
Lessons from Private Food Safety Standards as a Governance Mechanism for Agri-Food Value Chains

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Abstract

Private food safety standards have become a key feature of agrifood value chains in many high-income countries. The promulgation and adoption of these standards have been driven by the economic interests of lead firms - predominantly food retailers and food service chains - seeking to manage the risks of food safety failure within their supply chains while keeping costs within acceptable parameters. An underlying factor has been the evolution of food safety regulations that have required businesses to be proactive in ensuring the food that they sell is safe. Private food safety standards emerged in the context of robust regulatory requirements and international standards that provide the foundational principles and reduce the transaction costs of developing standards. Unlike government regulations that have an established role in the management of food safety under the force of law, private standards must establish and maintain legitimacy with respect to standards adopters through the principles and processes they employ. This has been an ongoing factor that has driven the consolidation of the private standards landscape internationally. Private food safety standards provide valuable lessons for the potential role of private standards in the governance of environmental sustainability: notably, the role of international standards and the role of commercial interests in the adoption of standards; and the ways in which government regulations and private standards are parts of an interrelated regulatory regime rather than distinct and competing modes of governance of value chains.

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Introduction

Food standards in high-income countries follow a co-regulatory model in which public regulation and private standards play complementary roles and evolve together. The evolution of private standards as a mechanism for the governance of food safety in high-income countries has thus raised fundamental questions about the role of government in risk regulation (Rao, Bast, and de Boer 2020). It is generally recognized that private governance mechanisms like private standards can enhance the efficacy and/or efficiency of regulatory regimes. However, there are concerns about the equity and democratic accountability of private standards that are driven predominantly by the private interests of dominant actors in agri-food value chains, and that may take minimal account of the impacts on more vulnerable interests in those value chains.

Because private standards are so well-established in the governance of food safety in high-income countries, and have been so intensely studied, they can provide important insights into the role and impacts of voluntary standards and the associated systems of conformity assessment and certification. The efficacy of risk regulation is a critical issue for governments in low- and middle-income countries in terms of protecting consumers, facilitating (or at least not impeding) trade, and limiting the associated economic costs. Thus, some have posed the question, might private systems of food safety governance complement (or even substitute for) public regulations, especially where regulatory systems are underdeveloped? And if so, under what conditions, and where does this leave the role of the state?

This study provides a concise overview of the evolution of private standards for food safety, including how and why they have become such a prominent mechanism for the governance of food safety in many high-income countries. It shows how mechanisms of private governance predominantly evolved in the context of well-developed (and increasingly strict) public food safety regulations, and that the evolution of the two systems developed very much in concert with one another. Also, critical to the success of private standards and the associated third-party assurance systems is the issue of legitimacy; unlike public regulations with which compliance is mandatory, private standards must establish and maintain their status as effective mechanisms of risk management. Critical to this legitimacy is the status of the underlying standards infrastructure. In many low- and middle-income countries, this infrastructure, and regulatory systems, are often underdeveloped.

What are private food safety standards?

Private food safety standards are set by non-state or “private” actors, which can include private businesses and industry organizations, as well as commercial standard development organizations. Given that they are not established by public regulators, private food safety standards are voluntary; compliance is not compelled under the force of law (Verbuggen 2016).¹ In practice, however, they can become mandatory in the context of contractual supply agreements, most notably where agrifood value chains are dominated by a small number of lead firms.

The World Trade Organization (WTO) distinguishes between three types of private food safety standard:²

- *Individual business standards* are set independently by businesses, predominantly large food retailers and food service chains. They are sometimes tied to proprietary brands or sub-brands. Examples include Nature’s Choice of the UK supermarket chain Tesco and the French supermarket Carrefour’s Filières Qualité.
- *Collective national standards* are set by organizations that represent or cater to the interests of national food retailers, manufacturers, or producers. While these standards can have international reach, they generally have a national focus and are often associated with national branding and

associated labels that differentiate domestic products from imports. Examples include the Assured Food Standard in the United Kingdom and Qualität und Sicherheit (QS) in Germany.

- *Collective international standards* are set by organizations that span national boundaries and/or are designed to be adopted and applied internationally, including in the context of the global value chains of major food retailers and food service chains. These are rarely associated with brands or sub-brands. Examples include the BRCGS Global Food Safety Standard, International Featured Standards (IFS), and GlobalGAP.

As will be discussed further, these standards have evolved, and their relative importance has shifted over time. Today, collective international standards for food safety tend to predominate, especially in the context of food safety governance in global agrifood value chains.

Thus, under the umbrella of private food safety standards lies a range of standards that vary in their purpose and scope, coverage, nature, and level of food safety system parameters, and in the nature of the organizations engaged in their promulgation. As will be discussed further, these standards are made operational in the context of, and embedded within, broader systems of third-party assurance.

It is important to recognize that the predominant driver for food businesses to comply with any private food safety standard is their commercial contracts with major buyers. Rather than being a form of self-regulation, therefore, private food safety standards are predominantly a mechanism of private regulation whereby the food safety practices of businesses are governed by their commercial customers (Henson and Humphrey 2010). Thus, private food safety standards form part of the private law arrangements within which businesses operate, including the contractual relationships between buyers and sellers (Verbuggen 2020). Indeed, it is through these contractual relationships that private standards have a binding impact on the food safety controls of businesses.

In many cases, major food retailers or food service chains will require that their suppliers are certified to the standards or standards they themselves have adopted. Furthermore, they may require that their suppliers, in turn, only source from certified businesses so the contractual requirement to comply with private food safety standards cascade through the value chain. Because of the market power of the lead firms that have adopted these standards, in many food markets they have become de facto mandatory standards (Fuchs and Kalagianni 2010).

The private food safety standards landscape varies geographically and is subject to change over time, with variation in the relative importance of individual standards and the ongoing evolution of these standards and the associated systems of third-party assurance. Indeed, the private food safety standards landscape can be thought of as a national or international market, with individual standards competing for a “share.” The key driver of competitiveness of each standard in the pertinent market is their legitimacy in the eyes of standards adopters, predominantly the major food retailers and food service chains: that is, the degree to which each standard provides the level of assurance over the food safety controls of their suppliers. Critically, the adopters here are the entities requiring compliance (the buyers) rather than the entities complying with the standard (the sellers). In this way, private food safety standards are a mechanism of private governance (where buyers govern the food safety practices of sellers), rather than a mode of self-regulation by sellers.

Why did private food safety standards emerge?

Although private food safety standards evolved in several distinct geographical locations globally, the critical epicenter of their development was Europe (Verbuggen 2016). Here, a series of prominent food safety failures in the late-1980s induced the reform of regulatory systems which, in turn, brought about changes to the governance of food safety by private businesses in the face of consumer skepticism over the efficacy of prevailing food safety controls (Henson and Humphrey 2010). Importantly, this took place alongside the increasing dominance of large supermarket chains for which a growing share of sales was private-labelled products, many of which were sourced globally.

Arguably, the genesis of private food safety standards was in the United Kingdom, induced by a radical shift in the legal liability for food safety in the form of the so-called “due diligence” defense, introduced in 1990 (Henson 2006; Henson and Northen 1998; Hobbs and Kerr 1992). As a result, businesses had to demonstrate that they had been proactive in ensuring the food they sold to consumers complied with legal requirements, even if the food had been produced/manufactured and then procured from another business. Broadly comparable changes soon occurred within the European Union (EU), with revisions to product liability on the part of agricultural products (Verbuggen 2020), and the requirement for food businesses to be proactive in managing food safety throughout their supply chain. National regulatory authorities were instructed explicitly to consider the food safety controls of private businesses in determining the food safety risk they posed (Henson and Humphrey 2010).

These regulatory changes, implicitly and by design, shifted the responsibility for ensuring food safety to private businesses, and especially those that commanded a large share of retail food sales. Food safety is inherently difficult to manage when it is delivered through multistage and complex value chains. These difficulties are especially pronounced where verification is not possible, or prohibitively expensive and/or time-intensive, through end-product inspection and/or testing. The challenges that buyers face in dealing with such so-called credence characteristics, and the motivations these challenges present for the design and implementation of trusted systems of codification, are well documented (Henson and Humphrey 2010). Private food safety standards and the associated systems of third-party assurance provide a mechanism through which the food safety systems of suppliers are rendered visible and verifiable, and then these standards are converted into an auditable schedule of checks that ascertains compliance.

Arguably, the challenges of ensuring acceptable food safety practices throughout agrifood value chains are greatest in the case of global sourcing. Suppliers in different national jurisdictions may face distinct regulatory systems and requirements, while business norms and contractual arrangements can differ. Furthermore, the complexity and costs of confirming that suppliers consistently employ required food safety controls are high - in some cases prohibitively so. Private food safety standards provide a mechanism through which the level of oversight of suppliers and assurance that the demanded food safety controls are in place can be achieved, while keeping costs within acceptable parameters.

The notion that public regulators have the monopoly in governing good safety is premised on the fact that regulatory agencies possess the required capacity to set appropriate laws and regulations and take the level and forms of enforcement action to incentivize compliance (Black 2003). This premise is accompanied by another: that regulators also have a comparative advantage in regulatory capacity over non-governmental entities in terms of technical expertise, resources, institutional structures, and legitimacy (Verbuggen 2016). With the growing complexity and globalization of agrifood value chains and more limited regulatory resources, however, the limitations of state regulatory processes have become more apparent; as noted, food safety failures sparked the original evolution of private food safety standards in

the United Kingdom and the European Union. This situation has forced a rethink of the comparative advantage of public versus private entities when it comes to food safety regulation, and the need to refocus from the traditional regulator-regulated model to a co-regulatory model (Martinez et al. 2007). In such a model, public regulations and private standards are seen as complimentary, and even symbiotic, rather than competitive, and evolve in unison over time. The implication is that the governance of food safety is seen as a dual responsibility between the public and private sectors.

The co-evolution of public regulations and private standards, for food safety and more generally, has been a phenomenon confined mainly to high-income countries. Although the public regulatory systems of most low- and middle-income countries are nascent, in most cases private systems of governance are also in their infancy. Where these do exist, this tends to be in the context of export-focused value chains. Thus, the driver is the set of requirements of dominant buyers in markets in high-income countries rather than any form of co-regulation with the state. This is not to suggest that the potential role of private modes of regulation has not been promoted, for example through the concept of “responsive regulation.”³ However, as is discussed later, there are fundamental questions about the scope for private standards to evolve in the absence of robust regulatory systems, in some ways creating a low-level vicious cycle between a weak regulatory system and the lack of private standards.

The evolution of private food safety standards

Private food safety standards and the associated systems of conformity assessment are far from static elements. Rather, there is an ongoing evolutionary process of the private standards system and its intersections and interrelationships with public regulations. The predominant driver of this process is the power and economic interests of lead firms in agrifood value chains that adopt private standards to govern the food safety controls of their suppliers. This occurs in the context of prevailing and anticipated regulatory norms, consumer concerns and expectations with respect to food safety, and the like.

The genesis of private food safety standards was the establishment of first-party (or business-to-business) standards by food retailers, which specified the food safety controls they expected their suppliers to employ (Henson 2006). Suppliers then provided guarantees that they complied with these standards, either through self-assessment or inspection by independent consultants (Henson and Northern 1998). With the introduction of the “due diligence” defense in the United Kingdom, for example, self-certification of compliance by suppliers no longer provided the assurance that major food retailers required. They responded by establishing their own teams of food safety inspectors that scrutinized suppliers. These so-called second-party standards provided greater oversight of the supply chain but at significant cost to retailers, especially given their increasing global expanse (Casella 2001; OECD 2004). A further unintended consequence was to increase the cost and time involved in switching suppliers, each of which had to be inspected and approved.

Looking to balance the need for robust oversight of their suppliers and to manage costs, large food retailers began collaborating in the establishment of collective food safety standards. Given that food safety was not a competitive issue, and that they had a collective interest in preventing food safety failures, the idea emerged of an agreed third-party food safety standard against which suppliers could be independently audited. The first third-party standards that emerged had a national focus (for example, in the United Kingdom, Netherlands, and Germany), although retailers across countries soon began to collaborate (for example, those in Germany and France). Some of these original national or regional standards are now leading global private food safety standards for food manufacturing (for example, BRCGS and International Featured Standards, IFS).⁴

Simultaneously, efforts were underway to establish national collective food safety standards for agricultural production involving food retailers and organizations representing farmers (for example, in the United Kingdom). These were typically tied to sub-brands in the form of on-pack labels (for example, the Red Tractor label in the United Kingdom). Because fresh produce was so actively traded within the European Union, however, a retailer-led initiative soon emerged for a European-wide third-party standard for good agricultural practice (GAP) (Martinez and Poole 2004). This resulted in the EUREP standard in the late 1990s, which was eventually renamed GlobalGAP. Today, GlobalGAP is the leading private standard for GAP globally.⁵

Third-party standards-developers have copyright over the standards they create, although their market share is effectively moderated by adoption by leading food retailers and food service chains. Initially, there was a gradual transition from second-party to third-party food safety standards, with some of the larger food retailers that had invested heavily in their own food safety teams and that were most averse to risk taking longer to abandon self-inspection of suppliers. However, because of the high cost of second-party systems of assurance, collective third-party food safety standards have become the norm. Even today, however, some large food retailers and food service chains supplement the requirements of third-party food safety standards and/or undertake their own periodic checks of suppliers.

While the growing dominance of third-party standards enabled food retailers and food service chains to manage the food safety risks in their supply chains at acceptable cost, the proliferation of these standards had unintended consequences (Henson 2006). On the one hand, the fact that different buyers adopted different standards acted to fragment the supply base according to the food safety standard(s) to which suppliers were certified. On the other, the suppliers of multiple retailers or food service chains often had to be certified to more than one third-party standard, duplicating the costs of audits and certification,⁶ and sometimes creating conflicts where the requirements of different standards differed. Certainly, this situation was alleviated somewhat by the consolidation of third-party standards; today, five or six third-party food safety standards⁷ account for most of the total certified food manufacturing facilities globally, numbering more than 100,000. However, there was a need for certification to the remaining standards to be recognized as equivalent. Thus, a process of global benchmarking of third-party food safety standards emerged through the Global Food Safety Initiative (GFSI).

The ambitious mission of GFSI was “once recognized, certified everywhere.” Recognizing that there were relatively small differences between the dominant private food safety standards and the associated systems of third-party assurance, a benchmarking process was created to reconcile minor differences (Crandall and O'Bryan 2015; Geraldi 2023). Today, all the dominant international third-party food safety standards for agriculture or food manufacturing are benchmarked and recognized by GFSI. This initiative, however, has faced struggles as it has attempted to incorporate a wider range of private food safety standards, especially those in rapidly emerging markets in low- and middle-income countries (Havinga and Verbruggen 2023). Most importantly, serious questions about the organization’s legitimacy have arisen with respect to its efforts to determine that certain government-owned standards (most notably, China HACCP), and instances in which there is no effective separation of standard-setting and certification, are “technically equivalent” to GFSI-recognized standards.

As a result of the challenges faced by GFSI, some major food retailers and food service chains now question whether GFSI-recognized standards are truly equivalent, especially in terms of the underlying process of third-party assurance, and there has been a degree of retrenchment. Some lead firms are now requiring certification to specific private standards (which may still be GFSI-recognized) and/or applying additional requirements for their suppliers. This undoubtedly imposes additional costs on suppliers (that may now

need to be certified to more than one GFSI-recognized standard, for example) but provides the level of assurance over food safety risks demanded by dominant buyers.

The role of private food safety standards

The role of private food safety standards must be seen in the context of the overall governance of agrifood value chains and the role of lead firms. Thus, the dominant driver of the establishment and evolution of private food safety standards has been the commercial interests of major food retailers and food service chains. Private food safety standards are a mechanism of risk management, providing the “level of protection” against food safety risks demanded by food businesses in their procurement of food products from upstream suppliers.

In most cases, private food safety standards have emerged in the context of well-developed regulatory food safety systems. Private food safety standards require a minimum level of food safety infrastructure (for example, laboratories for product testing) and recognized principles and processes (for example, HACCP)⁸ (Henson and Humphrey 2010). But, if the food safety system is well-developed, why are private food safety standards needed? Furthermore, why have commercial businesses invested the considerable amount of time and resources needed for the promulgation of private food safety standards?

In some cases, private food safety standards define requirements that exceed legal norms because regulatory levels are deemed to pose too great a commercial risk (Henson and Humphrey 2010). They can set stricter limits for food safety parameters (for example, maximum residue levels [MRLs] for pesticides) and/or elaborate detailed process controls (for example, on product recall). They can also define detailed procedures and instructions for the application and maintenance of food safety controls, often taking as their starting point regulations and/or the standards, principles and guidelines of the Codex Alimentarius Commission (CAC) (discussed later).⁹ The process of conformity assessment also tends to be more robust for private standards than with regulations. There is strict separation of standards development and conformity assessment as defined by a strict governance structure based on international standards (notably those of the International Organization for Standardization, ISO/International Electrotechnical Commission, IEC) (Verbuggen 2020). Also, conformity assessment is undertaken by independent auditing organizations and against an objective and consistent protocol.¹⁰

Importantly, private food safety standards, and the associated systems of third-party assurance, are seen to deliver a greater level of protection to the businesses that adopt these standards than prevailing regulations. They provide assurances regarding regulatory compliance, especially when businesses are required to demonstrate proactivity in ensuring that food is safe to eat. They also minimize the risk of food safety failures more generally, even when regulatory norms are met, that present commercial risks in terms of market competitiveness, market share, and brand positioning. Indeed, arguably, private food safety standards have become foundational to the trust that consumers have in the safety of food sold by food retailers, food service chains, and others. Indeed, there is evidence that consumers are rather forgiving when food safety failures occur, provided they are confident that all was being done to prevent them happening (Wu et al. 2021).

In most cases, private food safety standards are not used to differentiate products in the consumer marketplace (Henson and Humphrey 2010). Indeed, many of these standards (for example, GlobalGAP) prohibit the use of any form of label or brand indicating certification. Collective national standards may have labels (like the Red Tractor scheme in the United Kingdom), but the aim here is to distinguish domestic production from imports. Importantly, market competition based on food safety is considered

risky, in that it is likely to erode consumer confidence in the safety of food rather than provide any commercial advantage to suppliers.

There are potentially important secondary benefits of private food safety standards. Because of the technical nature of these standards, they can act as a mechanism for the diffusion of technical expertise and knowledge with respect to food safety. For example, a positive correlation has been demonstrated between the national intensity of certification to the IFS food safety standard and country export performance, especially in the case of European countries and the United States, but also Asia (Mangelsdorf 2016).¹¹ The detailed documentation in which these standards are embodied, and the processes through which businesses are audited and certified, can be a powerful inducement and facilitator of firm-level learning and capacity-building. This can be the case with more marginal businesses with respect to food safety and/or potential suppliers in low- and middle-income countries. This observation suggests that private food safety standards may have appreciable elements of public goods. However, the economics literature suggests that markets will tend to undersupply goods and services for which there are appreciable public good elements (Fagotto 2014; Kindleberger 1983).

Beyond impacts on food safety, there is considerable interest in the impacts of private food safety standards on the economic efficiency of food safety controls within agrifood value chains (Henson and Humphrey 2010). There is theoretical and empirical evidence of system-wide improvements in economic efficiency from the widespread adoption of third-party standards (Hatanaka, Bain, and Busch 2005; McAllister 2012), for example through improvements in system processes, avoidance of duplication of conformity assessment, and so on. At the same time, however, third-party food safety standards redistribute costs (for example, those associated with conformity assessment) within agrifood value chains from buyers to sellers (Hatanaka, Bain, and Busch 2005). In so doing, they can induce consolidation of the value chain and reallocate market power: for example, between certified and noncertified businesses, and between food retailers and food service chains and their suppliers.

Interconnections between private food safety standards and public regulations

A stark distinction is frequently made between public regulations and private standards, suggesting that they are separate and competing entities in the governance of food safety. In practice, however, the boundary between the two is decidedly blurred (Verbuggen 2016). Thus, private food safety standards have (at least in part) evolved in response to evolving regulations (Henson and Humphrey 2010). At the same time, regulators are increasingly making use of private food safety standards and the associated systems of third-party assurance in prioritizing the allocation of public enforcement resources (discussed further later).

A good conceptual foundation in considering the interconnections between public regulations and private standards for food safety is the concept of a regulatory regime (Hood, Rothstein, and Baldwin 2001). Thus, rather than seeing regulations and standards as separate and/or competing institutional elements, it is useful to think of them as part of a regulatory system that has “public” and “private” aspects that are somewhat interconnected and interdependent. Private food safety standards have evolved within the context of the prevailing state food safety architecture, including government regulatory systems, international standards organizations, and so on. Indeed, it can be argued that the promulgation of private standards has been both induced and facilitated by the public regulatory system and allied national and international institutions. As highlighted, most private food safety standards and the associated systems of third-party assurance have evolved in the context of well-developed regulatory controls. This raises

questions about the extent to which private food safety standards might compensate for weaker regulatory systems in low- and middle-income countries.

The starting point for most private food safety standards is regulatory compliance, assuming and requiring that food businesses meet national regulatory requirements. Thus, private standards can be seen as “building upon” prevailing regulations in the major (and often home) markets where the lead firms that adopt these standards operate. With the growing adoption of private food safety standards, however, have come closer and purposeful interactions between public regulators and private standards developers. For example, public regulators in the United Kingdom, France, Netherlands, United States, and Canada have established collaborative arrangements with private standards organizations (Verbuggen 2016). Indeed, Codex Alimentarius has recently established guidelines for the assessment of third-party assurance programs by national governments that aim to support and facilitate this process.¹² In some cases, there is no formal agreement with private standards developers, but regulators take account of whether a food establishment is certified to a private food safety standard in deciding how frequently to inspect for the purposes of regulatory compliance. An example is Canada (CFIA 2024). Other regulators have more formal arrangements with private food safety standard setters, sharing information and/or providing lower levels of inspection to entities that are certified. An example of these arrangements is the UK’s Earned Recognition Programme (ERP) (FSA 2024).¹³

An ongoing debate over private food safety standards relates to if and how they fit within international trade law, most notably the SPS Agreement of the World Trade Organization (WTO) concerning sanitary and phytosanitary measures. Arguably, a world where private standards play such a prominent role in food safety governance was not envisaged when the SPS Agreement was originally negotiated in the early 1990s (Pauwelyn 2006). Although private food safety standards have been the cause of considerable disquiet on the part of numerous agrifood exporters in low- and middle-income countries, it is far from certain that they fall within the purview of the WTO (Mavdrois and Wolfe 2017). Indeed, there has been considerable debate on this issue among WTO Member States and trade lawyers alike. At the same time, there are concerns that governments might choose to circumvent the rules of the WTO by allowing (or even instructing) private entities to implement food safety requirements that are in contravention of WTO rules (Villalpando 2002).¹⁴ Indeed, the Secretariat of the SPS Committee has highlighted possible examples where this might occur, including where a government incorporates a private standard into regulatory requirements, or permits imports of products based on their certification to a private standard and where this standard exceeds regulatory requirements.¹⁵

Implications for international standards

The rise of private food safety standards has raised questions about the role of international standards development bodies, most notably Codex Alimentarius (Henson and Humphrey 2011). There are claims that private food safety standards are bypassing international standards, implementing requirements that exceed international standards, and/or promulgating standards where international standards have not yet been established (Henson and Humphrey 2010). It is important, however, to understand the role of Codex Alimentarius, which establishes standards, guidelines, principles and recommendations for food safety that themselves have no legal regulatory standing.¹⁶ Rather, the role of Codex Alimentarius is to lay down rules, definitions and principles that guide governments in establishing regulations (Henson and Humphrey 2011), arguably providing a “minimum floor” for food safety internationally. At the same time, however, in the context of the WTO, Codex Alimentarius performs the function of demonstrating compliance with international trade law for national food safety measures. Ironically, in view of the concerns alluded to previously, these same rules, definitions, and principles have supported and facilitated the promulgation of private food safety standards.

Private standards widely reference and take as their starting point the standards, principles, and guidelines of Codex Alimentarius, for example related to food hygiene or sampling and testing. Furthermore, the third-party assurance systems within which private food safety standards are embedded are based on international standards for auditing, certification, and accreditation elaborated by ISO/IEC. These standards have not only reduced the costs of establishing these systems of assurance but are also critical to their legitimacy in the eyes of standards adopters. Arguably, private food safety standards would not exist in the absence of this international standards framework. Indeed, one of the purposes of private food safety standards, implicitly if not by design, is to translate the rule of Codex Alimentarius into workable standards that guide their implementation (by reducing the associated transaction costs) in the real world (Henson and Humphrey 2011).

The importance of legitimacy

The survival of any organization is dependent on its legitimacy in the eyes of actors that are affected by and/or that have an interest in its activities (Havinga and Verbruggen 2023). With public regulators, this legitimacy comes from legal state authority. Generally, the state is seen as having an unquestioned legitimate role in regulating food safety. With the organizations that set private food safety standards, however, legitimacy needs to be built and maintained over time (Bernstein and Cashore 2007; Black 2008). Thus, these organizations invest heavily in the promulgation of standards that are technically robust and practically implementable and embed these in systems of third-party assurance that are transparent and accountable (Verbuggen 2020). These organizations themselves comply with pertinent international standards, for example relating to auditing, certification, and accreditation. The chief audience here is the food retailers, food service chains, and others that adopt these standards.

The importance of legitimacy to the efficacy of private food safety standards organizations is well illustrated by the case of GFSI. Critical to the legitimacy of GFSI is the robustness and transparency of its benchmarking process. Although based on Codex Alimentarius and ISO/IEC norms, challenges have arisen regarding the consistency of auditing and certification in the context of standards that are applied globally. Further, compromises have had to be made to incorporate voluntary standards that were important in key parts of the world (for example, China) but that did not comply with international norms, especially with respect to the separation of standards development, auditing and certification. In bringing on board new players in rapidly developing low- and middle-income countries, GFSI has reduced its legitimacy in the eyes of standards developers and adopters in its traditional markets in high-income countries.

Of relevance to questions of legitimacy more broadly - for example, politically and socially—private food safety standards *per se* cannot be assumed to be driven by any concept of the social good. Rather, they are directed by the interests of lead firms in agrifood value chains. Thus, the dominant driver is the minimization of the private commercial costs of food safety failures rather than any concept of a socially optimum level of food safety. This presents the possibility (which some may question or even struggle to comprehend) that private food safety standards can result in too much food safety. Also, private food safety standards can precipitate the failure of more marginal suppliers, especially in low- and middle-income countries (Henson and Humphrey 2010). Many private food safety standards development organizations have recognized that the dominance of the commercial interests of lead firms in high-income countries raises questions with respect to their legitimacy and has widened the participation of stakeholders in their governance (Verbuggen 2020).

Impacts on low- and middle-income countries

There are two dominant threads to debates on the impact of private food safety standards on low- and middle-income countries: impacts on trade and export competitiveness, and consequences for vulnerable value chain actors. Of course, there are overarching concerns that low- and middle-income countries are “standards takers” in that private food safety standards are imposed on them by lead firms in high-income countries in the context of global agri-food value chains. However, it can be argued that the same applies to the public regulatory requirements of high-income countries that exporters based in low- and middle-income countries must also comply with.

Concerns about the trade impacts of private food safety standards relate to the associated costs of compliance that are imposed on suppliers, including in low- and middle-income countries (Verbuggen 2020). Indeed, these concerns have been the cause of complaints about private food safety standards (and especially GlobalGAP) by several low- and middle-income countries through the SPS Committee of the WTO (Du 2018). It is claimed that these standards are not science-based and impose an inordinate burden on low- and middle-income countries. Empirical evidence on the trade impacts of private food safety standards is, however, mixed. Some studies suggest that these standards promote trade, including for low- and middle-income countries (Andersson 2019; Mangelsdorf 2016), acting as catalysts for upgrading of food safety systems (Henson and Jaffee 2008), while others provide evidence that export performance is eroded, especially for low-income countries (Ehrich and Mangelsdorf 2018).

A key challenge for low- and middle-income countries in complying with private food safety standards is the access to and the cost of critical resources (for examples food safety consultants and trainers, laboratory testing services, upgraded equipment, and so on), especially where prevailing technical and managerial capacities are weak (Martinez and Poole 2004; Maskus, Otsuki, and Wilson 2005; Tessman 2021). However, there is evidence that the trade impacts of private food safety standards are dependent on how low- and middle-income countries, and exporters therein, respond to the emergence of these standards, especially whether they comply in a proactive manner (Henson and Jaffee 2008).

It is argued that the greatest compliance challenges exist for more vulnerable value chains actors, such as smallholders. Also, that in attempting to manage the costs of compliance and to minimize the risks of food safety failures, exporters will tend to concentrate production in larger farms and to exclude small-scale producers (ITC 2011; Lee, Gereffi, and Beauvais 2012). Again, however, the empirical evidence, is mixed. There are cases of smallholders being excluded from agri-food export markets by private food safety standards (ITC 2011; Lin 2015), especially where certification costs are high (Mausch et al. 2009). However, there is also evidence that these standards can bring higher and/or more stable market prices and livelihoods (Maertens and Swinnen 2009; Minten, Randrianarison, and Swinnen 2009; Unnevehr and Ronchi 2014); enhance productivity (Minten, Randrianarison, and Swinnen 2009); and improve health conditions due to the more expeditious use of agricultural chemicals (Asfaw, Mithofer, and Waibel 2009; Kersting and Wollni 2012; Okello and Swinnon 2010).

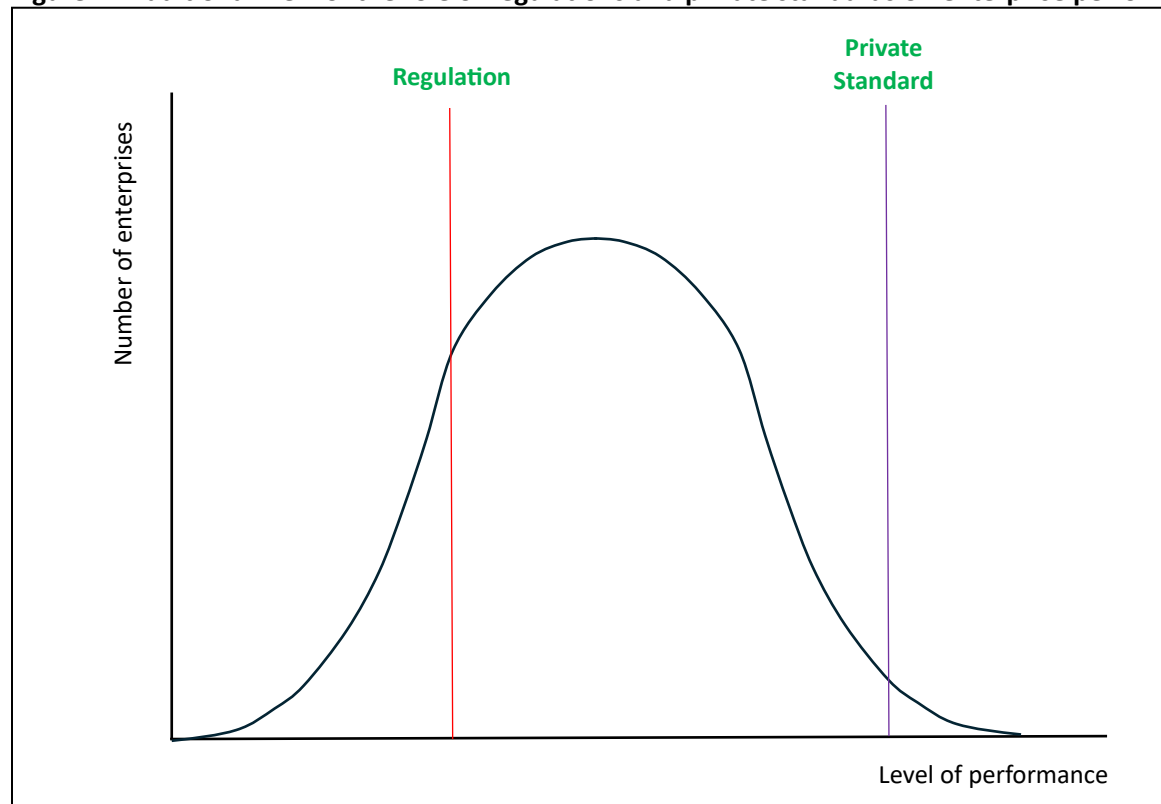
Implications for sustainability

Given the promulgation and widespread adoption of private food safety standards, initially in high-income countries but now increasingly in low- and middle-income countries, arguably lessons can be learned for the governance of other product and process characteristics associated with the agri-food and other sectors, such as sustainability. In so doing, however, it is important to recognize the distinct nature of food safety (for example, as an issue affecting public health and one that is directly experienced by consumers)

and that the trajectory of private food safety standards is one of a series of potential “models” through which private governance can emerge and flourish.

In many ways, the emergence of private food safety standards conflicts with prevailing perspectives on the role of regulations and private standards, which is depicted in figure 1. Thus, regulations are seen as providing a floor to the level of performance of businesses, with respect to food safety, sustainability, or any other parameter. There are businesses that are not in compliance (the tail of the distribution to the left of the regulatory level), but here the issue is the efficacy of enforcement. Private standards, typically requiring performance significantly above that of regulations, are positioned toward the righthand tail of the distribution in figure 1. From this perspective, private standards enhance the performance of businesses that are already high-performers and can be a mechanism through which these businesses capture the potentially significant economic returns. This suggests that private standards are not the solution to enhancing the performance of most businesses; instead, the appropriate strategy is to upgrade regulations and move them progressively to the right, such that the distribution of businesses shifts, and median performance improves.

Figure 1. Traditional view of the role of regulations and private standards on enterprise performance



Source: Original figure for *World Development Report 2025*.

Such a perspective regards regulations and private standards as distinct elements that affect different parts of the distribution of businesses with respect to the performance parameter of interest. The case of private food safety standards, however, suggests that regulations and standards should be seen instead as distinct but interconnected components of a common regulatory system or regime. Thus, private standards build upon and are often facilitated and/or induced by regulations. This means that regulations and private standards typically evolve in concert with one another. Also, private standards can facilitate and reduce

the costs of enforcement of regulatory requirements. The interconnections between regulations and private standards, furthermore, is bidirectional. Regulatory norms not only lay down the foundation for the elaboration of private standards, but private standards can (in time) induce the upgrading of regulatory norms. They do this not only by enhancing the prevailing food safety systems of an increasing proportion of food businesses but also by enabling consumers to express the demand for improved food safety through their market choices.

One of the critical conclusions from experiences with private food safety standards is how these have evolved in the context of well-developed regulatory systems. Regulations have been a key inducement for the promulgation and adoption of private food safety standards and have also ensured that critical infrastructure and processes are in place, limiting the cost of private governance regimes. To date, there have been few if any cases in which private food safety standards have evolved in the context of weak regulatory systems. Certainly, private food safety standards have been introduced in some low- and middle-income countries (predominantly for GAP, such as VietGAP and Kenya GAP), but these have effectively mimicked existing standards that were promulgated in high-income countries (such as GlobalGAP). This leaves critical questions about the scope for private standards for sustainability, where the regulatory landscape is less well developed.

Private food safety standards have also developed in the context of a plethora of international standards specific to food safety, notably those promulgated by Codex Alimentarius, and related to the third-party assurance system, notably those of ISO/IEC. These international standards have provided critical elements of the foundation of private food safety standards and have significantly reduced the transaction costs of private standards development. In the case of sustainability, while the standards of ISO/IEC are applicable, there is a lack of international standards, for example on what sustainability is, how it measured and monitored, and so on. Arguably, in this context, the costs of developing sustainability standards that are generally accepted and adopted could well be prohibitive. Perhaps this is why there are calls for Codex Alimentarius or an equivalent organization (for example the proposed so-called Codex Planetarius) to turn their attention to international sustainability standards.

A further lesson from private food safety standards is the key role lead firms play as drivers of standards development, and the critical function these firms have in standards adoption. Here, it is important to recognize that the “success” of private food safety standards must be seen in the context of the economic interests of lead firms. Thus, they have not become so pervasive because they more effectively manage food safety *per se* but because they enable lead firms to achieve the desired “level of protection” against food safety failures at lower cost. It is not evident that there is such a commercial case for sustainability standards at the current time. Also, sustainability standards tend to be used more as a means of market differentiation; thus, there is a lack of a common cause driving collaboration between these firms—which has been critical to the promulgation of private food safety standards.

Private food safety standards demonstrate the key role of legitimacy in the successful diffusion of standards as a mechanism of value chain governance. Given their non-regulatory status, standards developers must be seen as legitimate in the eyes of standards adopters, meaning they must be seen as meeting the needs and interests of dominant value chain actors, predominantly in high-income countries. There is a need here to recognize and understand the factors that are most critical to this legitimacy. Certainly, legitimacy in the eyes of government and society is not irrelevant, but arguably not the most critical factor in the genesis of private standards.

Finally, the fact that private standards can act as a mechanism of technology transfer is well illustrated by the case of food safety. Thus, the technical content of private food safety standards assembles information from prevailing regulations and international standards and is the product of significant collective expertise (from within businesses, food safety professionals, academia, and so on) and a long-term process of learning. The example of export performance and compliance with the (IFC) standard for food safety illustrates this. This is a significant public good that can act as a valuable mechanism of knowledge transfer to businesses that are more marginal performers, countries where public and/or private food safety systems are less developed, and so on. Of course, reflecting the nature of public goods more generally, this will tend to mean that there is an undersupply of private standards and/or that access will be excluded through proprietary ownership and pricing. A priori, this suggests a role for public support of the standards development process, especially in areas like sustainability where there is less of a commercial case for collective development of standards.

Notes

¹ Governments do sometimes promulgate voluntary standards, but these do not fall under the umbrella of private food standards.

² G/SPS/GEN/746.

³ The concept of “responsive regulation” relates to a regulatory framework that is adaptable to the context and behavior of the entities being regulated, thus incorporating flexibility in rule development, a tiered approach to compliance and enforcement and active and explicit stakeholder engagement (Braithwaite 2006).

⁴ For more information, refer to www.brcgs.com and <https://www.ifs-certification.com/en/>.

⁵ For more information, refer to www.globalgap.org.

⁶ For example, a supplier to two large retail chains that require certification to a different private food safety standard might need to employ a consultant to guide compliance with each standard, be audited separately to each standard (with the attendant private auditor costs, staff time, and so on), and pay the owners of each standard for certification. For a larger supplier, the costs could be in the tens of thousands of dollars. Moreover, many of these costs are recurring, because reauditing and certification is often required annually.

⁷ Namely, those of BRCGS, IFS International Featured Standards, Freshcare, SQF Institute, Primus Institute, and GFFS 22000.

⁸ Hazard Analysis and Critical Control Point (HACCP) is a management-based approach to food safety control whereby critical points in the process of food production, processing and/or distribution that impact the hazards in food are identified and controlled.

⁹ The Codex Alimentarius Commission (more commonly referred to in the shortened form Codex Alimentarius) is an intergovernmental organization that establishes international standards, principles and guidelines for food safety and quality with the overarching aim of protecting the health of consumers and ensuring fair practices in food trade.

¹⁰ There are concerns, however, about the potential conflicts of interest where the business seeking certification also pays for this process (Lin 2015).

¹¹ Importantly, and conversely, Mangelsdorf (2016) found the impact in African countries to be insignificant.

¹² CXG 93-2021.

¹³ The UK Food Standards Agency (FSA) claims that its Earned Recognition Programme reduces the frequency and costs of on-farm inspection. It is estimated that, in the absence of this program, 17,458 additional inspections at a cost of US\$4.5 million would have been undertaken in 2018/19 (FSA 2024).

¹⁴ An example here would be where regulators explicitly (through specific referencing in regulations) or implicitly (through tiering enforcement efforts according to whether a food operator is or is not certified) promote certification to private standards that contravene the rights and responsibilities of the SPS Agreement. This might include the degree to which these standards can be supported scientifically, differentiate between domestic and imported sources of supply, and so on.

¹⁵ G/SPS/GEN/746.

¹⁶ Even within the context of the SPS Agreement of the WTO, Codex Alimentarius only has a role in establishing compliance with global trade rules.

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