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Voluntary environmental and organic standards in agriculture

POLICY IMPLICATIONS

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Abstract

VOLUNTARY ENVIRONMENTAL AND ORGANIC STANDARDS IN AGRICULTURE: POLICY IMPLICATIONS

S. Rousset, K. Deconinck, H. Jeong and M. von Lampe

While public regulation in food and agriculture is attracting attention at both policy and research level for their potential implications on international food trade, policy implications of agricultural standards – understood to be legally not mandatory and hence voluntary – are much less well understood. Yet, environmental and organic standards have grown in importance in agriculture and agri-food chains, making also their potential trade effects more relevant. In this context, understanding the linkages between governments and standards has become a key element in the debate.

This report analyses possible roles of public authorities in the area of environmental and organic standards, including policy objectives, options for interaction and means for the use of standards for achieving public policy goals. It identifies the main objectives behind government activity on environmental and organic standards in the area of consumer protection and fraud prevention, the enabling of functioning food markets and the improvement of efficiency in the design, implementation and monitoring of public policies. Countries have taken very different approaches towards dealing with standards on organic agriculture which frequently, though not always, are seen as a subset of environment-related standards. Choices for organic standards range between market self-regulation and the development of government-owned public standards. More generally, the level of public intervention often reflects OECD governments' perception on the environmental benefits of organic agriculture itself.

Keywords: Private standards, environmental standards, organic standards, environmental policies, organic regulation, organic agriculture, agricultural trade.

JEL: M38, Q13, Q17, Q58

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The final report and its Annexes have benefitted from discussions in the OECD Joint Working Party on Agriculture and Trade, where they were declassified in March 2015. The Annexes document is available for download from the OECD website at [www.oecd.org/tad/ntm/voluntary-environmental-standards-in-agriculture-2015-annexes.pdf].

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EXECUTIVE SUMMARY

Environmental standards are understood to be sets of rules, guidelines or characteristics for products or related processes and production methods with which compliance is not legally mandated and, hence, voluntary. They have grown in importance in agriculture and agri-food chains as food consumers and societies have expressed increased expectations regarding the quality of food products and the environmental performance in their production. In addition, food processors and retailers increasingly use standards and certification to ensure required quality characteristics along the supply chain as well as for differentiating products and segmenting food markets.

This study examines possible roles of public authorities in the area of environmental and organic standards, with the ambition to answer three related questions:

- What objectives can be pursued by government interaction with environmental and organic standards?
- What options are available to governments for taking a role in environmental and organic standards?
- How can governments make use of environmental and organic standards for achieving public policy objectives?

This report is based on an extensive literature review, a number of case studies on specific environmental and organic standards in different countries, and an OECD-wide survey on organic agriculture standards.¹

A key role of governments in the area of environmental and organic standards is to ensure the proper functioning of markets for both food and the certification of food. This in particular includes the protection of consumers and the avoidance of excessive transaction costs:

Protecting consumers and preventing fraud and free-riding by competitors represent a key rationale for public authorities for intervening with standards. This goal is pursued mainly through the protection of trademarks and brands, the banning of fraudulent or misleading claims, or the obligation of private companies to disclose certain information.

Reducing transaction costs and facilitating market access for all producers also represent an important motivation for public intervention. This can be achieved by harmonising existing standards, stimulating the creation of standards or developing a public standard.

In addition, governments can make use of environmental and organic standards to improve efficiency in the design, implementation and monitoring of public policies. This can include building regulations on existing private standards; endorsing standards, stimulating

1. The present report is complemented by its Annexes, available from the OECD website at [www.oecd.org/tad/ntm/voluntary-environmental-standards-in-agriculture-2015-annexes.pdf]. In addition to the full survey on organic agriculture standards (Annex 3) and details on the individual case studies on environmental standards (Annex 4), it also provides a glossary of terms (Annex 1) and more detailed information on standards and standard-related government interventions (Annex 2).

the growth of the certified sector, or using standards as an option to comply with regulations; and the recognition of private audits and certification for compliance to policy requirements.

Costs to taxpayers can be reduced by relying on existing standards or their certification systems. Benefits can also include the reduction of farmer transaction costs through reduced public monitoring of compliance with policies and regulations. However, there is a potential risk to lose control. To mitigate that, it is important to develop procedures to screen private standards of the level required for general interest purpose, as well as to maintain mechanisms to oversee operators and auditors.

Concerning organic agriculture standards, which frequently are seen as a subset of environment-related standards, countries have taken different approaches. The choices range from largely allowing private standards to self-regulate the market for organic food products with intervention mainly limited to exports of domestic produce, to the development of a public standard on organic food products. In addition to ensuring well-functioning markets for organic food by protecting consumers and facilitating trade, more active intervention by many OECD governments also reflects the perceived environmental (and hence societal) benefits of organic agriculture and frequently includes specific support provided to the producers of certified organic food products.

Introduction

Voluntary environmental standards have grown in importance in agriculture and agri-food chains.² Standards may offer opportunities and challenges for producers, companies, and governments. For some farmers, they could facilitate access to lucrative markets and supply chains, while for others, unable to meet the requirements, they could restrain market access. From the perspective of the processors, traders and food retailers, standards and their related labels offer opportunities such as quality assurance and product differentiation.

There are two main reasons why governments may want to engage with voluntary standards. The first reason is to improve the functioning of food markets, particularly by protecting consumers from false and misleading claims. The second reason is to achieve other public interest objectives by making use of standards in their policy-mix. For instance, voluntary standards and their certification systems could reduce the cost to governments of carrying out inspections.

The present study aims at helping governments to improve their understanding of the policy implications of voluntary environmental standards by documenting experiences across OECD countries. The first chapter defines some key terms and motivates the choice of voluntary environmental standards. Subsequently, it also provides an overview of different standards in agriculture, as well as a brief description of their importance in OECD countries.

The remainder of the report is structured around the two policy questions regarding voluntary standards.

Section 2, “Regulating Standards,” discusses the efficiency rationale for standards, and outlines the different policy options for governments in this regard. The emphasis here is on making markets work better by resolving information problems. These policy options are illustrated using evidence on organic regulations from Member countries.

Section 3, “Using Standards,” discusses how governments can use standards to implement policy objectives other than resolving information problems. The different possible interactions are illustrated using selected case studies on environmental policies as well as evidence on interactions between standards and policy objectives for organic agriculture in Member countries. Section 4 presents conclusions of the study.

The analysis in this report is based on an extensive review of literature, a survey on organic agriculture standards in the OECD and a number of case studies.

Based on the framework for the analysis of government involvement with standards, the Secretariat conducted an OECD wide survey on organic agriculture. The survey intends to highlight the scope for government involvement in the definition, implementation, and enforcement of organic standards, as well as the rationale for governmental support to the organic certified supply chains to pursue policy interests. The survey covers three topics: i) regulations on organic agriculture and foodstuffs, ii) public policies towards organic agriculture and food markets, and iii) private organic standards (See the list of questions and the full results of the survey [in Annex 3](#)³).

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2. As explained further below, throughout this document the term “standard” is understood to denote a set of rules, guidelines or characteristics for products or related processes and production methods with which compliance is *not* legally mandated. As such, using the term “voluntary standard” is redundant. However, the term is used differently by various authors. In order to improve clarity, this report therefore accepts such redundancies at various places.
 3. The Annexes are available for download from the OECD website at www.oecd.org/tad/ntm/voluntary-environmental-standards-in-agriculture-2015-annexes.pdf.

In addition, eight case studies were undertaken in four countries: *France, Korea, the Netherlands*, and *Switzerland*. The cases discussed provide insights on the key question behind Section 3: how governments can make use of voluntary standards to achieve policy objectives in a more cost-effective fashion. The full cases are available in country chapters in [Annex 4](#).

1. Environmental standards in agriculture

Based on a literature review, this chapter defines key terms, motivates the choice of voluntary environmental standards and provides a brief overview of standards related to organic agriculture, quality assurance⁴ and ‘sustainable’ agriculture.

Key definitions

A few key concepts, which have been used frequently and differently in the literature, are defined below. These include the terms ‘voluntary’ versus ‘mandatory’, ‘standards’ versus ‘technical regulations’, and ‘private’ versus ‘public’. The usual terms used in the context of standardisation and certification are provided in a glossary ([Annex 1](#)) and the standardisation process is discussed in more detail in [Annex 2](#).

Voluntary versus mandatory

The definitions of the terms ‘voluntary’ and ‘mandatory’ correspond to their common understanding, as referred to in dictionaries or other sources, for example in the academic literature. More specifically, and following OECD (2011), the following definitions are used:

- Voluntary: without any legal obligation.
- Mandatory: required or commanded by authority; obligatory, compulsory.

Henson (2004) suggests that all normative documents may be located along a continuum characterised by the users’ freedom of choice regarding non-compliance. Accordingly, certain voluntary standards could be analysed as *de facto* mandatory standards for market participants, when particular sets of specifications gains sufficient market share such that they acquire authority or influence. Indeed, historically, public authorities introduced regulations and private entities applied voluntary standards. Over time, public authorities also developed voluntary standards and private firms with market power have implemented standards that became *de facto* mandatory for other market participants (OECD, 2005). However, using the terms in this “continuous” manner risks losing the clarity of the legal meaning of the words. As used in this study, the word mandatory is related to legal binding force.

Standards versus technical regulations

An important distinction is that between standards and technical regulations. Following the WTO Technical Barriers to Trade (TBT) Agreement, the following definitions are used:

- *Standard*: Document approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is **not mandatory**. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling

4. Quality assurance is the “part of quality management focused on providing confidence that quality requirements will be fulfilled” (ISO, 2000). Farm assurance is the application of quality assurance principles to pre farm gate operations.

requirements as they apply to a product, process or production method (WTO, 1995, emphasis added).

- *Technical regulation*: A technical regulation is a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is **mandatory**. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method (WTO, 1995, emphasis added).

Following this definition, the two types of normative documents are very similar, possibly exactly equal, in terms of contents, but different in the enforcement of requirements. Therefore a standard may turn into a technical regulation if made mandatory. As regards to the enforcement of the requirements, technical regulations are ultimately enforced by criminal or administrative courts, whereas standards are enforced by public and private certifications bodies (Henson and Humphrey, 2010). Their content may originate in the private or public sector, but what make regulations different from standards is their *enforcement mechanisms*.

Private versus public

The distinction between private and public standards relates to their *ownership*. The term “public standard” defines standards established by governments or public agencies, while all others are defined as private standards. Therefore, all technical requirements may be defined according to two dimensions, ownership and enforcement (Table 1).

Some standards could evolve as a method to facilitate compliance with related regulations and some regulations could refer to standards as their technical requirements. Sometimes, widespread standards may become incorporated in regulations. Moreover, governments, non-profit organisations and private sectors have been indirectly involved in joint initiatives in recent years, for example in the fisheries sector (OECD, 2011). In this way, public standards, regulations and private standards operate in parallel, mutually influencing each other.

Finally, standards established by inter-governmental organisations are an important area to look at. They are distinct from private standards because they originate from an agreement between governments and they reflect public objectives rather than commercial ones. On the other hand, they are also different from governmental standards because inter-governmental organisations do not have the enforcing power of governments.

Table 1. Comparison of standards and technical regulations

Enforcement	Ownership		Private
	Public		
	Governmental	Inter-governmental	
Voluntary (enforcement by certifications bodies)	Governmental standards established by a legislature and/or public regulator, including governments, supra-national and local governments	Inter-governmental standards established by international organisations as the result of an agreement between participating governments	Private standards established by standard-setting bodies and other non- governmental organisations, industry bodies, coalitions or individual firms
Mandatory (non-compliance is illegal; enforcement by criminal and administrative courts)	Technical regulations adopted by a legislature and/or public regulator, including governments, supra-national and local governments	N/A ¹	N/A ¹

1. When governments incorporate the technical requirements established by a standardising body or an international organisation as binding rules through their national legislation process, the documents acquire a legal position of domestic regulation.

Why environmental standards?

The study focuses on voluntary environmental standards in agriculture, including but not limited to organic agriculture⁵. Increasing consumer demands for food quality and production sustainability are the main drivers of voluntary standards in agriculture. In addition, standards and third-party certifications are an important feature of supply chain management, as they allow flexibility in procurement while ensuring required quality characteristics along the chain (OECD, 2006). Finally, for major agri-food processors and retailers, standards contribute to protect brand equity and are part of their social responsibility commitments. They allow to respond to new demands from the civil society (Tallontire, 2007) and to attract socially responsible investment (Hartmann, 2011). Large buyers influence farmers and other suppliers upstream in the food chain to adjust to their sustainability requirements. In the end, the pressure for the uptake of environmental standards comes from several stakeholders, in particular consumers, NGOs, shareholders and financial actors. Environmental standards provide a good case to study the policy implications of standards for several reasons. First, environmental attributes are increasingly demanded by food consumers (Millock and Nauges, 2013). However, these characteristics are difficult for consumers to assess, leading to possible information asymmetry problems. In response, a large number of private voluntary environmental standards have emerged alongside public regulations. Countries differ in the relative importance of these private voluntary standards and public regulations.

A second reason for studying environmental standards is that most countries have explicit environmental policy objectives. This creates possibilities for using standards as a tool to implement policies. For instance, governments could use private standards as a cost-effective instrument for promoting sustainable development in agriculture, reducing the negative impacts of farming, making more efficient use of natural resources and delivering public goods to the society.

This study pays specific attention to public policies regarding organic agriculture. Organic agriculture was chosen for two reasons. First, unlike some other environmental standards discussed in the study (e.g. Bonsucro, RSPO, Rainforest Alliance), organic agriculture standards are relevant for domestic supply chains and they are important for trade with non-OECD countries. Second, the concept of organic agriculture is relatively clearly delineated. Unlike some concepts that may be meaningful for some members and not for others (e.g. ‘integrated production’, ‘conservation agriculture’) or that may be interpreted in different ways because of a lack of an agreed definition (e.g. ‘good agricultural practices’), organic agriculture is a mode of production widely recognised within OECD countries (OECD, 2003). Moreover, organic agriculture is defined in the FAO-WHO Codex Alimentarius Commission (CAC, 1999) and in several bilateral arrangements for equivalency between country-regulated organic standards (e.g. Korea-US, US-Japan, EU-US, Canada-US, Canada-EU, EU-Switzerland).

Governments may take different approaches on environmental standards. They may regulate food labelling to avoid misleading or deceptive claims. They may support or promote the use of standards through public procurement, subsidising compliance costs, fiscal exemptions and other incentives. OECD (2013a) identified twenty-four observed roles of governments, from public procurement to regulatory fulfilment, including “soft-hand” interventions such as the funding of standardising bodies activities. For other governments, voluntary standards remain a private sector matter unrelated to governmental intervention.

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5. Note that for some stakeholders, like Canada, organic agriculture standards may not be seen as environmental standards. Moreover, the survey of OECD governments shows that several member countries are neutral about the environmental benefits of organic agriculture, for example Australia and New Zealand (See [Annex 3](#)).

Studying environmental standards can thus help to understand to what extent and for what reasons governments are regulating voluntary standards, supporting the development of standards, and eventually making use of existing standards to implement public policies and efficiently pursue public interests.

As the approach of government towards environmental standards in agriculture will depend on policy goals, it is not relevant to search for “golden rules” regarding OECD countries’ involvement with standards. Moreover, the country-specific context matters, such as the nature of existing voluntary standards, their stringency and their suitability for achieving policy objectives, the level of trust between governmental bodies and the private sector (Garcia Martinez et al, 2007), legal tradition and administrative practices (Humphrey, 2012), as well as historical contingencies and path-dependence.

Diversity of environmental standards

Environmental standards may be defined as “standards for materials, products and production processes to ensure that negative impacts on the environment are minimal or kept within certain limits” (Dankers, 2003). In agriculture as in other sectors, environmental standards have different ambitions and promote various processes and production methods to promote sustainability.

Environmentally-friendly practices in agriculture include soil conservation (e.g., conservation tillage, cover crops), water conservation (e.g., buffer areas to minimise non-point source pollution), the prohibition of hazardous chemicals, integrated pest management, nutrient management (e.g. manure application methods), waste recycling, and the maintenance of agro-ecological infrastructures for biodiversity. Moreover, different holistic approaches intend to integrate several individual practices into production systems, in order to benefit from complementarities in the agro-ecological system, while achieving other objectives, such as improvement in animal welfare. Among those, ‘organic agriculture’, ‘biodynamic agriculture’, and ‘integrated production’ have been heavily formalised into voluntary standards.

Environmental standards may cover a wide spectrum of criteria or favour specific topics. According to the last standard benchmark published in the State of Sustainability Initiatives (SSI), the IFOAM organic standard has a comprehensive coverage in all areas of reporting except one, greenhouse gas. Conversely, the Roundtable on Sustainable Biomaterials (RSB)⁶ appears to be the most comprehensive standard for greenhouse gas reduction, but it is weaker in other areas, e.g. the use of synthetic inputs and biodiversity. Fairtrade (FLO), a standard developed initially to promote social equity, has incorporated several environmental requirements, but its coverage of environmental issues remains “average” in most areas (SSI, 2014). In addition to coverage, standards have different provisions and criteria to be fulfilled, which make them difficult to benchmark in practice.

There are different ways to classify environmental standards in agriculture, through their channel (Business to Business, Business to Consumer), their product or geographical scope, their communication content (when a label or any other information is involved, i.e. ‘natural’, ‘organic’, ‘sustainable’), or even according to leadership in their development and promotion (government, retailers, farmers, conservation NGOs, etc.) (OECD, 2013a). For the sake of convenience, the numerous product and production method standards related to environment are grouped into three categories that reflect successive generations of initiatives: organic agriculture standards, farm assurance standards, and commodity sustainability standards.

6. Previously known as the Roundtable on Sustainable Biofuels. The RSB expanded its scope in 2013 to cover biomaterials.

Organic agriculture standards

Organic agriculture standards relate to processes and production methods based on the principles of “organic agriculture”, defined by the FAO as “a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity” (See Glossary of organic agriculture, FAO, 2009). Other definitions of organic agriculture (e.g. from IFAOM and several private standard setters) include social and ethical issues, for example fair labour practices. Organic standards are developed by a diversity of stakeholders, including farmer and consumer associations, charities, certification bodies and governments. Organic standards aim at differentiating products and segmenting markets, with environmental claims transmitted to households through a food label.

The market for organic food and drinks was worth USD 63 billion in 2011. It has expanded by 170% since 2002 (FiBL/IFOAM, 2013). Demand for organic products comes mainly from North America and Europe, together with more than 90% of retail sales. The **United States**, **Germany** and **France** are the three countries with the largest organic consumer markets. Higher per capita consumption is found in **Switzerland** (USD 250 per capita per year), **Denmark** (USD 226) and **Luxembourg** (USD 187).

In terms of production, estimates of agricultural land under organic production worldwide in 2011, including land in-conversion, vary between 29.9 million (FAOSTAT) and 37.2 million hectares (FiBL/IFOAM, 2013) (Table 2). According to the OECD Compendium of Agri-environmental Indicators (OECD, 2013b), the OECD area represents 24.7 million ha of agricultural land area under certified organic management in 2010. The OECD area accounts for the majority of organic production and organic food consumption.

According to the FiBL/IFOAM survey, in 2013, 86 countries implemented regulations on organic agriculture and foodstuffs, and 26 are in the process of drafting legislation. The survey carried out by the Secretariat confirms that all OECD member countries have implemented some official programme as regard to organic agriculture, although the approach towards regulation differs from one country to another (See [Annex 3](#)). This is also the case of most emerging economies: **Argentina**, **Brazil**, the **People’s Republic of China**, **India** and **Indonesia**. The **Russian Federation** and **South Africa** are in the process of drafting legislation (FiBL/IFOAM, 2013).

Organic regulations generally require the use of a governmental standard to claim “organic”, the standard being directly incorporated into the legislation (as in the European Union) or referred to in the regulations (as in Canada). Compliance with the standard is only mandatory if the producer chooses to label a product as organic (Dankers, 2003). It is not mandatory to farm. Moreover, for compound products, regulations require a minimal percentage of organic ingredients.

Private organic standards have been developed decades before governmental regulations, and public standards are often originated from private standards. The Demeter biodynamic label and the first standards have been introduced in **Germany** as early as 1928. The Soil Association, a British charity founded in 1946 published its first standards in 1967. IFOAM, a non-governmental organisation founded in 1972 published their basic standards in 1980 (Dankers, 2003). Private standards are active in many OECD countries and are significant (more than 20% of organic farms) in Austria, Ireland, Luxembourg, the Netherlands, Sweden and Switzerland. In most cases, they include more requirements than national regulations. For example, in Member States of the **European Union**, they often emphasise the provenance of materials and animals used in farm production. They also extend to non-agricultural activities such as aquaculture, woodland and health and beauty products (Gibbon, 2008).

As regards to organic food imported from developing countries, a trend is the double certification as organic and compliant with the standard of Fairtrade International (FLO), for example most of the fair-trade coffee sold in the *United States* is also organic. Private organic standards have also directly incorporated fair-trade requirements in their criteria. In *France*, the *Bioéquitable* label is based on organic rules and on Ecocert ESR, a fair-trade standard developed by an organic certification body.

Table 2. Organic agriculture by region (2011)

	Organic agricultural land (million hectares)	Region's share of the global organic agriculture land (%)	Number of producers
Africa	1.074	2.88%	539 403
Asia	3.706	9.95%	460 762
Europe	10.637	28.56%	277 461
Latin America	6.858	18.41%	270 568
Northern America	2.790	7.49%	16 673
Oceania	12.186	32.71%	8 483
Total*	37.246	100.00%	1 573 209

* Includes correction value for French overseas departments

Source: FiBL/IFOAM (2013). Survey based on data from government bodies, the private sector, and certifiers. Agricultural land includes in-conversion areas and excludes wild collection, aquaculture, forest, and non-agricultural grazing areas.

Farm assurance standards

Alongside the significant growth of organic farming, a new category of private standards has expanded since the 1990s. Farm assurance standards are third-party accredited standards, which are covering environmental as well as non-environmental criteria, mainly hygiene and product traceability. Farm assurance standards are based on good agricultural practices (GAP) and the application of Hazard Analysis at Critical Control Points (HACCP) to primary production, for pre-farm gate operations. They are also referred as farm assurance schemes or “GAP standards”.

GLOBALGAP is an initiative from the food industry, founded as EurepGAP in 1997 by the Euro-Retail Produce Working Group (EUREP). The association declares a substantial number of certified producers worldwide: 123 115 in December 2012 (of which 75% in Europe), up from around 35 000 in 2005 (FoodPLUS, 2012). Launched by the National Farmers' Union, Assured Food Standards (AFS) is the largest farm assurance standard in the *United Kingdom* with about 78 000 certified farms; the “Red Tractor” certification covers food safety, animal welfare and to a lesser extent environmental matters. More than 10 000 producers worldwide are certified under the Nurture scheme developed by UK retailer Tesco (Cox, 2007). In *France*, there were 25 892 producers engaged in retailer Carrefour's Quality Line certification by the end of 2011.

Previous OECD work on “private standards” focused on the drivers from the point of view of retailers and agri-food companies. More specifically, it attempted to capture the economic and regulatory incentives for firms to develop and to adopt standards, and the possible implications for agri-food chain competitiveness, trade, and public policies (OECD, 2006). In the study, rising consumer expectations regarding food were identified as a key driver of private standards, whether or not they are communicated to consumers through

labels. For large retailers, the use of a third-party certification saves production and transaction costs, and sustains some supply flexibility, in a context of increasingly global sourcing of agricultural commodities. Another strong driver is the firm's reputation: interviews with major global retailers confirm that reputation is a strategic asset, built and protected through the provision of consistent quality and safety standards to consumers (OECD, 2006).

While the first standards developed by retailers to manage their supply (e.g. Tesco, Carrefour) have been set up before the high profile food scares of the 1990s, increasing consumer expectations and retailer's willingness to prevent against commercial risk undoubtedly fostered the growth of farm assurance standards. In the OECD survey of retailers, environmental and animal welfare criteria were reported as less crucial than food safety, quality, social and labour standards. However, as regards to environment, the surveyed companies reported that the standards they require were "significantly higher" (45%) or "slightly higher" (33%) than governmental mandatory regulations. In addition, environment was expected to gain importance over the years (OECD, 2006).

Consequently, today, most farm assurance certifications have introduced an environmental component, giving priority to one topic, such as the sustainable use of inputs (pesticides, fertilisers, water, and energy), waste management, or they are aiming to cover multiple sets of provisions. Contrary to organic standards, these standards generally do not provide consumers with their sustainability claims.

Several authors argue that rather than generating a price premium, farm assurance standards are developed as a pre-competitive tool and provide indirect benefits to primary producers, such as increased or secured sales to retailers and improved farm management. For farmers in developing countries, they may enhance access to high-value chains, although some studies provide a more nuanced picture, with heterogeneous impact on producers (ITC, 2011; Loconto and Dankers, 2014).

Commodity sustainability standards

While commodity sustainability standards have multiplied over the last ten years, their roots trace back to the fair-trade label *Max Havelaar Keurmerk* established in 1988 and the Rainforest Alliance certification (formerly ECO-OK) developed for cash crops in 1990 (Dankers, 2003). Subsequently, in the coffee sector, Fairtrade and Rainforest Alliance have been followed by initiatives from coffee buyers (Starbuck's C.A.F.E. Practices) and NGOs (UTZ Certified) (Ruben and Zuniga, 2011).

In the early 2000s, a series of single-commodity standards for globally-traded products have emerged. The Roundtable on Sustainable Palm Oil (RSPO) has been initiated in 2002 under the umbrella of the World Wildlife Fund and driven by concerns over the expansion of production of oil palm in *Malaysia* and *Indonesia*, with potential threat to biodiversity and local communities (Schouten et al., 2012). The Roundtable on Sustainable Biofuels (RSB) developed a first version of the standard in 2008. RSB has its origins in the growing critics over biofuels voiced in policy fora and the civil society (Moïse and Steenblik, 2011; Ponte, 2014). Similarly, the Round Table on Responsible Soy (RTRS) aimed at addressing the problem of sustainable production in Latin America and Asia, with a first version of the standard published in 2010. Bonsucro (previously Better Sugar Cane Initiative), a standard for sugarcane and ethanol production, was launched the same year.

All of the commodity standards above include economic, environmental and social criteria (IISD/IIED, 2014). The standard owners set requirements and approve certifiers, which must have an accreditation for conducting certification from a national accreditation body. They are sometimes called "multi-stakeholder" initiatives as they stress the participation of different stakeholders, from business and civil society, including farmers, the

governance of the standard aiming at promoting dialog, best practices, transparency and inclusiveness. Standard setting is organised through constituent groups or chambers, with a number of seats for each category of stakeholder, e.g. farmers, processors, right-based NGOs, environmental NGOs, smallholder farmer organisations, certification bodies. However, while some authors argue that these initiatives are a democratic answer to sustainability challenges, others point to asymmetries and privileged access of “powerful” stakeholders such as buyers from the North (Cheyns, 2011; Schouten et al., 2012).

The commodity sustainability standards are implemented in developing and emerging countries, with regional dominance: Africa for UTZ and Rainforest Alliance, Africa and Latin America for Fairtrade, Asia for RSPO, and South America for Bonsucro and RTRS (Table 3).

Table 3. Scope of selected sustainability initiatives by region (hectares, 2012)

	UTZ	Fairtrade	Rainforest Alliance	RSPO	RTRS	Bonsucro
Africa	907 652	458 900	650 641	0	0	0
Asia	119 756	141 540	126 618	1 478 460	10 904	0
Europe	0	0	0	0	0	0
Caribbean	58 773	76 800	47 108	0	0	0
Central America	91 063	239 400	112 025	0	0	0
South America	264 646	383 000	144 521	0	309 039	638 315
Northern America	0	0	0	0	0	0
Oceania	2 008	18 600	3 890	91 103	0	47 283
Total	1 443 898	1 318 240	1 084 803	1 569 563	319 943	685 598

Source: State of Sustainability Initiatives Review 2014 (IISD/IIED, 2014).

The RSPO certification has seen tremendous growth in the past years, from 106 kha of certified palm trees in 2008 to 1 570 kha in 2012, mainly in *Indonesia* and *Malaysia*. In 2012, RTRS certification reached 320 kha of soybean from 144 kha in 2011 (*Argentina*, *Brazil*, *Paraguay* and *India*). Bonsucro reported 686 kha of certified sugarcane worldwide in 2012 (IISD/IIED, 2014). Certified production represented about 40% of worldwide production in coffee in 2012, 22% in cocoa, 15% in palm oil and 12% in tea. The proportion is much lower in cotton, bananas and sugar (3%) and soybeans (2%) (IISD/IIED, 2014).

2. Making markets work better: Policy options for interacting with voluntary standards

For many product attributes, including environmental aspects, consumers are unable to evaluate the claims made by producers either before or after consuming the product. The existence of these so-called “credence” characteristics leads to an “adverse selection” problem, where consumers distrust such claims and are unwilling to pay the premium which would be necessary to compensate producers for the extra production costs.⁷

Given these information problems and market failures, an important policy question is to what extent the provision of desirable attributes can be achieved using private initiatives, and when public initiatives are useful or necessary. This chapter discusses the available policy options. Throughout the chapter, reference is made to the results of a survey on organic agriculture standards in the OECD (see [Annex 3](#)).

7. See [Annex 2](#) for a more extensive discussion of how information problems affect the functioning of markets and for an overview of private and public initiatives in addition to the standards-related initiatives discussed in this chapter.

Regulation of information provision

An important distinction is whether a credence attribute is a ‘good’ or a ‘bad’, i.e. an attribute consumers desire in their product (e.g. fair trade) or an attribute consumers wish to avoid (e.g. pesticides). In the absence of government initiatives, producers might falsely advertise desirable credence attributes or neglect to inform consumers about undesirable credence attributes of the product. The appropriate government policy depends on whether the credence attributes are desirable or not. Governments want to induce private actors to give accurate information about undesirable credence attributes, and prevent them from giving false impressions about desirable credence attributes.

Mandatory disclosure

For credence attributes which are not desirable for the consumer (e.g. the presence of pesticides), the producer has an incentive to withhold this information. To overcome this problem, governments could mandate the disclosure of certain types of information (Caswell and Mojduszka, 1996). A well-known example is mandatory disclosure of nutritional information (on calories, fats, proteins, etc.) in a standardised format.

Regulating positive claims

For desirable credence attributes, the government will often ban misleading or false advertising. Consumer protection authorities regulate labelling claims and advertisement under laws prohibiting unsubstantial and misleading claims (e.g. claims which could create confusion among consumers) about product and process properties. The general principle is enumerated in Codex Alimentarius: “Food should not be described or presented in a manner that is false, misleading or deceptive or is likely to create an erroneous impression regarding its character in any respect” (CAC, 1979).

Protecting market integrity

Another possible problem with private information provision is that such claims may have negative spillover effects on other sellers. For instance, emphasizing that a product contains no toxic ingredients may give the false impression that products from competing firms do contain those toxic ingredients. Such a labelling strategy would give a competitive advantage to one firm but it would undermine the confidence of the buyer in the market as a whole.

For this reason, food claims are regulated not only to protect consumers, but also to avoid such negative spillovers. For instance, most governments do not accept food safety claims from commercial operators. Market differentiation based on food safety is considered both illegitimate and inefficient since there is a risk of undermining the credibility of public sanitary regulations and, by extension, of the whole food market. Likewise, Codex Alimentarius formally discourages “claims which could give rise to doubt about the safety of similar food or which could arouse or exploit fear in the consumer” (CAC, 1979). Health claims are also regulated by several governments.

Product differentiation based on environmental characteristics or performance has been considered less sensitive by governments, but one may find a similar risk of eroding public confidence in food from conventional agriculture. Moreover, the proliferation of “green washing” (the practice of using environmental claims based on standards barely above minimal legal requirements) may also confuse consumers and undermine the credibility of existing standards.

Labels and standards

For some attributes, a ban on misleading advertising in turn leads to two related problems, i.e. how certain descriptions or claims should be *defined*, and how these can be *verified*. A law against misleading advertising does not by itself solve the problem that a concept like “organic” can be defined differently by different sellers. Moreover, even with a clear definition and a law prohibiting false advertising it might be difficult for buyers or competitors to verify whether sellers violated the law or not. Hence, for some attributes, regulation against false advertising is not sufficient.

One solution to this problem is the use of labels and standards. A third party (private or public) can establish a set of requirements and verify that a seller satisfies the requirements. The seller could then be awarded a label which can be displayed on the product. If the label is accurate, this transforms the credence attribute into a “search” attribute, since buyers can simply look for the label when buying the good (Caswell and Mojduszka 1996). Standards and labels may thus solve information problems to a large extent. The label communicates to consumers that a product has the desired characteristics.

The use of labels and standards involves a number of policy decisions (Roe and Sheldon, 2007). An important question is whether standard-setting and certification should happen under the authority of a government agency or through a private firm. It is important to note here that setting a standard and certifying that a certain seller satisfies the criteria are in principle two separate activities which could be undertaken by separate bodies, whether public or private. For instance, both the process of standard-setting and certifying could be left to the public sector. The standard could also be defined by the government, with certification by private bodies. Conversely, government agencies could certify private standards, e.g. as USDA is increasingly asked to do (Clayton and Preston, 2003). Alternatively, a private company or organisation could define a certain standard, and the same or another private body could certify that a seller satisfies the criteria of the standard.

Public or private standards?

For the case of organic food, the survey of OECD countries shows that all member countries except New Zealand and Australia have public organic standards incorporated into regulations. In New Zealand, there is no specific legal framework for products sold on the domestic market, but the government administers a voluntary programme for exports. In Australia, the organic legislation only applies to exported production, in reference to a standard maintained by the industry.

The survey confirms that market issues have been the main spur for developing public organic standards embedded in regulations. The protection of consumers from false claims is the most frequently quoted motivation for organic regulations.

A question which may arise is whether, in addition to a government-backed label, other labels will be allowed as well. For instance, in the United States all organic food certification is overseen by the USDA, and private firms may not establish alternative definitions. According to the findings of the survey, private organic standards co-exist with public standards in 23 OECD countries on the 33 surveyed.⁸ Although reliable and comparable statistics on the importance of private standards are not available for all countries, private organic standards appear to be significant in Austria (60% of organic farms), Ireland (99%), Luxembourg (58%), the Netherlands (27%), Sweden (79%) and Switzerland (95%).

8. The definition of private standards includes those developed by NGOs, private certifiers and other for-profit companies, as well as those developed by officially recognised non-governmental standardising bodies.

Moreover, as there is no country-regulated standard for the domestic market in Australia and New Zealand, all certified organic farmers producing for the domestic market are certified according to private standards.⁹

Benefits and disadvantages of private relative to public standards

As part of their answers to the survey, some member countries have pointed out the benefits and drawbacks of having coexisting organic regulations and private organic standards operating in the country.

A first benefit is the possibility of product differentiation. In most OECD countries, private standards have to comply with the legal minimum set in regulations. This means that there are opportunities for standards higher than the country-regulated standard. For example, the private standards that operate in Ireland set higher requirements than Council Regulation (EC) No. 834/2007. This higher standard provides an added extra and is attractive for export of products to continental Europe. Moreover, private standards provide additional benefits in the market due to the standard owner's stance on specific issues such as for example animal welfare and bio-dynamic agriculture. Some private organic standards also certify the origin of products (e.g. Slovenia, Switzerland), which is valued by domestic and foreign consumers. With private standards, organic producers have access to different marketing channels through which they can singularise their products.

A second benefit mentioned by respondents was that owners of private standards may invest in building and maintaining strong brand value, which in turn increase confidence amongst consumers. For example, in Sweden, KRAV has been very successful in marketing organic products. With private standards, control may be more diverse and deeper, which yields more trust in 'organic' claims for consumers. Finally, private standards are perceived to bring innovation in the organic sector. If there is a need from a governmental perspective, some requirements of private standards may be implemented into organic regulations in further stages. Indeed, national regulations have been influenced by private organic standards in several OECD countries.

The main drawback of private organic standards is the possibility of confusion amongst consumers as to the dividing line between the standard and the country regulation. In the European Union, where coexistence is allowed, it is not obvious if consumers are always aware of the differences between the two. Moreover, certification bodies often propose their own private standard; they are in competition with each other over what their respective versions of the standards offer to producers.

Certification

In terms of certification according to organic regulations,¹⁰ there is much more heterogeneity among OECD members. 22 of the 33 OECD countries surveyed use private

9. Note that farmers producing organic products for the New Zealand or Australian domestic market need not to be certified. However, as it is the case elsewhere, the legislation in place in both these countries prevents market participants from making false claims on the marketed food. Organic products sold on the New Zealand domestic market are sold subject to the Fair Trading Act, which requires truth in labelling. Organic certification provides some assurance to retailers and manufacturers that an organic claim complies with the provisions of the Fair Trading Act. In Australia, according to the Australian Competition and Consumer Commission, organic claims must be properly made and businesses that make organic claims must be able to substantiate those claims.

certifiers. Public control bodies are used in Denmark, Estonia and Finland, while both systems co-exist in Korea, Japan, Poland, Spain and the United States. In addition, Norway and the Netherlands have a system whereby a private certifier has a monopoly on certification, with a formal agreement in place. Mexico traditionally relied on a participatory guarantee system, whereby organic farmers are subject to the monitoring and review among peers, involving organic consumers and technical consultants in regional networks; at the moment a process is underway to recognise private certifiers.

Benefits and disadvantages of private relative to public certification

Among the mentioned benefits of using private certifiers is the choice offered to organic producers. Competition between certifiers can promote better value for organic producers. It forces certifiers to make their work as effective as possible.

Moreover, private certifiers' personnel are dedicated organic specialists whose function is to ensure conformity with organic farming and production standards. They have the expertise to certify to organic standards. Private certifiers are more specialised than public control bodies, which have to cover a wider range of standards. They can assure a higher efficiency compared to public structures. For operators they provide fast inspection and certification procedures and objectivity and less complicated administration than in governmental administration.

Private certifiers often work in close collaboration with organic operators, enabling trusted and long-standing relationships to develop.

Regarding conformity assessment, the private certifier can check conformity concerning other international trademarks and standards as well (See cases of the Netherlands and Switzerland in [Annex 4](#)). As private certifiers often propose their own private standards, the system allows for the coexistence of national regulations and private standards; the first providing a minimum standard and the latter providing the opportunity for market diversification of organic products.

Having private certifiers carry out conformity assessment allows for a “user-pays” approach to organic certification. The financial burden on governments is lower than when undertaking an inspection role. Some countries interviewed pointed to a lack of human resources and budget to maintain a public control body, so that certification has to be outsourced.

In turn, according to the answers from several OECD member countries, the inspectors from public bodies are regarded as independent and impartial by organic producers. Certification fees of public bodies are generally lower than those of private certifiers. The implementation of the standards is similar for all producers. With a government-managed system, the credibility of organic claims to consumer is high.

In countries where private and public bodies are coexisting, certification fees of private certifiers are generally higher than that of public agencies. Some countries stated that organic certification is expensive and certification costs are passed on to consumers, making organic products less accessible to a wider part of the population. Moreover, high fees make it more difficult to attract new organic producers in the system. In addition, certifiers may promote their own private standard rather than simply offering the official certification scheme.

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10. In Australia, for compliance with the National Standard for Organic and Bio-Dynamic Produce (Export Control Orders 2005), in New Zealand for compliance with the Official Organic Assurance Programme (OOAP) for exports.

With private certifiers, it is difficult to ensure consistent delivery in conformity assessment. It is not always possible to have agreed best-practice, as due to commercial interests they are not always keen to agree to a standardised approach. Private control bodies may have their own procedures that make it harder for producers to change the body swiftly. When the number of certifiers becomes high, this results in major difficulties in supervision for the Competent Authority responsible for the implementation of organic regulations.

As there is an economic pressure on private certifiers, competition can lead to dumping. If no unified system of controls and sanctions is in place, there is a greater chance for fraud and false certificates. In case a violation of standards is detected by a private certifier, operators could put pressure on the private certifier threatening to move to a competitor.

In some countries, consumers of organic food have less confidence in the inspection by private bodies. Private certifiers may have less credibility internationally than government authorities. Gaining market access to other countries may then be more difficult for private certifiers.

With a delegation of conformity assessment to the private sector, there is a potential loss of control in the enforcement of regulations. However, the Competent Authority is responsible for overseeing the operation and thus providing a guarantee to consumers. It is also in charge of coordinating the control bodies to avoid disparities in procedures and sanctions.

Policy interactions with voluntary standards

There are a number of problems which may arise if standard-setting and certification are left to private organisations. These in turn create scope for government policies to improve upon the market outcome.

A first problem is the credibility of the private initiative, both in terms of the credibility of the standard and of the certification procedures. A second problem with relying solely on private initiatives is the risk of ending up with no standard at all, or by contrast with a wide variety of incompatible standards leading to high transaction costs for market participants. These shortcomings suggest a role for public initiatives. In particular, governments can increase the credibility of private standards and labels; increase the credibility of third-party certification; stimulate the creation of private standards; and foster market integration by harmonising existing standards.

Increasing the credibility of private labels and standards

A first issue with private standards and labels is that such schemes will only be as credible as the body setting the standard. A supplier may rely on a third-party organisation for standard-setting but without oversight, there is no guarantee that this organisation will keep its integrity. NGOs play an important role as “gate-keeper”, in the development, the rating and the benchmarking of private standards.

As neutral third-parties, governments may play a similar role in providing credibility to voluntary standards. Their involvement includes encouraging transparency in standard setting, ensuring that the process is fair and inclusive, and representing the voice of citizens within standardising committees (UNFSS, 2013). Governmental experts and scientists provide guidance to build scientifically sound criteria in working groups.

Public investments in data and research can also play a role in supporting the development and verification of private environmental standards. Improved scientific knowledge on agricultural sustainability, science-based environmental indicators, data on the state of agriculture and the environment, and the dissemination of such information, can help

promote improvements in agricultural sustainability, provide a basis for valid market differentiation and serve as a check on private claims of environmental stewardship

Another way by which governments may give credibility to industry initiatives is through the official approval of private standards and certifications, with a governmental seal, by reference to the private standards in public procurement guidelines, or with communication campaigns to increase consumer awareness. Finally, the development of a public voluntary standard (as often in the case of organic agriculture) can be analysed as a borderline case, where national authorities are taking full responsibility for standard development and the management of related information scheme, in order to grant the highest credibility to the industry initiative.

Generally, interactions with private standards in OECD countries seem to be limited. Only seven countries report to be involved to some extent: Australia, Germany, Hungary, Ireland, New Zealand, Norway and Switzerland. Government officials may be invited to comment on standard drafts and to provide guidance through round-table discussions or similar meetings. They may also act as experts in standard-setting committees. In Hungary, private organic standards have to be approved by the authorities. The main motivations for interacting with private bodies are to make sure standard-setting is transparent, fair and inclusive, and compatible with governmental objectives. Conversely, no OECD government is funding the activity of private organic standardising bodies.

In Australia, the Australian Government is represented on the committee overseeing the Australian Standard for Organic and Biodynamic Products (AS6000-2009) developed under the auspices of Standards Australia, the main standardising body in the country. This standard is available for use by private certifiers.¹¹

In 2003 Standards New Zealand published a standard for organic production (NZS8410-2003). The standard was developed in consultation with staff from NZFSA (New Zealand Food Safety Authority), and from 23 other organisations with an interest in organics. The standard sets out minimum requirements for the production, handling, processing and labelling of organic products including plant and plant products, and animal and animal products. This standard is used by a number of organisations as a reference document, including the New Zealand Qualifications Authority and the Commerce Commission.

Increasing the credibility of third-party certification

An important question regarding third-party certification is the reliability of the certifier. Without external control by accreditation bodies and standard owners, the reliability of third-party certification may be doubted, as consumers are unable to verify the integrity of the certifier or the thoroughness with which the certifier screens producers.

From the point of view of the certifier, four factors determine the optimal amount of inspection to be carried out (Jahn et al., 2005). Increasing the quality of inspections would lead to greater direct costs (e.g. due to higher labour costs), together with a higher opportunity cost of losing the producer as a client. On the other hand, reducing the quality of inspections would increase the risk of a loss of reputation for the certifier, or of costs due to liability. This suggests four ways of improving or guaranteeing the quality of third-party certification (Jahn et al., 2005).

First, alternative ways of organising inspections might reduce the direct costs of offering a good quality of inspection. One way of reducing costs is to move towards a risk-based inspection system. As shown by Gambelli et al. (2014), the risk of violating the requirements of organic farming can be predicted by previous non-compliance, as well as by farm size and

11. It is a different standard than the National Standard for Organic and Bio-Dynamic Produce used to certify production for export markets.

complexity of operations. However, the data currently recorded by control bodies are insufficient to implement an effective risk-based approach.

Second, the risk of losing the producer as a client could be reduced in several ways. One approach is to grant a monopoly to a single certification body, removing the possibility for producers to engage in “opinion shopping” to select the most lenient certifier (Lennox, 2000). Another solution is to prohibit certifiers to take on clients representing a large share of their revenues, to prevent the certifier from becoming too dependent upon a large client (who could subsequently exert pressure). Other solutions are a forced rotation of certifiers or forced long-term contracts.

Third, increasing the potential reputation loss for certifiers would also improve the quality of third-party certification. As Jahn et al. (2005) note, at present buyers have only limited information about the performance of certifiers. One solution might be to publish rankings based on detected fraud by different certifiers.

Fourth, increasing liability costs for the certifier in case of fraud would provide another way to guarantee the quality of third-party certification. Jahn et al. (2005) note that this can happen by increasing the probability of fraud detection, increasing the probability of liability, and increasing the costs or fines in case of liability.

In the countries where private certifiers are officially recognised as control bodies for public organic standards, a system has been implemented for the surveillance of their operations. The degree of comprehensiveness of this oversight varies from one country to another.

In the European Union, according to Council Regulation (EC) 834/2007 it is mandatory for the Competent Authorities to develop a programme of surveillance to supervise and monitor control bodies, with office audits of control bodies and witness audits of certified organic operators. Control bodies are submitted to a double control, from the Competent Authority (audit once a year) and from the accreditation body (audit every 15 months). The surveillance of control bodies is also mandatory for countries that have bilateral agreements with the EU (Sanders, 2014).

The authorities responsible for overseeing control bodies are generally the same as the Competent Authority. Before being recognised by the authority, and regardless of whether they provide conformity assessment to country-regulated organic standards only, or to other agricultural standards as well, private certifiers have to show that they are competent and reliable when they operate product certification. This is usually done through a formal accreditation according to ISO/IEC Guide 65 (General requirements for bodies operating product certification systems), EN 45011 (General Criteria for Certification Bodies Operating Product Certification Systems) or equivalent.

Stimulating the creation of private standards

If the process of defining and implementing a standard is costly and complicated for private operators, it may not get undertaken at all. There is thus a problem of “collective action” in standard setting. While business operators share collective goals, they may disagree on the way to proceed. There may be conflicting views on best practices, key criteria and performance thresholds, which result in a lack of consensus and persistence of the status quo. Moreover, even if they collectively benefit from a standard, businesses have little incentive individually and face transaction costs in engaging in standard development.

A government may therefore act as an enabling institution that provides institutional infrastructure and guidance, exerting pressure to push negotiations to reach solutions. It may also act as an “enforcing institution” with the threat to develop a public standard, embedded in law, to overcome the status quo. In doing so, governments influence the agenda of standard setters (Ponte, 2014).

At least with regard to organic standards, such initiatives seem to be limited. In the survey on organic regulations and policies, no examples of governments supporting private standard setters in this way were identified.

Fostering market integration by harmonising standards

When relying solely on private actors to develop standards, the opposite problem may also arise: a wide variety of different standards and labels may emerge in the market. While in theory competition between standards could lead to the emergence of a limited number of dominant labels in the market, this process might take time. The co-existence of similarly-sounding standards can lead to confusion among buyers and to higher transaction costs for suppliers who have to deal with a variety of requirements. Moreover, if different countries implement different standards, this may hamper trade.

To avoid confusion among buyers, to reduce transaction costs for suppliers, and to facilitate trade, the government may wish to reduce these transaction costs by harmonising the standards used in the market. One way to do this is for the government to set its own standard. However, there are several other possibilities. For instance, the government could select one existing private standard as the official standard, subsidise or otherwise stimulate one private standard but not others, or strongly encourage the harmonisation of private standards.

Standard harmonisation alleviates barriers to trade and facilitates market access for producers. In the United States, in 1990, the US Congress passed the Organic Food Protection Act to facilitate interstate commerce in organically produced food. The USDA National Organic Program (NOP) standards published in 2002 had an explicit goal of removing variation amongst different organic certifications and State laws on organic labelling (Schewe, 2011). In the European Union, Council Regulation (EEC) 2092/91 has been implemented to harmonise existing national standards and facilitate market integration. The revision of the EU regulation in 2005-2007 aimed at strengthening the common framework, after a proliferation of derogations and divergent Member States' interpretation of rules (Gibbon, 2008). In the United States and the EU, harmonisation has been achieved through a public standard. In Switzerland, the Federal government pushed local organic associations to create a common private standard in the early 1980s, Bio Suisse, to improve market transparency, increase the integrity of value chains, and protect Swiss consumers. A national legislation has been introduced much later in 1997 ([Annex 4](#)).

For several countries, market issues have been the main spur of regulations. A better integration of the domestic market and better access to foreign markets were cited by 9 out of 14 countries (taking the EU as a single country) as a motivation for developing organic regulation, making it the second most important reason (after consumer protection). In Iceland and Switzerland, organic regulations have been strongly motivated by the prospects of trade integration with the European Union (i.e. AEEA Agreement, EU-Switzerland bilateral agreement).

Potential drawbacks to government intervention

Multiple coexisting standards may not necessarily be a sign of market dysfunction. Instead, they may indicate a competitive market situation providing larger consumer choice. In turn, government intervention to harmonize standards could hence result in reduced consumer choice and a reduction in consumer welfare. The introduction of a governmental standard next to existing private standards could erode the value of private investments in market development, including investments by NGOs in setting and verifying standards. Public standards may reduce private-sector incentives to invest in environmental differentiation. In addition, adjusting governmental standards to changing consumer preferences may be more difficult than amending private ones.

3. Using standards to achieve policy objectives

As documented in the previous chapter, standards can be used to make markets work better by solving information problems. In this chapter, the focus is on how standards can be used to implement policy objectives other than those related to improving the functioning of food markets. In particular, the goal of this chapter is to identify potential synergies between public policies and voluntary standards, including their related certification system.

An example of synergy is when a governmental programme can be made more effective by referring to existing voluntary standards, rather than developing a series of technical criteria from scratch, or by relying on existing certification systems and private certifiers, rather than creating a control authority. Another example of synergy is the use of private certifiers to adapt on-site inspections in governmental checks, reducing simultaneously administrative costs and farmer transaction costs.

The next section introduces different approaches to achieve policy objectives, and offers a first discussion of possible interactions with voluntary standards. Subsequently, an overview is given of the different stages of the policy process. Based on this overview, possibilities for synergies are explored in regulatory design, policy implementation and monitoring of compliance.

Throughout, reference is made to existing literature, to the survey on organic agriculture standards in the OECD ([Annex 3](#)) and to eight case studies undertaken in four countries: France, Korea, the Netherlands, and Switzerland. The full cases are available as country chapters in [Annex 4](#).

Options for public intervention

To achieve policy objectives such as environmental policy goals, governments can use a variety of approaches. These can be classified by the degree of government intervention they imply (Figure 1), ranging from *no intervention* to a *command and control* approach. For each of these steps, possible interactions with voluntary standards can be identified.

Self-regulation

Governments can choose to rely on *self-regulation* such as voluntary industry codes of practice. In the context of environmental objectives in agriculture, relevant examples include farm assurance schemes and private quality assurance schemes developed by retailers. Voluntary environmental standards can thus be part of “self-regulation”, the assumption being here that they are contributing to the achievement of policy goals, without any intervention from government (Sinclair, 1997; Gunningham and Rees, 1997).

Co-regulation

An alternative approach is *co-regulation*. The term is used to describe public and private sectors working together to achieve policy objectives at lower cost (Eijlander, 2005). Co-regulation is a “hybrid” policy instrument, in the sense that the overseeing of the process is retained by government, while it allows considerable input from the industry in order to tailor regulatory responses (Sinclair, 1997). Initially focused on regulatory design, the concept has been subsequently extended to the entire policy process, up to conformity assessment and compliance enforcement (Garcia-Martinez et al, 2013). Considerable emphasis has been put on the endorsement of voluntary standards and codes of practice by public agencies.

In its white paper on governance, the European Commission promotes a greater use of co-regulation. According to the Commission, “Co-regulation combines binding legislative and

regulatory action with actions taken by the actors most concerned, drawing on their practical expertise. The result is wider ownership of the policies in question by involving those most affected by implementing rules in their preparation and enforcement. This often achieves better compliance, even where the detailed rules are non-binding” (OJ, 2001). The white paper further provides conditions for a co-regulatory approach, in particular that co-regulation should serve the general interest, and that the participating organisations should be “representative”, “accountable” and capable of following open procedures in formulating and applying the agreed rules (OJ, 2001).

One area where co-regulation is becoming increasingly important is food safety. Several national authorities have moved from traditional command and control towards a more flexible approach, where private firms are developing their own “internal rules and procedures in order to fulfil the regulator’s policy objectives” (Garcia Martinez et al., 2007). In the United States, the Occupational Safety and Health Administration (OSHA) and several state environmental agencies, such as that of Massachusetts, have also introduced management-based regulations: rather than mandating specific process requirements, the agencies are expecting the regulated firms “to produce plans that comply with general criteria designed to promote the targeted social goal” (Coglianese and Lazer, 2003).

The OECD report on *Regulatory Policies in OECD Countries, From Interventionism to Regulatory Governance* (2002) provides an overview of benefits and drawbacks of co-regulation. Potential benefits include greater levels of compliance, greater responsiveness and lower overhead thanks to the involvement of the industry and interested parties. Possible drawbacks are a higher risk of regulatory capture¹², potentially anti-competitive activities and the development of barriers to entry for outsiders (OECD, 2002).

Information and education

To achieve policy goals, policymakers may also use *information and education*. In the context of environmental objectives, for instance, governments can use public education as well as information and promotion campaigns in order to raise consumer awareness and stimulate the demand for products with desirable environmental attributes. Other options include collecting and publishing evidence to guide the public debate or a “naming and shaming” approach to exert pressure to adopt best practices. Technical assistance and extension services may also be included under this category. Voluntary standards can be used in this approach by the endorsement of private labelling initiatives (e.g. for organic food).

Incentive-based structures

The fifth category of policy options are *incentive-based structures*. This includes using rewards or taxes to stimulate desirable behaviour, as well as the use of market-based tools.

Examples of agri-environmental policies in this category include payments for land retirement or for the adoption of environmentally-friendly practices. These can be a flat rate payment per hectare of eligible land (e.g. agri-environment programs in the European Union, Norway and Switzerland) or delivered through auctions (e.g. Conservation Reserve Program in the United States, BushTender programme in Australia). Environmental taxes or charges include e.g. input taxes levied on pesticides in Denmark, France, Italy, Norway and Sweden, and the taxes on fertiliser applied in Italy, Sweden and some states of the United States. Market-based tools include permit trading for carbon emissions, water quality (United States), nutrients (Australia, Canada) and surplus phosphates from manure (The Netherlands) (OECD, 2010).

12. A form of government failure, where vested interests from the private sector dominate over the initial (societal) objectives of the regulatory agency.

According to the *Inventory of policies addressing environmental issues in agriculture* (Vojtech, 2010), payments to farmers also include grants to cover investment in environmentally-friendly facilities and equipment, such as the Environmental Quality Incentives Program (EQIP) grants in the United States, the structural payment programmes under Rural Development Regulation (RDP) in the EU, and several tax concession programs in Japan, Australia and Canada.

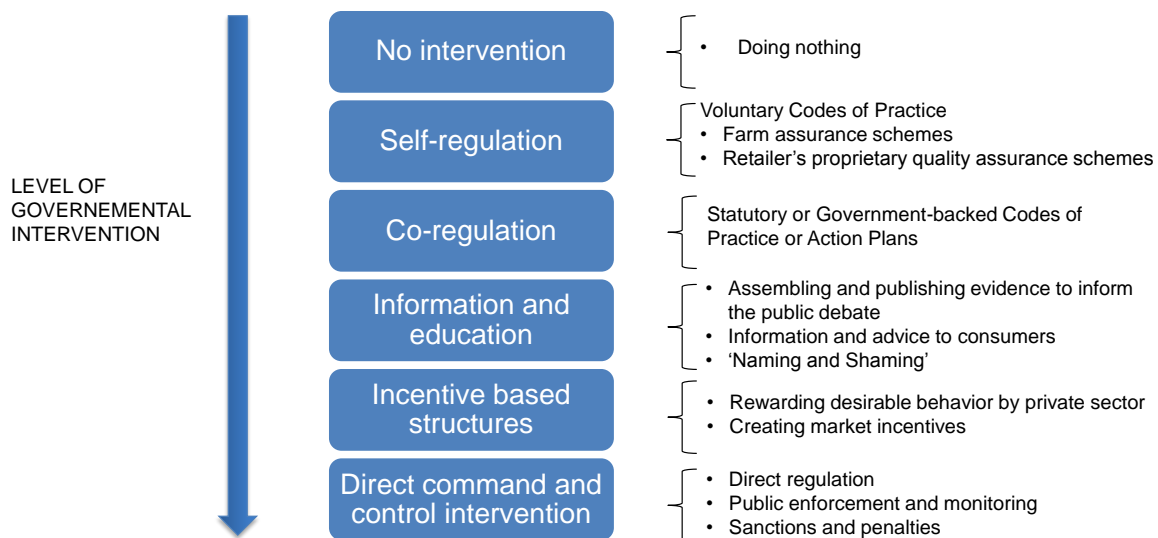
Voluntary standards can play an important role in such incentive-based policies. In particular, agri-environmental programs are generally compensating farmers for the adoption of input-reducing practices (e.g. crop rotations, reduced fertiliser and pesticides application), landscape and habitat measures, identified as being beneficial to the environment (Uthes and Matzdorf, 2013). The list of eligible practices is developed by governments, and controls are based on compliance with the specifications. But those area payments may also be based on compliance with existing certification schemes, which is the case for organic agriculture in several OECD member countries.

More broadly, there are opportunities for equivalence between government-designed measures and existing certification schemes. In the European Union, under the new Common Agricultural Policy, a “green payment” will represent 30% of the budget for direct payments and be allocated to farmers on an annual basis, provided that they fulfil three environmentally-friendly practices (crop diversification, maintenance of existing permanent grassland, minimal proportion of ecological focus area). National and regional certification schemes may be recognised as equivalent with greening if their requirements cover or exceed the practices listed in the regulation (EC, 2013).

Command and control

Finally, governments can rely on direct *command and control* intervention. These include the tools traditionally associated with government policy, such as direct regulation, public enforcement and monitoring, and sanctions and penalties. Environmental regulations, for instance, can be applied to the quality or quantity of marketed products (product regulations), technologies or processes (process regulations), or environmental performance (performance regulations) (OECD, 2010). However, also in this case governments can rely on existing standards to set the regulations.

Figure 1. Options for public intervention



Source: Garcia-Martinez et al. (2007).

The policy process

To allow a better understanding of the possible interactions between policies and voluntary standards, this section discusses the different stages of the policy process, as shown in Figure 2. The subsequent section then discusses at what stage in the policy process synergies with voluntary standards are possible and highlights experiences from the eight case studies conducted.

Strategizing

The policy process starts from strategizing. This stage includes the identification of policy issues, a definition of what the government wants to achieve, the evaluation of past policies, the setting of targets, and the establishment of the operational features of the policy set, taking into account the potential negative side-effects (Van Tongeren, 2008). This step includes deciding among the options identified in the previous section, e.g. whether to rely on self-regulation, co-regulation, command and control, and so on. In environmental policy, a policy mix may include statutory rules and other direct command and control intervention, as well as economic incentives such as tax and subsidies, tradable permits, and communicative instruments.

Organisational design

Before implementing policies, a decision is made on the organisational form. Ideally this stage includes a clear allocation of responsibilities within the executive branch of government, the choice of the appropriate level of centralisation and decentralisation, a flow chart of the different administrative sections and units, long-term planning and budgeting, indicators to track the effective implementation of policies, and a mechanism to coordinate the action of the bodies in charge of the policy. In some cases, it may be necessary to create a new office or to restructure existing agencies.

Regulatory design

Regardless of whether the core policy tool is a command and control intervention or not, regulatory design is part of the process. A solid regulatory base is required before the implementation of any policy instrument. This includes market-based approaches such as tradable permits, which need government regulation to create the institutional framework and allocate initial property rights (Van Tongeren, 2008). Drafting or renewing legislation, enacting ministerial decrees, and updating the provisions of administrative law are part of this stage. The Regulatory Authority responsible for preparing the regulations is usually a branch of central or local government.

Policy implementation

Policies are then implemented by different public bodies under the oversight of one competent Authority (in the simplest case) which may be a ministerial department, an independent agency, or a local government responsible for policy implementation within its constituency. This stage includes the implementation of an information system, financial circuits and control procedures to check eligibility and compliance; the negotiation of public service delegations and agreements; the identification of beneficiaries, the processing of applications, the provision of payments and the collection of taxes and fees (OECD, 2007). Communication and technical assistance are provided.

Monitoring

The monitoring step is composed of several ex-post checks for compliance by the Control Authority (e.g. verification of documents, on-site inspection, product testing), as well as the provision of discharge and clearing to regulated operators and programme participants.

Enforcement

Finally, the measures are enforced through administrative sanctions provided by the Control Authority and the Competent Authority (e.g., reductions in payment, fines, suspension of licence, plant closure) and eventually through legal sanctions in courts.

Figure 2. Sequences and main actors in the policy process



Interactions in the policy process

Interactions with voluntary standards will be concentrated mostly in three steps of the policy process: regulatory design, policy implementation, and monitoring.

Strategizing and organisational design are considered as a prerogative of governments. It should however be noted that the identification of needs and the choice of policy options involves the consultation of concerned citizens and stakeholder groups (Van Tongeren, 2008).

Likewise, the enforcement of regulations is ultimately the responsibility of the executive and judiciary branches of government. Even when command and control is replaced by more flexible voluntary industry schemes, there is still an overseeing of schemes by public control authorities, to check that they fulfil the regulatory objectives (Bonnaud and Coppalle, 2013). In case of disputes with the administration, legal recourses are available. However, there are some cases when policy enforcement may be backed by standards. In developing countries lacking the resources to properly enforce their own regulations, voluntary standards may implicitly increase compliance with national law and regulations, as this is a prerequisite for certification (Djama, 2011). In most cases, however, the role of voluntary standards in this step of the policy process will be limited.

Regulatory design

The drafting of legislation is obviously a prerogative of governments. However, governments may choose to “outsource” part of their regulatory prerogatives (Djama, 2011). For example, the Food Standards Agency (FSA), responsible for food safety and food hygiene in the **United Kingdom**, has stimulated the generation of voluntary codes of good practice by the profession, in particular the Assured Food Standards (AFS) launched by the National Farmers’ Union. In Canada, comparable farm assurance standards have been actively promoted by provincial governments, for example in Ontario (Garcia-Martinez et al, 2007).

Conversely, government regulations and administrative law may incorporate private standards or be influenced by those standards, as demonstrated by the case of **Korea Certified Organic in Korea**.

In 1993, the Korean Government decided to regulate organic labelling and advertisement to protect consumers with the Agricultural Products Quality Control Act. At the same time, it was decided to develop a regulated organic standard, setting out the minimum requirements to be met by organic products, assisting farmers in the appropriate adoption of organic practices. From 1996, the certification system additionally covered low-pesticide agricultural products, and a labelling system for organic products, Korea Certified Organic, was introduced in the same year. The organic regulation of Korea covers all the requirements for organic agricultural products, feed and processed food, including production rules, processing, labelling, control, inspection, certification and assessment of imported feed and foodstuff. Unlike the experience of European countries, Korea did not have competent private actors leading the establishment of environmental standards. As a result, the Korean Government thus played a key role from the beginning.

The case of Korea Certified Organic shows synergies in regulatory design between public regulation and private standards. The Korean public regulation on organic agricultural products is largely based on organic standards developed in other countries and by international organisations, in particular the IFOAM standards published by the International Federation of Organic Agriculture Movements, a non-governmental organisation¹³. Moreover, rules on production, labelling and marketing of organic products are based on the guidelines of *Codex Alimentarius*, of which Korea is a member.

Referring to existing standards allows for significant cost savings in the development of domestic regulations. Other countries’ experiences from the development and operation of regulations and standards can be built upon, which should reduce problems potentially arising from inconsistencies in the regulations and with related institutions. In addition, the clear link to existing standards helps to reduce potential trade frictions that arise from differences in national regulations and the need for compliance with different requirements. Finally, the introduction of a legal basis for the equivalency with foreign organic food regulations driven by the linkage to international standards is likely to facilitate trade in organic food products.

In the case of the Korea Certified Organic, elements of the IFOAM standard have been incorporated into national regulations in the mid-1990s. Since then, Korea’s organic regulations have been amended several times under the authority of the Ministry of Agriculture, Food and Rural Affairs, last time in 2014 in the context of the Act on Environment-friendly Agriculture and Fisheries and Organic Food Management Support. The content of regulations has therefore evolved independently from the IFOAM standard.

13. The IFOAM standards have also been influential in the development of other organic regulations in other countries, as well as of private standards.

A different approach of using standards in regulatory design would be to make explicit reference to a standard in the regulation, as a requirement for compliance. The costs of regulatory design are minimised. In that case however, several drawbacks and risks should be mentioned. There is no participation of government in the governance of standard setting, or governmental overseeing of the standard content. If the private operators unilaterally decide to change the elements of the private standard, they *de facto* impact the scope and stringency of regulations.

While the case of Korea Certified Organic shows how private standards (in this case the IFOAM organic standards) can be used as building blocks for public standards, the reverse situation is also possible, i.e. where public standards serve as the basis for developing private standards. This is illustrated by the case of **SwissGAP standards in Switzerland** (Box 1).

Box 1. SwissGAP: Public standards as building blocks for private standards

In the case of the SwissGAP standard in Switzerland, the requirements of a private standard are based on criteria first set in a governmental programme.

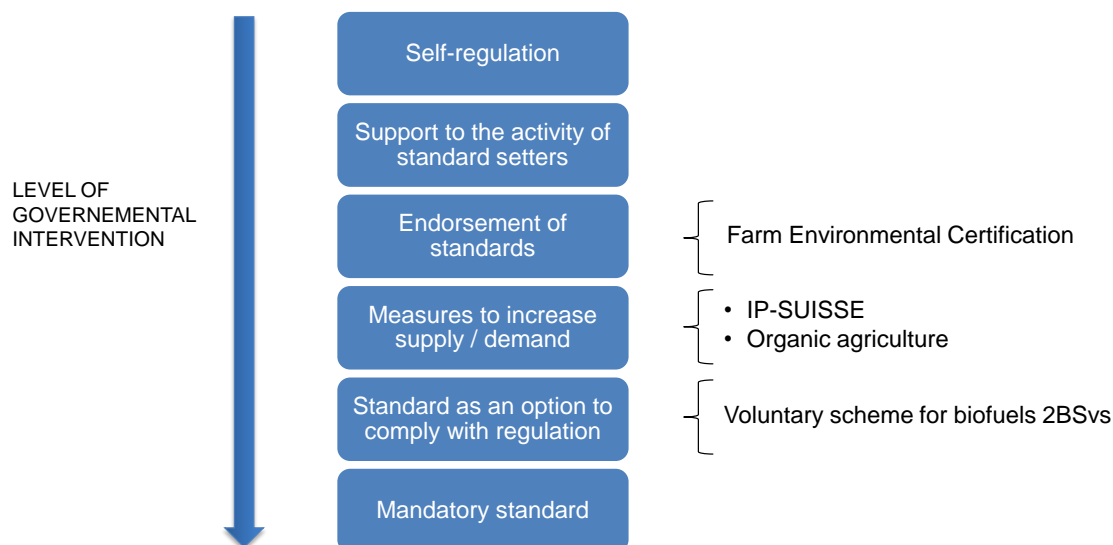
Switzerland imports a substantial share of its domestic consumption of fruits and vegetables. Around the year 2000, sporadic problems with pesticide residues occurred on the European food markets, and Swiss retailers wanted to protect themselves against any potential incident that could damage their reputation. In order to guarantee safety to their consumers, retailers therefore requested third-party certifications from their foreign suppliers, such as the EurepGAP standard developed in 1997 by North European retailers (renamed GLOBALGAP in 2007). To provide the same quality assurance in local sourcing, retailers (in particular the market leaders COOP and Migros) requested their Swiss suppliers to comply with EurepGAP or other equivalent third-party certification of good agricultural practices. Swiss retailers and national producer associations engaged in a dialogue around standardisation and the best ways for developing the required farm assurance schemes.

The resulting SwissGAP standard for the production of fruits, vegetables and potatoes, introduced in 2006, builds simultaneously on the requirements of GLOBALGAP standards and on the Proof of Ecological Performance (PEP), a set of environmentally-friendly practices developed by the Federal government as part of the Swiss agricultural policy reform. In Switzerland, PEP are not part of mandatory environmental regulations but the fulfilment of PEP is required to receive direct payments since 1999. Therefore, at the time of the development of the SwissGAP standard, with PEP, the “baseline” level was set rather high in Switzerland, especially in comparison with the checklist of GLOBALGAP standard, which is more focussed on hygiene and risk management than on environment conservation, and which was developed by retailers to be suitable to all sourcing countries. SwissGAP thus goes further than GLOBALGAP in terms of environmental requirements. Rather than developing these environmental requirements from scratch, the professional bodies involved with SwissGAP built the normative base on the PEP.

Policy implementation

As discussed earlier, the level of governmental intervention may range from “doing nothing” to command and control approaches based on mandatory rules and sanctions, with “co-regulation” lying in between. The latter includes the use of voluntary standards and codes of practice. Likewise, the use of standards in the *implementation* of policies may be more or less active, from only supporting standard-setting organisations (i.e. funding, guidance) to making standards mandatory. Four of the case studies illustrate the continuum of government intervention (Figure 3).

Figure 3. Continuum in the use of standards in cases



Endorsement of standards

A first way in which governments can rely on voluntary standards to implement policies is by endorsing existing standards.

In the case of the **Farm Environmental Certification in France**, the government has developed a common framework to level the playing field in environmental standards, with a mechanism to officially recognise existing private standards. After a first wave of organic and biodynamic standards developed in the 1970s, a second generation of farm standards on environmentally-friendly agriculture were introduced in France in the 1990s. Taking up concerns on the environmental sustainability of agriculture, often together with questions related to food safety and quality, those standards were developed by retailers, producer cooperatives and professional bodies.

A national certification (*Certification environnementale des exploitations agricoles*) was initiated by the French Government as part of a wider effort to promote sustainable production and consumption, and to strengthen the environmental dimension of public policies. Developed and sponsored by the Ministry of Agriculture in close collaboration with professional bodies and NGOs, it has been promulgated by decree in 2011. The creation of a certification was driven by the objective to better communicate farmers' efforts towards sustainability, and simultaneously – for representatives of agri-food and retailing sector – to address consumers' demand for more environmentally-friendly food (Meybeck and Pingault, 2010).

The certification is organised around three progressive levels. Level one is the introductory standard, with a farm self-assessment and the fulfilment of EU “cross-compliance” (i.e. requirements to receive any direct payment within the Common Agricultural Policy). Level two is an intermediary level that reflects compliance with a set of 16 different criteria (e.g. biodiversity conservation, crop protection strategy, fertilisation, water management) that have an effective impact on the environment and are designed to be integrated into the farm's daily management. These criteria set goals for environmental progress on the farm, provide guidelines for the rational use of inputs and limit accidental leakage into habitats. Only the most stringent level (Level three) grants the label of “High Environmental Value” to farmers compliant with the standard.

An interesting feature of the certification is that previously existing environmental standards operating in France can be benchmarked and recognised as equivalent to Level two. Farmers may be directly certified under Level two or be automatically recognised as certified if they are in an existing recognised scheme. To be recognised as equivalent, voluntary standards have to cover the 16 criteria of the Farm Environmental Certification. Requests for equivalence recognition are sent for approval to an independent committee. Any standard-owner can apply. Some of the most prominent private environmental standards have already been successfully benchmarked. Between 2012 and early 2014, 21 voluntary standards were recognised as equivalent to the level two of the certification.

The motivations for the recognition of existing standards were i) to enhance the environmental efforts already undertaken by farmers; ii) to improve transparency across existing standards; and iii) to promote the wider application of the new scheme, by defining it as complementing rather than competing with existing initiatives by the private sector (Meybeck et al., 2010).

Moreover, compliance with recognised private standards is considered as a step towards further improvement. In other words, rather than leaping to the “High Environmental Value” (HVE) standard, farmers can take a more gradual approach, experimenting with the good agricultural practices promoted by the private sector in their close professional environment to first obtain Level two certification which can then serve as a starting point for further improvements towards Level three.

In Canada, the Environmental Farm Plans scheme provides another example of standard endorsement, the enrolment in this voluntary scheme being a condition to benefit from various federal and provincial agri-environmental programmes. The Environmental Farm Plans scheme began as a pilot project in seven counties across Ontario in 1993, under the leadership of the Ontario Farm Environmental Coalition, with a strong “bottom-up dimension” (Robinson, 2006). The approach has been successfully taken up in other Canadian provinces.

The Environmental Farm Plan is similar to an environmental management system, although with a greater emphasis on technical assistance and extension. Within this scheme, the incumbent farmer attend several workshops with peers, complete a self-assessment of its farm activities and develop an action plan, to mitigate environmental risks in 23 different areas of farm management. Producers have the option to get their action plan peer-reviewed by a local committee, comprised of local farmers experienced with farm environmental issues. In several other provinces, a certificate is granted by advisors from extension services. In any case, confidentiality of farm self-assessment and action plans is guaranteed. After the validation of the Environmental Farm Plan action plan, the farmer is eligible to apply for cost-share funding to implement Best Management Practices, under the Farm Stewardship Programs financed by Canada and provincial governments.

In addition to being a prerequisite to access incentive programs, participation in the Environmental Farm Plan may reduce the risk of legal liability for the violation of environmental regulations, as it is generally considered as an indication of due diligence. More broadly, as the action plans are also incorporating several legally-mandated practices (e.g. nutrient management planning), they contribute to foster farmers compliance with law (Rajsic et al., 2012)¹⁴.

14. Existence of Environmental Farm Plans provide a strong basis for voluntary environmental standard planning and development. McCain Foods uses the EFP as part of their Good Agricultural Practices (GAP) program in Canada. The company views the EFP as a complete and made-in-Canada solution for standards, and has made the EFP a requirement for all its potato suppliers. EFP participation is also mandatory for farmers who wish to be a member of Local

The French Farm Environmental Certification and the Canadian Environmental Farm Plan schemes provide different examples for public endorsement of private standards. The case of the Farm Environmental Certification in France shows the potential of endorsing existing standards as a way of developing a unified framework. In the context of a proliferation of sustainability initiatives, the common framework allows pooling together standards sharing common characteristics, to help level the playing field and raise the credibility of private initiatives. According to officials responsible for the development of the certification, the participatory approach for setting the public standard and the proper screening of private standard applications by an independent body are key to the success of the policy. The example of Environmental Farm Plans in Canada shows that voluntary initiatives may be used in complementarity with incentive payments to foster the adoption of BMPs. In both cases, governments have ensured that the voluntary initiatives were seriously addressing agri-environmental challenges.

It should be noted that in other situations, when endorsing private standards over which they have little control, governments run the risk of damage to their reputations if the standard fails, either because claims are not verified or the standard is ultimately deemed to be of questionable value.

Measures to increase supply or demand of certified production

The supply or demand of production certified according to voluntary standards can be stimulated by governments. An example of this is the case of the **IP-SUISSE standard for integrated production in Switzerland**, managed by the Swiss Farmers Association for Integrated Production. Certified producers are eligible to governmental targeted payments. A second example is the case of organic agriculture in France, which illustrates an active approach to stimulate simultaneously the supply and demand for certified production, with an Action Plan that includes EU co-funded payments for conversion and maintenance in organic production.

The IP-SUISSE standard for integrated production and the related certification scheme and label have been developed by the Swiss Farmers Association for Integrated Production (*Association Suisse des paysannes et paysans pratiquant la production intégrée*, in abbreviated form IP-SUISSE), a non-governmental professional organisation founded in 1989. Integrated production is a 'holistic' farm-scale approach with an emphasis on replacing polluting inputs by natural resources and regulating mechanisms. In contrast to organic farming, integrated production does not ban chemical inputs, but promotes a wise use of pesticides and fertilisers.

The Swiss Federal administration is not involved in the development and revision of IP-SUISSE standards, which are discussed essentially between the association's delegates, their technical and commercial partners. On the other hand, the strategy of the association and the policy objectives of the Federal government to promote an environmentally friendly agriculture (OECD, 2015) quite naturally converged over the last twenty years.

From 1993 to 1998, as part of the newly introduced system of direct payments, farmers could get *payments for integrated production*. The criteria were related to biodiversity, soil conservation, manure application, cultivation programme, cultivar selection, integrated pest management, and the holding of livestock; at least 5% of the land had to be cultivated as ecological compensation area (extensive meadows or floral fallow). A supplement was granted if integrated production applied to the whole farm. In 1999, these payments for integrated production were replaced by a new system. To receive any of the direct payments, farmers needed to demonstrate environmental cross-compliance using the Proof of Ecological

Food Plus, a voluntary certification initiative that brings farmers and consumers together to promote environmentally and socially responsible food production (Schmidt et al., 2013).

Performance (PEP), which was largely based on the previous requirements for integrated production (OECD, 2015).

In addition, there is a link between the IP-SUISSE standard and two other policy measures. First, *payments for extensive cereal and rapeseed farming* (“extenso” payments) have been introduced in 1990 as part of the *ecological direct payments*. The support has been extended in more recent programmes, including the current policy package for 2014-2017, as part of the *payments for production systems*, which also includes the support to organic farming. To be certified under the IP-SUISSE standard, producers of cereals and rapeseed must follow the requirements of “extenso” production.

Second, *biodiversity quality payments* are payments targeted to specific farming practices or biodiversity outcomes (OECD, 2015). IP-SUISSE is applying a credit point system for biodiversity which allows scope for action according to farmers’ preferences while the Federal government provides payments targeted to defined biodiversity services.

The IP-SUISSE case highlights the complementarity between governmental programs and private standards, mutually strengthening each other in a dynamic fashion over the years. With more than 20 000 farmers currently enrolled, the IP-SUISSE scheme indirectly contributes to the achievement of the governmental objectives to promote an environmentally friendly agriculture.

Box 2. Support to certified organic agriculture in OECD countries

From the results of the questionnaire to country officials, it may be put forward a “modal” approach of government involvement with organic agriculture in the OECD.

The central government is supporting the growth of the organic sector, through several policy measures, which are generally put in coherence within a multi-year strategic plan. Among the 27 OECD countries that support organic agriculture and food, the main motivation for policy is the environmental benefits associated with organic agriculture. Response to consumer demand and the improvement in animal welfare are also frequently quoted by governments. The positive impacts on employment and consumer health are driving organic policies in about one-third of countries.

The policy mix includes support to organic farmers, organic food channels and the provision of general services. Direct area payments to producers are widespread: 52% of countries are providing payments for conversion to organic agriculture and 58% payments for maintenance. Regarding other types of direct financial support, the coverage of certification costs is relatively frequent (36%), as well as investment grants to individual farmers (24%). Measures for improving human capital include advice and technical training (48% of countries), vocational training (24%), and integration of courses on organic farming in curricular (21%).

OECD governments are also supporting organic food channels. This is more frequently done through the support to organic fairs (39%) and for organic food marketing initiatives (33%). Public procurement is not widespread (18%) and only found in Europe (Denmark, France, Ireland, Italy, Norway, Switzerland). Regarding collective services for organic agriculture and food, more than half of countries are supporting research projects on organic agriculture and food (58%) and the provision of sector information (58%). They are also frequently providing or funding information and collective promotion campaigns (39%).

Diverging from this modal approach, six OECD countries have taken a different more market-orientated approach towards the development of organic sector. Australia, New Zealand, Chile, Israel, Mexico have not implemented policy measures to support the growth of the organic sector. The Netherlands have repealed the measures in place until 2013 and restricts action to the enforcement of EU organic regulations.

Source: OECD survey (See [Annex 3](#)).

Likewise, the case of **organic agriculture in France** illustrates why and how governments can make use of voluntary standards and certifications to achieve their policy objectives. In the last decades, with co-funding from the European Union under CAP, and through successive action plans, the French government has supported the growth of the certified organic sector, considering it to positively contribute to environment preservation, farm employment, and rural development.

Since 1992, support for the conversion to organic farming has been provided to farmers under the European Regulation 2078/92/EEC. Organic agriculture was then put high on the political agenda with the first national Action Plan designed to promote organic agriculture and the market for organic food in 1998. The Organic Agency (*Agence Bio*) was created in 2001 to promote organic products and later on to manage funds for marketing projects. Following the 1999 Agricultural Orientation Law, payments to organic farming were incorporated into agri-environmental schemes.

The 2006 Agricultural Orientation Law established an income tax credit for organic farmers. The support to organic agriculture was reinforced in 2007, with an ambitious quantitative target of 6% of organically managed agricultural land by 2012 and 20% in 2020. In support of these aims, a second Action Plan for organic agriculture was released in 2008 for the period going to 2012.

The environmentally-friendly dimension of organic production has recently been emphasised by the incorporation of organic agriculture within the Agro-Ecological project, a broader governmental project promoting green growth in French agriculture. The objectives are not only to increase the proportion of organically managed land, but also to benefit from best practices from organic farms that may have favourable *spill-overs* on conventional agriculture, e.g. mechanical weeding, bio-control of pests, long crop rotations. A new five-year Action Plan for organic agriculture was launched in spring 2013. The Action Plan is a policy mix with several instruments aiming at stimulating supply (e.g. training, incentives for conversion, improving the organisation of the domestic organic sector, especially in post-farm gate operations) and demand (e.g. public awareness campaigns, 20% of organic food in community catering), as well as encouraging research and development.

The cross-country survey confirms that support to organic agriculture and organic food markets are widespread in the OECD. The cross-country analysis shows that most of other OECD governments are funding measures supporting the growth of the sector, the main motivation being the environmental benefits associated with organically managed land (Box 2).

Standards as an option to comply with regulation

A more direct use of voluntary standards to implement policy occurs when compliance with a voluntary standard becomes an option to demonstrate compliance with regulation. The **2BSvs voluntary scheme for biofuels in the European Union** is a good example of this.

Over the past decades, governments in OECD and emerging countries have increasingly promoted the development of biofuels. Over time, however, and especially after the agricultural price spikes in the late 2000s, concerns were expressed about the potential impact of biofuels on food markets and biodiversity. At the same time, there was increasing concern about the performance of first generation biofuels in reducing greenhouse gas emissions. In Europe, growing criticism led several countries to launch national initiatives to regulate the biofuel industry, followed by the European Union which eventually implemented regulations for the production, trade and use of biofuels in member countries (Moisé and Steenblik, 2011; Ponte, 2014).

The EU Directive 2009/28/EC on Renewable Energy (known as RED, *Renewable Energy Directive*) sets out sustainability criteria for biofuels in Articles 17, 18 and 19. These criteria are related to greenhouse gas savings, conservation of land with high biodiversity value, land with high carbon stock, and fulfilment of agro-environmental practices for agricultural production in the EU. The criteria apply to biofuels and bioliquids produced in the EU and to imported products. Only certified “sustainable” biofuels are eligible for tax benefits or can be used to satisfy biofuel use mandates.

According to RED, economic operators in the chain must show their Member States that the criteria have been met, either: i) by providing the relevant national authority with data, in compliance with requirements that the Member State has laid down (a “national system”); ii) by using a “voluntary scheme” that the European Commission has recognised for the purpose; iii) in accordance with the terms of a bilateral or multilateral agreement concluded by the Union with third countries and which the European Commission has recognised for the purpose.

Between July 2011 and January 2014, several voluntary schemes were recognised by the European Commission, including the Biomass Biofuels Sustainability voluntary scheme (2BSvs). The 2BSvs scheme was developed by a consortium of French producer associations representing the bioethanol and biodiesel industries, from biomass to biofuels. Private standards were developed to allow farmers, biomass collectors (e.g. feedstuff cooperatives and traders) and other economic operators along the supply chain to demonstrate the compliance of their product with the sustainability criteria of the RED and Fuel Quality Directives. The scheme was approved by the European Commission on 19 July 2011. It supports sustainability claims, with respect to the Directive, for biomass used as raw material and biofuels processed from that biomass.

One advantage of voluntary schemes as an option compared to the two other compliance options (using Member States’ national standards or according to the terms of an agreement with third countries) is that they allow individual operators to choose the most appropriate and cost-efficient standards amongst those available. At the moment, there are 15 approved voluntary standards in the European Union, a number that is manageable for regulators and economic operators, while allowing for some competition between the standards, avoiding barriers to entry for operators.

Other pragmatic reasons for opting for voluntary standards initiated by the industry include the absence of standards from specialised standardising bodies (ISO, CEN) at the time the regulatory decision was taken, and the advantage for the EU to establish a system open to third countries, in order to avoid accusations of implementing hidden barriers to trade, with too prescriptive technical regulations on sustainable biofuels. The system has been intentionally designed to facilitate trade with non-EU countries. Feedstuff for biofuel from third countries (e.g. sugar cane, soy, palm oil) can be imported through the voluntary schemes developed by commodity initiatives associating traders, NGOs and producers from developing countries. The most prominent of such schemes (RSB, Bonsucro, Round Table on Responsible Soy, and Roundtable on Sustainable Palm Oil) have all been recognised by the European Commission.

A limitation of voluntary schemes is that they are not fully compatible with each other, due to extra requirements on environment and social accountability included in some of them. For example, 2BSvs is very similar to the German scheme RedCert, but not to RSB EU RED, a sub-standard of the Roundtable on Sustainable Biofuels. Moreover, there is no provision for automatic equivalence between voluntary standards in the EU Directive. Standard owners have to agree to mutual recognition or to unilaterally recognise a scheme as equivalent; for example, ISCC EU was recognised as equivalent by 2BSvs in December 2011. However, this

probably does not impede sustainable biofuel trade at the end of the chain, because the standards all respect the core RED criteria.

The 2BSvs case thus provides an illustration of complementarities between public and private sectors in the implementation of regulatory requirements. The voluntary standard option to comply with RED can be analysed as a move toward *co-regulation* in the sector of biomass production. This approach is consistent with the promotion by the EU of a greater use of co-regulatory mechanisms to achieve better policies and delivery. The use of voluntary standards as an option for compliance creates flexibility and cost efficiency for producers, while creating an open system that enables trade with non-EU countries.

A related example of how policymakers can rely on private standards to implement public policy objectives concerns the case of *liability rules*. Although not widespread in environmental policy (at least when dealing with farms), the approach has gained importance in food safety policy. Operators in the food chain are subject to governmental food regulation and inspections, but they are also regulated under general commercial, civil and criminal law. Under liability rules, they could be sued for negligence or breach of warranty in the event of consumer poisoning. In such cases, the implementation of internal standards may show that all reasonable care has been exercised to avoid harm.

In the United Kingdom, the 1990 Food Safety Act introduced a strict liability for food businesses but also a “due diligence” clause. The objective is to encourage all concerned to take proper responsibility for their products. In England and Wales, Crown courts may send offenders to prison for up to two years or impose unlimited fines. With the obligation of reasonable care, companies in consumer markets such as major retailers are prompted to closely monitor their food suppliers. The British Retail Consortium (BRC) standards have been developed by a working group of retailers and other stakeholders in response to the UK Food Safety Act, to fulfil legal obligations and demonstrate due diligence (Humphrey, 2012).

The incentive effect of limited liability rules should not be overestimated, however. For consumers, foodborne diseases are difficult to trace back to individual food companies or restaurants, so that consumers face high information costs. In countries where food safety is covered by tort or contract law, they also face high transaction costs to engage in litigation with firms and the compensation from courts is generally uncertain and low, except in the case of severe injury or death (Buzby and Frenzen, 1999). Nevertheless, the use of private standards as a way of demonstrating “due diligence” provides another example of synergies between voluntary standards and regulation.

Mandatory standard

A final possibility for public interaction with private standards is for governments to make compliance with the private standard mandatory.

Again, food safety provides an example of this approach. As in industrial safety and environmental protection (Coglianese and Lazer, 2003), food safety has seen a major shift from *technology-based regulation* to *management-based regulation*, as the prescriptive mandatory rules of agencies enforced by regular on-site inspection are replaced by the implementation of Hazard Analysis and Critical Control Points (HACCP) plans and firm quality management systems (Humphrey, 2012).

In the United States, mandatory HACCP plans have started in the meat and poultry industries in 1996 to prevent pathogenic contamination and foodborne illness. HACCP was made compulsory for the seafood industry in 1999 and selected fruit juice categories in 2001 (Rouvière and Caswell, 2012). Today, the use of HACCP is mandated by the Food and Drug Administration (FDA) for high-risk food products, e.g. low acid canned food, fruit juices and shrimp (Humphrey, 2012).

In the European Union, the Hygiene Package in force since 1 January 2006 as an application of the EU General Food Law (Regulation (EC) No 178/2002) is putting primary responsibility for food safety on the food business operator and requires operators to implement HACCP procedures (Article 5 of Regulation (EC) No 853/2004 on the hygiene of foodstuffs). The regulation provides a list of criteria for HACCP plans but gives considerable flexibility to individual operators in their implementation of control measures (Bonnaud and Coppalle, 2013; Garcia-Martinez et al., 2013). In addition, the European Union encourages the development, dissemination and use of both national and Community Guides to Good Practice, used on a voluntary basis by food business operators.

Monitoring compliance

In addition to the synergies in regulatory design and in policy implementation identified above, interaction with private standards and private certification bodies may also allow governments to monitor compliance at lower administrative costs.

In France, one of the authorities in charge of enforcing food law, the DGCCRF, has negotiated self-monitoring agreements with a group of importers to control compliance in the fresh produce import market. Importers in the town of Perpignan are engaged with the Board of Importers, which negotiates with the DGCCRF and is responsible for guaranteeing the importers' commitment regarding their checks of the legally-mandated MRLs for pesticides. The private scheme involves procedures based on HACCP, product sampling and multi-residues testing (Codron et al., 2007; Rouvière and Caswell, 2012).

In the United Kingdom, the Food Safety Agency sets the frequency of farm inspections based on the membership in private farm assurance schemes, such as the widely diffused AFS. The average inspection rating for compliance with EU food hygiene legislation is 2% compared to 25% for farms not enrolled in a voluntary scheme. In dairy farming, the members of the 'Red Tractor' Assured Dairy Farm scheme also enjoy reduced hygiene inspection, with one official inspection only every 10 years. As regards to the Industrial Emissions Directive (previously named Integrated Pollution Prevention and Control Directive), the producers of pig and poultry members of an assurance scheme have one inspection per year from their certification body, rather than two inspections by the UK Environmental Agency. In the Netherlands, food business operators that purchase their raw materials or ingredients from suppliers enrolled in the *RiskPlaza* scheme created by an industry trade association are exempted from being checked by the New food and consumer product safety authority (nVWA) as regards to their HACCP obligations (Garcia-Martinez et al., 2013).

Additional examples of synergies between public and private standards in monitoring compliance are found in the case studies of **Bio Suisse in Switzerland** and the **EKO Quality Mark in the Netherlands**. The two countries have implemented national organic rules in the 1990s; the Netherlands in 1991 to fulfil Council Regulation (EEC) 2092/91, and Switzerland in 1997 with the Federal Ordinance 910.18. In both countries, more stringent private organic standards are coexisting with the public standard embedded in regulation.

In the early days of organic farming in Switzerland, organic labelling initiatives were founded by farmer associations and other NGOs. In the late 1970s, more than 30 locally organised organic associations coexisted, with different rules about organic practices. Claims were often not supported by an independent and neutral conformity assessment. The fragmentation across organisations and regions (*Cantons*), and the lack of credibility were challenging the growth of the organic food sector in the Confederation. Moreover, at that time, the Federal government was sceptical about the "*ökologisch*" and "*biologique*" claims, which were to some degree considered to be misleading and not scientifically sound. Rather than introducing a national legislation, the government pushed local organic associations to create a common standard. The Association of Swiss Organic Agriculture Organisations (Bio

Suisse) was founded in 1981 as an umbrella organisation for local Swiss organic associations. The same year, it set out the first standard for organic cultivation.

The Federal Ordinance 910.18 on Organic Farming and the Labelling of Organically Produced Products and Foodstuffs was prepared much later, in the mid-1990s, to provide common rules for the domestic organic market, in order to improve further the coherence of the organic value chain, as part of the policy for food product quality.

The Bio Suisse standard is more stringent than the requirements of the national regulation in a number of farming practice areas. For example, there is no exception to the principle of whole-farm organic management, the list of permitted plant protection agents is more limited and the requirements for crop rotation are stricter (e.g. 24 month break between main crops of the same family).

The “Bud” label associated with Bio Suisse standard achieves a high profile among Swiss consumers. As more than 90% of Swiss organic farms are Bio Suisse certified, and as compliance with the national organic regulation is mandatory for all organic farms since 1997, coexistence between private and public standards is an important issue. The potential duplication of controls and the associated excessive burden on farmers are avoided by the cross-accreditation of private control bodies and the cost-efficient design of conformity assessment.

Bio.inspecta and Bio Test, the two private certifiers recognised by the Bio Suisse association, are also recognised by the Federal Office for Agriculture, the Competent Authority responsible for the implementation of the Ordinance. Therefore, to reduce fees and transaction costs for farmers, the certifier is simultaneously assessing compliance to the public and the private standard. The certifiers have developed a common checklist for organic farm inspection. Since each checkpoint includes many criteria to be assessed, the certifiers have their own more detailed checklists in order to conduct comprehensive assessments. Moreover, the certifiers have agreed on a catalogue of enforcement measures and sanctions, which corresponds to the general checklist, and also helps to avoid duplication of sanctions.

A similar example of how synergies can be achieved in monitoring compliance is provided by the case of the **EKO Quality Mark in the Netherlands**. A number of private environmental certification schemes for agricultural produce have been developed in the Netherlands since the 1990s, complementing national and EU legislation in this area. The initiatives were taken by farmers, retailers and food processors, to reduce the risk of negative impacts of intensive agriculture on environment and biodiversity, and to differentiate production.

The EKO Quality Mark for organic agriculture is a private standard which was introduced as early as 1991, the same year as the publication of Council Regulation (EEC) 2092/91. At that time, the mark was owned by SKAL, a private, non-profit foundation with a public task as inspection body for the organic production in the Netherlands.

The EKO Quality Mark signals the additional efforts of organic companies in the field of sustainability to their consumers and buyers. For instance, the EKO Quality Mark includes requirements on the use of green energy, clean fuels or renewable packaging. This means the EKO Mark goes further than the EU requirements for organic farming. Since 2012, the EKO Mark became a private label owned by the EKO Mark Foundation.

SKAL – the organisation which initially owned the EKO Quality Mark – is the only control body recognised for providing inspections and certification according to EU regulations. The rationale for this monopoly is to reassure the consumer that a claim about organic food is justified, and that products labelled as organic actually originate from an organic production process. Apart from controlling the production process, SKAL also

assesses post farm-gate operations. In consequence, SKAL oversees the entire organic food chain in the Netherlands.

Given that the EKO Quality Mark uses the same certification system and certifier, both administrative costs and transaction costs for farmers related to on-site inspections are reduced. In addition, the definition of the EKO requirements and its certification system as an extension of the EU organic regulations implies the full marketability of organic products bearing the ‘Euro Leaf’ logo across the European Union, in line with the principles of the EU common market.

4. Conclusions

Rising consumer expectations regarding food is the key driver of voluntary standards in agriculture, including environment-related standards. In addition, for retailers, the use of standards is part of their supply chain management, in a context of increasingly global sourcing of agricultural commodities. The use of a third-party certification also contributes to protect brand equity and prevent agri-food companies against commercial risk. This is obvious for product safety, where no failure is tolerated, but it is increasingly also the case for environment conservation, the controversy over unsustainable production of palm oil being an illuminating example. For agri-food companies, environmental standards are part of social responsibility commitments. Finally, as shown by organic agriculture, voluntary standards may also aim at differentiating products and segmenting mature food markets.

In addition to the effort of the private sector to ensure consistent delivery and implementation of voluntary standards, public initiatives provide the institutional framework to make food markets work better. The main rationale for governmental intervention with voluntary standards is to *prevent fraud and free-riding* by competitors. The regulatory options include the protection of trademarks and brands, banning fraudulent or misleading claims, or mandating the disclosure of certain information. In addition, government can intervene to *foster market integration* by harmonising existing voluntary standards, to stimulate the creation of standards or to develop a public standard, to increase the credibility of industry initiatives, and by overseeing or playing an active role in the certification business. The case of organic agriculture within and outside the OECD confirms that market issues have been the main spur for developing public standards embedded in regulations; in particular the motivations were to protect consumers against misleading claims and to facilitate trade, domestically and internationally.

In addition to regulating voluntary standards, governments can use standards to achieve policy objectives in a more effective way. Such synergies are most likely to occur in the stages of regulatory design, policy implementation, and monitoring.

Synergies in *regulatory design* can occur if national governments can build their public regulations on existing private standards. Governments can avoid the costs of developing regulations from scratch, and the public regulations have the benefit of having been tested by others. In addition, if public regulations are built on widely accepted private standards, this practice helps to reduce potential trade frictions that could arise from differences in national regulation and makes it possible to recognise foreign regulations as equivalent.

In terms of *policy implementation*, the interactions between policymakers and standards can take many forms, ranging from a “laissez-faire” approach where the government trusts in self-regulation of the industry to a situation where the government makes an existing standard mandatory. The case studies shed light on intermediate solutions.

Governments can *endorse* existing standards in several ways, including through equivalence recognition mechanisms. Governments can stimulate the supply or demand of

certified products, provided that there are associated environmental benefits. To facilitate policy implementation, governments could also use voluntary standards as an *option to comply with regulation*. For producers, the option to use a voluntary standard gives them the option to choose the most appropriate and cost-efficient standard. Finally, standards can be used to obtain synergies in *monitoring compliance* to allow a reduction in compliance costs, since compliance to both private standards and public policies and regulations can be assessed during a single on-site inspection.

In general, governments may rely on private bodies when implementing policies because they acknowledge different capabilities of private businesses and central or local administrations, which may be used to efficiently reach objectives. Regarding standard development and the integration of environmental criteria, private actors have the ability to tailor standards to industry best practices, incorporating local knowledge and taking into account economic constraints in a cost-effective way. Governmental organisations, on the other hand, may have a comparative advantage in managing conflicting views within stakeholder fora, building consensus, providing scientific soundness, and instilling trust in standards. As regards to compliance, relying on law, governments have strong capabilities to sanction misconduct. Other potential benefits of collaboration are increased “buy in” of the policy process, greater responsiveness and lower overhead thanks to the involvement of the industry and interested parties.

The weaknesses of this approach are potentially anti-competitive activities and the development of barriers to entry for outsiders. The loss of control over the policy process is often emphasised, with a risk of regulatory capture. More specifically, making explicit reference to private standards in regulations would entail certain major drawbacks. In addition, as shown by several case studies, when using private standards in policy implementation, it is important to develop procedures to recognise initiatives of the level required for general interest purpose. Discrepancies with the objectives laid down may also occur in the enforcement of policies, which make it important to develop procedures to oversee operators and auditors, in particular through second-level controls by public authorities.

References

- Bonnaud, L. and J. Coppalle (2013), “Co-regulation in Practices: The Hygiene Package in French Slaughterhouses”, *Sociologia Ruralis* 53(4): 479-495.
- Buzby, J.C. and P.D. Frenzen (1999), “Food safety and product liability”, *Food Policy*, 24(6): 637-651.
- CAC (1979), “General guidelines on claims”, (CAC/GL 1-1979, Amended 2009), FAO/WHO Codex Alimentarius Commission, Roma.
- CAC (1999), “Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods”, (CAC/GL 32-1999, Amended 2013), FAO/WHO Codex Alimentarius Commission, Rome.
- Caswell, J. and E. Mojduszka (1996), “Using Informational Labeling to Influence the Market for Quality in Food Products”, *American Journal of Agricultural Economics* 78, 1248-1253.
- Cheyns, E. (2011), “Multi-stakeholder initiatives for sustainable agriculture: The limits of the ‘inclusiveness’ paradigm”, in Ponte S., Vestergaard, J. and Gibbon, P. (eds.), *Governing through standards: Origins, drivers and limits*, Palgrave, London.
- Clayton, K. and W. Preston (2003), “The Political Economy of Differentiating Markets: Facing Reality inside the US Department of Agriculture”, *American Journal of Agricultural Economics* 85(3), pp. 737-741.
- Codron, J.-M., M. Fares et al. (2007), “From public to private safety regulation? The case of negotiated agreements in the French fresh produce import industry”, *International Journal of Agricultural Resources, Governance and Ecology* 6(3): 415-427.
- Coglianesi, C. and D. Lazer (2003), “Management-Based Regulation: Prescribing Private Management to Achieve Public Goals”, *Law & Society Review* 37.4: 691-730
- Dankers, C. (2003), “Environmental and social standards, certification and labelling for cash crops”, Rome, Food and Agriculture Organisation of the United Nations: 104.
- Djama, M. (2011), “Articulating private voluntary standards and public regulations”, *Perspectives* N°11. Montpellier, CIRAD.
- EC (2013), Regulation (EU) No. 1307/2013 of the European Parliament and of the Council establishing rules for direct payments to farmers under support schemes within the framework of the common agricultural policy and repealing Council Regulation (EC) No 637/2008 and Council Regulation (EC) No 73/2009.
- Eijlander, P. (2005), “Possibilities and constraints in the use of self-regulation and co-regulation in legislative policy: experience in The Netherlands – lessons to be learned for the EU?”, *Electronic Journal of Comparative Law* 9(1).
- FiBL/IFOAM (2013), “The World of Organic Agriculture, Statistics and Emerging Trends 2013, 14th edition”, Research Institute of Organic Agriculture, International Federation of Organic Agriculture Movements, Frick and Bonn.
- Hartmann, M. (2011), “Corporate social responsibility in the food sector”, *European Review of Agricultural Economics* 38(3): 297-324.

- Gambelli, D., F. Solfanelli and R. Zanolì (2014), “Feasibility of risk-based inspections in organic farming: results from a probabilistic model”, *Agricultural Economics* 45 (2014) 267–277.
- Garcia Martinez, M., A. Fearne et al. (2007), “Co-regulation as a possible model for food safety governance: Opportunities for public–private partnerships”, *Food Policy* 32(3): 299–314.
- Garcia-Martinez, M., P. Verbruggen et al. (2013), “Risk-based approaches to food safety regulation: What role for co-regulation?”, *Journal of Risk Research* 16(9): 1101–1121.
- Gibbon, P. (2008), “An Analysis of Standards-based Regulation in the EU Organic Sector, 1991–2007”, *Journal of Agrarian Change*, 8(4), 553–582.
- Gunningham, N. and J. Rees (1997), “Industry Self-Regulation: An Institutional Perspective”, *Law and Policy* 19(4): 363.
- Henson, S. and J. Humphrey (2010), “Understanding the Complexities of Private Standards in Global Agri-Food Chains as They Impact Developing Countries”, *The Journal of Development Studies*, 46(9), 1628–1646.
- Humphrey, J. (2012), “Food Safety, Private Standards Schemes and Trade: The Implications of the FDA Food Safety Modernization Act”, *IDS Working paper* Volume 2012 No 403: 65: Institute of Development Studies.
- ISO (2000), “Quality management systems — Fundamentals and vocabulary” (ISO-9000:2000), International Organisation for Standardisation, Geneva.
- ITC (2011), “The Impacts of Private Standards on Producers in Developing Countries. Literature Review Series on the Impacts of Private Standards, Part II”, International Trade Centre, Geneva: 38.
- Jahn, G., M. Schramm, A. Spiller (2005), “The Reliability of Certification: Quality Labels as a Consumer Policy Tool”, *Journal of Consumer Policy* 28(1): 53–73.
- Lennox, C. (2000), “Do companies successfully engage in opinion-shopping? Evidence from the UK”, *Journal of Accounting and Economics* 29, 321–337.
- Loconto, A. and C. Dankers (2014), *Impact of international voluntary standards on smallholder market participation in developing countries. A review of the literature*. Agribusiness and Food Industries Series 3. Food and Agriculture Organisation of the United Nations, Rome: 86.
- Meybeck, A. and N. Pingault (2010), “French environmental certification scheme: Co-construction of environmental performance indicators”, OECD Workshop on Agri-Environmental Indicators, Leysin, Switzerland.
- Millock, K. and C. Nauges (2014), “Household behaviour and food consumption”, in OECD, *Greening Household Behaviour: Overview from the 2011 Survey - Revised edition*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264214651-10-en>
- Moisé, E. and R. Steenblik (2011), “Trade-Related Measures Based on Processes and Production Methods in the Context of Climate-Change Mitigation”, *OECD Trade and Environment Working Papers*, No. 2011/04, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/5kg6xssz26jg-en>
- OECD (2015), *OECD Review of Agricultural Policies: Switzerland 2015*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264168039-en>
- OECD (2013a), “A Characterisation of Environmental Labelling and Information Schemes” [ENV/EPOC/WPIEEP(2013)2/FINAL], OECD, Paris, France.
- OECD (2013b), *OECD Compendium of Agri-environmental Indicators*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264186217-en>

- OECD (2011), *Fisheries and Aquaculture Certification*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264119680-en>
- OECD (2010), *Guidelines for Cost-effective Agri-environmental Policy Measures*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264086845-en>
- OECD (2009), “Interaction of public and private standards in the food chain” [AGR/CA/APM(2006)21/FINAL], OECD, Paris, France.
- OECD (2007), *The Implementation Costs of Agricultural Policies*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264024540-en>
- OECD (2006), “Final report on private standards and the shaping of the agro-food system” [AGR/CA/APM(2006)9/FINAL], OECD, Paris, France.
- OECD (2005), *Environmental Requirements and Market Access*, OECD Trade Policy Studies, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264013742-en>
- OECD (2003), *Organic Agriculture: Sustainability, Markets and Policies*, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/9789264101517-en>
- OJ (2001), European governance - A white paper. COM(2001) 428 final (2001/C 287/01), Official Journal of the European Communities, European Commission, Brussels.
- Ponte, S. (2014), “Roundtabling’ sustainability: Lessons from the biofuel industry”, *Geoforum* 54: 261-271.
- Rajisic, P., E. Ramlal and G. Fox (2012), “Canadian agricultural environmental policy: from the right to farm to farming right”, *The Economics of Regulation in Agriculture: Compliance With Public and Private Standards*, F. Brouwer, R. Jongeneel and G. Fox, Wallingford, UK, CABI.
- Robinson, G. M. (2006), “Canada’s environmental farm plans: transatlantic perspectives on agri-environmental schemes”, *Geographical Journal*, 172(3): 206-218.
- Roe, B. and I. Sheldon (2007), “Credence Good Labeling: The Efficiency and Distributional Implications of Several Policy Approaches”, *American Journal of Agricultural Economics*, 89(4), pp. 1020-1033.
- Rouvière, E. and J. A. Caswell (2012), “From punishment to prevention: a French case study of the introduction of co-regulation in enforcing food safety”, *Food Policy* 37(3): 246-254.
- Ruben, R. and G. Zuniga (2011), “How standards compete: Comparative impact of coffee certification schemes in Northern Nicaragua”, *Supply Chain Management*, 16(2), 98-109.
- Sanders, J. (2014), “Evaluation of the EU legislation on organic farming”, Study report, Thünen Institute of Farm Economics, Braunschweig, Germany, 319p.
- Schmidt, C., J. Sweetland and A. Mussell (2013), *Potential Role of the Ontario Environmental Farm Plan in Responding to Sustainability Demands of the Agri-food Supply Chain*, George Morris Centre, 71p.
- Schouten, G., P. Leroy et al. (2012), “On the deliberative capacity of private multi-stakeholder governance: The Roundtables on Responsible Soy and Sustainable Palm Oil”, *Ecological Economics*, 83, 42-50.
- Sinclair, D. (1997), “Self-Regulation Versus Command and Control? Beyond False Dichotomies”, *Law & Policy* 19(4): 529-559.
- Schewe, R. L. (2011), “Two wrongs don’t make a right: State and private organic certification in New Zealand dairy”, *Environment and Planning A*, 43(6), 1421-1437.

- Tallontire, A. (2007), “CSR and regulation: towards a framework for understanding private standards initiatives in the agri-food chain”, *Third World Quarterly* 28(4): 775-791.
- UNFSS (2013), “Voluntary Sustainability Standards. Today’s landscape of issues and initiatives to achieve public policy objectives”, UN Forum on sustainability standards, Geneva.
- Uthes, S. and B. Matzdorf (2013), “Studies on Agri-environmental Measures: A Survey of the Literature”, *Environmental Management* 51(1): 251-266.
- Vojtech, V. (2010), “Policy Measures Addressing Agri-environmental Issues”, *OECD Food, Agriculture and Fisheries Papers*, No. 24, OECD Publishing, Paris.
DOI: <http://dx.doi.org/10.1787/5kmjrzg08vvb-en>
- WTO (1995), Agreement on Technical Barriers to Trade. Geneva, World Trade Organisation.
- WTO (2011), Decisions and recommendations adopted by the WTO Committee on Technical Barriers to Trade since 1 January 1995. G/TBT/1/Rev.10 (9 June 2011). Geneva, WTO, Committee on Technical Barriers to Trade.