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Value Chains, Food Standards and Food and Nutrition Security

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Key message:

There is mixed evidence suggesting that EU food standards can be, but are not necessarily, protectionist. EU standards can also facilitate developing countries' access to EU food markets. Evidence on whether or not smallholder farmers share in the benefits from trade is mixed as well.

Short summary

Over the past decades, there have been major structural changes in global and local agri-food value chains with major implications for food and nutrition security (FNS). For example, food production and trade are increasingly regulated through stringent public and private requirements on food quality and safety, and ethical and environmental aspects. The growth and spread of these food standards has triggered a strong debate in trade policy on the extent to which these standards are new protectionist instruments, i.e. so called Non-Tariff Measures (NTMs) and in development policy on the potential detrimental effects of these standards for poor farmers in developing countries.

The evidence in the empirical literature is mixed, suggesting that EU food standards can be, but are not necessarily, protectionist. There is evidence of high compliance costs with public standards, which are especially problematic for small producers. However, other studies estimated that the costs of compliance are only a small fraction of total production costs.

EU standards can also facilitate developing countries' access to EU food markets, by reducing transactions costs and enhance consumer confidence in food product safety and quality.

Evidence on whether or not smallholder farmers share in the benefits from trade is mixed as well, it depends on the extent to which they are included in contract farming arrangements and the impact that participation has on their incomes and well-being.

¹ Johan Swinnen is at KU Leuven (LICOS), CEPS, and Stanford University (FSE). For a more elaborate discussion of the issues in this brief, see the working paper by Jean-Christophe Bureau and Johan Swinnen (2017) "[EU Policies and Global Food Security](#)".

Full summary

I. Major Structural Changes in Agri-Food Systems

Over the past decades, there have been major structural changes in global and local agri-food value chains with major implications for food and nutrition security (FNS).

Value chains have been significantly affected by economic reforms and changes in standards. Food production and trade are increasingly regulated through stringent public and private requirements on food quality and safety, and ethical and environmental aspects. At the same time global agricultural and food trade has increased sharply during the past three decades, in particular in higher value products.

At the same time, (foreign and domestic) investment at various stages of value chains has increased significantly, triggered by investment liberalizations, urbanization, and economic growth. An example is the so-called 'supermarket revolution'.

In combination, these developments have resulted in major changes in the way global agri-food systems are organised with increasing vertical coordination, upgrading of the supply base and increased dominance of large (multinational) food companies.

II. Impacts on Food and Nutrition Security

These processes have important implications for FNS, and the impacts are complex – both on the demand and the supply side of the value chains.

On the *consumer (demand) side*, new and tighter food safety and quality standards have directly contributed to FNS (both in “rich” and “poor” countries) by reducing asymmetric information and safer and more nutritious food, but this benefit may be partially offset by increased costs of production, thereby raising prices.

Consumers in poor countries are also affected by the spread of modern retail, in particular in urban areas, which may influence consumer choices through food prices, the availability of processed food (with its specific nutritional contents), and supermarket strategies to “nudge” consumers. There is limited research which suggests that the impact on FNS is complex, as it may enhance obesity but also improve dietary diversity and access of children to energy, reducing malnutrition.

The standards and modern value chains also affect food security through their *supply side implications*. Increased demand for high-value products create opportunities for developing countries to realize income growth through expanding and diversifying their agricultural production. This entails an important potential for raising rural incomes and reducing poverty because of the high intrinsic value and labour-intensive production systems. At the same time the production and process requirements inherent in the standards-driven upgrading implies potential constraints and marginalization of the poor – both at the country and the household level. There are several mechanisms that play.

- At the *global* level, increased standards may be “barriers to trade” if they are used as non-tariff barriers to trade (intentionally) or if they imply investments and requirements which are difficult or costly for developing countries to

satisfy. On the other hand, standards may be “catalysts to trade” if they reduce transaction costs in trading and thereby make it easier for developing countries to enter rich country value chains and consumer markets.

- At the *household* level, similar mechanisms play: they may create “barriers” leading to marginalization of poor farmers/rural households or be “catalysts” leading to the integration of poor farmers/rural households in modern value chains. Empirical evidence shows that integration of poor smallholders in these modern supply systems is mixed. In some cases they are fully integrated, in other cases processors and traders prefer to source from larger farms; in many cases their sourcing system relies on a mixture of large and small farms.

Integration of smallholders affects FNS through (at least) five mechanisms:.

- It typically increases farmers’ *incomes* (often substantially), enhancing FNS.
- It increases farmers’ *access to inputs, finance and technology* through institutional innovations in value chains.
- It shifts resources away from *staple food* commodities, but (a) may increase on-farm production of (and thus access to) nutritious food (e.g. vegetables); and (b) may enhance staple food productivity through technology spillover effects.
- It may weaken *bargaining positions of women* in households if contracts are with the (male) household head, and thus weaken FNS as women typically invest more in health, nutrition and education.
- *Health* of farmers improves with standards on the (better) use of pesticides, and farmer training in pesticide management.

Rural employment on large farms and in local low-skill activities in processing and trading companies (such as sorting and packaging) have positive FNS effects.

- This affects most the very poorest, and their income and FNS.
- As mostly women are employed this affects FNS through women’s enhanced bargaining position at the household level.

Underlying paper

Jean-Christophe Bureau and Johan Swinnen (2017). EU Policies and Global Food Security. *FOODSECURE* working paper no. 58. The Hague: LEI Wageningen UR, April 2017. [http://www.foodsecure.eu/navigator?title= EU Policies and Global Food Security](http://www.foodsecure.eu/navigator?title=EU+Policies+and+Global+Food+Security)

III. Policy Implications

As the impacts of these modern value chains and the associated standards are complex and multiple, so are the policy implications.

Overall FNS policy framework: understanding the implications of these developments for FNS is crucial, and still insufficient.

Trade policy: find the (difficult) balance between reducing information asymmetry, protecting consumers (and ethical, environmental, ... objectives) and enhancing trade.

Development and labor market policy: develop policy to enhance smallholder integration in modern supply chains; and to stimulate hiring of poor rural workers in supply chains.

Investment and macro-economic policy: enhance investment climate and transparency in investments.

Agricultural policy: from “fair price” to “fair share of the value” to enhance farm incomes and FNS.

Competition policy: ensure “sufficient competition” (which is difficult to determine in vertically coordinated value chains) and stimulate the development of institutions for conflict resolution between value chain partners.

Rural finance and technology policy: provide policy framework for value chains to function as mechanisms for rural finance and technology transfer.

IV. References and Further Reading

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