Brussels Rural Development Briefings

A series of meetings on ACP-EU development issues

Meeting food safety standards: implications for ACP agricultural exports

Resources on food safety and agricultural health standards[1]

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Briefing no. 11

Resources on food safety and agricultural health standards[1]

Brussels, 11th May 2009

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Revised version September 2012

The information in this document was compiled as background reading material for the 11th Brussels Development Briefing on food safety and agricultural heath standards[1]. The Reader and most of the resources are available at http://brusselsbriefings.net

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1. Introduction

International trade in food products has expanded enormously over the last decades, notably in high-value food products, fuelled by changing consumer tastes and advances in production, transport, and other supply-chain technologies.

Fresh and processed fruits and vegetables, fish, meat, nuts, and spices – which have higher income elasticities of demand and, in most instances, lower price volatility than many traditional developing country export commodities – now collectively account for more than 50 percent of the total agri-food exports of developing countries. Their share of developing country trade continues to rise while that of traditional commodities - such as coffee, tea, cocoa, sugar, cotton, and tobacco - declines. Patterns of consumer demand and commercial development in both industrial and middle-income countries will reinforce this trend and continue to provide outstanding opportunities for competitive suppliers of high-value foods[2].

Besides demand-related factors, an important development that affects the magnitude of the opportunities facing developing country suppliers is the proliferation and strengthening of food safety and agricultural health standards, a process occurring at the national and international levels, as well as in individual supply chains.

Trade in these products is, in fact, governed by a growing array of food safety and agricultural health standards which have been developed to address various risks including those associated with microbial pathogens, pesticides and veterinary pharmaceuticals, environmental contaminants and toxins and the spread of plant pests and animal diseases. This increased attention to food safety and agricultural health risks stems in part from scientific advances, but it is also substantially driven by shifts in consumer demand and by a series of food safety scandals and disease outbreaks in industrialized countries[3].

Thus, the past decade has seen a proliferation and strengthening of sanitary and phytosanitary (SPS) standards, in the public and private sectors alike. The standards regime continues to evolve internationally, nationally, and within individual supply chains[4].

Although food safety and agricultural health standards are designed to manage risks associated with the spread of plant and animal pests and diseases and the incidence of microbial pathogens or contaminants in food, standards also can be used as a trade protection measure. As trade tariffs are decreasing and the use of other traditional trade barriers are disciplined by the WTO trade Agreements, the focus of governments on sanitary and phytosanitary (SPS) measures for international trade of agricultural products is intensifying[5].

Most standards are imposed by national governments or private bodies in the industrialised world, but the effects trickle down across the whole supply chain:

compliance with these standards becomes necessary for producers to remain in the supply chain therefore affecting developing country farmers who supply these markets. The main questions lie in whether developing countries' farmers benefit or suffer from greater sanitary norms, how smallholders in developing countries can comply to new standards in order to supply industrialised markets and how governments and private bodies can assist small producers and harmonise their standards internationally.

Access to developed countries' markets remains one of the leading demands of developing countries in the negotiations for agricultural trade liberalization. For many exporters this means access to high value retail chains in industrialised countries but whose access is becoming more difficult rather than less. Products must now meet not only the importing country regulations, but also those set by major importers and retailers which are often more complex and stringent than those of governments[6].

Meeting food safety standards: implications for ACP agricultural exports

There is growing concern within the international development community that standards will undermine the competitive progress already made by some developing countries and present insurmountable barriers to new entrants into the highvalue food trade. There is particular concern that:

- emerging food safety and agricultural health measures will be applied in a discriminatory manner;
- developing countries lack the administrative, technical, and other capacities to comply with new or more stringent requirements;
- the costs incurred to reach compliance will undermine the comparative advantage of developing countries in the high-value food trade;
- institutional weaknesses and compliance costs will further marginalize weaker economic players, including smaller countries, enterprises, and farmers; and
- inadequate support is available for capacity-building in this area, despite the provisions made in the WTO Agreement on the Application of Sanitary and Phytosanitary Measures[7].

2 The international system of standard-setting on SPS matters

Different international regulations and legislations have been developed to protect the safety of consumers, to ensure fair trade practices in food trade, and to promote coordination of all food standards undertaken by international governments and nongovernmental organizations[8];

The Codex Alimentarius

Based on the idea of an international agreement on minimum food standards, the Codex Alimentarius Commission (CAC) was created in 1963 as a joint FAO/WHO program. Its declared purposes were to protect the health of consumers and ensure fair practices in food trade.

The Codex Alimentarius is a collection of food standards, codes of practice, guidelines and other relate texts. Codex standards represent agreements between member countries and are not therefore intended to lead to certification programmes. However, Codex standards have become global reference points for consumers, food industries, national food agencies and the international food trade.

Codex normative texts fall into three groups:

- the standards, usually related to product characteristics. They can be general standards that apply to all product groups (for instance the maximum residue limits for pesticides or veterinary drugs), or commodity standards that are specific to a certain food (for example, milk or poultry).
- the code of practices, defining the production, processing, manufacturing, transport and storage practices that are considered essential to ensure the safety of food for consumption.
- the guidelines, which can be principles that set out policy in certain key areas, or interpretative guidelines for the understanding of these principles or for the interpretation of the provisions of the Codex general standards.

Some Codex texts are especially relevant for private standards in so far as they establish the general requirements for private operators in terms of food safety management. The most significant one is the Recommended International Code of

Practice on General Principles of Food Hygiene, which establishes the general principles

that national regulations or Good Hygienic Practices should follow with regard to each step of the food chain. It is dedicated to serve as a general scheme for Good Hygienic Practices, but it also establishes requirements for quality control (management of temperature/time, monitoring of incoming materials, product packaging, product identification, product recall) and even for quality assurance (personal training, control of records, definition of responsibilities)

The annex of the code, "Hazard analysis and critical control point (HACCP) system and guidelines for its application", specifies the definition of "HACCP principles", "HACCP system" and "HACCP-based system" and precisely establishes that a HACCP system requires the implementation of seven principles plus five other preliminary steps[9].

The World Organisation for Animal Health (OIE)

Two other standards-setting organizations emerged to play significant roles in the SPS arena. The Office International des Epizooties (OIE) was established in 1924, following an outbreak of rinderpest in Europe and in May 2003 became the World Organisation for Animal Health but kept its historical acronym OIE.

Its main tasks have been: (1) global dissemination of information obtained from members on outbreaks of diseases; (2) collection, analysis, and dissemination of scientific information on disease control; (3) technical and institutional support to developing countries in their efforts to build capacity to control animal diseases; and (4) the setting of standards that countries can use to protect themselves against the introduction of diseases or pathogens[10].

The International Plant Protection Convention (IPPC)

The International Plant Protection Convention (IPPC), created as part

of an international treaty signed in 1952, aims to "secure common and effective action to prevent the spread and introduction of pests of plants and plant products and to promote appropriate measures for their control." The IPPC and various affiliated regional plant protection organizations have worked to promote good practices in their field, in part through the development of international standards and guidelines for pest risk analysis, plant quarantine, the establishment of pest- free areas, the use of irradiation as a phytosanitary measure, and so on. The original Convention has been revised or amended several times[11].

The WTO multilateral trade agreements

The linkages between Codex, OIE, and IPPC and the evolving trade framework for agricultural and food products were formalized in the years following creation of the WTO. Codex signed agreements with the WTO under which it would create trade standards that the WTO would use to resolve international trade disputes. The IPPC and OIE subsequently formalized their relationships with WTO. The legal basis for standards created by Codex, OIE, and IPPC was provided by the Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) and the Agreement on Technical Barriers to Trade. These were included among the Multilateral Agreements on Trade in Goods and annexed to the 1994 Marrakech Agreement that created the WTO[12].

The Sanitary and phytosanitary (SPS) Agreement

The Sanitary and phytosanitary (SPS) Agreement allows WTO members to implement border measures in pursuit of objectives relating to human, animal and plant life or health. Governments are encouraged to use international standards when designing their policies and to recognise others' countries' compliance procedures as equivalent to their own, if the same level of sanitary and phytosanitary protection is achieved. In cases in which countries wish to adopt a higher level of sanitary and phytosanitary protection than international standards, they must ensure that their measures are based on a assessment of the risks to human, animal and plant health, taking into account the risk assessments techniques developed by relevant international organizations; the Codex Alimentarius for food safety, the WHO for animal health and the IPPC for plant health. The objective of minimising negative trade effects is to be taken into account when determining the appropriate level of sanitary and phytosanitary protection.

The SPS Agreement maintains the sovereign right of any government to provide the level of sanitary ad phytosanitary protection it deems appropriate, while ensuring that these sovereign rights are not misused for protectionist purposes and do not result unnecessary barriers to international trade. A sanitary and phytosanitary restriction which is actually not required for health reasons can be a very effective protectionist device, and due to its technical complexity, a particular particularly deceptive and difficult barrier to overcome[13].

The SPS Agreement thus sets out broad ground rules for the legitimate application of food safety and agricultural health measures, many of which have the potential to affect international trade. Scientific justification is called for wherever standards are deemed to not be based on established international standards. Even with ground rules, however, complications are inevitable, given the wide range of areas for which no agreed international standards exist and the many areas in which scientific knowledge is incomplete. Indeed, many of the controversies that have erupted question the legitimacy or appropriateness of measures taken in the midst of scientific uncertainty[14].

The Agreement on Technical barriers to Trade (TBT)

The WTO Agreement on Technical barriers to Trade (TBT) tries to ensure that regulations, standards, testing and certification procedures facilitate trade and not give rise to unwarranted protection for domestic producers. The Agreement was part of the outcome of the Uruguay round and extends and clarify the 1979 Code that was reached in the Tokyo round of multilateral trade negotiations. It requires that technical regulations and standards, as well as testing and certification procedures, be transparent, justified by legitimate

objectives, such as nationals security; prevention of deceptive practices, human health and safety, animal an plant life and health, or environment protection, and do not create unnecessary obstacles to trade. Countries have the right to pursue domestic policy objectives through technical regulations and conformity assessment procedures; however, when designing these measures, they are required to use relevant international standards, if these exist and would be effective and appropriate;

The TBT Agreement covers all technical measures (regulations, standards, testing and certification procedures) relating to any product or process and production method, except sanitary and phytosanitary measures, which fall under the auspices of the SPS Agreement. Examples of measures that fall under the TBT but not the SPS include technical regulations and procedures concerning composition and packaging, marking and labelling, process and production methods and final product characteristics[15].

The standards, guidelines, and recommendations developed by Codex, OIE, and IPPC reflect international scientific consensus on good risk management and appropriate hazard tolerance levels. They can be used by developing countries in establishing their legislation and management systems related to SPS matters. Further, they provide important benchmarks that developing countries can use in dialogue and negotiations with trade partners when technical or administrative disputes arise. However, in the context of developing country trade in high-value agricultural and food products to industrialized countries, the standards developed through the three sister organizations have frequently been superseded by national regulations or by specific requirements laid down by private supply-chain leaders [16]

3. The EU integrated approach to food safety: an overview

The EU integrated approach to food safety aims to assure a high level of food safety, animal health, animal welfare and plant health within the European Union through coherent farm-to-table measures and adequate monitoring, while ensuring the effective functioning of the internal market.

The implementation of this approach involves the development of legislative and other actions:

- To assure effective control systems and evaluate compliance with EU standards in the food safety and quality, animal health, animal welfare, animal nutrition and plant health sectors within the EU and in third countries in relation to their exports to the EU;
- To manage international relations with third countries and international organisations concerning food safety, animal health, animal welfare, animal nutrition and plant health;
- To manage relations with the European Food Safety Authority (EFSA) and ensure science-based risk management.

In all Member States and many third countries, the overarching principles concerning food safety and consumer protection are established in national legislation. However, at EU level, food legislation has evolved without some of these basic principles having been established in an overarching legal instrument: the European Parliament and the Council adopted Regulation n. 178/2002 laying down the General Principles and requirements of Food Law of 28th of January 2002 [17].

The aim of the General Food Law Regulation is to provide a framework to ensure a coherent approach in the development of food legislation. At the same time, it provides the general framework for those areas not covered by specific harmonised rules but where the functioning of the Internal Market is ensured by mutual recognition.

It lays down definitions, principles and obligations covering all stages of food/feed production and distribution.

General Objectives

The food law aims at ensuring a high level of protection of human life and health, taking into account the protection of animal health and welfare, plant health and the environment. This integrated "farm to fork" approach is now considered a general principle for EU food safety policy.

Food law, both at national and EU level, establishes the rights of consumers to safe food and to accurate and honest information. The EU food law aims to harmonise existing national requirements in order to ensure the free movement of food and feed in the EU. The food law recognises the EU's commitment to its international obligations and will be developed and adapted taking international standards into consideration, except where this might undermine the high level of consumer protection pursued by the EU.

Risk Analysis

The Regulation establishes the principles of risk analysis in relation to food and establishes the structures and mechanisms for the scientific and technical evaluations which are undertaken by the European Food Safety Authority (EFSA).

Depending on the nature of the measure, food law, and in particular measures relating to food safety must be underpinned by strong science. The EU has been at the forefront of the development of the risk analysis principles and their subsequent international acceptance. Regulation EC 178/2002 establishes in EU law that the three inter-related components of risk analysis (risk assessment, risk management and risk communication) provide the basis for food law as appropriate to the measure under consideration. Clearly not all food law has a scientific basis, e.g. food law relating to consumer information or the prevention of misleading practices does not need a scientific foundation.

Scientific assessment of risk must be undertaken in an independent, objective and transparent manner based on the best available science.

Risk management is the process of weighing policy alternatives in the light of results of a risk assessment and, if required, selecting the appropriate actions necessary to prevent, reduce or eliminate the risk to ensure the high level of health protection determined as appropriate in the EU.

In the risk management phase, the decision makers need to consider a range of information in addition to the scientific risk assessment. These include, for example, the feasibility of controlling a risk, the most effective risk reduction actions depending on the part of the food supply chain where the problem occurs, the practical arrangements needed, the socio-economic effects and the environmental impact. Regulation EC/178/2002 establishes the principle that risk management actions are not just based on a scientific assessment of risk but also take into consideration a wide range of other factors legitimate to the matter under consideration.

Institutions

Overall responsibility for food safety stays with the EC DG Health and Consumer Protection (DG SANCO), whose task is to keep EU laws on food safety, on consumers' right and on the protection of public health up to date and to check that rules are being applied properly in all Member states.

Moreover, three organizations are mandated with implementing the EU risk analysis system, which build upon three pillars: risk assessment, risk management and risk communication:

- the EC with the Food and Veterinary Office (FVO) acting as the EC own inspection service. FVO mission Is to monitor the observance of food hygiene, veterinary and plant health legislation within the EU and in third countries

- the European Food Safety Authority (EFSA), whose primary responsibility is to provide independent scientific advice on matters with a direct or indirect impact on food security and to monitor developments in science, and

- the Rapid Alert system for Food and Feed, a network involving the EC, EFSA and members states of the EU and EFTA

Transparency

Food safety and the protection of consumer interests are of increasing concern to the general public, non-governmental organisations, professional associations, international trading partners and trade organisations. Therefore, the Regulation establishes a framework for the greater involvement of stakeholders at all stages in the development of food law and establishes the mechanisms necessary to increase consumer confidence in food law.

This consumer confidence is an essential outcome of a successful food policy and is therefore a primary goal of EU action related to food. Transparency of legislation and effective public consultation are essential elements of building this greater confidence. Better communication about food safety and the evaluation and explanation of potential risks, including full transparency of scientific opinions, are of key importance[18] .

Basic requirements for imports

Compliance or equivalence - Imported food must comply with the relevant requirements laid down in the Regulation or checked for compliance under conditions recognized by the EU to be at least equivalent.

Traceability – Unless specific provisions for traceability are in place, businesses are required to identify the immediate supplier of the product and the immediate subsequent recipient. Importers are therefore required to identify the exporter in the country of origin as their immediate supplier.

Responsibilities of importers - Importers like any business operator in the supply chain are responsible that food satisfies the requirements of food law. Where imported foodstuffs is assumed not to comply, importers shall immediately initiated procedures to withdraw the food from the market and inform the competent authority thereof[19].

Successively to the Regulation 178/2002, the EU has enacted a complementary set of rules to tighten and harmonise EU food safety measures. These may be distinguished in:

Horizontal legislation - In line with the EU's "farm to fork" approach, the EU Food safety horizontal legislation provides for rules across the food chain, which is common to all foodstuffs, such as food hygiene[20], food and feed control, contaminants, labelling etc[21].

Vertical legislation - EU food safety vertical legislation provides for provisions for specific products or product groups, such as fresh fruits and vegetables, frozen fruits and vegetable, fruit juices, wine, honey, chocolate, edible oil, meat, fish etc.) [22]

4. Public and private standards in the food chain

Contemporary agri-food systems are increasingly pervaded by an array of inter-related public and private standards. These are becoming a mandatory part of doing business in supply chains for processed food products, beyond basic bulk commodities. Governments have traditionally played the major role in establishing minimum food quality standards and regulations for their populations. This recognises a degree of government responsibility for food quality and safety issues to ensure, amongst other things, the availability of safe food for the population at large and to protect consumers from deceptive and fraudulent practices.

Standards continue to evolve in response to changes in technology, scientific developments regarding the risks associated with food and directly in response to consumer and societal demands. They have proliferated and diversified their coverage over time as societal activities have become more complex. At the same time, structural and institutional evolutions based on private control systems and enforcement procedures are taking place in the agri-food sector of many developed countries in conjunction with trends in consumer demand that have increased the role of private voluntary standards in food chains.

The wider use of private standards is refocusing agricultural and food supply chains from price-based to quality-based centres of competition. Quality food standards are now increasingly seen as private goods that differentiate food products and are increasingly in the domain of private firms. Public standards and regulatory controls have also evolved over time in most countries around the world, and have become ever more stringent and complex as consumers demand specific attributes or disclosure of information about certain attributes of food. Increasingly, supply chains for food products are extending beyond national borders, facilitated in part by new processed food products and a policy environment more supportive of international food trade. Minimum quality and safety standards while protecting the consumer often do not allow food retail businesses, food service companies and processing firms in a contemporary food system to differentiate their products based on quality attributes to protect and gain market share when competing in national and regional markets. As a consequence, private standards have emerged to fill this gap and to respond to regulatory developments.

As private food companies and retail businesses expand across the world and develop local and global supply chains, they set standards for the quality of foods they will purchase from suppliers and sell to consumers. These standards may be higher and more demanding than the minimum standards enforced by governments in their national markets. However, private standards as a fairly recent phenomenon are not yet universally applied with public standards still the dominant form of control in the food systems of some countries[23].

The rise of private standards

While public standards have been a feature of national food systems for many years, private standards are a relatively recent element of the food quality landscape and their scope and coverage differs widely across countries and food products. Private standards have proliferated in a number of industrial countries in recent years, operating alongside public regulatory systems and are playing an increasing role in the governance of agricultural and food supply chains.

To some extent, private food quality standards have emerged in response to increasingly stringent regulatory requirements and reputational risks, including product liability exposure, faced by leading firms operating supply chains, most notably major food retailers and food service firms. However they have also been employed to facilitate competitive strategies of product differentiation on the basis of an increasingly wide array of food quality characteristics or attributes designed to respond to new consumer demands and concerns.

Private standards are now well established in a number of developed countries and are gradually extending their global reach to middle income and some low-income countries. The latter reflects in part the consolidation that has taken place in the food sector resulting in increasing ownership concentration with a declining number of large multinational food retail chains, food service operators and food manufacturers. These firms have the bargaining power to impose their proprietary standards on different suppliers in sourcing their products from wide geographical areas and through competitive strategies centred on their own or private brands when operating across

national borders. As a consequence, national food quality control systems in many developed countries increasingly reflect a mix of public and private standards. Despite this growth, private standards are still by no means universal in their coverage with public standards continuing to dominate in some countries and for particular food product attributes and categories.

Private food standards continue to evolve in response to a general ratcheting-up of regulatory requirements about food quality and in response to changing consumer preferences and demand for higher quality and more varied food in general. Private food standards have enabled firms to meet these challenges as well as to differentiate their products and to refocus agricultural and food markets from price-based to quality-based competition. The role of private standards is supported on the demand side by affluent consumers in developed countries with sophisticated and varied tastes and on the supply side by production, processing and distribution technologies that allow product differentiation and market extension and segmentation[24].

Government SPS requirements versus private standards

As noted above, both governments and the private sector set standards for agri-food products. While government standards usually reflect social welfare concerns, private standards are typically motivated by strategic considerations at the firm level – product differentiation in the pursuit of market share, for example. Nevertheless, private standards may be in the interests of both producers and consumers especially if the latter demand products of a certain quality.

Government standards imply the existence of domestic or international legislation specifying the standard. They are set by law and hence typically mandatory. In contrast, private standards and their implementation, including conformity assessment, are the responsibility of the private sector. Private standards are thus defined as voluntary but can become quasi-mandatory if producers wish to gain access to a market in which the private standard applies to a large share of the market. Particularly in developing countries, producers and processors of agri-food products have increasingly faced strong pressure to comply with the private standards of supermarkets and retailers who dominate the global agri-food market with large market share. In setting standards, particularly those that impact on a firm's production process, governments typically seek expert/technological advice from producers. In fact, some process standards that were originally developed for use by a given industry, have since been adopted by government for more widespread use. Examples include the Hazard Analysis Critical Control Point (HACCP) system that was originally developed by the agri-food industry, as well as the standards developed by the International Standardisation Organisation (ISO). Private standards incorporate those governmental standards that are obligatory for producers. While private standards in the agri-food sector are based on government standards, they may also exceed governmental requirements. This particularly relates to requirements in the production process. On the one hand, private standards initiatives use tighter processing requirements that help producers differentiate their products and charge higher prices.

On the other hand, private standards initiatives insist on management systems beyond governmental requirements so as to better control quality. This is because recalls and food contamination scares can damage the reputation of an entire industry. The BSE crisis, for example, harmed consumer confidence in the safety of beef products leading to a large decline in beef consumption in Europe[25].

Although private standards are necessarily voluntary in nature, they may be applied by the majority of suppliers, reflecting the economic advantage of standardisation or market requirements. In terms of the latter, proprietary private standards may become virtually obligatory or "de facto" mandatory in some agricultural and food markets as supplying firms have little option but to comply in order to enter or remain within a market effectively controlled by a few large buyers with oligopsonistic power. The end result can be the same as if a public regulation had been imposed.

Private standards, which are increasingly buyer-driven in nature and global in reach, are seen as important drivers of change in

agrifood systems of developed and increasingly developing countries. The promulgation of private food quality standards has been supported by the development of quality metasystems such as Hazard Analysis and Critical Control Point (HACCP) procedures, Good Manufacturing Practice (GMP), Good Agricultural Practice (GAP) and so forth. Some observers have viewed such meta-systems as "codes of conduct" for participation in the agri-food system and achieving a particular food quality attribute. Increasingly such systems are seen as governing the operation of the entire supply chain from farm production and processing to distribution and final retail sale of the food product[26].

5. What impact do greater agricultural health standards have on developing countries?

According to different studies, the impact of stricter food safety and agricultural health standards upon suppliers in developing countries may vary: stricter SPS standards can represent an opportunity or pose major challenges for producers who cannot comply with them[27].

The extent to which producers in developing countries will benefit or suffer from increased standards depends on the pro-activity of the suppliers, on the level of vertical integration of supply chains and on the type of industry.

Stricter agricultural health standards can offer interesting opportunities...

- Strict standards can create the incentive for producers to invest in modernising their production processes and output; they can also help exporters which are able to comply with the standards to maintain or improve their market access into developed countries and reinforce their competitiveness.

- There is a general perception that SPS compliance costs excessively compared to the benefits, but many positive intangible consequences are unaccounted for (such as productivity gains, reduced wastage, worker safety, environmental benefits, regularity of demand, closer relations with buyers, etc.). Challenges may represent a worthwhile investment compared to the future benefits in terms of more exports, access to markets, quality of products, etc.).

- Larger suppliers have an advantage over smallholders, to adapt to new standards as they can realise economies of scale, have better access to information, have more stable and long-term relations with buyers in industrialised countries, etc. and they can be proactive in adapting to new standards. A success story is Kenya's horticultural production and trade, which has adapted to stricter standards and has now enhanced the competitiveness and market share of its producers[28].

But standards may also exclude certain producers and create barriers to trade.

- Stricter standards may exclude smallholders and farmers in low-income countries who lack the capacities to comply. These include lack of finance, technical knowledge, regulatory framework, etc.

- Health and quality standards may represent a form of non-tariff trade barrier: there is concern that as trade barriers are slowly being eliminated in multilateral trade negotiations, these are being replaced by non-tariff trade barriers, such as stricter regulations on food imports. Developing countries benefit from preferential access to European markets through different schemes (the Everything But Arms initiative for

LDCs, the General System of Preferences for others, and the Economic Partnership Agreements for ACP countries). But these preferential arrangements may be undermined by the proliferation of more complex SPS measures[29].

The cost of compliance with stricter food safety and agricultural health standards

The cost of compliance varies by country, by industry and by actor. Some changes can be incremental, particularly actors who have anticipated the stricter regulations and have adapted their strategies. Suppliers in integrated supply chains are more likely to be informed of changes in requirements before stricter standards are imposed.

The cost of compliance depends on the point of departure, i.e. the level of food safety and hygiene of a producer's output before new standards are set. The greater the need for upgrading, the more costly the cost of compliance becomes. Actors in developing countries are faced with the cost of modifying their processes, but also with the associated costs of testing the products and carrying out conformity assessments. Even if a developing country complies with the requirements of the importing country, the costs of demonstrating this may be prohibitively high.Given the potential profits following access to particular markets, the cost of compliance may appear modest and be a worthwhile investment[30].

Participation in the standardization process

As far as the international standard-setting process is concerned, a problem that has been identified in the literature is that scientific expertise and resources vary greatly among member nations. This tends to give an advantage to developed countries over developing nations in setting standards.

Many developing countries are increasingly being integrated into the international standardization system but a considerable number of low income countries are still not actively participating in this process, although they continue to be affected by it. The implementation of food standards and regulations involve costs and potentially important costs for developing countries when commitments are bound in negotiated trade agreements. Some of these costs arise from the normal requirements for testing and certification (conformity assessment) procedures necessary to determine if a food product meets standardised requirements justified by scientific risk. However, cost duplication can also arise for developing countries in determining conformity to varying national technical regulations for gaining market access for example to the different Member State markets in the European Union[31].

The case of private standards and small-holder agriculture: exclusionary or not?

In contrast to globally negotiated disciplines on governmental actions, private standards address a mix of health protection and other objectives – including social and environmental concerns that are not related to food safety or plant/animal health protection. These private requirements may have no scientific justification, but may address consumer perceptions of what is safe or unsafe, or may reflect production practices common in developed countries but unknown and/or perhaps unsuitable for developing country producers.

Moreover, there is a proliferation of distinct private requirements, with little harmonization and certification must also be renewed regularly, whether or not production conditions have changed.

Development strategies to increase sources of income for small-holders have often focused on trade in high-value products, on the premise that given their abundant labour supply they should have a comparative advantage in those crops which make use of this resource. Fresh fruits and vegetables are more intensive in labour use than homogenous commodities, and are of higher-value. Thus, fruit and vegetable export crops have been widely promoted through trade related capacity-building programmes.

But global markets for high-value products are very often ones that are retailer dominated, for which access is keenly competitive and for which quality and safety requirements are stringent. In addition, they require deliveries of specific volumes at scheduled times. For exporters dealing with small holders, these two requirements are often difficult to meet on a regular and reliable basis.

Where orders require certified produce, integrating small-holders in the global value chains (GVCs) implies getting them certified. However, the constraints for doing so can be severe and are often not easy to relax.

Such constraints include:

- Low levels of education/literacy prohibit many from easily understanding and adopting the requirements of national legislation, good agricultural practices (GAPs) and/or other private standards,
- Low agronomic knowledge and technical skills require technical advisors and extension workers to improve quality, safety and productivity,
- Lack of record keeping skills, tied to literacy,
- Lack of management skills,
- Costs of farm upgrading and certification can be high and often prohibitive,
- Limited associative participation.

According to a 2007 OECD report, it appears that large producers and exporter- producers are able to adapt to meeting private standards requirements for market access. They are in a position to reap the benefits from accessing the global value chains and from being linked to the leading retail firms through more stable sales relationships. This permits them to accumulate social and management capital by dealing with these chains. For small-scale producers the situation is substantially different, in that they are facing two major constraints. First, they often lack basic skills, notably education and more fundamentally, literacy. Second, they are often confronted by a lack of resources, both financial and physical, such as land and equipment. From the evidence provided, required certification of compliance with private voluntary standard schemes contributes to the exclusion of small holders from global value chains even where infrastructures and services operate efficiently and reliably[32].

Partnerships with exporters

A feasible way enabling of small-holder access to the global value chain is through contracting with exporters who need supplies to meet the required volumes in the export market. These exporters generally finance inputs, provide training, monitor production, often including managing and undertaking chemical applications and do the record- keeping. They thereby assist small-holders in becoming certified, which makes them a key actor in the integration of small-holders into the global value chains[33].

The role of national governments

Even in cases where, through partnerships and/or other forms of assistance, the constraints to GVC access that are internal to the production process can be eliminated, the external ones may remain. Thus the small-holder issue remains a difficult and pressing problem as it is also likely to be linked to issues of income and development. The question then becomes whether public efforts, instead of aiming for GVC access for small-holders, should be directed to either helping them to supply markets – local or foreign – that are less demanding in terms of quality and certifications, or to pursue other, more long run economically viable, income opportunities.

Moreover where infrastructure, both in terms of public services and institutions, perform less well, the difficulties of into integrating global value chains increase substantially[34].

Technical and financial assistance

It appears that inclusion of small-holders into the global value chain is complex and their integration fragile, not only because of required certification to private voluntary standards but also because they are small and cannot benefit from economies of scale or easily adapt to evolving market and economic environment. Private voluntary standards (PVS) will continue to increase in scope and stringency overtime as their minimum is set by government rules and regulations, which are not likely to move down in areas of food safety, environmental sustainability or other society objectives neither.

Indeed, it is more likely that private standards will increase in stringency and scope, just as public regulations in food safety and traceability do.

Only if there is sufficient financial and technical assistance available, as well as continual monitoring and management oversight, are small-holders able to meet the private standards necessary to access GVCs linked to lead retailers in developed countries.

The sums necessary for small-holders to be certified under the PVS schemes, the management efforts required and uncertainties as to the long-term viability of small- holder certification, raise questions bout development strategies postulated on small- holder production of high-value agricultural produce for export: what aid and cooperative efforts have the potential to change the earning capacities of smallholders over the long-run? How should the opportunity costs of such aid be evaluated? And how to deal with a growing divergence in earning capacities between those who are successful in integrating the global value chain, and those who are not?[35].

Consumers are showing an increasing interest in ethical aspects of agrifood production and trade, including fair trade, safe working

conditions for producers and employees, and sustainable and environmentally-friendly natural resources management. Ethical consumerism seeks to reaffirm the moral dimension of consumer choice by emphasising the links between production and consumption, locally and globally. Taste and price still dominate the evaluation criteria but ethical considerations are becoming the driving brand choice. Propensity to buy ethical products is growing but poor in-store merchandising and lack of choice (rather than price) seem to be slowing further adoption.

Knowledge of credence attributes is complex in itself and information generated by producers and public action is abundant and complex too. Consumers often find it difficult to understand the differences between various certifications or how to properly judge the reliability of a brand or a certification; no single label covers all 'green' areas. This complexity is to be regarded not only as a matter of education: consumers are confused because of bounded rationality and time constraints where there are lots of alternative products and a superabundance of information. 1

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Acronyms

ACWL	Advisory Center on WTO Law
ALOP	Appropriate level of sanitary or phytosanitary protection
APHIS	Animal and Plant Health Inspection Service
CAC	Joint FAO/WHO CODEX Alimentarius Commission
CCFL	Codex Committee on Food Labelling
CDC	Centers for Disease Control and Prevention
CCGP	Codex Committee on General Principles
COLEACP	Liaison Committee Europe, Africa, Caribbean, Pacific
DGSANCO	Directorate General for Health and Consumer Protection
DSB	Dispute Settlement Body
EIA	Export Inspection Authority
EIC	Export Inspection Council
EUREPGAP	European Good Agricultural Practices
FAO	Food and Agricultural Organization of the United Nations
FMD	Foot and Mouth Disease
FVO	Food and Veterinary Office
GAP	Good Agricultural Practices
GATT	General Agreement on Tariffs and Trade
GHP	Good Hygienic Practice
GLOBALGAP	Global Good Agricultural Practices
GLP	Good laboratory practices
GMO	Genetically Modified Organisms
GMP	Good Manufacturing Practices
GVC	Global Value chain
HACCP	Hazard Analysis and Critical Control Point

ICPM	Interim Commission on Phytosanitary Measures
ILAC	International Laboratory Accreditation Cooperation
IPPC	International Plant Protection Convention
JMPR	Joint Meeting on Pesticide Residues
ISPMs	International Standards for Phytosanitary Measures
ISO	International Organization for Standardization
JECFA	Joint FAO/WHO Expert Committee on Food Additives
JMPR	Joint FAO/WHO Meetings on Pesticide Residues
LOD	Limit of Detection
MRL	Maximum Residue Limit
OECD	Organization for Economic Co-operation and Development
OIE	Office International des Epizooties/ International Office of Epizootics
PIP	Pesticides Initiatives Program
PIPAA	Integrated Program for Agricultural and Environmental
PVS	Private voluntary standard
SPS	Sanitary and Phytosanitary measures
SSG	Small scale growers
STDF	Standards and Trade Development Facility
TBT	Technical barriers to trade
UNCTAD	United Nations Conference for Trade and Development
UNIDO	United Nations Industrial Development Organization
WHO	World Health Organization
WTO	World Trade Organization

Glossary[36]

Accreditation - A certification body can carry out certification programmes only if it is evaluated and accredited by an authoritative body (a governmental or para-governmental institute), which ensures that the certification body has the capacity for carrying out certification and inspection in compliance with guidelines set by ISO, the European Union or some other entity. In addition, the certification body may require a license from the standard- setting body, especially if it is a private standard-setting body, for the scope of its particular standard.

Certification - Certification is a procedure by which a third party gives written assurance that a product or a process is in conformity with the corresponding standard. Thus, the certificate demonstrates to the buyer that the supplier complies with certain standards, which might be more convincing than if the supplier itself provided the assurance.

Certification bodies - The certification programme is carried out by a certification body, which does the inspection and delivers the certificate. One certification body may execute several different certification programmes. The certification body must always be a third party, without any direct interest in the economic relationship between the supplier and buyer. However, it is not always easy to guarantee independence and the absence of conflicts of interest of certification bodies, in so far as certification costs are borne by suppliers. Indeed, certification is increasingly becoming an industry in itself, with growing competition between certification bodies, which must balance the need to retain clients with the stringency of their standards.

Certification label - Label to indicate that the product or the producing company has been certified against a certain standard.

Certification programme - A certification programme is the system of rules, procedures and management for carrying out certification, including the standard against which it is being certified.

Conformity assessment - Any activity concerned with determining directly or indirectly that relevant requirements are fulfilled. Typical examples of conformity assessment activities are sampling, testing and inspection; evaluation, verification and assurance of conformity (supplier's declaration, certification); registration, accreditation and approval as well as their combinations.

Due diligence defence – is a legal defence whereby the EU food business (importer or retailer) is able to demonstrate in court that they have taken all reasonable precautions and exercised due diligence in trying to avoid breaking the legal requirements. This defence is important for EU food businesses in terms of determining negligence and responsibility for insurance purposes. Fully documented food safety management systems with evidence of compliance in the form of detailed records and independent verification form a strong due diligence defence hence the interest by EU importers and retailers in private assurance schemes such as GlobalGAP and the BRC global technical standard.

Food safety management system - A "food safety management system" is the policy, structure and procedure implemented by the company to express its concern and involvement in food safety. Thus, a food safety management system is the application of a quality management system within the area of food safety. The implementation of good practices (often named "prerequisite programme") is a minimum requirement of a food safety management system but it is not sufficient in itself. In fact, standards on food safety management systems usually demand the additional implementation of procedures allowing the identification and the control of the hazards specific to the company, most of the time on the basis of the principles of the HACCP.

To summarize, a food safety management system usually includes:

- managerial and operational requirements on the model of the quality management system established by ISO 9001
- the implementation of prerequisite food safety programmes (good practices)
- procedures allowing the identification and the control of the hazards specific to the company, on the basis of the HACCP principles

Food safety standards - Standards for food production, processing, handling and distribution to ensure that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use.

Good Agricultural Practices (GAP) -

Private standard schemes for good agricultural practices (GAP) use a 'quality management' approach, with checks at key activity points to monitor production processes. The focus is on critical control points similar to HACCP systems to ensure food safety, but extended to include worker safety and to minimize environmental damage. Many countries, both OECD and non-OECD, have been adopting voluntary GAPs for agricultural production.

While adhering to a general risk management approach in agricultural production, these schemes in terms of protocols can be quite different. They may not only differ in objectives emphasized but also in terms of traceability, range of permitted agricultural practices, farm structures, hygiene and safety procedures, etc. They all require

recording of pre and post harvest agronomic practices, as well testing procedure results. These GAPs have increased in importance globally as demands for traceability of foods has increased in the 'farm to fork 'optic.

Global food Safety initiative (GFSI) – Launched in 2000 by the CIES, a network of leading EU and US retailers, the initiative provides a framework of key principles against which existing food standards can be benchmarked. GFSI is the first approach towards harmonization in the field of private standard, ensuring food safety from farm to fork while reducing the efforts and costs for multiple certifications.

GlobalGAP – Previously known as EurepGap, the standard started in 1997 as an initiative by retailers belonging to the Euro-Retailer Produce Working Group (EUREP). British retailers in conjunction with supermarkets in continental Europe were the driving forces. They reacted to growing concerns of the consumers regarding product safety, environmental and labour standards and decided to harmonise their own often very different standards.

Re-branded in 2007 as GlobalGAP, it is a widely certifiable standard for Good Agricultural Practices in conventional agriculture primary production, whose objective is to reassure consumers that food was being produced in a safe and sustainable manner within the context of a globalised food economy.

The GlobalGAP standard is subject to regular reviews to facilitate adaptation and developments in the industry and to consumers requirements;

Good practices - Good practices relate to basic requirements on the company's activities, such as use of appropriate equipment, personnel hygiene, waste management, etc. Standards on good practices can be called Good Agricultural Practices (GAPs), Good Hygiene Practices (GHPs), Good Handling Practices (also called GHPs) or Good Manufacturing Practices (GMPs), according to the aimed profession (primary producer, manufacturer, carrier, etc.). Such standards can also be specific to a product sector (fruit and vegetables, meat products, etc.). Standards on good practices may have a larger scope than food safety in so far as they address other aspects of quality (e.g. environmental or social issues). Good practices are often named "prerequisite programmes" within standards with a wider scope, for instance in ISO 22000 or in the annex of the Codex Alimentarius Code of Practice on General Principles of Food Hygiene.

Hazard Analysis Critical Control Point (HACCP) - The Hazard Analysis Critical Control Point (HACCP) concept was developed in the 1950s by the National Aeronautics and Space Administration (NASA) in order to guarantee that food used in the United States space program would be completely free of microbial pathogens. HACCP was then identified by the United States Department of Agriculture, Food Safety and Inspection Service (FSIS) as a tool to prevent or control microbial safety hazards during meat and poultry production. The HACCP concept has now become a valuable program for process control of all food safety hazards, not only microbiological ones. It has been legitimised by the Codex Alimentarius Commission, who incorporated the HACCP guidelines into the food hygiene code (CAC/RCP1) as an annex (see paragraph on Codex Alimentarius below) in 1997.

The HACCP concept is based on seven principles:

1. Conduct a hazard analysis: collect and evaluate information on hazards and conditions leading to their presence to decide which are significant for food safety

2. Determine the Critical Control Points (CCPs): identify for each hazard the steps at which control can be applied and is essential to prevent

or eliminate the hazard or reduce it to an acceptable level

3. Establish critical limit(s): establish for each CCP a criterion which separates acceptability from unacceptability

4. Establish a system to monitor control of the CCP: establish a planned sequence of observation or measurements of control parameters to assess whether the CCP is under control

5. Establish the corrective action to be taken when monitoring indicates that a particular CCP

is not under control: establish the actions to be taken when results of the monitoring of the

CCP indicate a loss of control

6. Establish procedures for verification to confirm that the HACCP system is working effectively: establish methods, procedures, tests and other evaluations, in addition to

monitoring, to confirm that the HACCP system is effective

7. Establish documentation concerning all procedures and records appropriate to these principles and their application

Thus, the HACCP method allows each company to identify and control the hazards specific to its activities.

Horizontal legislation – refers to legislation on issues that are common to all foodstuffs such as hygiene, labelling, additives and chemical residues

Horizontal traceability – refers to the ability to trace all the inputs made to production and processing of the food. If accurate records are maintained that identify food from planting through to export with unique code numbers it will be possible to trace details of who worked on the crop, fertiliser, water and pesticide inputs, soil history and origin of planting material. In post-harvest processing, the identity of persons who handled the food will be traceable as will details of any washing, trimming, cutting, refrigeration, storage and transport.

International Federation for Produce Standards (IFPS) - Previously known as International Federation for Produce Coding, the IFPS is composed of international fresh produce associations pand provides a global forum to address issue which require international harmonization or standardization of produce sectors. Originally created to address the international harmonization of the Price Look Up (PLU) codes – 4 or 5-digit number affixed to products at the retail level identifying the type of produce – the body expended its mission to the harmonization of international standards;

Labels - A certification label is a label or symbol put on the product indicating that the product or the process used to make the product comply with standards, and that this compliance has been certified. Use of the label is usually owned and controlled by the standard-setting body. While the certificate is a form of communication between seller and buyer, the label is a form of communication with the end consumer. Most food safety certification programmes are not the subject of a label unlike programmes addressing other quality aspects such as organic agriculture or fair trade. Therefore, they are mostly business to business (B2B) programmes.

Precautionary principle – Sanitary and phytosanitary measures are intended to be based on sound scientific evidence, however in emergencies it may not be possible to wait for scientific evidence to be available. In these cases the EU invokes the precautionary principle whereby immediate action can be taken in the absence of scientific evidence and justified at a later date when the evidence becomes available.

Private standards - Standards set by the private sector. According to the entity that releases the standard they can be distinguished in collective standards (established by sub- sector networks or company networks) and corporate standards (established by individual firms). As far as the scope covered, they can be vertical (cover all/several stages of the food chain) or horizontal (designed for one stage of the food chain: e.g. primary production at the farm level, value-adding at the processing level etc.)

Third country supplier – refers to any producer, processor or exporter in a country outside of the EU who wishes to supply foodstuffs or food ingredients to EU markets.

Traceability – refers to the ability to

trace and follow a food or substance intended to be incorporated into a food through all stages of production, processing and distribution. In practice this means a system of record keeping and documentation by food businesses to enable tracing or tracking of the movement of a product or ingredient through every stage of the food chain.

Vertical legislation – refers to legislation that deals with specific products, currently the EU has 9 vertical Directives dealing with cocoa, chocolate, sugars, milk products, honey, fruit juices and fruit jams.

Vertical traceability – refers to the ability to trace movement of food at different stages of the market chain. A good traceability system will allow food purchased by the final consumer to be traced back to an individual field, plot, orchard or block on the farm where it was grown.

The minimum legal requirement for vertical traceability in the EU is the so called “one up one down principle” whereby the importer must know who they have sold food too, but also know the country of origin and name and address of their supplier.

Footnotes

1 This Reader is not intended to exhaustively cover the issue of food safety and agricultural heath standards but to provide some background information and selected information resources. Most text of this Reader has been directly taken from the original documents or websites. For additional inputs, kindly contact Isolina Boto (boto@cta.int).
The Reader and most of the resources are available at http://brusselsbriefings.net/.

2 World Bank, Food Safety and Agricultural Health Standards: Challenges and Opportunities for Developing Country Exports, 2005, http://siteresources.worldbank.org/EXTBNPP/Resources/TF051844RegionGlobalstandardschallengessynthesisreport.pdf

3 World Bank, Food Safety and Agricultural Health Standards, cit.

4 World Bank, Food Safety and Agricultural Health Standards, cit.

5 World Bank, Changing European Public and Private Food Safety and Quality Requirements; Challenges for Developing Country Fresh Produce and Fish Exporters, 2005, http://siteresources.worldbank.org/INTRANETTRADE/Resources/Topics/Standards/EUBuyerSurveyF.pdf

6 OECD, Private Standard Schemes and Developing Country Access to Global Value Chains: Challenges and Opportunities Emerging from four Case Studies, 2007, http://www.olis.oecd.org/olis/2006doc.nsf/linkto/agr-ca-apm(2006)20-final

7 World Bank, Food Safety and Agricultural Health Standards, cit;

8 World Bank, Changing European Public and Private Food Safety, cit;

9 The Hazard Analysis Critical Control Point (HACCP) concept was developed in the 1950s by the National Aeronautics and Space Administration (NASA) in order to guarantee that food used in the United States space program would be completely free of microbial pathogens. HACCP was then identified by the United States Department of Agriculture, Food Safety and Inspection Service (FSIS) as a tool to prevent or control microbial safety hazards during meat and poultry production. The HACCP concept has now become a valuable program for process control of all food safety hazards, not only microbiological ones. It has been legitimised by the Codex Alimentarius Commission, who incorporated the HACCP guidelines into the food hygiene code (CAC/RCP1) as an annex (see paragraph on Codex Alimentarius below) in 1997.

The HACCP concept is based on seven principles:

1. Conduct a hazard analysis: collect and evaluate information on hazards and conditions leading to their presence to decide which are significant for food safety
2. Determine the Critical Control Points (CCPs): identify for each hazard the steps at which control can be applied and is essential to prevent or eliminate the hazard or reduce it to an acceptable level
3. Establish critical limit(s): establish for each CCP a criterion which separates acceptability from unacceptability
4. Establish a system to monitor control of the CCP: establish a planned sequence of observation or measurements of control parameters to assess whether the CCP is under control
5. Establish the corrective action to be taken when monitoring indicates that a particular CCP is not under control: establish the actions to be taken when results of the monitoring of the CCP indicate a loss of control
6. Establish procedures for verification to confirm that the HACCP system is working effectively: establish methods, procedures, tests and other evaluations, in addition to monitoring, to confirm that the HACCP system is effective
7. Establish documentation concerning all procedures and records appropriate to these principles and their application
Thus, the HACCP method allows each company to identify and control the hazards specific to its activities. Source: FAO, Food Safety Certification, 2006, ftp://ftp.fao.org/docrep/fao/008/ag067e/ag067e00.pdf

10 World Bank, Food Safety and Agricultural Health Standards, cit.

11 World Bank, Food Safety and Agricultural Health Standards, cit.

12 It is worth to recall that WTO itself does not establish standards but sets rules to be applied by WTO members when setting national standards and recognize reference standards to be applied in trade between WTO members.

13 OECD, Impact of Regulations on Agro-Food Trade: The Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary Measures (SPS) Agreements, 2003, http://www.oecd.org/LongAbstract/0,3425,en_2649_33785_31273954_119699_1_1_1,00.html

14 World Bank, Food Safety and Agricultural Health Standards, cit.

15 OECD, Impact of Regulations on Agro-Food Trade, cit.

16 World Bank, Food Safety and Agricultural Health Standards, cit;

17 Regulation (EC) No 178/2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, of 28 January 2002, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002R0178:EN:HTML

18 See DG Health and consumer website: http://ec.europa.eu/food/food/foodlaw/index_en.htm

19 GTZ, Food quality and safety standards as required by the EU law and the private industry. A practitioners' reference book, 2nd ed., 2007 http://knowledge.cta.int/en/Dossiers/Demanding-Innovation/Food-safety/Documents-online/Worldwide/Food- quality-and-safety-standards-as-required-by-EU-law-and-the-private-industry-with-special-reference-to-the-MEDA-countries-exports-of-fresh-and-processed-fruit-vegetables-herbs-spices-A-practitioners-reference-book

20 See the so-called Hygiene Package: Regulations (EC) n. 852/2004, 853/2004 and 854/2004 and Directive n. 2004/41 EC. It is worth to note that a basic principle of the package is the primary responsibility of food producers for the safety of food through the use of programmes for self-checking and modern hazard control techniques. The implementation of a harmonised Hazard Analysis Critical Control Point (HACCP) system is obligatory for all food operators (see: http://europa.eu/rapid/pressReleasesAction.do?reference=IP/02/719&format=HTML&aged=0&language=EN;&guiLanguage=en).

21 For a comprehensive review of the EU horizontal legislation on food safety see GTZ, Food quality, cit;

22 For a comprehensive review of the EU vertical legislation on food safety see GTZ, Food quality, cit.

23 OECD, Interaction of Public and Private Standards in the food Chain, 2009, www.olis.oecd.org/olis/2006doc.nsf/ENGREFCORPLOOK/NT000111C2/$FILE/JT03259026.PDF

24 OECD, Interaction of Public and Private Standards, cit.

25 FAO, Food Safety Certification, cit;

26 These quality meta-systems are embedded in voluntary public standards at the national or international level (e.g. ISO 22000), while others are proprietary private standards developed by standards bodies (e.g. SQF – Safe Quality Food 2000) or by individual food companies (e.g. Tesco's Nature's Choice). Some of the metasystems that started out as voluntary codes of good practice have now been incorporated into public regulations, representing a further blurring of the line of demarcation between public and private standards. An example is the inclusion of HACCP as part of the regulatory requirements for meat and meat products in the United States, Canada and the EU. The success of private voluntary standards in the food sector has lead to changes in standard setting processes, including the emergence of coalitions or consortia of firms for setting private standards. One result of adopting higher private standards for product differentiation and competitive positioning in markets or to guard against product tort liability has been an increase in transaction costs for individual firms that established their own standards. As a result, pressures emerged from such firms for the developments of collective and harmonised private standards through industry organisations and groups of firms [e.g. British Retail Consortium (BRC), International Food Standards (IFS)]. OECD, Interaction of Public and Private Standards, cit.

27 See World Bank, Food Safety and Agricultural Health Standards, cit. and OECD, Private Standard Schemes and Developing Country Access to Global Value Chains: Challenges and Opportunities Emerging from four Case Studies, 2007, http://www.olis.oecd.org/olis/2006doc.nsf/linkto/agr-ca-apm(2006)20-final

28 World Bank, Food Safety and Agricultural Health Standards, cit.

29 It is worth to note that the Caribbean EPA has led to the creation of two regional bodies (Caribbean Regional Organization for Standards and Quality - CROSQ and the Caribbean Agricultural Health and Food Safety Agency - CAHFSA) which assist the region's private sector to upgrade its SPS capacity.

30 World Bank, Food Safety and Agricultural Health Standards, cit.

31 OECD, Interaction of Public and Private Standards, cit.

32 OECD, Private Standard Schemes and Developing Country Access to Global Value Chains, cit.

33 OECD, Private standard schemes, cit.

34 OECD, Private standard schemes, cit.

35 OECD, Private standard schemes, cit.

36 DFID/IIED/NRI, EU legal requirements for imports of fruits and vegetables (a suppliers guide). Fresh Insights no. 1, http://www.research4development.info/PDF/Outputs/EcoDev/60506EU-REGULATIONS- GUIDE-2006.pdf; OECD, Private Standard Schemes and Developing Country Access to Global Value Chains: Challenges and Opportunities Emerging from four Case Studies, 2007, http://www.olis.oecd.org/olis/2006doc.nsf/linkto/agr-ca-apm(2006)20-final; FAO, Food Safety Certification, 2006, ftp://ftp.fao.org/docrep/fao/008/ag067e/ag067e00.pdf

Ethical consumerism: development of a global trend

Marian Garcia Martinez and Nigel Poole. Ethical consumerism: development of a global trend and its impact on development. 2010. http://pubs.iied.org/pdfs/16021IIED.pdf