, whether it is verified by international standards, the origin of the flock, the name and picture of the veterinarian stationed on-site, and other data. The return on investment is considered to be worthwhile. In addition to enabling companies to ensure the food safety of their products and stay competitive, the information generated helps them to better monitor their business, optimise resources, improve the quality of raw materials, and identify better sources of products.

Results

Government regulations require food exporters to establish management and documentation systems for raw material suppliers, production processes, distribution and laboratory results, to facilitate product tracing, as required. Information can be submitted manually or electronically. The electronic traceability system has enabled critical data about agri-food exports to be made available, easily and securely, to supply chain partners, certification agencies, food safety inspectors, supply chain partners and import authorities that need this information. There are a number of advantages over the previous manual, paper-based system, which required much more time to trace products and was more prone to human error.

The private sector has been interested and motivated to adopt the electronic traceability system, which is regarded as a source of competitive advantage. Since the initial launch of the pilot system for cooked poultry products, which involved six companies, the number of private sector partners has risen significantly. For instance, the traceability system for cooked chicken products now engages all types of stakeholders involved in the supply chain from feed mills to parent stock farms, hatcheries, broiler farms, slaughter houses and processing plants. By the end of 2011, over 100 companies exporting chicken, shrimp or FFV, as well as thousands of farmers, are partners.

For exporters, the system has facilitated statistical analysis and data mining, which has helped to improve the effectiveness, productivity and profitability of business operations. It has also helped producers and exporters to better manage their merchandise, which has driven efficiency and competitiveness.

The Thai government is convinced that the electronic traceability system is beneficial. "As one of the world's largest producers and exporters of agricultural products, we must continue to improve our food safety standards to meet, or even exceed the global market's requirement," said Mr. Theera Wongsamut, Thailand's Minister of Agriculture and Cooperatives. "We are very much interested in using smart solutions that will provide our agricultural exporters the ability to ensure that every process involving their products is transparent for importers and consumers alike. We are strongly confident that the system will enhance and increase our exporters' competitiveness in the international food industry" (IBM, 2010).

Challenges, experiences, lessons learned

The interest, buy-in and collaboration of Thai food producers and exporters were crucial to roll out and expand the system. The availability of data and the capacity of private sector operators to make this data available in a compatible form was the main challenge faced in rolling out the electronic traceability system. This was particularly problematic given the number of private producers and exporters involved, and their very different systems and capacities for data management. This challenge was overcome through public-private dialogue and collaboration to identify and harmonize data needs prior to launching this system. As the system developed over time, the availability of public sector support and training was important to meet the growing interest from an increasing number of small farms and SMEs. The development of a sophisticated, state-of-the art electronic traceability system, that exceeds the requirements of importing countries including the EU, has enabled Thailand to ensure the safety of its agri-food products and maintain an essential competitive advantage in international markets.

Based on Thailand's evident success in implementing the electronic traceability system, other countries in the region (including Vietnam, Indonesia and The Philippines) have sought to learn about Thailand's experiences and how they could be replicated for the benefit of their own agri-food producers and exporters. Thailand also plans to implement a traceability system for rice as a strategy to add value to Thai rice and boost the confidence of consumers and, in particular, Japanese importers. Another pipeline project, in which Thailand is taking the lead, aims to develop a traceability system for organic rice in the Greater Mekong Sub-Region.

3.5 Joint public-private institutions for the implementation of SPS measures

64. In a few countries, national governments have initiated the establishment of joint, independent, non-profit public-private organizations to manage and control SPS risks. These bodies were conceived as a means to strengthen government and industry cooperation in maintaining acceptable national SPS standards that meet consumer and market requirements. In the case of Australia, the publication of the 1996 Nairn Review "Australian Quarantine: a shared responsibility" highlighted the need to strengthen the role of industry in animal and plant quarantine, both on a substantive level and in terms of resource mobilization, in the context of pressures emanating from world trade, tourism and international obligations. A partnership approach by industry, government and the wider community was seen as the key to achieving quarantine objectives.

65. The three examples discussed here, the Patagonian Zoo-Phytosanitary Barrier Foundation (FUNBAPA) in Argentina, Animal Health Australia (AHA) and Plant Health Australia (PHA), have each been in existence for several years. A central objective of each of these institutions was to establish funding and management arrangements for an effective response to incursions of plant pests and/or animal diseases.

66. Delivering on the objective of shared responsibility in Australia has required the adoption of a more consultative approach to quarantine policy development and decision-making. This has helped to enable the participation of more industry stakeholders in decision-making, and helped to reduce perceptions that import access decisions are made without regard to the scientific concerns of industry and the wider community. As part of the process of introducing continuous improvements, AHA is looking to learn from experiences in some parts of Europe that have robust animal health systems in which governments take on clearly defined but limited roles, and industry complements or replaces previous government services.

Case 10: Patagonian Zoo-Phytosanitary Barrier Foundation (FUNBAPA), Argentina.

Period: 1992 to date.
Objectives: Declare and maintain Patagonia as a disease/pest free area using a sustainable development approach, ensuring compliance with regional, national and international SPS standards.
Key players:
- Public sector: National Animal Health and Agri-Food Quality Service (SENASA); Ministries of Production of the Provinces of Buenos Aires, Chubut, Santa Cruz, and Mendoza; Ministry of Agricultural Affairs of the Province of Neuquén; Agricultural Council of Santa Cruz; Undersecretary of Natural Resources of the Province of La Pampa; Agri-Food Health and Quality Institute of Mendoza (ISCAMEN); local governments of Río Negro and Tierra del Fuego.
- Private sector: Fruit Growers Federation of Río Negro and Neuquén; Argentine Chamber of Integrated Fresh Fruit Producers (CAFI); Río Negro Rural Society Federation; Santa Cruz Agricultural Institutions Federation; Buenos Aires Horticultural Producers Federation; Confederation of Rural Associations of Buenos Aires and La Pampa (CARBAP); Rural Society of Neuquén; Río Negro and Neuquén Chamber of Forestry, Wood, and Allied Business.

Background / goals

Patagonia's geographical location and topographical barriers have historically isolated it from FMD and fruit fly, which have a critical impact on agricultural activities and trade in other parts of Argentina. In addition to this natural advantage, the government installed border controls to re-enforce these barriers. The Patagonian Zoo-Phytosanitary Barrier Foundation (FUNBAPA) was created in 1992 to manage and enforce the border controls in the south of Barrancas and Colorado rivers as part of the FMD and the Fruit Fly Control and Eradication Program. This foundation was the result of a joint initiative of the provincial authorities, the federal government and regional producers[23].

At the early stage, the stakeholders sought to build consensus around the need to differentiate the Patagonian agricultural products, to improve their competitiveness and promote access to national and international markets. Nowadays, FUNBAPA's role has expanded and it supports Patagonian producers to comply with regional, national and international SPS measures.

Organization, activities

FUNBAPA is a non-profit private organization with public functions. It is responsible for the management and execution of provincial, regional and national SPS programs in Patagonia. It also operates a laboratory in the Province of Rio Negro. Binding agreements establish guidelines for joint activities and technical, administrative or financial cooperation between FUNBAPA and other public and/or private institutions. FUNBAPA is financed by members' quotas and fees paid by producers for the services provided. The members periodically audit all of FUNBAPA's expenses.

FUNBAPA's structure and division of functions are as follows:

a) Board of Directors: formed by of representatives of each member institution. The members vote for their representatives every two years.

b) Working Commissions: formed by representatives from each member institutions. They are appointed for a period of two years. There are five commissions: 1) plant health; 2) animal health and epidemiologic risk analysis; 3) forestry; 4) horticulture; and 5) food safety and quality. These working groups are responsible for the approval, monitoring and evaluation of programs managed and executed by FUNBAPA. All decisions within each commission are made by consensus.

c) Executive Director: responsible of accounting, legal, human resources management, and overall coordination of FUNBAPA programs. This position is selected through an open competition for a six year term.

d) Support teams: assist the executive director in the coordination of activities and programs.

23 More information available at: http://www.funbapa.org.ar/

e) Program Coordinators: FUNBAPA currently manages and executes the following regional programs: Patagonian Quarantine System, Fruit Fly Control and Eradication Patagonian Program, National Program for the Control of Carpocapsa (codling moth), Patagonian Agri-Food Diagnostic Laboratory, Certification Program for Export of Fresh Onions and Incan Trehua Program (dog training for SPS inspection at checkpoints). Each program has its own coordinator.

Results

After nineteen years of solid work, FUNBAPA has achieved important results such as:

- Preservation of Patagonia's status as FMD-free, as well as the incorporation of more than 20 million hectares to the FMD-Free Zone without Vaccination.
- Global recognition of the Patagonian region as a Fruit-Fly-Free Zone.
- Removal of quarantine treatments previously required by the U.S. to control fruit fly (T-107a1), representing estimated savings of US$ 2 million/year.
- Access to new international markets and accelerated control processes to enter some markets (e.g. Patagonian products can enter U.S. at any point of entry; they have open transit to Chile.
- Improved competitiveness of regional agriculture through certification processes and traceability (e.g. fresh onions).
- Implementation of the National Program for the Control of Carpocapsa, establishing the world's largest Carpocapsa-free area (40,000 hectares; 2,500 producers).

Challenges, experiences, lessons learned

A major challenge faced by FUNBAPA was to ensure active participation and commitment from its members. An important strategy to overcome this challenge was the creation of working commissions, which distributed responsibilities to each member on specific topics and gave them decision-making power over some issues. FUNBAPA co-financing of government SPS programs also motivated members to achieve the working commissions' goals given their financial contribution (members' quota).

The lessons learned from this successful PPP can be summarized as follows:

- Decentralized organizational structure at the executive, administrative and technical level including appropriate resource management.
- FUNBAPA's gradual expansion of mandate allowing members to consolidate previous experience before embracing new ones.
- Political support from public sector stakeholders has been important to guarantee international recognition of FUMBAPA programs and its brand.
- Clarity of objectives in the medium and long-term, as well as the achievement of measurable results.

Case 11: Animal Health Australia (AHA) and Plant Health Australia (PHA)[24]

Period: AHA: 1996 to date; PHA: 2000 to date.
Objectives: Improve plant and animal health standards aimed at meeting consumer needs and market requirements
Key players:
Public sector: Australian state and territory governments.
Private sector: Major plant/livestock industries, industry bodies and related industry organizations.

Background/objectives

In Australia, a formal review of quarantine/biosecurity arrangements in 1996 recommended the development of joint national industry/government bodies to address animal and plant health. Following an extensive series of consultations involving industry associations, farm groups and government, two not-for-profit public companies were established by state and territory governments and major national industry organizations.

- Animal Health Australia (AHA) was established in 1996. Its mission is to ensure that the national animal health system delivers a competitive advantage and preferred market access for Australia's livestock industries. In fulfilling this role, AHA manages a suite of national programmes that position Australia as a world leader in terms of its animal health status and systems.

- Plant Health Australia (PHA) was established in 2000 to facilitate improvements in policy, practice and performance of Australia's plant biosecurity system and to build capability to respond to plant pest emergencies. Its objectives are, *inter alia*, to coordinate a cooperative whole of industry and whole of government approach and provide strategic leadership to the development and implementation of plant health policies and management programmes, maintain and improve international and domestic confidence in Australia's plant health status, contribute to the sustainability of Australia's plant industries and native flora, and commission, coordinate, facilitate and manage national plant health projects.

Organization, activities

AHA implements activities to assist the Australian animal health system in maintaining acceptable national animal health standards aimed at meeting consumer needs and market requirements in Australia and overseas, to facilitate improvement in the quality of animal health infrastructure and services in Australia, and to advise, advocate and facilitate joint action on animal health matters to industry and government. AHA manages a range of national programmes and activities. National animal health related projects that have a collective benefit for members are funded from members' subscriptions and managed within one of the company's core programmes. These include animal disease surveillance, emergency animal disease preparedness, animal health services, disease risk mitigation, livestock welfare, training, etc. Other special funded programmes and activities (often focused on a specific animal disease or commodity) benefit a subset of members and are generally only funded by the primary beneficiaries concerned.

PHA commissions projects and works with members to coordinate the development of national policy and capability to enhance the ability of Australian agriculture to respond effectively to plant pests, weeds and diseases. A central role of PHA is the establishment of funding and management arrangements for effective response to emergency plant pest incursions. PHA assists its Members with a wide range of response preparedness activities including contingency planning, surveillance and diagnostic systems support, response training and simulation exercises. PHA also supports the national plant health system by coordinating and assisting efforts to reduce the risks posed by emergency plant pests, for instance by supporting industries and governments to develop strategies and plans that improve biosecurity standards and helping with their implementation.

AHA and PHA are financed by subscriptions from federal and state government and industry associations, as well as cost-recovery of certain activities (e.g. training, special programmes), which benefit individual and sub-sets of Members. The Australian government contributes approximately 25 per cent of the total budget of each organization. In 2008/09, the budget of ANA and PHA were approximately AUS$22 million and AUS$8 million, respectively.

24 Based on a presentation by Dennis Bittisnich (Australian Quarantine and Inspection Service) at the STDF workshop on PPPs, and information on the AHA and PHA websites: http://www.animalhealthaustralia.com.au and http://www.planthealthaustralia.com.au

Results

AHA and PHA are innovative government-driven, commercial partnerships that have successfully incentivised state governments and industry to co-finance activities to manage national biosecurity. The effectiveness of this model is validated by the increasing number of industry groups joining both organizations and contributing financially to their operation. The role and importance of both partnerships has expanded significantly since their establishment, with a corresponding increase in the number of projects and programmes funded. Both AHA and PHA have achieved a strong track record in delivering many worthwhile outcomes for their members and stakeholders.

Challenges, experiences, lessons learned

AHA and PHA have been affected by changes in their business environment, with the impact of the global financial crisis and consequential pressure on budgets affecting both government and industry members. The AHA Strategic Plan for 2010-15 notes that a major challenge will be to secure adequate investment in animal health and biosecurity across all jurisdictions and industries.

A key challenge faced by both AHA and PHA has been free-riding by some industry associations that have not contributed to one or other company. One of the key incentives for industry participation is commitments in the deeds of each company regarding compensation in the case of disease outbreaks that occur while producers are using operating systems developed, endorsed and validated by AHA or PHA.

Key lessons emerging from AHA and PHA focus on the following: (i) the importance of having appropriate national governance arrangements in place that provide the essential leadership and management of animal/plant health activities; (ii) the role and necessity of commercial incentives in sustaining SPS-related partnerships.

3.6 Co-regulatory approaches in food safety[25]

67. The combination of public and private regulatory activities has enjoyed a degree of popularity in national and international regulatory strategies (OECD, 2002). Regulation adopted, monitored, and enforced by private bodies supplements public regulatory activities in a wide range of fields, including consumer and environmental protection, financial markets, labour standards, media, and food safety. The commitment by policy makers to engage private actors in the regulation of these policy areas in the pursuit of public benefits springs from the belief that the inclusion of private actors in public regulatory process generates win-win situations: whilst it creates a wider ownership of the policies in question and increases flexibility for those businesses regulated, it enhances compliance and saves costs for the public purse (Ayres and Braithwaite, 1992, Coglianese and Lazer, 2003, Commission of the European Communities, 2001).

68. To attain these potential benefits in practice, public and private objectives and motives to submit to such a hybrid or 'co-regulatory' arrangement need to be aligned and coordinated (Gunningham et al., 1998, Garcia Martinez et al., 2007). This process may prove difficult as public and private regulatory interests do not necessarily overlap. In fact, self-regulation by business is often seen as self-serving (Gunningham and Rees, 1997). Regulatory capture may thus present itself as a clear risk to the use of private standards as a regulatory tool employed by public authorities to meet public interest objectives (Ogus, 1995).

69. While the concept of co-regulation of food safety is relatively new and remains controversial, models for government-business interactions in regulatory practices in search of more cost-effective solutions to a given food safety problem are receiving increasing attention. The WTO SPS Agreement encourages WTO Members to use international standards, guidelines and recommendations (i.e. Codex, IPPC and OIE) where they exist. However, Members may use measures which result in higher requirements if there is scientific justification. The measures must be based on an appropriate assessment of risks, applied only to the extent necessary to protect health, and not unjustifiably discriminate between countries where similar conditions prevail. Article 13 of the Agreement requires that "Members ensure that they rely on the services of non-governmental entities for implementing sanitary or phytosanitary measures only if these entities comply with the provisions of this Agreement."

25 This section was written by Dr Marian Garcia, Senior Lecturer in Agri-Food Marketing, Kent Business School, The University of Kent, UK.

70. In practice, the scope and exact shape of co-regulation of food safety, the way in which state and non-state regulatory instruments are combined, and who launches the initiative vary depending on the policy objectives and the contextual framework in which it operates (Fearne et al., 2006). The following models of co-regulation of food safety can be identified, which are conceptually different in capturing the public-private regulatory interaction. These represent each end of the spectrum. In between, various other hybrid models of co-regulation may exist and be equally successful. This typology does not suggest that one model is more effective or cost-efficient than the other. Rather, it stresses the different regulatory relationships between public and private actors, and the implications of each model.

i) **Top-down model**: Approaches of enforced self-regulation following from the recent evolution of EU food hygiene legislation (Regulation 852/2004/EC) respond to a co-regulatory approach under a top-down model where private actors implement public objectives identified in government regulation or legislation. Under these approaches, responsibility for the production of safe food lies more explicitly with food business operators, all of whom are required to have controls that demonstrate they are managing food safety within their business. While regulatory criteria for management planning specify elements that each HACCP plan should have, such as the identification of hazards, risk mitigation and monitoring and corrective action, food business operators are given freedom to devise their own food safety control measures to meet hygiene requirements with respect to the stated social objective. The public regulator is then responsible for approving these internalised rules and monitoring compliance with them (Coglianese and Lazer, 2003). Additionally, the new food hygiene legislation permits a differential enforcement approach to account for regulated firm's heterogeneity in their economic size and risk associated with processes (Howard, 2004). Arguably, the more risk-based and flexible nature of these procedures is better matched to the needs of individual businesses and to enforcement. For example, they encourage firms to search for their own solution that fit with individual circumstances. They may also provide better opportunities for businesses to demonstrate that they have effective risk management systems in place and that their products present lower risk to consumers.

ii) **Bottom-up model**: Alternatively, public regulators may acknowledge private actors' regulatory initiatives as part of their risk-based frameworks of food safety regulation. For instance, implementation of farm assurance schemes (in the UK) and food safety databases (in the Netherlands) have been recognized as integral part of the enforcement policy of regulatory agencies. As a result, these regimes are taken into account in allocating enforcement resources (see Box 6 and Box 7 below). Compliance with such regimes enables enforcement officials to distinguish between high and low risk establishments and focus inspection efforts accordingly.

71. Co-regulation as a monitoring and enforcement mechanism is likely to grow in importance as governments search for alternative modes of social regulation that are less resource intensive. For instance, in the UK, co-regulation has been driven as part of a programme aimed at simplifying and reducing the regulatory burdens on farmers and local authorities, while improving consumer protection and increasing compliance levels (Food Standards Agency, 2008).

Box 6. Examples of Co-regulation as a Monitoring and Enforcement Mechanism in the United Kingdom

The UK Food Standards Agency (FSA) has embraced a co-regulatory approach to enforcement and monitoring by introducing a new inspection scheme for farms in which membership in farm assurance schemes determines inspection frequency (Food Standards Agency, 2007). Farm assurance schemes are voluntary schemes which verify, through regular independent inspections, that farmers and growers are meeting stated safety and welfare standards in the production of primary products. In the UK, they cover over 85% of production in the milk, eggs, chicken, pork and combinable crop sectors and over 65% for beef and lamb and horticultural produce (AFS data). The use of farm assurance schemes to determine the frequency of inspection is part of the simplification programme aimed at reducing the administrative burden on business. Farms in recognised farm assurance schemes are subject to an average 2% inspection rating compared to an average 25% inspection for farms not in farm assurance schemes. A more targeted enforcement action reduces the regulatory burdens on farmers and local authorities while improving consumer protection and increasing compliance levels (Food Standards Agency, 2008).

Box 7: Public private collaboration in food inspection in The Netherlands

The Netherlands Food and Consumer Product Safety Authority (VWA, Voedsel en Waren Autoriteit) operates in close cooperation with the food industry and private certification bodies, and promotes the development and use of self-inspection systems in industry. Where groups of businesses or sectors subject themselves to inspection by external agencies, the VWA bases its supervision on the inspection data they provide, provided they are proven to be sound and reliable, as demonstrated by certification.

The categorization of food business operators (FBOs) based on risk (negligible/some/permanent risk) is fundamental to VWA's business model. The VWA does not have sufficient capacity to inspect every facility in the Netherlands regularly. It therefore decides which facilities or industries need intensive inspection, and where inspection activities could be reduced, based on its risk pyramid. The better a business performs in terms of public safety, the less it will be inconvenienced by the VWA. Where there is a permanent risk, harsh enforcement tools will be employed, backed by assistance with compliance. Where the risk is limited, tools such as re-inspections for which a charge is made, spot checks with written procedures to deal with any violation, reports on enforcement and tailored assistance with compliance are used. In the "almost no risk" category, spot checks are performed to monitor the industry and decide whether the level of compliance is still adequate and its confidence is still justified.

Electronic tools are crucial to support the VWA's operations. To share food safety knowledge, the VWA developed a "smart system" known as "RiskPlaza", comprising a risk database and audit system for suppliers and an early warning system for participants. More than 40 suppliers have been accepted in the RiskPlaza, and this number is increasing steadily. RiskPlaza has resulted in a number of positive outcomes including a better mutual understanding concerning risks, less administrative burden in supply chains, reduced auditing in supply chains, fewer discussions between food inspectors and FBOs, and better overall compliance.

Source: VWA. Multi-annual plan, 2007–2011. Innovative and more effective. Available at: http://www.vwa.nl/onderwerpen/english/dossier/about-the-netherlands-food-and-consumer-product-safety-authority

Opportunities and Risks related to Co-Regulation of Food Safety

72. Arguments for co-regulation seem to lie with the potential synergies the combination of public and private regulatory activities implies. The partnership between public and private regulators could, for example, boost the effectiveness of the regulatory tools they design (Borraz, 2007). Where public law uses self-regulatory rules set by businesses or private associations to regulate corporate conduct, the co-regulatory regime would benefit from a number of advantages commonly associated with privately established norms, as discussed below:

i) **Compliance performance**. Businesses and organizations feel more committed to those rules that they consider to be their own. Self-made rules are easy to comprehend and are viewed as realistically attainable by the industry (Baldwin and Cave, 1999, p. 40). The recent evolution of EU food hygiene policy, shifting from a prescriptive, "command-and-control" approach towards an "enforced self-regulatory" approach has had a positive impact due to the more risk-based and flexible nature of the regulation (Commission of the European Communities, 2009). It requires, however, full commitment from industry management and employees (Jones et al., 2008) which could be a problem among smaller businesses due to the lack of (financial or technical) resources to understand what the law requires of them (Fairman and Yapp, 2005, Fielding et al., 2005). The regulatory capacity of businesses is thus a condition for the realization of co-regulation.

ii) **Responsiveness**. In general, self-regulation is flexible and can rapidly respond to the demands of a dynamic environment in which technologies, food supply chains, actors, institutions, and normative frameworks are in constant development. In comparison, national governments may require more time to adapt national laws and regulations to such changes. Private actors deploy their business activities on a worldwide scale and can also implement self-regulation based on changing developments and needs in their global value chains. On the other hand, the state remains bound to its jurisdictional territory.

In recent years, in an effort to adapt to this dynamic environment, governments in some countries have endowed private actors with powers to implement public policy objectives through the development and implementation of regulations that are preventive and proactive in nature (such as controls under the new U.S. Food Safety Modernization Act). The design and evolution of EU food hygiene regulation empowered retailer-led forms of regulation by incorporating the use of food quality meta-systems, such as HACCP (Marsden et al., 2000). The EU requires all producers to operate under HACCP systems, including foreign ones supplying the EU market. As such, the EU holds companies in its Member States accountable for assuring that any food they import is produced in compliance with EU law. This is supported by imposing strict liability on the importer in the event of an outbreak.

iii) **Expertise**. In-depth (technical) knowledge of private actors ensures well-informed rule-making (Sinclair, 1997). Engagement with stakeholders can enhance the results of regulatory measures by adapting requirements to industry and/or sector-specific requirements and circumstances. This can potentially reduce compliance costs, facilitate process implementation and enhance enforcement and monitoring, such that regulatory goals (e.g. cost effectiveness) are met. Consultation with industry stakeholders at an early stage in the regulatory decision-making process can be important for evaluating compliance costs and potential impacts on business competitiveness. Similarly, formal public consultations to seek stakeholders' views on different regulatory options before a final decision is taken can lead to more effective legislation (Garcia Martinez et al., 2007).

A process of growing "consumerisation" of food policy at EU and UK level has strengthened the role of a wide range of interest groups and consultation procedures in the shaping of new legislation and policy on food in an attempt to make policy-making more inclusive, effective and implementable (Marsden et al., 2010). However, consistent procedures for the evaluation of stakeholder engagement are still not fully established (Rowe and Frewer, 2000; Rowe and Frewer, 2004).

iv) **Efficiency**. It is suggested that self-regulators experience lower costs than public actors in acquiring relevant information to set normative standards and to monitor and enforce them (Baldwin and Cave, 1999). Relieving the legislator of the duty to govern these regulatory activities reduces regulation costs for the government. This model sub-contracts regulatory functions to private actors. An example is referencing compliance to private codes of practice and/or implementation, such as the ISO 22000 series. Compliance with such norms may enable enforcement officials to distinguish between high and low risk establishments and focus inspection efforts accordingly.

73. The combination of public and private regulatory activities in food safety clearly offers a number of advantages over alternative regulatory instruments, particularly compliance performance and responsiveness. However, the ultimate success of co-regulatory models very much depends on the commitment and capacity of businesses, SMEs in particular, to self-regulate. To date, the potential application of co-regulation to food safety control is limited. The perceived risks associated with allowing market forces to play a role in the regulation of food safety could seriously undermine the potential benefits to be achieved from greater collaboration between government and private sector in regulatory activities. Therefore, understanding the following risks surrounding co-regulation of food safety, and how to mitigate potential externalities, is key to its wider adoption and ultimate effectiveness:

i) **Regulatory capture**. The potential for capture of the regulatory process by dominant economic interests is a major risk. The increase of technical content of EU policies and the need for "unpacking" broader policy problems into more manageable, low-profile issues further increases the incentives for organized interest groups (e.g. producer groups) to form alliances with policy-makers (Mazey and Richardson, 2006). In the UK, the Food Safety Authority (FSA) was established to champion the interests of consumers and has often found it difficult to work in full cooperation with the commercial stakeholders it regulates. Indeed, there is a widespread perception in the food industry that the economic impact on food businesses of new regulations has taken second stage (Fearne et al., 2004, Garcia Martinez et al., 2007). As a result, the response to requests for industry feedback on compliance costs, as part of the process of regulatory impact assessment (RIA), is often poor. In contrast, in the US, regulators are often presented with fully-researched cost impact assessments by the food industry. As a result, final regulations may be better designed, complement industry incentives more effectively, and have better benefit-cost profiles. However, in this context there is a risk that proposed regulations become watered down if dominant industry voices are heard more strongly than those of other stakeholders, leaving affordable public health benefits unachieved.

Achieving an appropriate balance of interests is a formidable challenge for policy and decision-makers, especially where there is a drive towards co-regulatory approaches that more actively engage commercial stakeholders.

The recent model the EU has stipulated for co-regulation offers a possible approach to mitigate the risk of regulatory capture. Under EU co-regulation, private actors implement public objectives identified in government regulation or legislation. While the regulatory role is thus shared between public and private parties, an evident hierarchical relationship continues to exist. Government *a priori* specifies the objectives and private actors ensure the attainment of these objectives. How private actors achieve these objectives is in principle left to the industry. This conception of co-regulation as an 'implementation mechanism' (Verbruggen, 2009) limits the regulatory role of private stakeholders to implementation and is subject to public supervision. Should the commercial stakeholders use the regulatory scheme to promote their private interests at the expense of the public, government can still autonomously undertake legislative action. Arguably, this approach could take away some of the concerns for capture, as a non-dependent hierarchical relationship continues to exist between the public and the private sectors. It should be stressed, however, that it does not erase the concerns completely as the success of the EU approach to co-regulation still chiefly depends on cooperation between public and private actors, thus offering commercial stakeholders a position to boost their own interests, rather than the public, via the regulatory scheme designed.

ii) **Voluntary nature**. A potential stumbling block in attempts to use private assurance schemes as indirect mechanisms to demonstrate compliance with legal food safety standards concerns the fact that participation in such schemes is often voluntary. Not all businesses in an industry sector in which a co-regulatory scheme is introduced may apply or adhere to the specific norms featuring in that scheme. There might, for example, be companies that do not fall under the membership of the interest group (i.e. industry associations) that is involved in the co-regulatory arrangement, or the norms as such might be of a voluntary nature to which the individual businesses are not legally bound. As a result, non-participation cannot be used *per se* as an indicator of low food safety standards relative to legal requirements. Where regulatory authorities target food business operators because of their decision not to implement a voluntary standard, concerns of legal certainty, proportionality and equal treatment can arise (Freigang, 2002). There is also a potential danger of reverse capture whereby regulatory authorities may co-opt voluntary food safety standards and assurance schemes, distorting the related costs and benefits for buyers and sellers.

Consequently, food safety agencies should take care in using private assurance schemes as mechanisms to direct their own enforcement activities. In essence, the decision not to implement a voluntary standard may never be an argument to penalise the food business operator concerned. Instead, public agencies must reach their decision on the basis of the applicable laws and therefore need to assess to what extent the private scheme overlaps with the public norms it is charged with to oversee. The principle of Earned Recognition adopted by the FSA in the UK considers not only third-party assurance schemes, but also primary authority schemes and compliance performance history to overcome the potential injustice highlighted above. In particular, compliance performance history is viewed as the 'cornerstone' of Earned Recognition and deemed to be a useful prerequisite for gaining Earned Recognition under alternative approaches (Food Standards Agency, 2011a).

Moreover, the promulgation of multiple and competing private standards raises critical questions about comparability, the degree to which they provide reliable systems of oversight that can be trusted by regulatory authorities, and the associated costs of compliance. One solution is the development of industry standards, with which all buyers comply. For example, in the UK the major supermarkets have harmonized their individual food safety audit processes through the British Retail Consortium's (BRC) Global Standard. This has reduced food safety monitoring costs in supermarket supply chains whilst maintaining the required food safety standards (Arfini and Mancini, 2003). Similarly, the formation of the Global Food Safety Initiative (GFSI) though the Food Business Forum (CIES) and the development of a common private protocol on good agricultural practices by the Euro-Retailer Produce Working Group (GlobalGAP) are further steps towards greater harmonisation and mutual recognition of national and/or regional business practices that are subsequently codified in rules (Braithwaite and Drahos, 2000).

iii) **Accountability and Legitimacy**. In co-regulatory arrangements, the burden of regulation is shared between public and private actors. In the case of regulatory failure this raises the question of who is accountable, how this actor can be held to account, and to whom. Rendering participating actors – both public and private – accountable is critical for warranting the legitimacy of the regulatory joint venture that co-regulation is. In fact, accountability mechanisms are a route through which the regulators can satisfy their legitimacy claims (Black, 2008, Bovens, 2007). While accountability mechanisms can find easy application to government, private actors are a difficult case, especially where their regulatory activities are not based on a legal mandate. Black (2008) has therefore suggested to look at how private actors operating a regulatory regime respond to meet the legitimacy and accountability claims made by others, for example civil society and government. In this respect, conditions of openness and transparency, communication, and participatory engagement of industry and non-industry stakeholders seem crucial.

74. Ultimately, the challenge for co-regulatory approaches to food safety controls is the economic and political fall-out when wide-scale food safety failures occur. The real test will thus be how they withstand the inevitable public scrutiny when a major outbreak of food-borne illness occurs. Following the precedent of the 2007-2009 financial crisis, accusations of government being "too soft" on industry may be inevitable, questioning the effectiveness of risk-based regulation, at least in the UK, to protect consumers and the public (Black and Baldwin, 2010). But also the specific regulatory role of private actors will be assessed. To hold them formally accountable, legal mandates, like the contracting-out of statutory powers to the private actor to enforce a legal rule, would facilitate the process.

Preconditions for successful co-regulation in food safety

75. The key to effective co-regulation lies with the complementarities between direct and prescriptive regulation (i.e. specification or performance standards), market incentives and self-regulation (Borraz, 2007; Sinclair, 1997). In constructing this mix of regulatory instruments the crucial question is how to exactly combine the various tools in order to ensure optimal rule compliance. The approach would indeed be highly context specific (Saurwein, 2011; Dordeck-Jung et al., 2010). The challenge for governments and regulators is to find an optimal level of specificity that compels firms to produce business plans and enables inspectors to assess whether a regulated firm has a good management system in place without unduly denying firms flexibility to adapt their business practices to the specific conditions of their organizations (Coglianese and Lazer, 2003). Co-regulatory strategies that become highly prescriptive may well undermine the potential cost-savings that otherwise make such approaches attractive (Balleisen, 2009). The key preconditions for effectiveness of co-regulation of food safety are examined below.

i) ***Institutional Setting***. Fragmented and/or less flexible regulatory structures can severely constraint regulator's ability to effectively respond to changing risk profiles (Merrill, 2005; Dyckman, 2005). In addition, regulatory agencies may develop biases against certain public policies perceived to carry certain professional and/or political risk, and thus hamper government's ability to effectively respond to public demand (see Leaver, 2007; Bardach and Kagan, 1982; Garcia Martinez et al., 2007). In the context of food safety co-regulation, such bias may entail, for instance, an extreme aversion to regulatory options involving possible professional/political risk from negative public health outcome(s) in the event (however unlikely it may be) of a major food safety incident. In this case, policymakers may generally perceive co-regulation as a riskier intervention option and thus prefer more direct control, particularly where co-regulation requires transferring significant responsibilities on controls to food business operators. Indeed changes in the culture of enforcement and inspection are clearly required under a co-regulatory approach, with a shift to an outcome rather than a process focus (Griffith, 2005).

The applicable legal framework also influences the potential for co-regulation. Less prescriptive regulations are more likely to be consistent with co-regulatory approaches. For example, the scope for food safety co-regulation is supported by EU legislation (Regulation (EC) No. 852/2004) that is moving towards an enforced self-regulation approach, including wholesale HACCP adoption. In jurisdictions across Europe, this has served to refocus the attention of food safety officials from prescriptive rules to auditing of self-prescribed HACCP procedures. It is this specific legislative change that has led the Food and Consumer Product Safety Authority (VWA) in the Netherlands to facilitate the creation of the "RiskPlaza" regime (Box 7).

ii) ***Regulatory Capacity of Firms***. Co-regulation is most suited to large, well-informed and well-resourced companies and crucially it is also reliant on the readiness of companies to self-regulate (Hutter and Amodu, 2008). To be effective, participants in a system of co-regulation must be able to draw on personnel who grasp regulatory goals and who understand how their companies can achieve them (Balleisen, 2009). In effect, firms must have management systems in place to monitor performance, identify failures, and make necessary changes, which can be difficult or impossible for SMEs. Strong leadership would create market incentives for enhanced food safety by rewarding suppliers who meet private standards through price premiums or guaranteed sales, while punishing those that do not by excluding them from markets.

iii) ***Participatory Engagement***. Current risk management efforts try to ensure public confidence through the involvement of relevant stakeholders at an early stage in the regulatory decision making process (Rowe and Frewer, 2005). However, the effects of proactive participatory processes on public trust are presently unclear (Rowe and Frewer, 2000). In order for stakeholders to engage positively in the standard-setting process mutual trust and understanding on the part of government, industry, and other stakeholders is essential in order that quality information is collected and assimilated into the regulatory process, and stakeholders recognize the benefits of consultation.

For instance, the FSA in the UK has a strategy of engagement with consumer stakeholders, including the undertaking of nationwide series of citizen forums with the goal of establishing an ongoing dialogue with the public on food standards. Specifically, in 2011 the forum focused on exploring consumers' views regarding changes to food business regulation under Earned Recognition (Food Standards Agency, 2011a). The consumer engagement model is also part of the Agency's wider engagement strategy which includes stakeholders and partners (i.e. industry, retailers, consumer groups, parliamentarians, local authorities, etc.) and is central to the FSA's goal of openness and transparency. However, the FSA has not always found it easy to work collaboratively with industry and there is a widespread perception in the food industry that the economic impact on food businesses of new regulations has taken second stage (Fearne et al., 2004; Garcia Martinez et al., 2007). For example, while the Meat Hygiene Service (MHS) is seen to be performing an important role in relation to food safety, some stakeholders perceive a lack of trust in the relationship linked to a culture of prosecution rather than of partnership (Food Standards Agency, 2009b).

iv) ***Transparency***. The likely success of co-regulation also depends upon the regulatory process being transparent and open with good communication between the relevant actors involved. Where food safety authorities build on third-party audits and certification schemes to determine the risk posed by particular food business operators, there is always going to be conflicting interests with respect to the sharing of information. In that case, the public enforcers will need to know whether a firm is compliant under a private scheme before it can calculate the risk involved. Information exchange can be facilitated by a simple memorandum of understanding between the assurance scheme's administrator and local authorities, provided there is willingness to participate and clear benefits (i.e. a reduced inspection frequency) for both parties, as illustrated by the case of the FSA and the Red Tractor Scheme in the UK (Food Standards Agency, 2009a). Alternatively, authorities can be given access to the database of the private schemes to see which firms are certified or not, as the example of RiskPlaza shows. In the case of the UK Environmental Agency (EA), information collected by the certification body is passed on to the EA, ultimately responsible for the regulation, to assess if a farm is complying with its permit. Compliance information is crucial for public actors to know when or how the system risks failure and, accordingly, when and how to follow-up on cases of non-compliance. Thus, to foster the complementarities between the two regimes, information exchange and coordinating mechanisms need to be in place.

v) ***Alignment of public and private interests***. Key to the co-regulation debate is the distinction between private and public motives for the use of co-regulation and the possible relationships between private and social benefits and costs emerging under a co-regulatory framework. In the field of food safety economics, social welfare analysis of policies focuses on the regulation of markets to increase social welfare (i.e. improvements in public health) in situations where markets fail, while the political economy (private) approach focuses on the position of interest groups in the process of regulation.

76. A co-regulatory approach aiming to deliver food safety controls through industry self-regulation re-enforced by governmental oversight, can help to align the interests of stakeholders involved in the regulatory processes. Public and private interests should be balanced in order to prevent that private interests are pursued at the expense of social welfare goals. This can be ensured by organizing a degree of government oversight. In effect, such an approach would be able to bring closer together two fundamental interests: (i) the firm's desire to minimize its compliance cost, and (ii) the regulator's desire to minimize administrative costs of interventions, through a flexible industry self-regulation and governmental oversight that does not undermine trust and cooperation of industry stakeholders. The resulting enhanced food safety controls would potentially lead to improved public health, industry profits and consumer confidence in the long run. For this to work, public and legal oversight needs to be present.

4. Conclusions and recommendations

4.1 Conclusions

77. As illustrated in the selection of case studies analysed above, a range of partnerships involving the public and private sector exist in the SPS area. Anecdotal evidence and contacts with some of the key SPS practitioners involved point to the benefits of these partnership arrangements in strengthening the implementation of SPS measures and improving outcomes in both developing and developed countries. For instance, in the United States, joint investment and cooperation between the USDA Animal and Plant Health Inspection Service and the private sector over the last 25 years has been instrumental in expanding exports by opening up new markets for animal and plant products, maintaining market access in the face of SPS issues, and the provision of training and infrastructure to enhance the capacities of individual farm stakeholders.

78. The case studies analysed in this document demonstrate the potential and value of PPPs to disseminate information on SPS requirements, stimulate innovation, leverage knowledge, mobilize resources, meet SPS infrastructure deficits and address particular SPS challenges. Experiences have highlighted their usefulness to increase understanding among public and private sector stakeholders about their respective roles in ensuring SPS compliance and create a culture of "shared responsibility", enhance coordination and dialogue among public and private sector stakeholders, effectively implement SPS measures required to access new markets and/or maintain access to existing markets and facilitate private sector compliance with these requirements, enhance competitiveness, etc.

79. At the same time, the case studies have highlighted some of the key challenges inherent in developing and effectively implementing and managing PPPs in the SPS area. Public and private sector organizations have different organizational cultures and may be suspicious about each other's motives. In cases where there has been limited contact or collaboration in the past, trust takes time to develop. New types of expertise and skills to develop and manage PPPs are often needed, but in short supply. Limited human resources, staff turn-over and keeping PPP members fully engaged and committed can also be problematic. Different expectations, lack of transparency, inadequate information and communications among partners in PPPs, inadequate clarity about the objectives and structure of the PPP are some of the other challenges faced. Political opposition can also be an issue, particularly after a change in government.

80. Yet, while PPPs are by no means a panacea, when they are well-designed and managed, they can enhance the delivery and quality of SPS public goods. Given the extent of SPS constraints in many developing countries, and the insufficiency of resources to address all the challenges faced, policy-makers should actively consider the potential of PPPs as an option to optimise and modernize the implementation of SPS measures and management systems. Partnerships allow public and private sector stakeholders to combine their expertise to share the risks and costs of designing, implementing and maintaining activities to improve SPS compliance. Moreover, the "traditional" roles of the government and private sector need not be comprised.

81. Preconditions for successful PPPs include: (i) ownership, commitment and trust of the key stakeholders involved; (ii) identification of a common interest, agreement on clear objectives and alignment of expectations; (iii) clarity on how the PPP will be implemented and managed, including the roles, responsibilities and obligations of the stakeholders involved; (iv) good governance and transparency; (v) high-level support, leadership and capable partners; and (vi) clarity on the financial costs and contributions required. Governments need particular skills to identify PPPs that are likely to make a difference in terms of improved SPS capacity and be viable, and to ensure

they are appropriately designed, implemented and managed. While in some cases, PPPs have been promoted as an alternative delivery mechanism where public sector agencies are particularly weak (including in post-conflict situations), in practice they appear to be more successful when the public sector is capable and competent.

82. Donors and development partners can play a role in facilitating PPPs, for instance in providing support and assistance to help PPPs become established, providing advice on the selection of PPP projects and training on the skills needed to identify and launch projects. This can also help to avoid reinventing the wheel each time a country launches a PPP programme or project. Nevertheless, to be sustainable, PPPs should be based on local demand and the full engagement of the relevant public and private sector stakeholders. For instance, where donor-facilitated PPPs are involved in the provision of training, whether on improved quality assurance systems, certification or other topics, industry should be involved from the outset so that the beneficiaries clearly understand the value and expected benefits, generally defined in terms of increased sales and profits at the business level. Involving the private sector may also be advantageous in terms of leveraging additional financial and human resources for SPS capacity building, and to help convince local clients of the benefits of a self-supporting export programme.

83. PPPs should be seen as an alternative means to help achieve enhanced SPS capacity. Developing PPPs in the SPS area should not become an end in itself. While more rigorous work to assess and capture the performance of PPPs in the SPS area would be useful, this study nevertheless represents an important initial effort to compile and analyse experiences with PPPs in the SPS area, and identify and disseminate some of the key lessons learned. The recommendations below are elaborated in this context.

Table 5. Snap-shot: Benefits and challenges for PPPs in the SPS / Agricultural Sector

Benefits	Challenges
Economic	**Economic**
Risk mitigation and sharing	Unbalanced contribution
Opportunity to obtain additional funds	Limited funding
Maximization of earnings and economic profitability	Weak transparency and monitoring of the use of the funds
Efficiency and competitiveness	**Vision**
Improve the quality and relevancy of the activities due to synergies among the partners	Difficulties to define a common interest
Allow small farmers to have access to better knowledge and technologies	Lack of clarity around the PPP objectives and stakeholders specific roles leading to weak commitment from the partners
Complementary abilities, skills and resources	Political considerations may affect the original objectives
Enhance results proposed since it tend to ensure greater adoption by user groups	PPP seen as an extra-work leading to the decrease of members participation over time
Stimulates discussion and supports synergies	Corruption and conflict of interests
Trade impact	**Implementation**
Enhanced market positioning through improved competencies	Creation of complex and bureaucratic PPP functioning mechanisms
Faster and more efficient means to comply with international SPS standards and other import requirements	Delays in the decision-making process
Enhanced competitiveness	Differing expectations and unwillingness to compromise
Better consumer confidence on the product	Weak communications among partners

Source: Own creation based on the PPP interviewed and surveys received.

4.2 Recommendations

1) Create a favourable, enabling environment

84. The creation of a PPP friendly environment is essential to facilitate the development of partnerships and encourage private sector involvement. Partnerships perform best in a stable environment characterized by transparency, good governance (see Box 8), integrity and trust. This requires coherent policies, as well as clear laws and regulations. Appropriate reforms and policies may be needed to ensure such an enabling environment, and minimize corruption.

85. Public and private sector actors often have different organizational cultures and may be suspicious about each other's motives. A willingness to try new ways of doing things is essential, coupled with effective leadership. The private sector needs to trust that the government will stick to what has been agreed, particularly where private sector investments are involved, even if there is a change of government. It is also important to acknowledge and respect private sector partners for their technical knowledge and expertise, not only as a source of funds.

86. Creating a mechanism (such as a national SPS committee) where public and private sector can regularly consult and openly discuss SPS issues is often a useful initial step to boost trust and transparency, and enhance understanding among public and private SPS stakeholders about their respective roles and linkages among them. It can also help to identify specific areas in which partnership arrangements would be beneficial.

Box 8: Good governance in PPPs

Good governance in PPPs encompasses:

- A fair and transparent selection process by which governments develop partnerships.
- Assurance that value for money (i.e. higher quality for the same money or the same quality for less money) has been obtained.
- An improvement of essential public services, and adequate training for those to be involved in the new partnerships.
- Fair incentives to all parties and fair returns for risk takers.
- Sensible negotiation of disputes that assures continuation of services and prevents the collapse of projects and consequent public waste.
- Enhanced security in the face of the new threats and for a general improvement in the safety of services provided under PPP arrangements.

Source: UNECE. 2008. Guidebook on promoting Good Governance in Public-Private Partnerships.

87. While generally focused on large-scale economic and infrastructure PPPs, PPP units and policies, where they exist, could provide useful policy, technical, legal and/or other guidance to food safety, animal/plant health authorities interested in exploring options for PPPs in the SPS area.

2) Consider the complexity, selection and scope of PPPs

88. For countries with limited experience in public-private collaboration in the SPS area, it is recommended to start off with relatively simple and straightforward partnerships that have a clear and limited objective, and an uncomplicated decision-making structure and implementation mechanism. Changes and improvements can be introduced more easily when the PPP has matured, the stakeholders have become more familiar with each other and how to work together, and the functioning structure has demonstrated its effectiveness. In an 'experimental phase', simplicity and flexibility are key preconditions for partnerships to be successful.

89. The challenge is often to select the right PPP projects where the possibility of achieving results is realistic. Baseline studies of existing SPS costs and services, or feasibility studies of new proposed PPP mechanisms, may be useful to identify possible PPPs, particularly if substantial resources or changes are involved. Such studies could help to improve the understanding of the existing SPS services being provided and identify concrete improvements that a PPP could bring. They could also help to inform the shape and design of PPPs and set performance indicators.

90. An important success factor for PPPs is the alignment of public and private interests and objectives. In terms of actors involved, it is important to make a strategic selection that includes stakeholders that share common goals and are willing to work together to reach them. It is important to keep in mind that the more people involved, the more difficult it is to reach a consensus. Therefore, at the outset, it may be most useful to have a limited number of key public and private decision-makers on board who are likely to be able to produce a direct impact in the area(s) targeted.

91. The type of stakeholders involved will also vary according to the objective of the PPP in question. For instance, where the focus is on market access, export promotion agencies and private associations of producers and exports are likely to play an important role. By comparison, where PPPs focus on SPS knowledge and innovation, for instance related to the control of particular contaminants, pests or diseases, academia can add value.

92. Most of the partnerships analysed in this study have been national or sub-national in scope. While there may be potential, in particular settings, for regional SPS partnerships, available experiences indicate that the management of multi-country partnerships is complex and challenging. The PPP among The Netherlands, Malaysia and Indonesia highlighted the difficulties in applying a multi-stakeholder approach in a trilateral partnership head-on for various reasons including: a) differing practices of engaging stakeholders in the participating countries; b) cultural differences in power-sharing and power-distance; and c) complexities in communications and implementation given the number of countries and cultures involved (Pfisterer and et., 2009). In addition, different expectations about the allocation of Dutch government funding (provided only to Indonesia and not Malaysia given its relatively high level of development) for this PPP, led Malaysia to withdraw. As such, transnational PPPs are only recommended where there is a clear and shared common interest among neighbouring countries, for instance to address outbreaks of plant pests or animal diseases that cross national borders, and where there is clarity and up-front agreement on the partnership mechanism and financing arrangements.

3) Identify a common interest and existence of a win-win situation

93. It is essential that partnerships focus on achieving mutual benefits for all the actors involved. The parties involved should recognize that they share a common interest, even though they may have different goals or objectives, and even if the common interest will not exist permanently and to an unlimited degree (Hartwich, 2008). Identifying these shared interests – and win-win situations for collaboration – is critical for the success and sustainability of SPS-related partnerships, particularly since they are "not for free". Partnerships cost time and/or money and someone has to pay. The services or benefits provided through the partnership need to have a clear and tangible value to those involved. Only when the stakeholders involved in a PPP recognize their common interest, and the particular benefit of the PPP for themselves, will they be willing to invest their time, energy and resources to make it successful. Partnerships that are seen as "additional work", not related to core business, or "one-sided" in terms of the benefits, are less likely to be successful.

94. Based on a clear vision of the objective of the partnership, the parties involved should agree on their specific responsibilities, as well as the expected outputs and outcomes of the PPP. To encourage ownership, all the concerned stakeholders should ideally be involved in building a bottom-up implementation plan. Setting up a PPP takes time and effort. Several meetings and frank discussions may be required to reach a clear understanding about the objective and scope of the partnership before any activities can be implemented.

4) Establish clear institutional and management arrangements

95. Given the challenges involved in implementing partnerships, in large part due to the number and diversity of stakeholders involved, it is wise to reach consensus on and formalize an agreement for the PPP (which may also be known as terms of reference, contract or memorandum of understanding). Such an agreement is vital to ensure clarity on the purpose, scope and expected outcomes of the PPP, its implementation modality, budget and operational rules including the respective roles, responsibilities and obligations of the participating stakeholders. This basic level of formality is important to ensure that members of the PPP have a common understanding of how the PPP will operate, and are committed to contribute their time and resources. Human and financial resources needed to

manage the partnership should also be identified and allocated, as required. Where financial resources are involved, or trust is limited, it is advisable to base the partnership on a clear legal agreement. Experiences with large-scale infrastructure PPPs have further highlighted the need to agree on provisions and procedures for transparency and information disclosure, as well as procedures for resolving disputes and terminating the partnership, if appropriate.

96. Management arrangements for PPPs in the SPS area are likely to differ according to the nature and scope of the partnership in question. Nevertheless, it is advisable to set up a well-functioning administrative support system, and to agree on clear and unbiased procedures for management and decision-making. Ideally these procedures should be as simple as possible. Lengthy decision-making processes, which can cause partnerships to lose momentum, should be avoided. Where PPPs are triggered by the public sector, care should be taken to avoid creating overly bureaucratic governance structures or to privilege particular government partners. To remain relevant and keep stakeholders fully engaged, partnerships need to be able to show the benefits of collaboration and to demonstrate tangible results.

97. Implementing SPS measures requires creativity, flexibility and continuous improvements. To a significant degree, the success of PPPs depends on management capacity. Yet the expertise and skills required to develop and effectively manage PPPs may not necessarily be available within SPS agencies. Moreover, staff rotation and attrition are common challenges affecting government authorities responsible for SPS measures in many developing countries. At the same time, the demands on staff of these agencies are often increasing. In this context, capacity building and management training may be needed to equip staff of SPS agencies with the necessary skills to manage PPPs. In some cases, there may also be opportunities to source some of this expertise within the private sector. In addition, strategies to encourage SPS stakeholders themselves to raise awareness about PPPs among their political and decision-making peers, to share their experiences and train colleagues, would help to sustain effective PPPs over the medium to longer-term, regardless of the rotation of PPP members.

98. PPPs should not be considered as rigid mechanisms. Rather, they should be able to change and evolve as needed, for instance in response to technological, commercial or legal factors, the emergence of new SPS challenges or new stakeholders. As PPPs mature, challenges and unforeseen problems are likely to emerge and adjustments may be needed to work plans, administrative procedures, and, sometimes, to the overall objectives of the PPP (Hartwich et al. 2007). While some PPPs may evolve and grow over time, others may conclude whenever their objectives are reached or their members decide that collaboration is no longer feasible or useful for whatever reason. Flexible, organizational arrangements that allow adjustments in the management and operational procedures of PPPs should therefore be encouraged.

5) Agree on and identify the resources needed

99. Creating "value for money" is often one of the key drivers of partnerships. Value for money can mean leveraging additional funding from elsewhere (e.g. the private sector, users) to support improved delivery of SPS services, or generating savings through the use of private facilities (e.g. private sector or academic laboratories). This can be useful to address constraints in public sector financing that are related to the way government typically works (e.g. political interference, annual budgets, changes in priorities, etc.). Where partnerships imply a fundamental change in the financing and/or implementation of SPS management or controls (for instance, use of private sector laboratories or increased reliance on co-regulatory approaches), the costs and benefits of the proposed PPP approach, compared to the traditional approach, should be analysed and compared, as far as possible. Identifying the expected "value for money" element of a PPP is an important initial step to assess whether the partnership is worth pursuing. It can also be useful to create political support for the PPP in question.

100. In some countries in Latin America, the creation of special public sector funds has facilitated the development of partnerships in the SPS areas, based on a transparent and competitive process. This approach to identifying and financing SPS partnerships could be of interest to other countries and regions. At the same time, it is important to consider the financial sustainability of SPS partnerships, particularly in the current climate of financial crises and reduced availability of public sector resources. As such, effective SPS partnerships should work towards becoming financially independent in the interests of sustainability. One option is to develop revenues based on user-fees and avoid an over-reliance on public sector funds (Correa Melo and Saraiva in Rich and Narrod, 2010).

101. Partnerships cost time and money to develop and operate. The resources (human and financial) required will vary depending on the scope and objective of the partnership. Some partnerships, such as mechanisms for SPS dialogue and coordination, may operate effectively with relatively small budgets or in-kind contributions (e.g. staff time or facilities). Other more complex partnerships, such as public-private companies for SPS management, will

require more substantial investments and more robust financial management systems. Clearly the benefits generated through the partnership need to exceed the investments of the partners involved if the partnership is to remain relevant.

102. At the outset, it is crucial to identify and agree on the resources required, and to figure out where they can be obtained. Negotiating and reaching consensus on the financial aspects of a partnership - including the contributions of different partners and distribution of benefits - is likely to be one of the greatest challenges in developing a PPP. Reaching agreement on a clear financial framework for the partnership is recommended. This will obviously need to be tailored to the purpose and scope of the partnership in question. As such, the contribution of different stakeholders to the partnership will vary according to their benefits, responsibilities and roles. Partnerships have been described as a "cost-sharing arrangement that can work only when all the partners make commitments. Partners who believe others should finance the partnership should not participate" (Hartwich et al, 2008). The success of partnerships depends to a large extent on the commitment and contributions of the stakeholders involved.

103. While PPPs offer the potential for greater transparency and increased value for money, in certain cases, particularly if transparency and governance are weak, they can represent a source of corruption and rent-seeking during both the development (procurement of services) and implementation phases (UNECE). To avoid any such irregularities, it is advisable to set up transparent rules and procedures for budgeting, accounting and financial reporting to satisfy the parties involved that the resources are being used and managed appropriately, and to maintain confidence in the partnership.

6) Ensure transparency and effective communications

104. While some countries have experience in developing and implementing PPPs, including in the area of agricultural development and SPS, in others, knowledge and understanding about PPPs remains limited. In some cases, PPPs may be considered as a form of privatization, which can raise opposition on the part of government employees or the users of SPS services such as inspection or laboratories. Raising awareness about the role and potential benefits of PPPs is recommended to help create a favourable climate for the emergence of PPPs. These activities should target policy and decision-makers responsible for setting SPS priorities and allocating resources, as well as SPS experts in government and other relevant stakeholders in the private sector or academia. In this context, officials in government ministries and departments responsible for SPS authorities should openly discuss and identify how different types of PPPs might be used to strengthen and improve SPS management. Discussing experiences from other countries that have pursued PPP approaches in the SPS area will be useful in this context. Developing a strategic communication plan is useful to transmit the potential of PPPs, for instance to achieve economic benefits, enhance access to services and/or improve delivery, to concerned public and private sector stakeholders.

105. Ensuring transparency and effective communications is also critical during the planning and implementation of individual PPPs. Inadequate communications among stakeholders is likely to increase opposition to PPPs and risks delaying the implementation of activities under PPPs. As discussed above, it is essential to ensure transparency in the formation, management and operation of PPPs. Parties involved in PPPs need to have free and regular access to information regarding the resources used (human, physical, and financial) and the progress and achievements of the PPP's activities. Ensuring transparency also means that information on the PPP should also be available to other stakeholders, who do not participate directly in the PPP but whose activities may be affected by its existence. Information and communication technologies can play a key role in this regard.

7) Monitor and evaluate performance and results

106. There are few studies analysing the performance and results achieved by PPPs in the SPS area, compared to traditional modes of delivery. While available experiences and anecdotal evidence from several countries suggest that PPPs can enhance outputs and SPS capacity, it would be beneficial to have some more hard facts and figures in this regard.

107. To determine if partnerships are working well and on track to achieving their SPS objectives, it is advisable to create mechanisms to monitor and evaluate progress. This requires gathering information about their operations, progress and accomplishments, ideally based on baseline information about the SPS situation prior to the launch of the partnership in question and agreed key performance indicators. The evaluation of SPS partnerships can also consider process-oriented outcomes, such as improved access to information on SPS requirements in export markets, increased trust between public and private sector stakeholders involved in the SPS area, greater collaboration.

108. Greater emphasis on monitoring and evaluation of SPS-related partnerships is considered useful for two main reasons: (i) to enable the individual partnership to adapt and improve; and (ii) to generate lessons and findings which can be useful to improve the design, operation and management of SPS partnerships in the future.

Annex 1: Examples of SPS-related Public-Private Partnerships

	SPS dialogue, networking and coordination[27]				
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Argentina	National Advisory Committee on Swine Diseases (CONALEP) 2003-Current	-Provide advice on the creation and implementation of public programs and regulation related to swine health to comply with international SPS requirements.	-Monthly meetings.	-SENASA, INTA, Provincial Commissions of Animal Health (Cordoba, Buenos Aires, and Santa Fe). -Argentine Swine Producers Association, Veterinary Products Chamber.	-Implementation / update of the Swine Health Program.
Argentina	National Advisory Committee on Equine Health (CNSE) 2005-Current	-Provide advice on the creation and implementation of public programs and regulation related to equine health to comply with international SPS requirements.	-Periodically meetings to evaluate the National Program of Equine Health. -Vaccination campaigns. -Tests to identify equine infections.	-SENASA, INTA, Argentine Army, National Police. -Argentine Rural Society, Argentine Equine Society, Argentine Equestrian Federation, Argentine Polo Association, Argentine Jogging Federation, Veterinary Products Chamber. -Laboratories, universities, and equine growers.	-Implementation of the National Program of Equine Health at the local level. -List of authorized veterinarians for vaccination campaigns.
APEC	APEC Food Safety Cooperation Forum Partnership Training Institute Network (PTIN) 2008-Current http://fscf-ptin.apec.org	-To engage the food industry and academics with government representatives to strengthen capacity building in food safety.	-Training workshops on priority food safety issues (e.g. risk analysis principles, food safety in supply chain management, Good Agriculture and Aquaculture Practices, export certification). -Development and use of online training modules -Ongoing opportunities for regulator-industry exchanges	-Regulatory authorities of the United States, Australia and China. -Food safety and trade agencies of national APEC governments. -University food safety experts. -Major processed foods industry groups and companies. Laboratories and lab equipment providers -International/regional organizations (e.g. FAO, WHO, World Bank, PAHO).	-Since 2007, over 500 individuals from 20 APEC Economies have participated in various food safety capacity building activities -Enhanced industry-government dialogue and exchange

27 Several of the PPPs in this category are focused on national SPS Committees. For information on additional national SPS committees in Africa, see: STDF. 2012. National SPS Coordination Mechanisms. An African Perspective. Available at: http://www.standardsfacility.org/Files/Publications/STDF_NationalSPSCoordinationMechanisms_EN.pdf.

SPS dialogue, networking and coordination					
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Belize	Board of Directors, Belize Agricultural Health Authority (BAHA). 2004-Current	-Provide advice to the national SPS authority (BAHA) on programs, policies, and activities.	-Supervise BAHA's activities.	-Ministries of Agriculture and Fisheries, Health, Economic Development, and Foreign Trade. -Representatives of the Citrus Growers Association, BLPA, Chamber of Commerce, and other agribusiness associations.	-Belize's participation in international SPS related meetings. -Public-private coordination on the implementation of SPS measures in Belize.
Bolivia	National Commission to Eradicate Foot-and-Mouth Disease (CONEFA) 2001-Current	-Coordinate the implementation of the National FMD Eradication Program (PRONEFA). -Improve Bolivian meat access to markets.	-Implement measures to control FMD. -Distribution of information on FMD. -Vaccination campaigns.	-SENASAG, Association of Municipalities, provincial governments, national police. -CONGABOL, Veterinary Supplies Importers Association, ASOCEBU, Federation of Milk Producers, National Veterinary School.	-International recognition of Bolivian territories as FMD-free zones with vaccination (Chiquitania, Oruro). -Update of PRONEFA's regulatory framework. -Increase in quality and domestic prices of animals and livestock products.
Chile	National Coordinating SPS Commission 2001-Current	-Address international SPS requirements. -Solve specific SPS related issues. -Define Chile's position in international meetings regarding SPS measures.	-Application of bilateral/ multilateral SPS requirements. -Train public employees, associations and companies on SPS standards. -Roundtables with SPS related ministries and private sector (average 7 meetings/year).	-DIRECON, SAG, SERNAPESCA. -Ministry of Public Health. -Producers (associations and organizations).	-Administrative support /follow up of SPS issues identified in free trade agreements. -Training of public employees / private stakeholders on SPS measures.
Chile	National Commission for Good Agricultural Practices 2001-Current	-Advise the Ministry of Agriculture on the elaboration of policies to incorporate GAPs in the farm production processes.	-Coordinate Clean Production Agreements. -Disseminate GAP manuals and support its implementation	-SAG, Ministry of Agriculture, Ministry of Public Health, INDAP, IDEPA, FIA, INIA, CORFO, PROCHILE. -SERNAM, FEDECARNE, FEDELECHE, APA/ASPROCER, ASOEX, SNA, CODESSER, MUCECH, CAMPOCOOP.	-Manuals, handbooks and other training materials on GAP / GMP.

SPS dialogue, networking and coordination					
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Chile	Fishmeal and Fish Oil National Committee 2007-Current	-Coordinate SPS actions related to fishmeal and fish oil exports.	-Round tables to address specific SPS issues in the sector. -Dissemination of information.	-SERNAPESCA, Ministry of Economy. -SONAPESCA, fish producers.	-Ensure compliance with international SPS requirements related to fishmeal and fish oil.
Colombia	SPS National Commission 2006-Current	-Coordinate and provide advice on the execution of the agricultural health and food safety policy and programs.	-Quarterly meetings to address broad SPS issues.	-Ministries of Agriculture and Rural Development, Social Protection, Environment and Housing, Commerce, Industry and Tourism. -INVIMA, ICA, IDEAM, INS.	-Coordination of Colombia's interventions in international meetings regarding SPS measures.
Costa Rica	National Phytosanitary Committee (CONAFI) 2008-Current	-Promote dialogue between public sector, agricultural producers/ exporters and academia in the design and implementation process of SPS policies.	-Monthly round tables to address broad SPS issues.	-Ministry of Agriculture, State Sanitary Service. -Organizations of agricultural producers/exporters. -Academia. -FAO, IICA, OIRSA.	-Advise on the design/ implementation of the SPS national agenda.
Costa Rica	Technical Committee for the Prevention/ Control of Musaceae Pests 1998-Current	-Advise the Agriculture Department on issues regarding pest control in banana production.	-Monitor pest status in banana plantations. -Elaborate SPS action plans to address pest problems.	-State Sanitary Service. -University of Costa Rica. -CORBANA. -National Musaseae Program. -INTA -Private companies (DOLE, Acon, Del Monte, Cobal, Banacol) -Producers.	-Implementation of GAP in banana production.

SPS dialogue, networking and coordination					
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Dominican Republic	National SPS Committee (CNMSF) 2003-Current	-Provide advice on the creation and implementation of public SPS related programs and regulation. -Promote public-private interaction and coordination to comply with SPS standards.	-Quarterly meetings. -Elaboration of training materials. -Distribution of information on SPS measures.	-Ministries of Agriculture, Public Health, Commerce and Industry, Foreign Affairs, and Environment; Center for Export and Investment. -JAD, CODOPESCA.	-Elaboration of training materials on SPS measures. -Participation of delegation in WTO SPS Committee meetings.
Honduras	National SPS Committee (CNMSF) 2004-Current	-Provide advice on the creation and implementation of public SPS related programs and regulation. -Promote public-private interaction and coordination to comply with SPS standards.	-Elaboration of training materials. -Distribution of information on SPS measures.	-SENASA, SEPLAN, Ministries of Public Health, Foreign Affairs, Commerce and Industry. -COHEP, FENAGH, FEDAVIH, UPNFM, UNAH.	-Participation in international SPS related meetings.
Mexico	National SPS Committee Pending approval	-Coordinate public-private stakeholders to implement WTO-SPS Agreement.	-Meetings to create the National SPS Committee.	-SE, SAGARPA, SEMARNAT, SENASICA, SRE, COFEPRIS-SALUD. -No formal private members yet, but it contemplates interaction with private stakeholders to implement SPS measures.	-Negotiations are on stand-by.
Mexico	Public/ Private Group to address the FDA Food Safety Modernization Act 2011-Current	-Support the private sector to address the requirements of the new legislation.	-Monthly meetings and roundtables to advise on the implementation of SPS measures.	-SENASICA, Ministry of Economy, Ministry of Public Health. Ministry of Agriculture. -Chambers, associations and representatives of the private sector.	-Distribution of information about new SPS requirements in the U.S.
Mexico	Public/Private Group to address the E.U. concern on pollen with GMO. 2011-Current	-Design and implement a strategy to minimize the risk of honey contamination with pollen from genetically modified plants.	-Elaborate action plans to address the challenge. -Advise on the dispute presented before the WTO (specific trade concern 327).	-SENASICA, Ministry of Economy. -Ministry of Public Health. -Ministry of Agriculture. -AMEMAAC (Mexican Honey Exporters Association).	-Maintenance of exports of Mexican honey to the E.U.

SPS dialogue, networking and coordination					
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Mexico	Group for Tequila and Mezcal 2008-Current	-Address new international SPS requirements related to spirits, liquors and distilled beverages.	- Provide technical advice and material to contest the statement that alcohol in tequila and mezcal is harmful for human health.	-Ministry of Economy. -IMPI (Mexican Institute of Industrial Property). -Tequila Regulatory Council. -National Chamber of the Tequila Industry.	-Harmonization of Mexican standards regarding alcohol content with Asian markets requirements (Vietnam, China, Japan, South Korea).
Mexico	Poultry Export Strategy Group	-Promote the exports of Mexican poultry products, ensuring compliance with SPS standards.	-Design a strategy to increase poultry exports. -Train the private sector. -Obtain international recognition of free-disease-areas.	-SENASICA, Ministry of Economy, Ministry of Agriculture, PROMEXICO. -UNA, representatives of poultry companies (Bachoco, Tyson, Pilgrims, PATSA).	-Access to U.S. markets of Mexican poultry products. -Identification of avian influence.
Mexico	State Plant/Animal Health Committees.	-Ensure implementation of SPS national programs at local level.	-Manage SPS national programs at regional and local level.	-SENASICA, regional/local governments. -Regional/local producers associations.	-Ensure execution / implementation of National SPS Programs / Policies at local level.
Nicaragua	National Committee of Food Safety (CONACIA) 2004-Current	-Ensure compliance of Nicaraguan agri-food products with food safety / quality standards.	-Round tables and meetings to evaluate / update food safety regulations. -Laboratory analysis.	-MAGFOR, MINSA, MIFIC. -Producers, laboratories.	Verify implementation of Nicaraguan norms regarding food safety and quality.
South Africa	Market Access Working Group (MAWG) for Fresh Fruit & Vegetables in South Africa 1995-Current	-Enhance the delivery of services by the Department of Agriculture, Forestry and Fisheries (DAFF).	-Coordination on SPS issues affecting horticulture sector including compliance with market access procedures and phytosanitary import requirements. -Provision of technical support for negotiation of bilateral trade agreements.	-DAFF and relevant directorates including the Directorate Plant Health and the Agricultural Products Inspection Services. -Citrus Growers Association of Southern Africa, Citrus Research International South Africa, Deciduous Fruit Producers Trust, South African Table Grape Industry, Subtropical Fruit Industry, Alternative Fruits Industry, Fresh Produce Exporters Forum and the Perishable Products Export Control Board.	-Harmonization of market access activities for fresh fruit exports. -Enhanced access to new markets and help maintain existing markets (valued at approximately US$3 billion per year), contributing to job creation and rural economic development.

SPS dialogue, networking and coordination					
Country	**PPP**	**Objective(s)**	**Activities / services**	**Key Players**	**Achievements**
Paraguay	Technical SPS Committee 2005-Current	-Define and implement the national SPS agenda. -Define Paraguay's position on international meetings regarding SPS measures.	-Monthly meetings.	-SENAVE, SENCSA, INTN, INAN, Ministries of Agriculture, Foreign Affairs, Public Health, and Commerce and Industry. -Representatives of agribusiness, universities, NGOs.	-Participation of Paraguay's delegation in WTO-SPS Committee Meetings. -Website with information about SPS Measures and Food Safety (www.ppiasav.org)

	SPS infrastructure				
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Chile	Private Laboratory Network. 1987-Current	-Delegate laboratory activities to the private sector due to the absence of adequate public laboratories and enough public resources.	-Laboratory analysis/sampling. -Elaboration of technical norms / manuals.	-SERNAPESCA, Ministry of Economy. -Private laboratories, fish producers/exporters.	-Fulfillment of the national/ international SPS standards for fishery products. -Network of authorized labs (36 facilities by October 2011).
Guatemala	LARRSA (Regional Reference Laboratory of Poultry Health). 2007-Current	-Develop national/regional laboratory facilities.	-Laboratory analysis. -Promote regional/international recognition of LARRSA.	-Ministry of Agriculture. -University of San Carlos. ANAVI (National Association of Poultry Producers). -OIRSA	-Acquisition of laboratory equipment. -Design/implement poultry disease management programs.
Mexico	Zoo-sanitary Inspection and Verification Checkpoints 2004-Current	-Verify that the livestock import products comply with Mexican SPS standards.	-Emission of Import Certificates. -Inspection and verification of compliance with SPS standards.	-SENASA. -Private SPS checkpoints.	-Improvement of the coverage of checkpoints at cross borders.
Peru	Bailment contract between Peruvian Airports and Commercial Aviation Corporation (CORPAC) and SENASA 2007-Current	-Prevent the re-introduction of fruit fly (Ceratitis capitata W. and Anastrepa spp.) to Tacna and Moquegua regions. -Provide a better service for the users of the "Carlos Ciriani Santa Rosa" International Airport. -Improve airport infrastructure to implement SPS monitoring measures.	-SPS inspection and verification at the Tacna airport arrivals terminal.	-SENASA, PRODESA. -CORPAC, "Carlos Ciriani Santa Rosa" International Airport, Tacna.	-Installation of X-ray equipment on the Tacna airport. -Improvement of airport SPS infrastructure. -Maintenance of Tacna and Moquegua regions as fruit-fly free zones since 2007.

	SPS infrastructure				
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Uganda	Provision of laboratory testing services	-To provide high-quality and objective laboratory testing services to certify exports of fish and fishery products from Uganda.	-Laboratory testing and diagnosis services.	-Department of Fisheries -Chemiphar Laboratory.	-Helped to re-open access to the EU market. -Improved ability of food and business operators to meet market requirements and objectively verify safety and quality of their products.

Value chain development					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Brazil	Project Elo. 2005-2011	-Provide access to appropriate and innovative technologies that promote food safety, market access and product certification. - Reduce crop loss during harvest, transport, and commercialization.	-Financial support for training, productive infrastructure, and commercial projects.	-Ministry of Agricultural Development. -Project Dom Helder Camara. -Local governments (northeastern Brazil). -Syngenta Foundation. -Producers. -Local and regional stores, hotels, bars and restaurants.	-Access to equipment/knowledge for harvest, process and marketing cashew, apiary products, fruits and vegetables. -Participation in trade fairs and cooperative commercial events -48 projects supported
Chile	Sanitary Heritage Improvement Fund (SAG Fund) 1999-Current	-Adopt/improve SPS measures promoting PPP.	-Co-funding of SPS projects.	-SAG, INDAP, ODEPA, CORFO, FIA. -Faculty of Agricultural Sciences, University of Chile. -SNA, ASOEX, FAENACAR, CORMA, CAMPOCOOP, laboratories.	-93 SPS projects supported (1999-2009).
Burkina Faso	Upgrading sesame production to international standards	-To increase farmers' incomes and improve living standards through enhanced production of sesame that meets international standards.	-Training to improve quality and address issues related to salmonella and pesticide residues in sesame. -Establishment of a quality management system in sesame supply chain. -Cleaning factory established and operational.	-GIZ. -Maxigrana Ltd. -Local sesame producers.	-Over 2,500 producers supplying superior quality sesame to Maxigrana Ltd. -In 2010, Burkina Faso exported 45,000 tonnes of sesame seeds (worth 25 million Euros) making it the third largest sesame exporter in Africa.

Value chain development					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Chile	National Porcine reproductive and respiratory syndrome (PRRS) Eradication Program 2001-2007	-Eradicate PRRS in affected herds, in order to fulfill international pork meat market requirements (PRRS free farms/countries).	-Design/implement the National PRRS Eradication Plan -Serological monitoring (4 years). -De-population of infected herds and re-population with negative sows/pigs. -Technical assistance and training of swine growers.	-SAG. -ASPROCER. -PRRS-infected pork producers (12). -PIC International Group (genetic company). -University of Minnesota. -University of Nebraska. -Chilean laboratories.	-PRRS eradication. -Access of Chilean swine products to international markets.
Chile	Dioxin Monitoring National Program. 2003-Current	-Restore consumer confidence in Chilean pork meat.	-Round tables to define and implement the action plan. -Field / laboratory research to determine the source of dioxins residues in pork meat. -Technical training.	-SAG, Ministry of Health. -APA, ASPROCER, swine growers, laboratories.	-Design / distribution of GAP and GMP manuals. -Access to international markets of Chilean pork meat.
Chile	Clean Production Agreement for the Implementation of Good Agricultural Practices (GAP) in Horticulture Export. 2000-Current	-Develop a set of good agricultural and manufacturing practices in horticulture export.	-Establish standards and instructional documents for farms, packinghouses, cold storage facilities and transporters of fresh fruits and vegetables. -Certification (GlobalGAP; Tesco's Nurture; David Fresh, ChileGAP; SQS).	-Ministry of Agriculture, Ministry of Economy, Ministry of Public Health, CORFO, CONAMA. -FEDEFRUTA, ASOEX, producers (816), field-packing houses (163), automated packinghouses (64).	-15 Clean Production Agreements for food products.
Chile	Agricultural Exports Promotion Fund 2008-Current	-Support the private sector to comply with SPS requirements of international markets.	-Public co-funding of agricultural export projects.	-PROCHILE, Ministry of Agriculture, Ministry of Economy, CORFO. -Advisory Committee (Public-Private).	-125 approved projects. -644 direct beneficiaries.

	Value chain development				
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Cote d'Ivoire	Capacity development for sustainable production and commercialization of certified high-quality cocoa 2010- 2012	-To help farmers increase the productivity and the quality of cocoa.	-Establishment and operation of post-harvest treatment centers. -Training to improve cocoa production and quality. -Training to upgrade skills and strengthen farmers' organizations. -Upgrading of cocoa plantations. -Support to cooperatives to obtain Rainforest Alliance certification.	-CEMOI Trading, KOKOA Filiale in Abidjan. -Service/training provider (la cherelle sarl). -Farmer cooperatives (UCAS and COOPABAM). -GIZ.	-Established two post-harvest treatment centers. -Committees for quality control established. -Enhanced productivity, biodiversity conservation, reduced use of agricultural inputs. -Commercialization of high-quality (Rainforest Alliance certified) cocoa.
Egypt	Upgrading Fresh Produce Suppliers (E-Trace) Mar. 2012-Feb. 2013 www.etrace-eg.org	-To upgrade supply chains and enhance access of small-scale farmers to local and international markets.	-Training on improved production techniques, post-harvest management, Global GAP, quality control, etc. -Introduce integrated solutions to reduce post-harvest losses and improve cost efficiency.	-Ministry of Agriculture. -Industrial Modernization Centre (Ministry of Trade and Industry). -Union of Producers and Exporters of Horticultural Crops. -METRO Cash and Carry (Makro). -Government of The Netherlands. -UNIDO.	-Small-farmers have new knowledge and skills. -Lead farms GLOPAL-GAP certified. -Production plans prepared. -Quality control system implemented during harvesting and field packing. -Enhanced compliance with food safety standards.
Egypt	Pilot and Test Global Food Safety Initiative (GFSI) basic level Nov.2009-Feb. 2010 www.etrace-eg.org	-To implement the GFSI Global Markets Protocol and make recommendations for possible improvements.	-Training of quality managers. -Practical support to firms.	-Industrial Modernization Centre -METRO Cash and Carry (Makro) -UNIDO/Etrace -Global Food Safety Initiative (GFSI)	-Increase in compliance with GFSI requirements. -Experiences and recommendations presented to 2010 Global Food Safety Conference.

Value chain development					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
India	Mahagrapes 1989-94 www.mahagrapes.com	-To enable grape growers to access lucrative overseas markets.	-Provision of quality control in post-harvest activities. -Sourcing and development of worldwide markets. -Extension services. -Marketing activities. -Logistical support and provision of infrastructure.	-Government of Maharashtra (including the Maharashtra State Marketing Board). -Grape growers cooperatives. -Agricultural & Processed Food Products Export Development Authority. -National Horticulture Board.	-Creation of Mahagrapes,brand. -Export of Mahagrapes to European markets (now accounting for approximately 25% of table grapes consumed in EU).
Kenya	Horticulture Task Force July 2002-Current	-To enable industry and government to respond in a coordinated way to emerging issues affecting market access in regard to SPS compliance.	-Meetings to address SPS issues affecting market access. -Collection and validation of data. -Development of horticulture policy. -Identification and development of new markets. -Capacity building.	-Public: Kenya Plant Health Inspectorate Service, Pest Control Products Board, Horticulture Crops Development Authority, Ministry of Agriculture, National Environmental Management Authority, Ministry of Public Health, Ministry of Trade, Bureau of Standards, Export Promotion Council and Kenya Agricultural Research Institute. -Private: Kenya National Federation of Agricultural Producers, Fresh Produce and Exporters Association of Kenya, Kenya Flower Council, Agrochemical Association of Kenya, Grower representatives. -Other: Kenya Horticulture Development Programme, PIP.	-Improved coordination of SPS measures affecting horticultural production and trade. -Private sector engagement in policy formulation. -High level of responsiveness to notifications of SPS non-compliance. -Donor support for SPS capacity building projects. -Increased value of earnings from horticultural trade. -Reference point for cross-cutting issues that no single authority can handle alone.
Mexico	Baja California Plant Health Committee (CESVBC) 2008-Current	-Comply with the FDA requirements. -Maintain access to U.S. market. -Restore consumer confidence in Baja California tomatoes after the Salmonella outbreaks in USA.	-Design the Baja California (BC) fresh tomato protocol. -Train the private sector. -Certify tomatoes for export.	-SENASICA, BC State government, Baja California Secretary of Agriculture. -BC Agricultural Council, UAREDA, Autonomous University of Baja California, tomato producers.	-Inclusion of BC in the FDA safe suppliers list of fresh tomato. -90% of tomato producers/ packers certified in BC. -This model is being replicated with hot pepper growers.

	Value chain development				
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Mexico	Coordination Agreement on Organic Agriculture between SENASICA and Mexico Supreme Quality (MSQ-AC) 2011	-Establish authorized biological products to control pest/disease in organic production systems. -Promote access of Mexican organic products to national / international markets. -Differentiate Mexican organic products with the "MSQ" certificate.	-Outreach, training, consulting, certification and national/international promotion of the brand/label. -Conduct biological effectiveness assessments of inputs (fungicides, insecticides, and nematicides) to control pests/disease in organic agriculture.	-Ministry of Agriculture. -Ministry of Economy. -BANCOMEXT. -EMA (Mexico's National Accreditation Body). -México Calidad Suprema, A.C. -Producers, packers and their associations.	-Biological effectiveness assessments of agricultural inputs to control pests/disease in organic production systems. -List of organic inputs authorized by SENASICA.
Mexico	Committee on Good production and manufacture practice in honey. 2005-Current	-Meet SPS national/international standards in all the stages of the honeybee production.	Train the private sector on GAP and GMP in honey production.	-Ministry of Agriculture. -SENASICA, INCA Rural, local governments, CONOCER. -UNAM. -National Union of Beekeepers, Regulatory Council of Honey Bee, National Association of Veterinarians Specialists in Bees, private companies (DIPROANSA, Rucker).	-Elaboration of GAP / GMP manuals for honey production. - Creation of a traceability system for honey production.
Mexico	SPS Risks Prevention National Program 2007-2012	-Reduce contaminant residues on fresh/processed agricultural produce. -Improve access to national/ international markets.	-Training and distribution of information on GAP and GMP. -Monitoring of contaminants residues.	-SENASICA, local governments. -Producers and packing companies, exporters.	-Training materials on SPS risks prevention / control programs.

Value chain development					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Peru	Committee on Market Diversification for Peruvian Table Grapes. 2007-Current	-Promote access of Peruvian table grapes to new international markets, as well as maintaining access to existing markets by ensuring the compliance with specific importer-countries standards (South Korea, Australia, Japan, Mexico, New Zealand, Thailand, Brazil, USA, Chile).	-SPS management to control fruit fly (Ceratitis capitata) in specific areas. -Research of cold-treatments. -Conduct field-visits of foreign delegations to the vineyards.	-SENASA, General Direction of Economic Promotion, Ministry of Foreign Affairs. -PROVID (Peruvian Association of Grape Growers).	-Validation of cold treatments to export Peruvian table grapes to Japan. -Handbooks about SPS measures in table grapes production.
Peru	Committee on Biological Pest Management Program in Citrus Crops. 2007-Current	-Promote biological pest control, ensuring compliance with SPS national/international standards regarding the limit of presence of pests/ pesticide residues.	-In-situ diagnosis of benefic organisms. -Breeding of natural controllers. -Training on SPS measures and Integrated Pest Management (IPM) practices. -Monitoring of pests in citrus crops. -Support quarantine actions related to fresh fruits for export.	-SENASA. -PROCITRUS (Peruvian Association of Citrus Producers). -Laboratories, citrus producers.	-Validation of cold treatments to export Peruvian citrus products to Japan. -Handbooks about SPS measures.
Peru	Cooperation agreement between SENASA and APTCH. 2011	-Promote adequate use of chemical products.	-Training on agrochemical products use. -Design of biological pest control programs.	-SENASA. -APTCH (Chavimochic Agricultural Producers and Exporters Association).	-APTCH has trained staff and a laboratory in Virú (La Libertad, Peru), specialized in biological SPS management.

Trade facilitation					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Chile	Electronic Zoosanitary Export Certificates (ZCE) for Livestock Products 2010-2011	-Decrease the time and cost of issuance of zoocertificate to export. -Minimize the risk of errors in the capture and transmission of information on zoosanitary inspection / certification.	-Design/implementation of SPS inspection/certification software. -Design of on-line database of SPS certificates.	-SAG, CORFO. -APA, ASPROCER. -Lemontech (software developer).	-Design and implementation of the ZCE software and the on-line database (pork and poultry products). -Adaptation of the software to other industries (bovine meat products) by 2012.
Chile	Electronic System for the Veterinary Drug Residues Control Program. 2003-2006	-Fulfill SPS requirements of international markets. -Decrease the time of issuance of drug residues certificates.	-Design of on-line database of laboratory analysis /sampling.	-SAG, Ministry of Health. -APA, ASPROCER, laboratories. -GSP (software developer).	-On-line database / software for the Veterinary Drug Residues Control Program.
Mexico	Electronic Phytosanitary Certification System (SICEFI) 2010-Current	-Decrease the time of issuance of phyto-certificates.	-Design / implementation of SPS inspection/certification software. -Design of on-line database of SPS certificates.	-SENASICA. -Software developer.	Electronic Phytosanitary Certification System (SICEFI).
Thailand	Harnessing smart IT solutions for food traceability in Thailand 2002-Current	-To enhance food safety along particular supply chains, facilitate compliance with trading partners' requirements and increase the competitiveness of high-value agri-food exports.	-Development and implementation of an electronic traceability system. -Training to enable private sector operators to use traceability system.	-National Bureau of Agricultural Commodity and Food Standards, Department of Livestock Development, Department for Agriculture, Department of Fisheries, National Electronics and Computer Technology Centre. -Thai food producers and exporters, IT companies (IBM, CDG Systems Co., FXA).	-By end 2011, over 100 companies were using the system. -Improved access to data about agri-food exports among supply chain partners, certification agencies, food safety inspectors, supply chain partners and import authorities. -Enhanced competitiveness.

	Trade facilitation				
Country	PPP	Objective(s)	Main activities / services	Key Players	Achievements
Uruguay	SPS Export Certification System for Citrus Fruits.	-Fulfill SPS requirements to export to the EU.	-Monitoring/inspection of citrus fruits. -Design / implementation of a SPS certification program.	-DGSA (Agricultural Services General Directorate). -Citrus producers / exporters, packing companies.	-Software to ensure traceability of citrus fresh fruit exports.

Joint public-private companies for SPS implementation					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Argentina	Patagonian Zoo-Phytosanitary Barrier Foundation (FUNBAPA) 1992-Current	-Declare and maintain Patagonia as a disease/pest free area. -Ensure compliance with regional, national and international SPS standards of Patagonian food and agricultural products.	-Inspect Patagonian checkpoints. -Dog training for inspection in checkpoints. -Laboratory analysis; audits and certification of production process. -Technical assistance and training; dissemination of information on regional, national and international SPS measures. -Design/implement pests/ diseases control programs. -Provision of technical equipment and infrastructure.	-SENASA, local / provincial governments (Río Negro, Chubut, Neuquén, Buenos Aires, Santa Cruz, Tierra del Fuego, La Pampa, Mendoza). -CAFI, *CARBAP*, Federation of Rio Negro and Neuquén Fruit Growers, Rural Society of Neuquén.	-Preservation of Patagonia's status as FMD-free zone. -International recognition of Patagonia as fruit-fly free zone. -Access to new markets for Patagonian produce. -Execution of the Carpocapsa Suppression Regional Program.
Australia	Animal Health Australia	-To ensure that the national animal health system delivers a competitive advantage and preferred market access for Australia's livestock industry.	-Development of farm biosecurity advice/manuals -Establishment of national emergency preparedness response plans. -Funding research on a variety of specific industry biosecurity matters. -Rapid response systems. -Animal welfare projects. -Surveillance and eradication plans. -Communication and training for farmers.	-Australian Government. -All state and territory governments. -National representative industry organizations.	-Incentivized state governments and industry to co-finance activities to manage animal health. -Increasing number of industry members that are contributing financially to AHA. -Increased in number of projects and programmes funded. -Track record in delivery of worthwhile outcomes for members.

Joint public-private companies for SPS implementation					
Country	**PPP**	**Objective(s)**	**Main activities / services**	**Key Players**	**Achievements**
Australia	Plant Health Australia	-To facilitate improvements in policy, practice and performance of Australia's plant biosecurity system and to build capability to respond to plant pest emergencies.	-Coordinate the development of national policy. -Activities to respond to plant pests, weeds and diseases. -Establishment of funding and management arrangements for effective response to emergency plant pest incursions.	-Australian Government. -All state and territory governments. -National representative plant industry organizations.	-Incentivized state governments and industry to co-finance activities to manage plant health. -Increasing number of industry members that are contributing financially to PHA. -Increased in number of projects and programmes funded. -Track record in delivery of worthwhile outcomes for members.

Some Sources of Expertise and Advice on PPPs

European PPP Expertise Centre (EPEC)
Available at: http://www.eib.org/epec/about/index.htm

Asian Development Bank (ADB)
Public-Private Partnership (PPP) Handbook
Available at: http://www.adb.org/Documents/Handbooks/Public-Private-Partnership/default.asp

GIZ
Development Partnerships with the Private Sector
Available at: www.gtz.de/ppp

Inter-American Development Bank (IDB)
http://www.iadb.org/en/topics/public-private-partnerships/public-private-partnerships,1714.html
PPP Americas: http://www.pppamericas.org/

Partnerships Resource Centre (PrC)
http://www.partnershipsresourcecentre.org/

World Bank
Global PPP Network (online platform of PPP practitioners: http://pppnetwork.ning.com
World Bank Institute PPP training programmes: http://wbi.worldbank.org/wbi/about/topics/public-private-partnerships

References & Bibliography

AYRES, I. & BRAITHWAITE, J. 1992. Responsive Regulation: Transcending the Deregulation Debate, New York, Oxford University Press.

ARFINI, F. & MANCINI, M. C. Year. British Retail Consortium (BRC) Standard: a New Challenge for Firms Involved in the Food Chain. Analysis of Economic and Managerial Aspects. In: Paper presented at the 82nd seminar of the EAAE, 2003 Bonn, Germany.

BLACK, J. & BALDWIN, R. 2010. Really responsive risk-based regulation. Law and Policy, 32, 181-213.

BAGGOTT, R. 1989. Regulatory Reform in Britain: The Changing Face of Self-regulation. Public Administration, 67, 435-454.

BALDWIN, R. & CAVE, M. 1999. Understanding Regulation: Theory, Strategy, and Practice, Oxford, Oxford University Press.

BRAITHWAITE, J. & DRAHOS, P. 2000. Global Business Regulations, Cambridge, Cambridge University Press.

BLACK, J. 2008. Constructing and Contesting Legitimacy and Accountability in Polycentric Regulatory Regimes. Regulation & Governance, 2, 137-164.

BORRAZ, O. 2007. Governing Standards: The Rise of Standardization Processes in France and in the EU. Governance: An International Journal of Policy, Administration, and Institutions, 20, 57-84.

BOVENS, M. 2007. Analyzing and Assessing Accountability: A Conceptual Framework. European Law Journal, 13, 447-468.

BRAITHWAITE, J. 1982. Enforced self-regulation: a new strategy for corporate crime control. Michigan Law Review, 80, 1466-1507.

CIP. 2010. Perspectives on partnerships. Lessons and implications for international agricultural development. Research Brief. International Potato Centre (CIP). Available at: http://www.cipotato.org/publications/pdf/005251.pdf.

COGLIANESE, C. & LAZER, D. 2003. Management-based regulation: prescribing private management to achieve public goals. Law and Society Review, 37, 691-730.

COMMISSION OF THE EUROPEAN COMMUNITIES 2001. European Governance' (White Paper) COM (2001) 428, 25 July 2001, 21. Commission of the European Communities.

COMMISSION OF THE EUROPEAN COMMUNITIES 2009. Report from the Commission to the Council and the European Parliament on the experience gained from the application of the hygiene Regulations (EC) No 852/2004, (EC) No 853/2004 and (EC) No 854/2004 of the European Parliament and of the Council of 29 April 2004, SEC(2009) 1079. Brussels.

DCED. 2010. Public-Private Development Partnerships. An overview of Current Work of OCED Member Agencies. Donor Committee for Enterprise Development (DCED). Working paper, October 2010 (updated 13 April 2011).

DORAN, P. 2002. World Summit on Sustainable Development (Johannesburg) – An assessment for IISD. International Institute for Sustainable Development.

ESCAP. 2007. Aid for Trade and Public-Private Partnerships. Economic and Social Commission for Asia and the Pacific (ESCAP). Committee on Managing Globalization. Note by the Secretariat (E/ESCAP/CMG(4/I)/2). Available at: www.unescap.org/EDC/English/Committee/CMG/CMG4-I/CMG4-I_2E.pdf.

FARLAM, PETER. 2005. Working Together - Assessing Public-Private Partnerships in Africa. South African Institute of International Affairs. NEPAD Policy Focus Report No.2.

FAO. 2010. Public-Private Partnerships for Disease Control. Emergency Centre for Transboundary Animal Diseases (ECTAD). Information Sheet, April 2010. Available at: http://www.fao.org/docrep/012/ak732e/ak732e00.pdf.

FAO. 2009(a). An Assessment of Alternative Mechanisms for Leveraging Private Sector Involvement in Poorly Functioning Value Chains. AAACP Paper Series. No.8. Written by Colin Poulton. Commissioned by the FAO Trade and Markets Division. Available at: http://www.fao.org/fileadmin/templates/est/AAACP/eastafrica/FAO_AAACP_Paper_Series_No_8_1_.pdf.

FAO. 2009 (b). Market-oriented agricultural infrastructure: Appraisal of public-private partnerships. Available at: ftp://ftp.fao.org/docrep/fao/011/i0465e/i0465e00.pdf.

FAO. 2005. Strategy for a Safe and Nutritious Food Supply. Committee on Agriculture (COAG). Rome, 13-16 April 2005. Available at: http://www.fao.org/docrep/meeting/009/j4195e.htm.

FAIRMAN, R. & YAPP, C. 2005. Enforced Self-Regulation, Prescription, and Conceptions of Compliance within Small Businesses: The Impact of Enforcement. Law and Policy 27, 491-519.

FEARNE, A., GARCIA MARTINEZ, M., BOURLAKIS, N., BRENNAN, M., CASWELL, J.,

FIELDING, L. M., ELLIS, L., BEVERIDGE, C. & PETERS, A. C. 2005. An evaluation of HACCP implementation status in UK SME's in food manufacturing. International Journal of Environmental Health Research, 15, 117-126.

FOOD STANDARDS AGENCY (FSA). 2008. Safe food and healthy eating for all. Annual Report 2007/08. The Food Standards Agency.

GARCIA MARTINEZ, M., FEARNE, A., CASWELL, J. A. & HENSON, S. 2007. Co-regulation as a possible model for food safety governance: opportunities for public-private partnerships. Food Policy, 32, 299-314.

GDPRD. 2012. Promoting scientific partnerships for food security. Platform Policy Brief (No. 7, January 2012) for the G20 Conference on Agricultural Research for Development. Written by Andrew Westby for the Global Donor Platform for Rural Development (GDPRD).

GOONATILAKE, L. 2010. Challenges in Agro-Food Exports: Building the Quality Infrastructure. International Trade Forum. Available: http://www.intracen.org/Challenges-in-Agro-Food-Exports-Building-the-Quality-Infrastructure/.

GRAINGER, A. 2008. Customs and Trade Facilitation: from concepts to implementation, World Customs Journal, Vol. 2, Number 1. Available at: http://www.worldcustomsjournal.org/media/wcj/-2008/1/customs_and_trade_facilitation_from_concepts_to_implementation.pdf

GUNNINGHAM, N., GRABOSKY, P. & SINCLAIR, D. 1998. Smart Regulation, Oxford, Oxford University Press.

HARTWICH, F., JAIME TOLA, ALEJANDRA ENGLER, CAROLINA GONZÁLEZ, GRACIELA GHEZAN, JORGE M. P. VÁZQUEZ-ALVARADO, JOSÉ ANTONIO SILVA, JOSÉ DE JESÚS ESPINOZA, & MARÍA VERÓNICA GOTTRET. 2007. Building Public–Private Partnerships for Agricultural Innovation. Food Security in Practice Technical Guide Series. International Food Policy Research Institute (IFPRI). Available at: http://www.ifpri.org/sites/default/files/publications/sp4.pdf.

HARTWICH, F., C. GONZÁLEZ, & L-F. VIEIRA. 2005. Public-private partnerships for innovation-led growth in agrichains: A useful tool for development in Latin America? ISNAR Division Discussion Paper 1. International Food Policy Research Institute (IFPRI).

HILDEBRAND, C. 2011. Leveraging Private Sector Investment in Developing Country Agrifood Systems. Policy Paper Series. Study Commissioned by the Global Agricultural development Initiative. Sponsored by the Chicago Council on Global Affairs.

IBM. 2010. Press Release, 26 March 2010. See: http://www-03.ibm.com/press/us/en/pressrelease/29756.wss.

IFPRI. Public-private Partnerships and Developing-country Agriculture: Evidence from the International Agricultural Research System. D. J. Spielman, F. Hartwich and K. von Grebmer. Available at: http://www.future-agricultures.org/farmerfirst/files/T2a_Spielman.pdf.

IITA. 2010. The Bulletin. No. 2017, 17-21 May 2010. Available at: www.iita.org/c/document_library/get_file?uuid=e781d6db-4c1f-4bbc-b220-99c142562527&groupId=25357.

ITC. 2009. Public–Private Partnerships: Achieve More Together. International Trade Forum, Issue No.4.

JONES, S. L., PARRY, S. M., O'BRIEN, S. J. & S.R., P. 2008. Are staff management practices and inspection risk ratings associated with foodborne disease outbreaks in the catering industry in England and Wales? Journal of Food Protection, 71, 550-557.

MARSDEN, T., LEE, R., FLYNN, A. & THANKAPPAN, S. 2010. The New Regulation and Governance of Food. Beyond the Food Crisis?, New York, Routledge.

MARTINEZ, MARIAN GARCIA, FEARNE, ANDREW, CASWELL, JULIE A AND HENSON, SPENCER. 2007. Co-regulation as a possible model for food safety governance: Opportunities for public-private partnerships. Food Policy 32 (2007).

MAZEY, S. & RICHARDSON, J. 2006. Interest groups and EU policy making. In: RICHARDSON, J. (ed.) European Union: Power and Policy Making. 3rd ed. Oxon, UK: Routledge.

NARROD, CLARE & ROY, DEVESH & OKELLO, JULIUS & AVENDAÑO, BELEM & RICH, KARL & THORAT, AMIT. 2009. Public-private partnerships and collective action in high value fruit and vegetable supply chains. Food Policy 34 (2009).

NEAL, CHRISTOPHER. No date. Focus on Public-Private Partnerships. Backgrounder. World Bank Institute (WBI). Available at: www.worldbank.org/wbi.

NEPAD. 2010. CAADP Review. Renewing the commitment to African agriculture. Final Report, March 2010. The New Partnership for Africa's Development (NEPAD), a Programme of the African Union. Available at: http://www.nepad-caadp.net/pdf/CAADP%20Review%20-%20March%2020101.pdf

OECD. 2011. The United States (2011), DAC Peer Review: Main Findings and Recommendations. Available at: http://www.oecd.org/document/2/0,3746,en_2649_34603_48366978_1_1_1_1,00.html

OECD. 2008. Public-Private Partnerships: In Pursuit of Risk Sharing and Value for Money. Available at: www.oecd.org/document/27/0,3343,en_2649_34119_40757595_1_1_1_1,00.html#B2.

OECD 2002. Regulatory Policies in OECD Countries: From Interventionism to Regulatory Governance, Paris, OECD.

ODI. 2003. Public–Private Partnerships. Key Sheets for Sustainable Livelihoods. Edited by the ODI for DFID. Available at: http://www.odi.org.uk/resources/download/2325.pdf.

OGUS, A. I. 1995. Rethinking Self-Regulation. Oxford Journal of Legal Studies,, 15, 97-108.

PFISTERER, STELLA, MEINE PIETER VAN DIJK, ROB VAN TULDER. 2009. The Effectiveness of the Trilateral Partnership between The Netherlands, Malaysia and Indonesia. Review of the World Summit on Sustainable Development Partnership Programme in Palm Oil, Shrimps and Fruits & Vegetables. Final report, 30 October 2009 for the Ministry of Foreign Affairs and the Ministry of Agriculture, Nature and Food Quality, The Netherlands.

PFISTERER, STELLA DIEDERIK DE BOER, HUUB MUDDE, MEINE PIETER VAN DIJK, ROB VAN TULDER. 2009. The Effectiveness of Public Private Partnership in East African Export-Oriented Horticulture. Review of the World Summit on Sustainable Development Public-Private Partnership Programme in Tanzania, Kenya, Ethiopia (Zambia and Uganda). Expert Centre for Sustainable Business and Development Cooperation. Final report, 25 March 2009 for the Ministry of Foreign Affairs and the Ministry of Agriculture, Nature and Food Quality, The Netherlands.

RAY, RAJESH. 2010. Supply Chain Management for Retailing. 2010. Tata McGraw Hill Publishers.

RICH, KARL M. & NARROD, CLARE A. 2010. The role of public–private partnerships in promoting smallholder access to livestock markets in developing countries. Methodology and case studies. International Food Policy Research Institute (IFPRI).

SDC. 2005. Rural Development through Public-Private Partnerships? InfoResources Focus No 1/05. Swiss Agency for Development and Co-operation (SDC). Available at: http://www.inforesources.ch/pdf/focus_1_05_e.pdf.

STRYKER, DIRCK J. 2004. Public-Private Partnerships for Integrating Small, Poor Countries into the Global Trading System. A Research Report submitted to USAID/Washington. Available at: http://pdf.usaid.gov/pdf_docs/PNACX949.pdf.

STDF. 2012. National SPS Coordination Mechanisms. An African Perspective. Available at: http://www.standardsfacility.org/Files/Publications/STDF_NationalSPSCoordinationMechanisms_EN.pdf.

UNDP. 2006. Partnering for Development – Making it Happen. Written by Bredgaard Sorensen, Martin and Seren Mandrup Petersen for UNDP.

UNECE. 2008. Guidebook on promoting Good Governance in Public-Private Partnerships.

VERBRUGGEN, P. 2009. Does Co-Regulation Strengthen EU Legitimacy? European Law Journal, 15, 425-441.

WARNER, MICHAEL & DAVID KAHAN. 2008. Market-oriented agricultural infrastructure: Appraisal of public–private partnerships. ODI/FAO Project Briefing. No. 9, January 2008. Available at: http://www.odi.org.uk/resources/download/586.pdf.

WORLD BANK. 2010(a). Lao PDR: Operational Costs Of Trade-related SPS Systems. Available at: http://siteresources.worldbank.org/INTLAOPRD/Resources/293582-1236825229768/5910147-1266221816570/LaoSPSOperationalCostsFinalVersion.pdf.

WORLD BANK. 2010(b). Growing Mali's Mango Exports: Linking Farmers to Markets through Innovations in the Value Chain. Feb. 2010. Report prepared by Yéyandé Sangho, Patrick Labaste and Christophe Ravry for The World Bank. Available at: http://siteresources.worldbank.org/AFRICAEXT/Resources/258643-1271798012256/Mali_Mangoes_Success.pdf.

WTO. 2011. Aid-for-Trade Work Programme 2012-2013, "Deepening Coherence" (WT/COMTD/AFT/W/30). Available at: http://www.wto.org/english/tratop_e/devel_e/a4t_e/aid4trade_e.htm.

The Standards and Trade Development Facility (STDF) is a global programme in capacity building and technical cooperation established by the Food and Agriculture Organization of the United Nations (FAO), the World Organisation for Animal Health (OIE), the World Bank, the World Health Organization (WHO) and the World Trade Organization (WTO).
More information is available at: www.standardsfacility.org

Printed by the WTO Secretariat