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Obstacle or opportunity? Food safety standards as a challenge for developing countrie

In recent years, food consumers have become increasingly aware of and concerned about the safety of food products. As a response, public and private actors have introduced different standards to ensure that food safety reaches the degree demanded by consumers. Developing countries often lack the institutional capacities and financial and non-financial resources to comply with standards. It is therefore crucial for stakeholders in development aid to provide especially small-scale producers with access to these resources, as otherwise the farmers face negative economic long-term consequences by being excluded from value chains and more remunerative exports markets.

Food safety standards – a challenge for developing countries

In spite of the relevance of food safety, standard adoption ability remains low especially in developing countries among poor farmers.

Standards impose financial and non-financial investment costs on small-scale producers

- Standard adoption requires large financial and non-financial investment. The risk of exclusion from modern supply chains due to missing conformity with food safety standards is especially high for small-scale producers as they lack the necessary financial assets.
- Food safety standards pose a variety of norms on farmers: they have to change cer-

tain production practices, e. g. pest or soil management, but are also confronted with requirements concerning bookkeeping, farm financial management and credit management, among others. All these tasks require knowledge that goes far beyond the typical agronomic skills which traditional farmers possess.

Missing (financial, literacy, agronomic) skills are non-financial constraints of food standard adoption. Standard adoption requires investment in learning, capacity building, reallocation of family labor and time spent on farming activities.

Enhancing financial and business skills helps farmers to overcome constraints to the adoption of standards

- Research among small fresh vegetable farmers in Guatemala has shown that measures to enhance financial literacy support the adoption of GlobalGAP, a standard introduced by European supermarket chains, and increase the economic benefits from standard adoption.
- Financial skills are an important asset for complying with complex food safety standards. They help farmers in their farm management, planning decisions, influence their risk attitude, and make them more resilient towards shocks.

Standards act as barriers to export penetration

- Due to the implied compliance costs standards constitute a barrier to free trade. The inability to comply with standards is aggravated for developing countries, because they lack the necessary infrastructure and technology as well financial resources to fulfill the standards. This implies higher compliance costs for these producers relative to their competitors from developed countries, where the institutions, that favour compliance, are already in place.
- In the EU for instance, between 2008 and 2014, the authorities reported about 10,671 cases of import rejection of third countries' exports. Especially fruits and vegetables, nuts and fish products have been rejected on the basis of them not meeting the required standards.

Food standards' increasing relevance in global food trade

Since 1995 the number of notifications, which fall under the sanitary and phytosanitary (SPS) measures agreement, by member countries of the WTO has increased from below 200 to above 600 per year. This indicates the increasing relevance of food standards in global food trade.

FIG. 1 : Number of sanitary and phytosanitary (SPS) notifications by member countries to the WTO. Source: WTO

What are food safety standards?

Food safety standards are measures imposed on all raw and processed food products with the objective of ensuring plant, animal, wildlife and human safety as well as health. The standards are usually set against different food safety hazards which could potentially harm consumers by using scientific risk based assessment. For example, certain sanitary and phytosanitary (SPS) measures require products to originate from a disease-free area, to be inspected beforehand, or they set maximum residue limits (MRLs).

 Also empirical research provides strong evidence that standards reduce exports, analysed for the example of African tomatoes to the European Union.

Good institutional capacities help with standard adoption

- The quality of public institutions of the exporting country is an important determinant of export success. This effect is even more relevant when exports to markets with strict standards like the EU are concerned.
- Regulatory quality, as for example the ability of a government to implement policies that promote food safety, enhances fruit exports to the EU.
- A business-friendly environment, like a low burden of government regulation, anti-trust policy, and investment freedom, improves the standard adoption ability of a country.



Which food safety standards exist?

- Standards are set by both private and public institutions. Private standards schemes are issued by food retailers and related interest groups. Compliance to such standards is voluntary by default, although in recent times, most of them have become 'defacto mandatory'. Such schemes include GlobalGAP, which is prevalent in Europe, and the British Retail Consortium (BRC) food technical standard, which is applied mostly by retailers in the UK.
- Public standards like MRLs are in general set by public authorities at the country level. These are part of the public legislation and are therefore mandatory.
- There are other standards developed by multilateral organisations such as ISO, joint FAO/WHO Codex Alimentarius Commission (CAC), Office International des Epizooties (OIE), and FAO's International Plant Protection Convention (IPPC), which legislates on animal and plant health respectively. The often serve as guidelines for public authorities.

What needs to be done?

Adequate measures must be put in place in developing countries to ensure standard compliance, enhance market access and make use of trade gains to alleviate poverty and improve income of small-scale farmers.

- 1. Increase financial literacy and access to financial resources
- Policy makers, development agencies and private actors interested in small farmers' adoption of food safety standards should invest in capacity building. This implies to go beyond agronomic topics and include business and financial skills in training measures. For example actors could organize financial literacy and business skills workshops for farmers and train extension service accordingly.

 Such programs should be accompanied by a general improvement of access to financial resources for small-scale farmers.

2. Negotiate deeper trade agreements with developing countries

Trade policies should encompass deeper integration of trade agreements with developing countries to improve the transfer of sophisticated technologies and knowledge. The provisions in such trade agreements would strengthen the exporter's supply side capacity, enable them to comply with stringent standards and increase their trade volume.

3. Improve public institutions in developing countries

• Governments and international credit suppliers should condition their financial funding for food standard adoption on the quality

GlobalGAP certification enhances banana exports to the EU

- GlobalGAP is a pre-farm-gate voluntary standard that is a key reference for Good Agricultural Practice (GAP) in the global market. Currently this standard is adopted by producers in 112 countries worldwide.
- For producers certified under this scheme trade is facilitated. Empirical research shows that Global-GAP certification enhances banana exports from the major producing countries in Africa and Latin America to the EU.
- Analysis reveals that the trade relations of a country as well as its level of economic development and governance affect the adoption of GlobalGAP.
- Trade relations positively affect the adoption of standards, and at the same time, standards enhance exports. This two-way connection between standards and trade may be seen as a mechanism that reinforces retailer-supplier relations within networks, consequently making the inclusion of new entrants more difficult.

of public institutions in exporting countries to increase efficiency of development aid.

- At the country level, politicians should improve the quality of public institutions, e.g. by reducing the burden of public regulation, improving investment freedom, eliminating discriminatory taxes, and guaranteeing competitive markets.
- Furthermore, development aid should provide (non-)financial support for improving the standard adoption ability in developing countries. Among others, this includes free provision of quality testing equipment for agricultural products, improving technical competencies of laboratories, and establishment of communication platforms between the private and the public sector.

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Further readings:

- GlobalFood Discussion Paper No. 73: The ability of organisations to adopt foreign food standards (October 2015). Malte Ehrich and Sebastian Hess
- GlobalFood Discussion Paper No. 68: Food safety standards in the Guatemalan fresh pea sector: The role of financial literacy in technology adoption (May 2015). Anna K. Müller and Ludwig Theuvsen
- GlobalFood Discussion Paper No. 61: The Implication of European Union's Food Regulations on Developing Countries: Food Safety Standards, Entry Price System and Africa's Export (February 2015). Fatima Olanike Kareem, Bernhard Brümmer, Inmaculada Martinez-Zarzoso
- GlobalFood Discussion Paper No. 49: Impact of GlobalGAP Certification on EU Banana Imports: A Gravity Modeling Approach (October 2014). Amjad Masood, Bernhard Brümmer.

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