Challenges, Strategies and Costs of Compliance With International Agro-Food Standards

Concept Paper

Background

Over recent decades, international trade in high-value and value-added food products has expanded enormously in response to changing consumer tastes and with the support of advances in production, transport, and other supply chain technologies and methods. These products—including fresh and processed fruits and vegetables, fish, live animals and meat, nuts, and spices—are characterized by relatively high income elasticities of demand and lower price volatility than many traditional developing country export commodities. However, trade in these products is governed by a growing array of standards related to the products themselves and to the processes by which they are produced and handled. The proliferation of standards is occurring both at the public level (i.e. Codex Alimentarius, regional blocs, and individual countries) and at the private level (through supply chain requirements and in response to the demands of consumer and other civil society organizations). It is being driven by a combination of factors including health and other public policy concerns, scientific advances, consumer preferences, and strategic commercial interests.

While a wide range of developing countries have enjoyed some success in expanding their exports of several types of high-value/value added food products, the further tightening and broadening of standards—together with their variability between major markets and supply chains—poses potentially large compliance costs for developing country suppliers. Such compliance costs may be incurred in both the public and private sectors and may be associated with needed improvements in administrative, governance, and/or certification systems, changes in production and post-harvest processes and inputs, investment in additional equipment, the upgrading of skills and technologies, etc. If compliance strategies are not adequately supported then the proliferation of standards could adversely affect the poorest countries—who may lack the public and private assets to meet the technical and market requirements. Also, among competitive suppliers, economies of scale or other dimensions of standards compliance could result in a skewing of continued participation in and benefits from this trade to relatively large and/or well financed and organized producers and agribusiness companies (and their employees).

Thus, the proliferation and increased level of product and process standards poses challenges for developing countries—for example, in meeting international obligations, and in enhancing private and public capacities to cost-effectively meet external regulatory or supply chain requirements. Yet, standards may play a catalytic developmental role, stimulating new investments, enhancing the sustainability of production systems, improving worker and consumer welfare, and fostering improved public-private collaboration. While developing countries and enterprises have limited influence over the setting of many internationally-recognized (public and private) standards, they

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1 See, for example, Global Economic Prospects (2004), chapter 3, World Bank.
2 Importantly, there are also potentially large non-compliance costs in terms of lost trade, income, and employment.
do have room for maneuver in designing policy and strategies to ensure compliance with these requirements—and hence, continued international market access and competitiveness.³

In formulating and implementing these strategies, many developing countries are seeking external assistance as called for under the Agreement on the Application of Sanitary and Phytosanitary Standards (SPS). With respect to the World Bank, while the current level of resources directed toward technical assistance and other capacity-building measures in this field is relatively modest, there appears to be a considerable amount of additional demand for assistance from the Bank’s country clients as well as from the agribusiness partners of the IFC.⁴

At present, our response to this growing demand for advice and assistance is essentially ad hoc, with varied approaches at levels of particular regions, countries and tasks. There are few commonly used tools of analysis, no clear picture of the equity implications of standards, no agreed set of Group policy positions, nor an agreed operational strategy per se.⁵ Plus, much of the available literature and documentation in this field is very difficult to apply to World Bank operations. This literature largely exists in two track. One is a growing set of studies written by a combination of trade economists and development activists which emphasize the potential trade barriers or theoretical costs associated with the application of more stringent agro-food standards⁶. The second track is large technical literature written by various types of practitioners (i.e. food technologists, animal health specialists) detailing how some specific food safety hazard could or has been addressed using a particular technology or approach.

Neither of these literature streams provides much insight into many of the strategic questions which Bank staff and their country counterparts are encountering. For example, what is the degree of priority which one should give to policy-making and capacity-building in this field in light of other constraints on competitiveness? Should the policy aim for a unified set of standards for the domestic and export markets, or should the aim be a two-tiered system? What are the appropriate and necessary roles of the public and private sectors? What roles can foreign market partners or third part entities play in the process of supporting or certifying compliance with standards? Are there certain circumstances or time dimensions in the emergence and maturity of an industry when interventions in this field are most appropriate or likely to succeed? What combination of cross-cutting and industry-specific interventions is appropriate in different country settings? What types of interventions can address the particular constraints facing smaller enterprises and small-scale farmers in maintaining market access in the face of rising standards?

The synthesis paper which will be prepared by the joint ARD/PRMTR team will better define the nature of the agro-food standard challenge facing developing countries in international markets

³ For the most part, developing countries are ‘standard takers’ in the international arena. Standards and their application can be challenged, yet normally at considerable cost. It is far more important to enhance public and private technical and administrative capacities in this field then to enhance negotiating skills.
⁴ See annex 1 for a listing on on-going and pipeline projects which do or will likely include sub-components related to agro-food standards capacity-building.
⁵ Although the Bank is seeking to develop a framework for collaboration with other agencies (including the FAO, WTO, and others) to support SPS capacity-building in developing countries.
⁶ The general argument of much of this literature is that (i) many SPS measures are either protectionist tools, overly stringent from a scientific point of view, or simply too complex and non-transparent to be properly understood by developing countries; (ii) even where the requirements are clear, the levels of needed technical and/or administrative capacity to meet the standards is deemed to exceed that generally available in low and middle income countries; (iii) as a result, the cost of compliance with these standards are exceedingly high—eroding existing comparative advantage—and thus likely to result in reduced market access and international market share by developing countries.
for high-value agricultural products and will highlight a range of successful and less successful experiences in meeting this challenge. In so doing, this work will provide a bridge between the analysis of the standards-trade-rural development nexus, on the one hand, and the scope for effective development agency interventions, on the other. In so doing, this work can lay a foundation for a more concerted operational Bank Group approach in this field. This synthesis will be prepared in FY04, building upon case study and other work which was initiated last fiscal year and still continues.

Main Issues For Assessment

The synthesis report will address the following themes and questions:

- **ISSUE PROMINENCE**: How difficult is the challenge posed by rising private and public SPS standards for developing countries as illustrated by an array of experiences and as perceived by representative buyers/distributors in major international markets? To what extent are the technical and managerial needs associated with meeting SPS standards unique as opposed to being simply part of a range of assets and capacities needed for competitive businesses, supply chains, production systems, etc.? Based on a range of experiences, to what extent are the challenges associated with SPS standards compliance of greater or lesser significance than other challenges to competitiveness (i.e. macroeconomic conditions, investment climate, resource management, logistics, agronomic productivity)?

- **STANDARDS DYNAMICS and DIFFERENCES**: What are the similar and distinctive features of the challenge of standards compliance among different product groups (i.e. horticulture vs. fish products vs. livestock products) and vis-à-vis different destination markets, especially those of the United States, the European Union, and Japan? What are some of the key dynamics in the development, application, and enforcement of SPS standards--related to these product areas and destination markets-- which are of significance for developing country suppliers and public agencies?

- **STRATEGIES for COMPLIANCE**: What strategies have been used and have worked to meet the emerging requirements? What is the incidence of reactive vs. proactive, and defensive vs. offensive strategies? What have been workable combinations of individual private actors, public sector measures, and various forms of collective action? What factors appear to account for the approaches actually adopted and appear to explain the more successful experiences?

- **COSTS and BENEFITS of COMPLIANCE**: What are the array of costs associated with complying with international agro-food standards? What are the costs of non-compliance? What is the magnitude of the recurrent and non-recurrent compliance costs incurred in different types of supply chains? What factors influence the significance of these costs? How important are economies of scale in complying, and do the introduction of stricter standards benefit the larger producers and processors? Who bears the costs of compliance or non-compliance? What are the apparent direct and indirect benefits of compliance?

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7 SPS measures relate to: (i) the protection of human or animal health arising from risks from additives, contaminants, toxins, or disease-causing organisms in their food, (ii) protection of human and plant health from plant or animal-carried diseases, (iii) protection of animal or plant health from pests and diseases, and (iv) prevention or limit of damage to a country from the entry, establishment or spread of pests and diseases.
putting in place the necessary rules, systems, skills, and facilities to comply with international standards?

- **INDUSTRY + SUPPLY CHAIN STRUCTURAL IMPLICATIONS:** What are the apparent implications of standards barriers and compliance for market and vertical structure and the continued participation in export-oriented supply chains by smaller or newer enterprises and smallholder producers? Are there any organizational forms emerging which safeguard the interests of small producers and processors? Does the available evidence suggest that emerging structural changes are substantially or only indirectly associated with the specific challenge of standards?

- **IMPACTS ON POVERTY:** Conceptually, what are the potential ways in which rising standards and standards compliance could impact on the poor (in their capacities as farmers, consumers, workers, micro-entrepreneurs, etc.)? What is the available empirical evidence within developing countries regarding the actual impacts? What are unanswered yet researchable questions in this regard?

- **LESSONS LEARNED FROM PAST DONOR-SUPPORTED PROGRAMS:** What lessons can be drawn from past Bank and other donor-supported programs to strengthen SPS management capacities in developing countries? What features of project design or implementation can be considered ‘good practice’ and what approaches should evidently be avoided? What evidence is available regarding the effectiveness and sustainability of these initiatives? What can this experience tell us about proper public and private sector roles?

- **OPERATIONAL IMPLICATIONS FOR the BANK:** What are some key operational implications of the above findings? What are the key policy and investment areas with the highest pay-off in terms of poverty reduction and/or improved agricultural/agribusiness competitiveness? Based on what is learned from country, private sector, and selected prior donor experiences and considering the Bank’s comparative strengths and weaknesses, what are some approaches and dimensions in this field which the Bank should seek to build its own capacity and near-term work program around?

**Approach**

The core output will be a synthesis of major findings from work which was initiated in FY03 and has carried over into FY04. The starting point for the work was the compilation and review of available economic and institutional literature, especially that dealing with the position and experiences of developing countries. In recent years, there has been increased work in this field within the academic community, by other development and economic agencies (including the FAO, UNCTAD, OECD), and within the Bank, especially in DEC. This literature provides partial answers to several of the thematic questions listed above, yet in many cases the findings are more suggestive than conclusive and one is better informed about potential problems than potential or actual solutions. The empirical dimension of this ESW was designed to move the dialogue beyond the search for problems and barriers to better understand the ‘room for maneuver’ which is open to developing country stakeholders, better understand how and how well they are addressing the challenge, and better understand what interventions are most needed and appropriate.
The empirical work, initiated in FY03 and still continuing involves:

**A series of detailed country/commodity studies, drawing insights from producers, traders, etc.** These were identified and selected in order to (i) capture regional diversity of experience, (ii) include industries whose exports are focused on different core export markets (i.e. U.S., EU, Japan, Gulf Countries), (iii) provide a range of experiences from very low to middle income countries and relatively small to quite large and long-standing industries, (iv) build upon available knowledge of particular countries, and (v) contribute to previously planned broader studies or other operational work. The product/commodity focus centers on fish and fish products, live animals and beef, fruits and vegetables, confectionary nuts, and spices. The case studies being pursued are summarized in the Table below:

<table>
<thead>
<tr>
<th>Country/Commodity Case Studies</th>
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<tbody>
<tr>
<td>Fish and Fish Products</td>
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<tr>
<td>Animals/Animal Products</td>
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<td>Fruit and Vegetables</td>
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<td>Nuts and Spices</td>
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<tr>
<td>Senegal, Kenya, Nicaragua, Thailand, India</td>
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<td>Ethiopia, Latin America Southern Cone</td>
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<tr>
<td>Kenya, Thailand, Morocco, Jamaica</td>
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<td>Senegal, India</td>
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The core methodology for much of this work is laid out in Henson et al. (2002). The focus of attention has been on export-oriented supply chains and the challenges, strategies and costs associated with sanitary and phytosanitary standards. In some cases, some attention was given to the interface between exports, standards compliance, and the domestic market. While SPS measures and requirements are at the center of assessment, attention was also given to compliance with basic quality standards. Limited attention was given in this work to emerging environmental and social standards, except where these have clearly taken on a major significance.

In most cases, the primary sources of information have been interviews with a representative range of processor/exporters, public officials, and producer organizations. In selected cases the teams have been able to draw upon earlier survey work at the farm or enterprise levels. The study will support farm survey work in one of the case study countries (Kenya) in order to obtain more micro-level data on farmer compliance strategies and costs. In one case (Ethiopia meat) the research team has developed and applied a general equilibrium model to better understand the impacts and distributional effects of a previous export ban and the potential distribution of benefits of a proposed livestock certification scheme. For the most part, the case studies have featured descriptive statistics and use of cost accounting for compliance cost estimates rather than employing formal statistical approaches. As much emphasis has been placed on issues of strategy, policy, and institutional frameworks as on quantifying the costs of compliance (or non-compliance).

**A series of buyer surveys** involving representative importers, brokers, retailers, and other key distributors of shrimp and fresh fruit and vegetables in the United States, the European Union, and Japan. These surveys have probed the changing dynamics of official and private standards in these markets, the perceptions of these buyers about the capacities and performance of their developing country suppliers in meeting these standards, the roles, if any, of such buyers is strengthening the SPS and quality management systems of their suppliers, and their perceptions about the useful roles which development agencies might play in this sphere. A combination of

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formal and informal interviews have been employed with private sector agents and officials in key regulatory agencies. The research teams have also reviewed and referenced emerging laws and regulations pertinent to the supply chains for the focal product groups. These buyer surveys are providing something of a ‘mirror-image’ to the perceptions of current challenges and opportunities provided to our research teams under the case study work.

**A review of selected development agency experiences** in supporting SPS management capacity-building in developing countries. While the SPS Committee of the WTO has produced a taxonomy to monitor the types and locale of technical assistance being provided to WTO members, there has been no attempt to compare and contrast the assistance which has been provided in terms of the approaches used and their apparent effectiveness and sustainability. Under the current work program, there is an on-going review of the experiences of several donors through the lens of about two dozen projects/programs and by reviewing any existing review/evaluative documents and consulting with project/program managers and technical staff. The basic objective is not evaluative, but to draw out a range of operational lessons from ongoing or recently completed projects/programs. The work is seeking to draw out apparent success factors in project design and implementation as well as draw attention to approaches which seemingly have low prospects for success or sustainability. Past and on-going projects which are being reviewed have been supported by the World Bank, FAO, UNIDO, USAID/USDA, or the European Union.

**Expected Outputs**

The core output from this work will be a synthesis report highlighting major themes, findings, conclusions, and recommendations. This will contribute to policy dialogue in this field and lay a foundation for a more concerted Bank Group approach to operational mainstreaming of standards. A tentative outline for this synthesis report appears in Annex 2.

Associated outputs, but not directly covered under this ESW are:

- A number of case study reports, the best of which will be published as ARD/PREM Working Papers. These also will be completed in FY04.
- Materials for training courses, including courses dealing with broader international trade issues as well as those specifically focused on how to operationalize agro-food standards.
- A workshop to take place at around the time of ESSD Week 2004; and
- A book in the *Directions in Development* series, which will combine components of the synthesis report, selected case studies, and other materials (FY05).

**Target Audiences**

There are multiple audiences for this program of work. One consists of managers and staff within the World Bank who are working on international market access and agricultural competitiveness issues. A second audience is similar staff and managers at other international organizations and donor agencies. A third audience consists of policy-makers, SPS technical officials, private sector entities, and NGOs in client countries.

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9 A separate concept note on this has been prepared, called Donor Support for SPS Capacity Building: Taking Stock and Drawing Lessons.
Resources

The primary source of funds to finance the country/commodity case studies and buyer surveys has been a BNPP Trust Fund obtained in August 2002. That fund is in an amount of $400,000. In addition, some $30,000 was used from Danish and Japanese CTF. Approximately $250,000 will be spent on the country/commodity case studies, and $75,000 on the buyer surveys. From the BNPP Trust Fund will also be financed the March workshop ($30,000), and the costs of publications and dissemination ($10,000). Some $20,000 of the trust fund is also being used to finance the time spent by C. de Haan (consultant) and M. Sewadeh (consultant) on this project.

The review of past donor experiences is being financed by PRMTR BB with a cost of approximately $50,000 for consultants/travel and for S. Jaffee’s time. For overall task management, coordination of background case studies, and preparation of the synthesis report, FY04 BB resources from ARD ($75,000) and PRMTR ($75,000) have been provided.

Timing

November 2003    Concept Review Meeting
December 2003    Completion of Kenya, Senegal, Ethiopia, Thailand and Nicaragua Case Studies
December 2003    First Training Course “Political Economy of Standards”
March 2004       Completion of All Other Case Studies and Buyer Surveys
March 2004       Workshop at ESSD Week to Discuss Preliminary Findings
April 2004       Submission of Draft Synthesis Report
June 2004        Final Report Reviewed and Disseminated

Task Team

The study program is being co-managed by the following:

- Steven Jaffee (PRMTR)
- Kees van der Meer (ARD)
- Cees de Haan (consultant, ARD)

They will also have primary responsibility for preparing the synthesis report, with assistance provided by Spencer Henson, University of Guelph, Mirvat Sewadeh, consultant, and Laura Ignacio, consultant. A large number of individual consultants have contributed to the preparation of the case studies, buyers surveys, and other aspects of this work. They are listed in Annex 3.

Peer Reviewers

- Richard Henry, IFC
- Stephen Mink, EASRD
- Benoit Blarel, ECSSD
- Laurian Unnevehr, University of Illinois
Annex 1: Projects with Agro-Food Standards (Sub-)Components

I. Under Implementation:

Tunisia: Agricultural Support Services Project  ESSD
Jordan: Horticultural Exports Promotion and Technology Transfer Project  ESSD
Uruguay: Foot and Mouth Disease Outbreak Emergency Recovery Project  ESSD
Peru: Trade Facilitation and Export Competitiveness TA  PSD
El Salvador: Competitiveness Enhancement TA  PSD
Nicaragua Competitiveness Learning and Innovation Project  PSD
Mali: Agricultural Services and Producer Organizations Project  ESSD
Ghana: AGSSIP (restructured)  ESSD
Cape Verde: Growth and Competitiveness Project  PSD
Senegal: Agricultural Export Promotion Project  ESSD
China: Sustainable Coastal Resources Development Project  ESSD
Cambodia: Agricultural Productivity Improvement Project  ESSD
Bosnia Small-Scale Commercial Agriculture  ESSD

II. Under Preparation:

Philippines: Diversified Farm Income and Market Dev. Project  ESSD
Indonesia Farmer Empowerment and Agricultural Technology  ESSD
China: Gansu and Xinjiang Pastoral Development  ESSD
India: Food and Drug Capacity Building  HD
Zambia: Support to Economic Expansion and Diversification  PSD
Burkina Faso: Competitiveness and Enterprise Development Project  PSD
Senegal Agricultural Markets and Agribusiness Development  ESSD
Georgia: Rural Development Project (quality/safety component likely)  ESSD
Russia Grain Market Project (grades/standards; quality assurance)  ESSD
Honduras: Trade Facilitation and Productivity Enhancement  PSD
Challenges, Strategies and Costs of Compliance with International Agro-Food Standards

Introduction
- Trends in trade of perishable foods from developing countries
- Need for export of high value products for growth and poverty reduction
- Perception that SPS standards discriminate developing country producers
- Conventional wisdom—standards as barrier to trade; contrast with more pragmatic and balanced conceptualization
- There is ‘room for maneuver’

The changing environment for trade in perishable goods
- Drivers for change: global competition, market differentiation, quality and safety requirements, urban life styles, affluent consumers, attitudes toward risk
- Changes in market organization, roles of consumers, retailers, food processors, wholesalers, primary producers and supply chains
- Dynamics of int’l standards—‘privatization’, increasing emphasis on process standards; interplay between official and private measures
- The relative importance of SPS in market access decisions
- Role of international standard setting bodies

Strategies for compliance with international agro-food standards
- Defensive and offensive strategies
- Choice of market segments, choice of suppliers, choice of chain relations, choice of technologies, innovation, low cost and high cost strategies
- Interplay and trade-offs between public and private measures
- Alternative approaches to monitoring/enforcing standards within the supply chain

Types of cost and benefits involved in compliance and non-compliance with SPS
- Methodology Issues
- Direct, indirect costs, risks, and hidden costs
- Differential prices and income effects
- Employment
- Spin-off on domestic food safety
- Key factors determining relative importance of those factors

Evidence found on cost and benefits
- General cost of regulatory framework, control capacity in the chain, role of knowledge and use of available information
- Upgrading public services
- Investment for upgrading production, handling, packing facilities
- Enhancing skills and management capabilities
- On farm: ensuring proper use of inputs, reduction of transaction/traceability cost
- Introduction of industrial standards (HACCP and EUROPGAP examples)
- Equity effects: distribution of costs and benefits through the chain
- Evidence for ‘marginalization’ of small-scale players?

Lessons from Interventions to Enhance SPS Management Capacities
- Illustrations of and lessons from ‘good practices’ found in case studies or buyer surveys
- Lessons drawn from project/program reviews/evaluations with regard to the cost effectiveness of different types of approaches, the effective modalities for industry or firm-level TA, innovative approaches to small player support and linkages, etc.

Implications for Bank operations
- Relative importance of focusing on capacity building in SPS
- Key areas, with highest returns for bank investments
- Follow-up areas for study
Annex 3: Participating Consultants

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• Mirvat Sewadeh, Consultant, PRMTR
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