

## GLOBALIZATION, FOOD SAFETY AND AGRICULTURAL HEALTH STANDARDS: IMPLICATIONS FOR TRADE AND PUBLIC HEALTH

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The paper discusses the

- Context of changing sanitary-phyto-sanitary (SPS) standards
- Concerns, questions and studies related to food standards and safety
- Strategic options for developing countries to deal with rising standards
- Results for case studies on compliance costs, benefits and distribution
- Implications for capacity building and donor community

### Context for changing food standards

First, the composition of developing country exports has changed over the last 20 years. In 1980/81, traditional tropical products- coffee, cocoa, jute, rubber, and other such products- constituted 38% of total exports, in 200/2001, it decreased to 18% of total exports. On the other hand, export share of fruits, horticulture and spices increased from about 25% to 45% between the two years (Figure 1). Among all high value export items, in terms of value of export, fruits and horticulture are dominant items and their share increased consistently (Figure 2). Globally, about 40% of fish output is internally traded compared to less than 15% for meat.

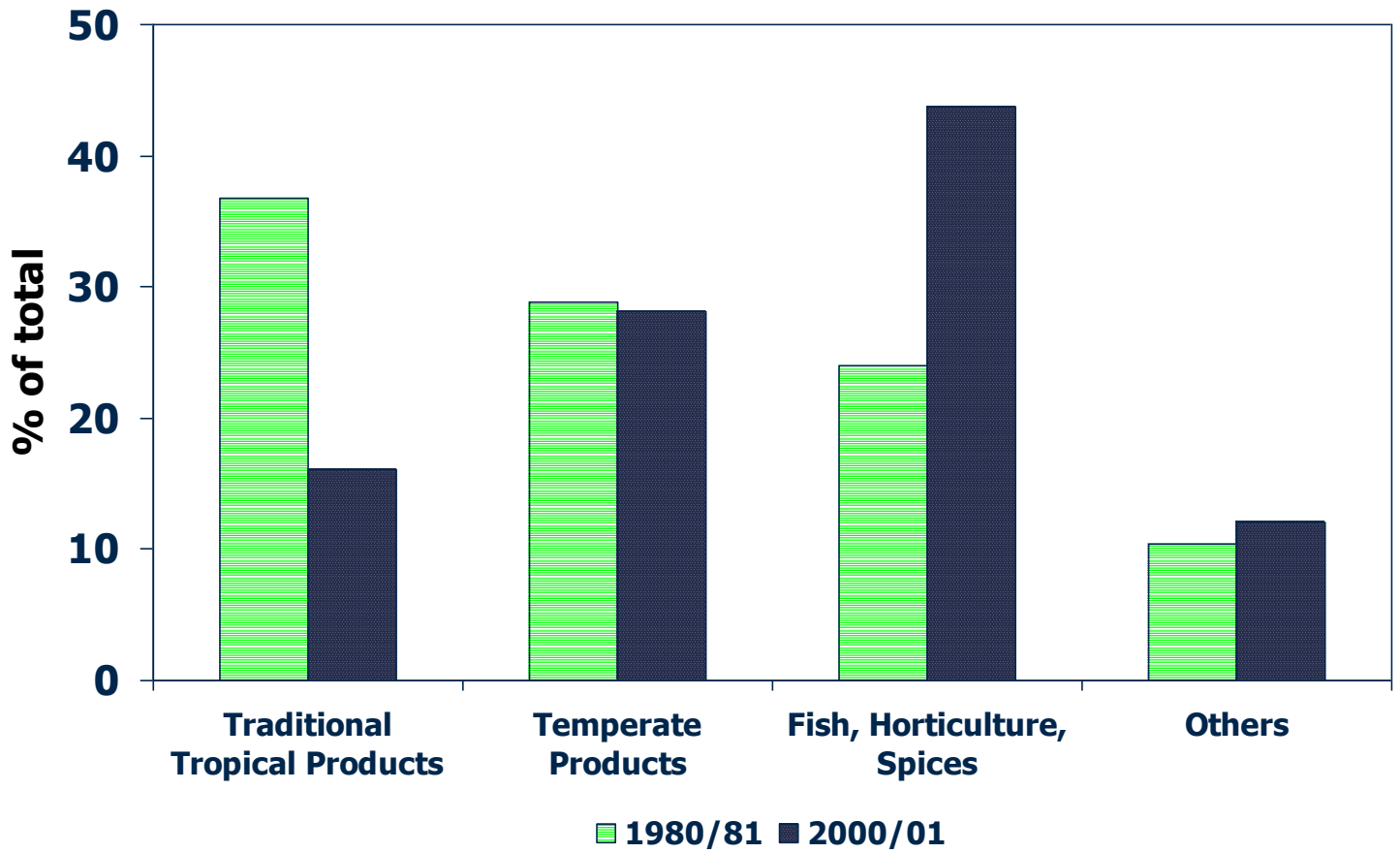
Second, there is increased demand for safer, better and convenient food not only in the developed countries but also in the rapidly growing developing countries, especially in the urban areas because of the following reasons:

- Rapid urbanization, increased income, better education and awareness about food value and health leading to preferences for 'safe', 'healthy', 'sustainable', 'convenient', variety of food
- Several scandals/crises surrounding food , e.g. BSE, Dioxin, E.Coli, Avian Flu incidences in different parts of globe and accompanying publicity about health risks from food
- Increased scientific knowledge about consequences of modern agricultural technology for artificially enhancing productivity and their health consequences
- Consolidation of food supply chain fostered by emerging super markets which is both a driver and an outcome because such food chains emerge in response to demand for safer, better quality food but in the absence of adequate food safety regulations and monitoring can be a source of hazards
- Food export is an important source of foreign exchange earning for some countries, so they run political risk at home and commercial risk in the market if food standards can't be ensured.
- Concerns about bio-terrorism through food, especially in international trade

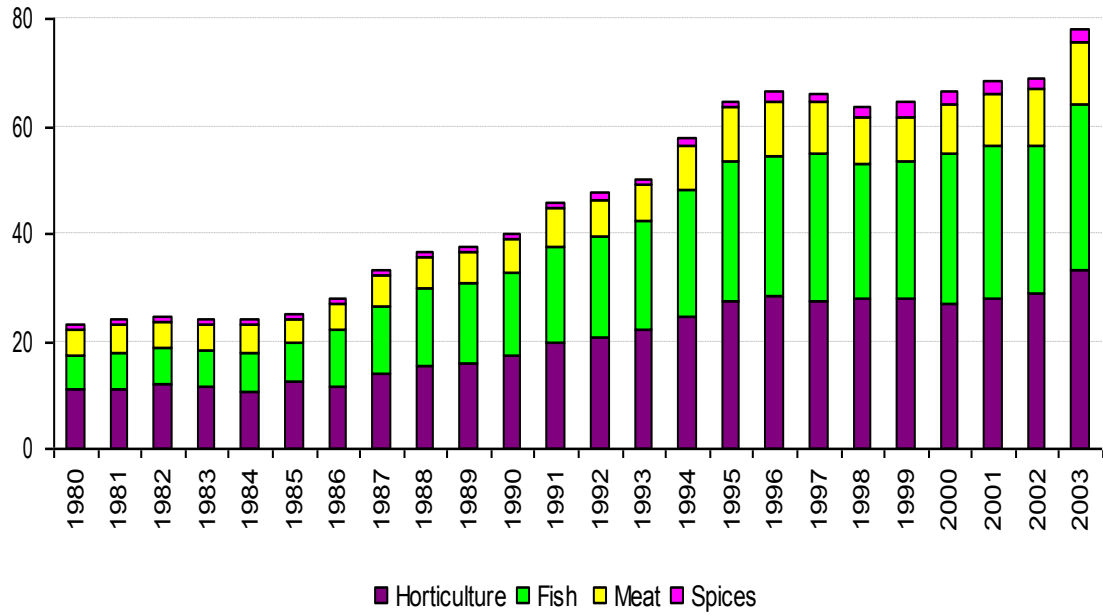
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**FIGURE 1: CHANGING COMPOSITION OF DEVELOPING COUNTRY AGRO-FOOD TRADE**



**FIGURE 2: DEVELOPING COUNTRY EXPORTS OF HIGH-VALUE FOODS  
(US \$ Billion)**



In response to these concerns, both public and private sectors are taking steps to improve and ensure food standards. Official public sector efforts include

- Stricter regulations and additional foci on food quality
- 'Farm to fork' perspective and establishment of traceability methods and techniques, especially for export commodities
- Intensification of enforcement efforts

But these are done without adequate infrastructure and manpower capacity

Private Sector efforts include

- Company/Industry 'codes of practice' or audits to build trust and reputation in business, which is especially important in export sector
- Bundling of various standards as a package so that aspects of production, processing and marketing are integrated with appropriate standards
- Supply chain control through dealing with 'preferred suppliers' so that quality can be ensured through proper monitoring, and incentives and penalties.

### **Concerns about SPS**

In spite of rising food trade, there are concerns about food standards in the developing countries. These include"

Trade policy concerns

- Developed countries are prone to using protective trade barrier by putting tax on value added products and by asking for increased SPS
- In the formulation of global standards, developing countries lack 'voice', so the opinions of the developed countries dominate
- Compliance with increased food standards require technical and administrative capability, which developing countries lack, hence it becomes a burden
- Cost of compliance is very high

Development Fears

- Demand for higher standards may undermine comparative advantage of developing countries and restrict export as a vehicle for growth
- This may also arrest rising export and even reverse trade progress
- Since most developing country producers are smallholders and exporters are also small businesses, both may be marginalized by multinationals and supermarket chains that are emerging with better capacity to deal with food standards.

In this context, the main questions are:

- What are the specific challenges posed by emerging official and private standards?
- What strategies being used to meet or influence requirements?

- What are the actual magnitude of compliance costs and benefits ?
- What are the trade-off between actual safety and costs?
- Who are the ‘winners’ and ‘losers’ of emerging standards ?
- Can a lesser set of standards provide safer food in developing countries to a broader set of people and serve as a basis for developing export standard?
- What are the implications of these trends for rich countries, the development community, and developing countries ?

### **Studies to understand role of SPS**

In order to understand the concerns about SPS better with objective information, two sets of studies have been conducted recently. The World Bank conducted supply chain case studies in 9 countries on the following commodities (World Bank, 2005):

Fish & fishery products	: Kenya, Senegal, India, Thailand, Nicaragua, Jamaica
Fruit & Vegetables	: Kenya, Morocco, Thailand, Jamaica
Animal Products	: Ethiopia, Latin America Southern Cone
Nuts & Spices	: Senegal (Groundnuts), India (spices)

Moreover they conducted buyer surveys in the USA, EU, Japan, and conducted desk review of capacity-building programmes of several donors.

The other set of studies were conducted in 11 countries specifically on livestock commodities (Perry et al. 2005):

- Vietnam, Thailand, Philippines – pork and poultry products
- Ethiopia - meat and live animals
- Kenya - pork and poultry products
- South Africa, Namibia – beef, lamb, goat meat
- Costa Rica, Guatemala, Honduras, Nicaragua – beef and dairy products

The key messages from the studies are as below:

- Rising standards are a ‘double-edged sword’- it created opportunities for some; risks for others
- Benefits of compliance often exceed costs
- There are rooms for maneuver through strategic choice of markets, approaches, details with respect specific SPS requirements of specific importing countries as within the framework of global standards, specific requirements vary between commodities and importing countries
- There is a need for more/better capacity building to comply with rising standards and often it requires external assistance
- SPS has to be used as an instrument in the wider context of competitiveness in global trade

With respect to effect of rising SPS on market access, the studies found the following:

- On the question on whether it is a barriers to trade, it appears that
  - Animal/plant health can be possible absolute barrier in some cases, especially where health and sanitary infrastructure are poor
  - For food safety, private standards may sometimes be more important for quality assurance because of close monitoring and business interest of the enterprises in a situation where both infrastructure and enforcement capacity of the public sector is poor, even if regulations are on paper
  - SPS can create conflicts due to indirect trade barrier and protection but such conflict may not always be between the South and the North but also between competing South countries.
- On the question non whether SPS is trade Creating, the studies found that
  - Standards serve as catalysts for export growth, especially where suppliers and importers practice product differentiation to meet each other's needs

Overall, in spite of the difficulties, rising high value food trade (Figures 1 and 2) indicate that many countries are successfully managing standards by strategically responding to demands for SPS. Some illustrations are given below.

### **Using SPS for expanding export**

Several steps may be taken by the developing countries to use SPS. These include a set of strategic choices and choice of time and nature of response. The strategic choices include:

- **Compliance:** Changes in business practices which serve to meet international or trade partner product/process standards. This is viable where private sector role important because of close monitoring capability
- **Voice:** proactive role in WTO complaints/cross-notifications to build confidence, participation CODEX, conducting bilateral negotiations and negotiations with buyers. Voice depends on power and it is a viable instrument where size of industry or market share large.
- **Re-direction:** Shift export markets depending on better opportunities guided by market intelligence, shift to domestic market especially where the size of the urban market for high value commodities is expanding, and change product mix to meet new demands.

With respect to timing of response, the following options may be taken:

- **Proactive:** Anticipate future requirements and act ahead of time in a manner that minimises costs or maximises benefits
- **Reactive:** Wait until requirement is put in place and then take actions

With respect to the nature of response, the options may be taken:

- **Defensive:** Take measures to minimise the changes required

- **Offensive:** Exploit the measures as an opportunity to gain competitive advantage

Some examples of specific actions that can be taken with respect to the above strategies are as follows:

- Legal/regulatory change
- Restructure/increase control over primary production
- Intensify disease/pest surveillance
- Undertake technical/scientific research
- Increase product testing
- Upgrade packing/processing facilities
- Develop/apply risk management systems (i.e., HACCP)
- Strengthen accreditation/certification arrangements

The various case studies found the following in the case study countries :

- **Common approach was :**
  - Reactive, and ‘fire-fighting’ approach, i.e., actions to combat a trade interruption or perceived threat
  - Lack of ‘strategy’ except at very micro level
  - Most ‘voice’ is bilateral rather than multilateral
- **Proactive actions were exceptions where:**
  - There is strong private sector leadership
  - Very strong public-private collaboration
  - Main stakeholders understand the consequences
- Production/ Raw Material Sourcing

The main compliance costs for SPS standards are

- Hygiene, agro-chemical use, record-keeping, certification
- Processing/exporting: proper buildings, equipment, QA systems, staff training
- Public sector and the industry : ‘Competent authority’, inspection + certification capacity, testing
- Importers / retailers or whole supply chain: Quality system, rejections, quarantine, re-grading / repacking

Actual assessment of several cases on costs of compliance show that such costs

- Vary significantly depending on
  - Starting point/baseline conditions
  - Timing of response
  - Strategic choices
  - Industry structure and collective action being practised
  - Firm size
  - Prevailing service capacities
- Investment costs are to 5% of multi-year value of trade

- Recurring costs are 3% of annual sales
- Much higher in cases of crisis—pest/disease outbreak; trade ban
- Direct costs much higher than losses from non-compliance!!!!

Where practiced properly, the main benefits of compliance are the following:

- **Continued market access:** wider commercial options
- **Access to better market segments:** higher prices, brand equity
- **Image as trusted supplier:** less competition, less inspection
- **Prevent ban:** no forgone business, no price cuts
- **Productivity gains:** rationalization of processes; reduced wastage
- **Health and environment:** worker safety, cleaner water, domestic food safety spillover
- **Rising standards as catalyst :** modernization of export chain, Incentives for safer practices, Potential new sources of competitive advantage, Induce increased collective action

**The following issues and concerns emerged from the livestock related SPS studies:**

- How can developing country stakeholders be included more effectively in setting and adjudicating trade rules and standards?
- Is the commodity-based livestock trade safe and pro-poor? Can safe commodity be derived sustainably from areas or production systems outside disease free or risk free zones?
- What is the synergy between development of SPS standards in livestock products and public health, and how to integrate actions on these?
- How can poor livestock keepers participate in commodity value chains? What are the implications of outgrower or contract farming schemes?
- How can developing countries become better equipped to deal with the challenges and complexities of the global trade in livestock products?

**Implications for Capacity Building**

The case studies revealed several areas which need improvement through capacity building support. In the face of evolving standards, national commercial and development objectives should give attention to the following:

- Improve domestic food safety along with agricultural productivity for better public health
- Mitigate adverse effects on vulnerable groups- both producers and consumers
- Maintain/obtain market (segment) access
- Maximize benefit/cost ratio
- Position industries for long-term competitiveness



Specific SPS management functions on which attention should be given include:

- Apply GAP, GMP and HACCP (farms + firms)
- Develop legislation and standards
- Register/control feed, agro-chemicals, vet drugs
- Conduct basic research, diagnosis and analysis
- Accredite labs/vets/other 3rd party entities
- Develop/apply quarantine procedures
- Conduct epidemiological surveillance
- Inspect/license food establishments
- Develop/maintain pest or disease-free areas
- Test products for residues and contaminants
- Establish/maintain products traceability
- Report possible hazards to trading partners
- Notify WTO/trading partners on new SPS measures
- Participate in international standard-setting
- Negotiating agreements

In order to achieve these, internal resources, especially technical capabilities, are not likely to be enough. So donor support will be required. However, donor priority in this area is still very low even though support for export promotion is generally appearing to be rising. For example, current value of exports of high value commodities is US\$ 75 billion per year including US\$33 billion of livestock products but donor support for SPS is only US\$ 75 million per year of which US\$70 million is by World Bank alone. On the other hand, farm support for agricultural products in rich countries is over US\$ 300 billion a year. The impact and sustainability of such a situation is mixed because

- Most support is for reactive, 'fire-fighting' measures- once a crisis has occurred
- Technical, top-down bias in the support content
- Little analysis of costs and benefits
- Lack of good practice elaboration/consensus
- New and complex area, so there is small effort for learning by doing

The implications for the donor community are the following:

- Meet increasing demand from developing countries
- Improve the quality and sustainability of current support
- Foster strategic, pro-active approaches
- Help with articulation of need for capacity building
- Tie in with trade and broader rural/PSD development initiatives
- More coordination needed among donors

The World Bank has started following some of these.

### **Conclusions**

Rising SPS should be seen as an opportunity by the developing countries to expand export as well as meet increasing domestic demand for better quality and safer food. In the export market, it can sometimes be a constraint but addressing this is likely to bring long term benefit rather than trying to bypass it. The developing countries should

- Adopt forward-looking, strategic approach
- Offensive and preventative measures, rather than crisis response
- Recognize that awareness and facilitation is more effective than controls
- Collective action is required for prioritization and implementation
- Voice is important, yet only if twinned with evidence and capacity

The developed countries should :

- Include in regulatory assessment impacts on developing country access and costs—mitigate adverse effects
- Increase direct support to level the playing field and enable compliance
- Harmonize standards where feasible (both official and private)

## References

Perry, B , Nin Pratt, A, Sones, K and Stevens. C. (2005) An appropriate level of risk: balancing the need for safe livestock products with fair market access for the poor. FAO PPLPI Working paper no 23. International Livestock Research Institute, Nairobi, Kenya and FAO, Rome, Italy.

World Bank (2005) Food safety and agricultural health standards- challenges and opportunities for developing country exports. World Bank, Washington, D C, USA.

## Questions and answers

Q. 1 “Private standards are more important than public standard for quality assurance” please explain a bit for better understanding. By Dr. A. S. M. Hamidur Rahman, Ex. ICDDR,B, Scientist

Ans: In many countries public standards are limited to formulation of regulations because lack of infrastructure and technical manpower do not permit proper enforcement. Consequently, there is little confidence among importers about compliance. On the other hand, private sector businesses engaged in food exports have vested interest in assuring SPS standards in order to sustain export, so they build in-house capacity, within the national policy framework, to comply with standards, and because of close supervision and monitoring, the enforcement is much better. In such cases, the performance may be even better when private and public sectors come together to play complementary roles with their respective comparative advantages.

Q. 2 How can we prevent bio-terrorism? By Dr. Laila Anjuman Banu

Ans: In the food sector, better SPS compliance in itself will prevent possibilities of bio-terrorism through food.