Agrifood Standards and Trade
SPS Toolkit and CBT Study
STDF Working Group Meeting
21 October 2011
Agrifood Standards – Ensuring Compliance Increases Trade for Developing Countries (ASEC)

Presentation by NRI

- Ulrich Kleih: SPS Toolkit – Causal Chain Analysis, Value Chain Analysis and Cost Benefit Analysis;
- Hanneke Lam: SPS Toolkit – Institutional Analysis and Strengthening of SPS Coordination Systems;
- Dr Diego Naziri: Commodity Based Trade / Namibia project;
- Andrew Edewa – UNIDO, Nairobi, and PhD student at NRI; contributed to SPS toolkit development.
ASEC Programme - Overview

• Supported by DFID Policy Division
• Three components
  – Public sector standards (e.g., Impact assessment of notifications – case studies; SPS toolkit to strengthen SPS coordination systems, assess the impact of SPS notifications, and analyse control measures);
  – Private standards (e.g., GLOBALGAP; National Technical Working Groups; National Interpretation Guidelines);
  – Commodity Based Trade (e.g., Namibia case study on the feasibility of meat exports from the Caprivi strip).
Public sector standards: SPS Toolkit

Ulrich Kleih and Hanneke Lam

Contact: u.k.kleih@gre.ac.uk; j.w.m.lam@gre.ac.uk
Toolkit components

I. Institutional Analysis and Strengthening of SPS Coordination Mechanisms

II. Causal Chain Analysis and Sustainability Impact Assessment of SPS notifications

III. Value Chain Analysis

IV. Cost Benefit Analysis of Control Measures
Toolkit (I): Institutional Analysis and Strengthening of SPS Coordination Mechanisms

Part I aims to strengthen coordination between and amongst:
• Public sector, private sector and civil society
• National, regional, international and local level
• Food Safety, Animal Health and Plant Health

➢ In compliance with WTO SPS Agreement
Well-functioning coordination systems are key for increasing trade and enhancing food safety, animal health and plant health:

- Improve communication of SPS matters, including notifications
- Raise country’s/region’s ability to discuss and negotiate SPS matters at national and international forums
- Increase ability to interact with International Standard Setting Bodies CAC, OIE, IPPC
- Help to identify gaps/overlaps in stakeholders’ mandates
- Minimise duplication of efforts
- Contribute to the reduction of costs
Toolkit (I) provides methods and techniques to:

• Acquire better understanding of the SPS institutional environment by mapping out:
  – (inter)national stakeholders related to food safety, animal health, plant health
  – their mutual relationships
  – regulatory system in which they are embedded
• Assess key elements within SPS coordination mechanisms
• Find solutions to overcome identified challenges
• Develop strategies to turn ideas for improvement into action
Mapping Example:
Interlinkages SPS Stakeholders
Kenya Public Sector

I. Map the institutional environment
- Stakeholder Analysis
- Visual Mapping (e.g. Venn-Diagram)
- Design of a communication flow chart

II. Assess key elements within SPS coordination system
- SWOT analysis of key stakeholders:
  • Human, financial, technical resources (internal)
  • Enabling environment (external)
- Rating performance of coordination mechanisms:
  • SPS Policy and stakeholders' participation
  • Communication and interlinkages
Example performance rating

A. Policy, Legislation and Regulatory Framework

Section A aims to assess the country's legal and regulatory framework in place: the laws, acts and regulations which are designed to govern SPS issues. A conducive regulatory framework starts with high-level buy-in. It is essential that Government officials, especially senior politicians, support and guide the development of efficient SPS coordination mechanisms. This includes the legal and regulatory framework, but also other aspects such as the coordination between concerned Ministries, Departments and Agencies (MDAs), and availability of resources (human, financial and technical). Whether the coordination system needs profound changes and re-design, or only small improvements, all cases require awareness raising (up to the highest levels) on the importance of SPS and the potential impact of related measures on trade and the wider economy. Once this is accomplished, SPS coordination should be integrated into policy and legislation. This is a complicated task as not only many SPS issues require coordination between different policy areas, private sector interests are developed in accordance with

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Tools and techniques (2)

III. Recommendations and strategy development to overcome identified institutional gaps
   – Problem Tree Analysis
   – Development of a Strategy

IV. Development and implementation of action plan and/or project
   – Development of an Action Plan
   – Logical Framework Approach
   – Development of a Project Proposal

V. Monitoring and evaluation
Coordination: Novel approach

- The SPS Toolkit recognises existing SPS Capacity Evaluation Tools, which are widely adopted and applied (e.g. OIE PVS, IPPC PCE, IICA PVS Tools, etc)
- Part I of the Toolkit complements these as it aims to:
  - address (inter)national SPS coordination, and communication between public and private sector organisations in a more holistic manner
  - help develop a regulatory framework which facilitates integrated and effective SPS policy in accordance with WTO SPS agreement
  - put project management tools in an SPS context: from analysis of current situation to implementation of action plans and projects
Toolkit (II): Causal Chain Analysis and Sustainability Impact Assessment of SPS notifications

Baseline scenario

Changes in trade measures (e.g. SPS notification)

Predicted initial outcomes (e.g. changes in trade flows)

Predicted longer term effects (econ, social, env, process)

Flanking measures (prevention, mitigation, enhancement)

Final outcomes
Toolkit (III): Value Chain Analysis in an SPS context

• Most goods and services are the result of a sequence of activities > value chain;
• Some key concepts of value chain analysis (VCA): governance; benchmarking; innovation & upgrading; positioning of the product and the value chain;
• Why value chain analysis is important in an SPS context:
  ➢ to upgrade the value chain and position the product at a higher level, i.e. access markets where higher prices can be fetched.
Tools and techniques used for VCA

- Checklist for assessing SPS compliance > understanding:
  - The market (e.g., price premiums for SPS compliance)
  - Value chain and SPS requirements
  - Costs and benefits of control measures
  - Service requirements and providers;
- Mapping the chain > functioning of the chain in terms of end-markets, actors, and their functions;
- Identification of SPS related issues and control measures;
- Financial implications for farmers and other actors in chain;
- Improved SPS service delivery.
Value chain map - example

Stages in the Value Chain – Overview of functions

**Input supply**
- Seed, fertiliser chemicals, ...

**Production**
- Small-scale, Commercial
- Assembly, Commercial

**Intermediaries**
- Transport, ...

**Processing**
- Artisanal, Commercial

**Trade**
- Export, Wholesale, ...

**End-use**
- Industrial use
- Consumers

Detailed map of sub-channels and actors within the chain (example)

- Private and public sector input suppliers
- Small-scale growers (90%)
- Brokers / assembly traders
- Estates (10%)
- Oil processing
- Pack-house
- Exporters
- Industries
- Domestic market (fresh): traders
- Fresh fruit consumption

Map of SPS related service providers and their roles (example)

- Pesticide control (public)
- Extension (public)
- Plant health inspection (public)
- Advisory services (project)
- Spraying (private)
- Plant health inspection (importing country, public)
- Plant health inspection (importing country, public)
- Advisory and lobbying services (Association)
Toolkit (IV): Cost Benefit Analysis of Control Measures

- Two models: (a) short version; (b) long version;
- Incremental cash-flow analysis for private and public sectors;
- Financial indicators: Net Present Value (NPV), and Internal Rate of Return (IRR);
- Short version: additional sales on export or local markets; cost of control measures; other additional costs (pre & p-h);
- Long version:
  - Comparison of all sales and costs for situations with and without SPS control measures;
  - Analysis of three production systems / value chains possible;
  - Sensitivity analysis (i.e. change of key variables);
  - Currency conversion of summary results possible.
Cost-Benefit Analysis of SPS Measures (Plant Health) - Short Version of Model

Overall Overview
Summary of Results

Private sector
Benefits & Costs of Control Measures
Benefits of Control Measures
Costs of Control Measures
Cost of Control Measure 1
Cost of Control Measure 2
Cost of Control Measure 3
Additional Production and Post-harvest Costs
Additional Production Costs
Additional Post-harvest Costs
Residual Value of Investments

Public sector
Additional Income and Costs
Public sector - Additional Income
Public sector - Additional Costs (Pre-harvest)
Public sector - Additional Costs (Post-harvest)
Public sector - Residual Value of Investments
### Natural Resources Institute

**Toolkit Draft V1 Test version 4 - Kenya 04-30-2011.xlsm**

**Microsoft Excel**

**ASEC Introduction – Overview Toolkit – Component I – Component II – Component III - Component IV – Toolkit Challenges and Way Forward – CBT**

### Excel Sheet Details

**Sheet Title:** Select sheet to go to

**Columns:**
- Costs and Benefits
- Pr Benefits
- Pt Costs of CM (pre-h)
- Pt Costs of CM (post-h)
- Pr Add Bnd Costs
- Pr Add Post-harvest Costs
- Pt Add Post-harvest Costs
- Pub Add Post-harvest Costs
- Pub Add Costs (post-h)
- Pub Add Costs (Pre-h)
- Pub Add Value of Inv
- Pub Add Value of Res
- Pub Add Value of Inv
- Incremental cash-flow (private & pub sector)

**Currency:**
- Home Page
- Overview
- Sum Results

**For results in US Dollars, see below:**

**Rate:**
- 20%

**Years:**
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020

**Calculations:**
- Pub Add Value of Inv
- Incremental cash-flow (private & pub sector)

**Net present value:**
- 560,684,503
- 487,992,926

**Internal rate of return:**
- 77.3%
- 82.5%

**Conversion of results into US Dollars:**

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<th>Currency used</th>
<th>Exchange rate to the US Dollar</th>
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<td>Private sector</td>
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<tr>
<td>Public sector</td>
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**Benefits (Increased exports):**
- 2012: 7,397,933
- 2013: 7,397,933
- 2014: 7,397,933
- 2015: 7,397,933
- 2016: 7,397,933
- 2017: 7,397,933
- 2018: 7,397,933
- 2019: 7,397,933
- 2020: 7,397,933

**Benefits (Increased local market):**
- 2012: 1,348,315
- 2013: 1,348,315
- 2014: 1,348,315
- 2015: 1,348,315
- 2016: 1,348,315
- 2017: 1,348,315
- 2018: 1,348,315
- 2019: 1,348,315
- 2020: 1,348,315

**Costs (control measure 1; pre-harvest):**
- 2012: 50,337
- 2013: 50,337
- 2014: 50,337
- 2015: 50,337
- 2016: 50,337
- 2017: 50,337
- 2018: 50,337
- 2019: 50,337
- 2020: 50,337

**Costs (control measure 2; pre-harvest):**
- 2012: 449,468
- 2013: 191,011
- 2014: 191,011
- 2015: 191,011
- 2016: 191,011
- 2017: 191,011
- 2018: 191,011
- 2019: 191,011
- 2020: 191,011

**Costs (control measure 3; post-harvest):**
- 2012: 1,617,976
- 2013: 1,617,976
- 2014: 1,617,976
- 2015: 1,617,976
- 2016: 1,617,976
- 2017: 1,617,976
- 2018: 1,617,976
- 2019: 1,617,976
- 2020: 1,617,976

**Additional costs (production):**
- 2012: 80,699
- 2013: 80,699
- 2014: 80,699
- 2015: 80,699
- 2016: 80,699
- 2017: 80,699
- 2018: 80,699
- 2019: 80,699
- 2020: 80,699
# Cost Benefit Analysis – Long Model, Home Page

**ASEC Theme A: Toolkit to Assess the Costs and Benefits of SPS Control Measures (CM) in the Plant Hea**

**Home Page**

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SPS Toolkit: Challenges and way forward

• Availability of data (some data may be confidential, some may be time-consuming to collect);
• User-friendliness of model;
• Staff may lack understanding of financial calculations;
  ➢ Guidance notes are required (currently being produced).

• Way forward
  ➢ Feedback and evaluation required;
  ➢ Packaging of toolkit (soft and hard copies);
  ➢ Dissemination, awareness raising and mentoring activities.