Beyond the Public–Private Divide: GLOBALGAP as a Regulation Repository for Farmers

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Abstract. In the European Union, food safety policies combine public regulations with private standards, in accordance with co-regulation principles. GLOBALGAP was initiated in 1997 by European retailers who developed a shared certification scheme inducing producers to comply with requirements on food safety, sustainable production methods, occupational health and animal welfare. The rise of standards in the governance of agri-food chains has been the subject of extensive debate among social scientists, based mainly on the issue of legal pluralism. Public regulations and voluntary standards are commonly presented as simultaneously competing with *and* reinforcing legal systems. The aim of this article is to discuss this assumption. First, we analyse GLOBALGAP as a repository, demonstrating that it is composed of heterogeneous types of prescription, such as good practice, proof recording and the rule of law, and that it covers many different issues (quality, environment, producer health, animal welfare, etc.). Second, we examine the issue of the rule of law within a voluntary standard and show that GLOBALGAP operates as a centre of calculation, bringing together separate existing elements of the law. As a consequence, the standard provides a material, organizational and cognitive support for a managerial rationalization of farms by actors such as consultants or producers organizations.

Introduction

Since the mid-1990s, two phenomena have modified dramatically the organization of agricultural production and trade: on the one hand, the liberalization and globalization of food markets and, on the other, the increasing importance of environmental and health issues. The concomitance of these two phenomena has been analysed as the emergence of a new agri-food regime (Le Heron, 1993), qualified as a neo-liberal food regime (Otero, 2012), a corporate environmental food regime (McMichael, 2005), or green capitalism (Friedmann, 2005). This third regime arose through a reconfiguration of food system regulations (Campbell and Le Heron, 2007), marked by the development of voluntary private standards (Busch and Bain, 2004; Bartley, 2007; Busch, 2011), which complemented or competed with traditional command-and-control regulation by the state (Havinga, 2006).[1] Where the law is enforced by inspections and by a legal and administrative system, private standards

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are ensured by third-party certification (Hatanaka et al., 2005), with the certification bodies henceforth being themselves certified (Hatanaka, 2014).

Historically, food governance has been both a public and a private matter. Guilds were recognized by the state and played a role in ensuring the safety of foodstuffs (Ferrières, 2002; Stanziani, 2005). So what is happening now is not completely new. What is new, is the ways in which public and private governance are now interlinked. Generally, four arguments are put forward to explain the current restructuring of agriculture and food governance (Henson and Humphrey, 2010, p.9): 1. a change in scientific and technical risk analysis that attaches greater importance to monitoring processes than to checking the final product, thus justifying a systemic approach to quality; 2. the evolution in consumer and producer perceptions of food safety, food quality and the impact of food on health; 3. the globalization of food sectors and the need for guarantees for suppliers; 4. the changes in public policies themselves, particularly in Europe, attaching greater importance to corporate responsibility (Marsden et al., 2010). For the last 10 years or so, the European Union has recognized the production of private standards to complement its own legislative framework, giving birth to new hybrid normative modalities (Egan, 2001; Graz, 2006). In particular, the EU propounds the notion of co-regulation, an original combination of public and private standards defined as follows: 'Co-regulation combines binding legislative and regulatory action with actions taken by the actors most concerned, drawing on their practical expertise' (CEC, 2001, p. 25). The aim of this article is to understand the complexity and variety of interactions between state and private regulations: for instance, do private regulations compete with or reinforce public rules? To address this issue, we examine the case of GLOBALGAP, a standard for good agricultural practices. GLOBALGAP is a very good example for our article, because it is a global quality assurance standard, based on risk management, which essentially concerns food safety, occupational health and environmental protection in relation to agricultural activities (plant protection products, drug residues from livestock farming). It is thus intended to regulate issues that are covered by the law.

Co-regulation in Action: Investigating the Materiality of Private Standards

The worldwide spread of GLOBALGAP has led to numerous debates in the field of social sciences, focusing mainly on two related issues: power asymmetries between retailers and farmers (Campbell, 2005; Bain, 2010; Tallontire et al., 2011) and competition between the public and private regulation of agri-food sectors. In this section we will be focusing on the latter.

Private and public regulations are often presented as being antagonistic. Some people stress the efficiency, pertinence and flexibility of private norms, whilst others point out that they are related weakly to systems of sanction and that they do not live up to their promises (Gunningham and Rees, 1997). Yet as early as 1997, Gunningham and Rees stated that 'there is no clear dichotomy between self-regulation on the one hand and government regulation on the other. Rather, there is a continuum' (Gunningham and Rees, 1997, p. 366). Following on from this perspective, recent publications – in particular the *IJSAF* special issues on the governance and politics of standards (*IJSAF*, vol. 20, nos. 1–2, 2013) – offer a more nuanced analysis of the relationships between public regulation and private standards, thus refuting the notion of a divide between public regulation and private governance. Rather than a deregulation of the markets or a privatization of the governance of agri-food chains,

we are seeing a re-regulation, a redistribution of the respective competencies between public and private actors (Lockie et al., 2013). For example, private standards can be applied to areas that up until now have not been regulated by state law (Ponte et al., 2011). Private standards are valid on an international scale, which sometimes compensates for constraints proper to the nation state, thus allowing the latter to concentrate on other aspects of regulation (Ponte et al., 2011). Furthermore, the distinction between public regulation and private standards is not always as simple as it might seem. Whilst public rules are seen as being obligatory and private standards as voluntary, some public standards are voluntary and certain private standards can become obligatory (Bernard de Raymond, 2012; Challies, 2013). In addition, 'there may also be overlap between the two where public regulations incorporate private standards… and where private standards incorporate public standards' (Bain et al., 2013, p. 2).

It is therefore necessary to have an empirical grasp of how public regulations and private standards interlink. In the typology proposed by Henson and Humphrey (2010), GLOBALGAP is portrayed as an emblematic example of a voluntary private standard, defined by a private actor, implemented by private firms or organizations, audited by private certification bodies. The authors also point out that it is a collective international standard, set by a collective organization, adopted and implemented internationally. Whilst we draw on this typology in this article, we also wish to take into account the content and materiality of the standard. As far as grass-roots actors are concerned, GLOBALGAP does not just exist as a set of abstract principles, but also in the production of written documents: lists, files, computer records, etc. By taking account of these reading and writing activities in relation to GLOBALGAP, it is possible to observe the type of regulation that the standard 'performs' (Callon, 1998, 2006; Loconto, 2014). Thus, we examine the GLOBALGAP standard from a science studies standpoint (Callon, 1986; Latour, 1987), as a technology that makes it possible to act on the world by classifying and categorizing it (Higgins and Larner, 2010; Kamp, 2013; Loconto, 2014). From this point of view, the standard enables 'otherwise disparate or unrelated entities to be brought together into a single space of calculation' (Higgins and Larner, 2010, p. 208). We apply this perspective to GLOBALGAP, which means not only observing the standard in its materiality, but also paying attention to local conditions for its dissemination and implementation (Higgins and Larner, 2010). We do not take for granted the content of the standard, its force and its significance for those who use it. In this we agree with Aasprong (2013), who analysed GLOBALGAP implementation by banana producers in St Vincent. He highlights the role of interpretations of GLOBALGAP by a whole series of actors, i.e. by standardizing networks. He demonstrates that producer organizations, internal auditors and consultants play a key role in the standardizing work. The effects of GLOBALGAP cannot be grasped without describing the entire chain of actors involved in its implementation. Expanding on this, our article examines GLOBALGAP's development in the fruit and vegetable sector in France, and analyses how these farmers – and those working with them (producer organizations, consultants) – cope with the standard and how it affects their understanding of the law.

The Spread of GLOBALGAP in the French Fruit and Vegetable Sector

GLOBALGAP or 'Global Good Agricultural Practices' was initiated in 1997 with the name EurepGAP by several major north-European retailers (Ahold, Migros, Sains-

bury's, Tesco, etc.), all of which are members of the Euro-Retailer Produce Working Group (EUREP). It is a professional standard developed to regulate business between producers and distributors; but as it is not designed to inform consumers, it is not subject to any product labelling. GLOBALGAP is managed by FoodPlus GmbH since 2001. Originally designed for fruit and vegetable production, GLOBALGAP now covers a wide range of fresh food products. Casey (2009) shows that GLOBALGAP's existence is the result of three converging shifts: 1. public authorities transferring responsibility for food safety and food quality over to the food industry; 2. the international diversification of supply, which has led to the retailers wanting additional guarantees; and 3. the change in consumer attitudes towards food. Thus, as Lockie et al. (2013, p. 279) point out: 'GlobalGAP emerged then both in response to state failure with respect to food safety (particularly BSE food scare of the late 1980s) and in response to state interventions designed to increase private-sector attention to food safety'. Since the first producer was certified in 2001 there has been a steady increase in the number of certified producers up to the current level of 123 000.

Within the global deployment of GLOBALGAP, France's position is somewhat specific: in 2011, 3,737 French producers had GLOBALGAP certification, compared to 25 923 Spanish producers, 15 893 Italian producers and 8,997 German producers. This puts France on the same level as Belgium or Turkey (respectively 3,330 and 3,009 certified producers). These differences can be explained by whether a country is an importer or exporter on the world trade market and by the distribution and certification history in each individual country (Hertzfeld et al., 2011). With production estimated at 8.7 million tons in 2011 (3.2 million tons of fruit and 5.5 million tons of vegetables), France is the third largest producer of fruit and vegetables in Europe, behind Italy and Spain. Most of its produce is aimed at the domestic market. Moreover, since the 1990s, French authorities have tried to develop certifications with agri-food professionals to inform consumers about product quality. Main retailers have also developed their own quality labels, combining product quality with health and environmental concerns (Bernard de Raymond, 2013). Compared to these initiatives, the GLOBALGAP standard might have seemed less worthwhile: it is not used to communicate with consumers, it has more varied objectives and it does not integrate the issue of product quality. Furthermore, the French government has tried to introduce a public voluntary standard for global quality management on farms – *Agriculture raisonnée* (Bernard de Raymond, 2012).

This article is based on one set of interviews with actors in the French tomato sector who are part of the organized sector (i.e. members of producer organizations),[2] and another set of interviews with independent vegetable growers (non-producer organization members) and consultants.[3] France has 22 940 farms for fruit and 30 800 for vegetables, all together covering approximately 1.5% of utilized agricultural land and representing 8.2% of agricultural production in value terms (FranceAgriMer, 2011). The sector employs over 140 000 AWU (annual work unit), a large number of whom are seasonal workers. In this sector the average size of professional farms is 8 ha (Agreste, 2007) as opposed to 77 ha for professional farms overall. They are therefore 'small farms', which use a large amount of manpower. Technical investments (glasshouses, heating, etc.) are common for some crops (tomatoes, strawberries, etc.). For the most part, fruit and vegetable growers apply the principles of integrated pest management (the use of auxiliary insects to reduce the need for pesticides, which are nevertheless still allowed).

Within the European Union, the common organization of the market for fruit and vegetables is based on producer organizations (POs), mainly cooperatives. The aim of European policy is to give producers the power to negotiate with large-scale retailers: in particular, POs are responsible for marketing the products and thus for negotiating sales. Only POs may receive subsidies under the Common Agricultural Policy (CAP), which are not available to independent producers. In addition to the marketing, POs often provide their members with technical advice (on climate, hygrometry, pest control, etc.). They employ quality managers and technicians who work with the producers over the long term (often over several years). Independent producers, on the other hand, use consultants who provide one-off services. Some consultants are highly specialized (in climatology for example) and offer expert services. This is not true of the consultants in our study, who are generalists: they assist producers with administrative tasks, technical advice and certifications, including GLOBALGAP. The market share of organized production varies considerably within the EU. In the Benelux countries a handful of POs market approximately 90% of domestic production, whereas in France in 2009, about 300 POs were responsible for 50% of domestic fruit and vegetable production (FranceAgriMer, 2013). In 2011, 70% of GLOBALGAP certified producers were PO members. A comparison between organized and independent producers is therefore relevant. In addition to the subsidies, POs offer their members the resources they need to adopt the GLOBALGAP standard and pay for some of the related practices, whereas independent producers generally use private consultants.

This article is organized as follows: in the first section we demonstrate that the GLOBALGAP standard is not a single document but a repository (Star, 2010), i.e. a complex set of texts that are interlinked with varying degrees of coherency and that deal with issues as diverse as environmental protection or product quality. Furthermore, certain prescriptions relate to pieces of public regulation that are embedded in the standard. In the second section, we look at various interpretations of how public regulation and private governance intersect (does GLOBALGAP strengthen or weaken the law?), and we show that the repository creates its own effects on the law and the way it is conceived and implemented. As a consequence, GLOBALGAP produces a reinforcement of the managerial evolution of agriculture.

The GLOBALGAP Standard as a Repository

A Heterogeneous Set

First and foremost, the GLOBALGAP standard is based on a holistic approach to protect diverse interests: food safety, sustainable production methods, worker and animal welfare, responsible use of water, compound feed and plant propagation materials. As far as plants are concerned, the standard's 234 control points are divided as follows: 117 to ensure food safety, 21 for worker health and safety, 46 to ensure traceability, and 50 for the protection of the environment. GLOBALGAP therefore brings together items that are usually separated by law (relating to labour law, environmental law or the rural code) thus engendering a process to ensure legal coherency and rationalization. Second, GLOBALGAP is not a single document but a *set* of documents: the system's general regulations, national guidelines, a list of control points and compliance criteria, and a checklist for auditing farms. Since EurepGAP became GLOBALGAP, the list of control points has been divided into different mod-

ules, starting with a compulsory module applicable to all farms, and then a second module specific to the type of farm in question (crops, livestock, aquaculture), which itself contains further modules relating to various subcategories (fruit and vegetables, field crops, coffee, tea, flowers and ornamental plants for the crops module).[4] Furthermore, the type of requirement can vary, depending on the document: there are declarations of principle, recommendations, directives of varying degrees of restriction, relating to the production itself, or to how the farm should be organized, or to how employees should work, etc. Finally, in its physical form GLOBALGAP is a documentary system (usually in the form of a binder file), which for grass-roots actors relates to different activities: some documents describe farm operation, others serve as proof of purchase (receipts for certified seeds and plants, water analysis); others take account of farming practices (fertilization or plant protection); still others provide a self-monitoring system to ensure that all certification requirements are being met, along with descriptions of corrective procedures.

In order to obtain GLOBALGAP certification, producers must undergo an audit by a certification body. The most important documents for obtaining certification are the list of control points and compliance criteria, and the checklist for the auditors. The audit is the procedure that will determine whether or not the producer is granted the GLOBALGAP certificate. The control points are divided into three categories: major musts, minor musts, and recommendations. The version currently in force consists of 95 major musts, 117 minor musts, and 22 recommendations. To obtain certification, producers must satisfy all of the major musts and 95% of the minor musts; the recommendations do not constitute formal criteria for elimination. The content of the requirements in the control points and compliance criteria document fluctuates between different rationales. Certain points require producers to use a reflexive feedback on how they work, so as to implement good practices; others are based on risk assessment and on introducing risk control procedures; others serve to identify and make an inventory of the components used in the production process; others relate to record keeping and traceability; finally, yet others remind to comply with local laws.

As an example, Table 1 presents an extract from the checklist. In this extract from the auditors' control document, we can see the musts (major or minor) and the recommendations. Whilst the recommendations (point FV.2.1) relate to a rationale of

Table 1. Extract from the GlobalGAP checklist.

FV2 Substrates (N/A where substrates are not used)			
FV.2.1	Does the producer participate in substrate recycling programs for substrate where available?	The producer keeps records documenting quantities recycled and dates. Invoices/loading dockets are acceptable. If there is no participation in a recycling program available, it should be justified.	Recom.
FV.2.2	If chemicals are used to sterilize substrates for reuse, have the location, the date of sterilization, type of chemical, method of sterilization, name of the operator and pre-planting interval been recorded?	When the substrates are sterilized on the farm, the name or reference of the field, orchard or glasshouse is recorded. If sterilized off farm, then the name and location of the company, which sterilized the substrates, are recorded.	Major must

Source: GLOBALGAP, 2013.

practice improvement (in this case participating in a substrate recycling programme), the musts (i.e. what is controlled by the certification body) relate to recording how the chemical products are used (FV.2.2.) and hence to practicing traceability.

Certain of the standard's other musts relate implicitly or explicitly to the obligation to comply with the law – or the compliance criterion for a must might be a legal obligation. As an example, here are the compliance criteria in the list of control points relating to post-harvest treatments:

> 'All the plant protection products applied are officially and currently *authorized and permitted by the appropriate governmental organization in the country of application*. Where no official registration scheme exists, refer to the GlobalG.A.P. guideline (annex CB 4) on this subject and FAO International Code of Conduct on the Distribution and Use of Pesticides. Refer also to Annex CB 4 for cases where producer takes part in legal field trials for approval of PPP by the local government' (GLOBALGAP, 2011, emphasis added).

The GLOBALGAP standard here works as a complex and hybrid set of written recommendations, in that it is based on specific requirements, whilst at the same time referring to items that exist in public regulations. The law is embedded in the private standard, which thus resembles a repository as defined by Star (2010, p. 603):

> 'we suggested that one kind of object, a repository, took the form of a set of modular things. These are things that might be individually removed without collapsing or changing the structure of a whole. A library, for example, or a collection of case studies (as in some parts of medicine, or in the Talmud), is a repository. A repository of this sort comes from the need for an assembly of things that are conceived iteratively. It has the feature that heterogeneity (internally) across things can be maintained but need not become confrontational. In a repository, the heuristic advantage is the encapsulation of internal units.'

The assembly of prescriptions, which are heterogeneous in nature and whose stakes differ in written form, is very coherent with the notion of repository. In particular, this type of material object has been analysed by the sociology of science developed following Latour (1996), which shows that the effects of collections are always greater than the effects of each of their components taken separately. This is the hypothesis we wish to test in this article.

To characterize the regulating effects of private food standards, we consider that a standard such as GLOBALGAP is material in nature and is seen by grass-roots actors as a set of written documents. With this in mind, what is the content of the standard and how do producers interpret it in concrete terms?

Reading through the GLOBALGAP Repository

The heterogeneity of GLOBALGAP's design is not without consequence at grass-roots level. The standardizing work (Higgins and Larner, 2010) consists first of all in giving meaning to the standard's different prescriptions and in ensuring that the requirements are coherent with the document in which they appear. Reading through the repository thus involves four types of interpretative activities: recalling and listing all the requirements to be found throughout the various GLOBALGAP docu-

ments; stabilizing an interpretation of 'tricky' control points throughout a standardizing network; making sense of the gaps between public rules and their translation into GLOBALGAP's compliance criteria; making strategic use of the uncertainty surrounding the collective or individual nature of the GLOBALGAP certificate.

The first task for anyone wishing to obtain certification is to make a list of all of the requirements – and not just those found in the control points. Indeed, as this quality manager explains, the musts and the control points are not always consistent:

> 'With certain musts, the compliance criteria aren't always fully relevant, or they might be quite different from the must. For example, it might require the personnel to have facilities to wash their hands with drinking water. And the compliance criterion is that the soap must be fragrance free and must disinfect your hands. So the must relates to the equipment and the compliance criterion is about the consumables. They are not really linked. So you need to relist all of the compliance criteria and re-merge them to get a complete must. We're planning to make a new list of all of the compliance criteria to see if we have forgotten anything mentioned in the musts' (Quality Manager, PO, west of France).

This point might seem anecdotal were it not for the consequences for audits. It is open to different interpretations by auditors. It is impossible to know whether the representative of the certification body will prefer to conform with the general provisions, with the control points, or with both. It is therefore very important to consider – carefully and in advance – how the various documents might be interpreted given that they are not always coherent.

Second, interpretation of the standard involves a standardizing network (Aasprong, 2013) that includes producers, their technical consultants, PO's quality managers or private consultants (depending on whether or not the producer belongs to a PO) and auditors. Within this network there is a great deal of cooperation with a view to auditing. The distinction between auditor and consultant thus tends to blur. Audits aside, members of the certification bodies work alongside producer organizations or consultants to define together acceptable interpretations of given items in the standard. In the following extract, a quality manager explains that he attended a session organized by his certification body, in order to obtain a concrete definition of what is expected under any given requirement:

> 'For example, you have an item that tells you: Documented hygiene procedures have been implemented for harvest time. When you are not too familiar with the way things work, you wonder: what shall I do… what are hygiene procedures? In fact [the certification body] explained, in all simplicity, that if you put up posters, if you make people aware, then you are dealing with the problem. It was good to have some training to explain all that because at the time it seems somewhat curt and you think: if we have to teach everyone in the glasshouses about hygiene, it's not going to be easy! So in fact, as a procedure, posters are fine'.

It is not uncommon for producer organizations to organize 'mock audits' for their members, using auditors who belong to their chosen certification body but who are not the actual auditors who will perform the 'official' audit. The aim of all of these strategies is to reduce the uncertainties relating to the heterogeneity of the standard's components and to its numerous possible interpretations. Unlike the situation

that Aasprong describes for St Vincent, in France there is no pressure from extension services to adopt a strict interpretation of the standard. On the contrary, collective producer organizations try to facilitate the work required by their members by simplifying everything that could be simplified, and the choice of audit firm is the first step in this facilitation. The audit firm must be considered to be constant in its requirements, so that producers can predict how the auditors will interpret the standard. With GLOBALGAP, we are therefore a long way from dealing with a single, unequivocal document that can be applied in a uniform manner throughout the world. On the contrary, we can see that the standard is very open to different forms of implementation at grass-roots level.

Third, if we consider prescriptions in the standard intersecting with legal requirements, we can see that what is written in the standard might allow interpretations that are not in strict accordance with the law. When one touches on sensitive aspects of farm operation, where practices are not always perfectly in line with regulations, these ambiguous requirements offer producers a certain amount of flexibility. In such cases the level of precision in the way the must is written is decisive, as this quality manager explains with regard to re-entry intervals:

> 'I'd say that the biggest problem at the moment is the re-entry interval. It's funny, in GLOBALGAP they've put: major must: is there a procedure for regulating the re-entry interval?; minor must: are re-entry intervals controlled? So, unlike pre-harvest intervals where they ask if the pre-harvest intervals are respected, here, regarding re-entry intervals, they ask whether they are controlled! But if, in their next version, they were to put: are the re-entry intervals respected?, and they make it a major must… well, I don't think anyone in fruit and vegetables would have GLOBALGAP!' (Quality Manager, PO, west).

In this example, we see that although the standard intersects with the purpose of the law, stating that employees must not enter a glasshouse that has just been chemically treated, the way in which this objective appears in the checklist allows producers who do not respect the legal re-entry interval to nevertheless remain in compliance with the standard. This shows how the heterogeneous nature of the GLOBALGAP standard is just as much a constraint – involving a lot of work by grass-roots actors to ensure that requirements are coherent – as a resource that allows flexibility in the implementation of the standard. The heterogeneous nature of GLOBALGAP's components leaves open the issue of what the standard is and what conceptions of agriculture it conveys.

One final modality of GLOBALGAP interpretation concerns the certification itself, taken as a whole, and its strategic use on marketplaces. GLOBALGAP certification does not in fact relate to a single standard but to a series of modules that require varying degrees of commitment from producers. Furthermore, an option system allows producers who belong to a collective organization to seek certification involving said organization (GLOBALGAP Option 2) or to apply in their own name, on an individual basis (Option 1). However, when a producer organization obtains certification, this does not mean that all of its producers are certified. As this quality manager explains, some POs adopt a 'free rider' strategy, choosing to privilege the certification of just a few of their producers and to remain vague about the exact number of certified producers and about the types of product delivered to their clients:

> 'This year our biggest client asked us to get the GGN code, i.e. the GLOBALGAP number, for all products delivered. Whereas beforehand, how can I put it, things were vague, because you could have a GLOBALGAP certificate and yet not supply clients 100% with GLOBALGAP products. We kept things vague… And now things are no longer vague at all because you have to put the GGN number on the products, so it is vital that all products are GLOBALGAP.'

Between competitors, these practices are condemned by the more virtuous producer organizations, even if they cannot be used over a long term without customers turning a blind eye and themselves playing with the meaning behind GLOBALGAP certification.

Highlighting the internal heterogeneity of GLOBALGAP's components and the ambiguous nature of the standard itself is only the first stage in our analysis. We wish to pursue our analysis of the interactions between regulation and standard by looking at the consequences for the law itself.

The GLOBALGAP Standard as a Centre of Calculation

Whilst it contributes towards the development of a hybrid system of governance – co-regulation – GLOBALGAP is also a hybrid instrument, encompassing recommendations, requirements, recording requests and reminders of the law. What type of governance does this standard produce? At grass-roots level, how can we describe the scope of this voluntary private standard compared to a more classic regulation based on the law? The literature offers several interpretations. After presenting two opposite interpretations, one describing GLOBALGAP as weakening the law, the other as strengthening it, we will take into account the point of view of grass-roots actors and propose GLOBALGAP as a centre of calculation (Latour, 1996).

GLOBALGAP Weakening the Law

Two types of argument have been put forward to show that standards such as GLOBALGAP undermine the law: 1. the standard, which is voluntary, creates confusion among producers with regard to the obligatory nature of compliance with the law; 2. such standards challenge the validity of national legislation within a context of globalization.

First and foremost, the spread of voluntary standards can be seen as leading to a legal crisis, in as much as technical standards tend to replace the law (Frison-Roche, 1998) whilst private standards create confusion between what is legal (mandatory) and what is voluntary (optional). This is the argument put forward by lawyer I. Doussan concerning the environmental standard Agriculture raisonnée (AR):

> 'Legally speaking, the fact that the AR scheme is almost identical to existing regulations indicates… a shift in policy. From a binding policy, justified by the existence of a risk of harming the environment that led to the enactment of a regulatory framework, public authorities are moving towards an incentive policy to help ensure that these legal binds are observed… The mixture of legal, incentive and regulatory genres is leading to the introduction

> of a hybrid policy as an intended response to the failed application of environmental regulations by farmers' (Doussan, 2004, p. 4; our translation).

From this standpoint, the development of voluntary standards leads grass-roots actors to believe that any effort to protect health and the environment is optional and that it should therefore benefit from some type of incentive, be it added market value or public subsidy.

The farmers we met all subscribed to this conception of GLOBALGAP. When they described how they began the process, they explained that above all they were expecting to sell at higher prices, win new customers or penetrate new markets, especially for exports. After several years of certification, their assessment of the mechanism was clearly based on weighing up the cost and the effort they had put into the standard and the economic benefits that they had received.

> 'I wanted to get EurepGAP… But it's supply and demand that matter. End of story. And at the end of the day you're not paid in terms of the effort you put in, because you spend hours managing everything, monitoring everything… I mean, it's a lot of work on top of your everyday work, and somehow at the end of the day you're not paid for it' (Independent Producer, multi-produce, south-east).

In these extracts we can see that the producers view certification not as an opportunity to work in line with new precepts, but as a way of helping their businesses cope with economic stakes. In this respect the experience is relatively inconclusive and more often than not the producers are extremely disappointed. We find the same rationale being used by representatives from producer organizations who see GLOBALGAP as a source of subsidy from the European Union. European subsidies are funded as part of operational programmes and their allocation must be justified under criteria that properly relate to GLOBALGAP's stakes.

When they are analysing voluntary standards, jurists put themselves in the shoes of the actors who have to implement the law and the standards, i.e. they consider how individual actors alter their attitude towards the rules and see in GLOBALGAP an economic opportunity rather than an obligation. More particularly, these analyses show that when legal provisions are included in a voluntary standard (regulated by certification and market access), the penalty for non-compliance disappears. When producers do not comply with a regulation applicable in their country and this is highlighted by an audit, the only penalty is non-certification, but they escape their own country's repressive system. From a legal standpoint, the standard thus weakens laws that have been introduced under a traditional command-and-control system.

The second argument is based on an analysis of the heterogeneity of GLOBALGAP, which is yet promoted as a uniform standard at international level (Lockie et al., 2013). The broad diversity of countries in which GLOBALGAP is implemented (112 in 2011) ought to constitute a huge challenge where the standardization of requirements is concerned. Yet unlike other standards, such as ISO (Graz, 2004), the very structure of GLOBALGAP allows it to create commensurability without having to go through a lengthy phase of international standardization. This characteristic is based on partial recognition of the laws in individual states. As we saw in the first section, numerous requirements relate to the obligation to obey the national or local regulations that are in force wherever a producer may be located. This can be verified especially in relation to the standard's major musts. For example, a requirement

might be that storage facilities for the plant protection product comply with all the appropriate current national, regional and local legislation and regulations. By asking a third party (a certification body) to ensure that their suppliers are complying with the national regulations of their respective countries, retailers – who are often importers – are declaring implicitly that they do not need to know what these various legislations might be and that they are not responsible for any heterogeneity. The standard makes it possible to consider products that meet heterogeneous national regulations to be equivalent and thus to put them into competition with one another.

GLOBALGAP as a Law Enforcer

From a different perspective, GLOBALGAP might be considered as a standard that supports the law, in two ways. First, it promotes the regulation of certain matters (protection of the environment or workers' union rights, for example) that receive insufficient attention, especially in southern countries. Second, it ensures compliance with prescriptions the implementation of which is not properly monitored, in both developed and developing countries (Braithwhaite, 2006; Challies, 2013).

The first argument has received considerable attention from researchers who are interested in the place occupied by developing countries in globalization. These countries often have underdeveloped regulatory frameworks and limited administrative capacities, and find themselves having to deal with powerful multinational companies with huge financial and technological resources. Such a situation leads them to exercise only limited control over the economic activity that takes place within their borders, especially when it comes to labour law or the protection of the environment. The situation is especially marked in countries that aim to use their lack of regulation to attract companies that employ a social dumping strategy (Graham and Woods, 2006). Within such a context, the regulatory contribution that standards make can be seen as an opportunity to fill the gaps left by state laws, even if certain NGOs criticize the 'smoke screen' that standards create (cf. Connor and Haines, 2006). There have often been such debates in relation to the clothing sector, particularly the manufacture of sports clothing and footwear by a certain number of multinational companies, but various works have also discussed the farming sector – in relation to coffee production, for example (Neilson, 2008). These works generally point out that standards produce effects that are far removed from what was intended, be it promises of fair trade or sustainable development. This has caused the companies, associations or consortiums that originated the standards to react and to modify their prescriptions in order to offer additional guarantees. For example, GLOBALGAP members are aware of the potential effects of unfair competition due to differences in national legislations, which is why for certain aspects they are trying to ensure that the standard plays a standardizing role. This is the case with social rights, for example, via the (optional) system of Global Risk Assessment on Social Practice (GRASP), which aims to standardize good social practices throughout the world.

The second argument suggesting that GLOBALGAP helps to support the law relates more to northern countries, which have the ability to regulate, but whose capacity to monitor implementation may be limited, either by choice or due to financial difficulties. This type of interpretation may be based on transaction cost economics. From this point of view, private standards provide an institutional guarantee that ensures a greater level of confidence in transactions and thus reduces the risk of

opportunism. In particular, by adding a system of third-party certification and market exclusion, standards allow for better application of the law (Codron et al., 2005; Henson, 2011). Indeed, in sectors that attract little vigilance from public authorities, certification bodies regularly ensure that there are controls that would be no more than hypothetical otherwise. The fruit and vegetable sector is a prime example of a sector where there are few controls. In 2009, for example, official French monitoring and control programmes led to the analysis of 4,953 samples of fresh or processed fruit and vegetables, products for baby food, cereals and organic vegetable products. This level of sampling must be compared to the 169 kg/year of fruit and vegetables eaten by each of France's 26 365 000 households (CTIFL, 2011). For grass-roots actors, GLOBALGAP represents a constraint of a different nature to that of the rule of law. In POs, the standard is seen as an addition to regulatory obligations. In all POs as an example of progress due to GLOBALGAP quality managers mention the installation of phytosanitary storage facilities on farms – something that is a legal obligation. In their opinion, the voluntary process encourages producers to obey the law and makes it possible to finally achieve what should already have been in place for a long time.

> 'GLOBALGAP helps you to get organized and catch up. Health-wise, when you are certified it's a case of: "You have to have a phytosanitary cabinet!" End of story. Which establishes authority at farm and organizer level' (Quality Manager, PO, south-east).

According to our interviews, GLOBALGAP has essentially promoted compliance with the law in two areas: 1. the traceability of phytosanitary treatments and the storage of treatment products; 2. working conditions and sanitary installations for farm employees. On the first point, all certified farmers now have cabinets or premises for storing pesticides and provide a recording to justify their use, even if the quality of the recordings is sometimes inadequate. The second point increases producers' obligations in a sector where seasonal employees are often illegal workers, which discourages them from standing up for their rights (Décosse, 2008).

Our observations in the field confirm the two successive interpretations set out above, which suggest that GLOBALGAP has a dual effect, both weakening *and* supporting the law. These approaches nevertheless consider GLOBALGAP and the law as unique entities with global effects, whereas if we consider GLOBALGAP to be a repository, we can show that the standard takes certain elements of the law, brings them together, allowing new interpretations of regulation within the standard. It is this effect that we now propose to examine.

GLOBALGAP as a Centre of Calculation

We would like to offer a third interpretation of the debate on the complementary or antagonistic nature of the voluntary standard and the law, focusing on the fact that these standards unite areas of the law that are usually separate (labour law, health and safety, environmental law). As a result, the standard creates a sort of 'standards library'. Latour has done considerable research on the role that collections play in the production of knowledge (Latour, 1996). He refers to these real or virtual spaces where initially scattered elements are placed on an even footing as centres of calculation. Through this process, each individual element becomes better known and its comparison with the other elements also leads to increased knowledge. For ex-

ample, Latour describes a library in which each book provides self-knowledge, but also additional knowledge, because it can be qualified and compared with other books. In the same vein, GLOBALGAP's collection of obligations relating to products, workers, the environment and animal welfare, creates effects that are greater than each requirement taken individually. Producers, and also the intermediaries who help them to implement the standards, create equivalences (not always immediately obvious to an outside observer) between production and protection of the environment, or between integrated protection and occupational health.

> 'Before joining GLOBALGAP, you must already have an understanding of hygiene and quality, have a process in mind. Protecting your glasshouses from outside contamination – they learn about that when they get into integrated production and crop protection; little by little they learn about boot baths and all these systems that help you to really protect your glasshouses. I think that once they've achieved that, we can move on to another point, that of worker protection. And work organization. Because GLOBALGAP is about environment, quality and safety' (Quality Manager, PO, south-east).

> 'Let's take *traceability* as an example. It helps you to learn more about the farm, so potentially it's a tool for managing *production costs*, but the producers haven't taken that into account' (Consultant for independent producers).

GLOBALGAP is therefore an additional stage in the managerial rationalization of farms (Compagnone et al., 2009), a movement that has already been observed in Denmark by Mouritsen et al. (2000) in relation to the environmental certification of pig farms, or to the improvement of agriculture in fair trade (Loconto, 2014). This observation leads one to make a more detailed analysis of the actors involved in choosing a method of certification and who take charge of its implementation. We thus see the decisive role played by intermediaries, be they producer organizations or private consultants. GLOBALGAP supports their role, because its repository structure requires collective work to ensure compliance with the standard, whereas compliance with the law is an individual obligation.

GLOBALGAP as a Joint Objective within Producer Organizations

The GLOBALGAP approach is a process that involves a large number of grass-roots actors. Within producer organizations it engages producers, crop managers, technicians, quality managers, sales departments, etc. To varying extents, all of these have a vested interest in the producer obtaining certification and they will all help him/her in achieving that. In turn, this common objective puts group pressure on each individual producer (Durkheim, 1900).

> 'Before they are audited, do you assist them?

> Completely, totally and utterly! [laughs] Yes, it's in our interest! As far as we are concerned it's always a bit like an exam, so we prefer to pass rather than fail. And the producers are always somewhat stressed before an exam. There mustn't be any stupid mistakes. When we know the date of the audit, we visit once a week and we do a little bit of cramming. It's a work

> method… Producers know they will have to answer all of the questions in the scheme, and there are over 300 questions, so the producers are fairly stressed out. That's what you have to do, get into the documents, have a farm that corresponds to what you've written, not have any plastic containers lying around. Generally speaking there aren't any, but you don't want to screw up on the day' (Quality Manager, PO, south-west).

Above all, the standard's heterogeneous composition allows it to be implemented in a shared fashion, thus constituting a distributed cognition support (Hutchins, 1996). Indeed, as we demonstrated in the first section, GLOBALGAP can be considered a repository for requirements that set down a series of operations to be accomplished. So as far as organized production is concerned, all of the documentation and risk analysis is prepared by the PO, and a certain number of annual analyses (water, sprayer calibration, plant delivery) is carried out for the producers as a whole. Certain POs also have servers that allow them to automatically and remotely update the entire documentation system required for the audit, without the producers having to do anything. Only the recordings most relevant to everyday practices are left to the producers, coordination being the responsibility of the PO's quality managers. The latter set up the documentary system, carry out the required internal controls with the producers and assist them at the time of the audit. Constraints are thus shared across the organization, under a rationale of economies of scale and of reducing time spent on red tape (Bonnaud et al., 2012).

As far as market intermediaries are concerned, GLOBALGAP does not simply protect interests (quality, the environment, occupational health, animal welfare), it also improves a business's internal management. Indeed, it is for its method that the PO recommends it to producers, e.g. to those who have to organize multiple-site farms:

> 'There are producers [in the Rhône valley] who want to join because they have several enterprises and GLOBALGAP helps with organization. Whatever the level, it's bang, bang, bang, it's the same organizational structure, it's easier. Then there are other cases where it's the producers who want to evolve, because it's dynamic and they want to get involved with a process like that' (Quality Manager, PO, south-east).

> '[GLOBALGAP] covers all the aspects where producers are not always really on the ball. Or in areas where they need to improve, to progress. It was an opportunity to provide a method. I'm not saying it's the be-all and end-all, there may be others that are much better, but it provides a method, a business framework to improve in certain areas. That's what I find interesting. In my organization, the people who adopted this process are people who have structure. The major disadvantage of these standards is the administrative side of things, which is fairly tiresome. A farmer who's all alone with his hectare of glasshouses and whose only employees are those in the glasshouses, who's got no secretary, no accountant, no… who is all alone, well that's a problem!' (Director of a producer organization, south-east).

As an instrument of both a normative and managerial nature, GLOBALGAP makes it possible to combine technical provisions, an organizational scheme and a quality management system. By taking account of the decisive role played by the interme-

diaries (quality managers, private consultants) who disseminate the standard and stabilize the way in which it is interpreted, we find that GLOBALGAP's main effect is the dissemination of a managerial farming norm.

Independent Producers: New Consultants Promoting Management among Farmers

As the previous interview extract shows, GLOBALGAP's implementation must be understood as a distributed collective process, which is a problem for independent producers. Just as GLOBALGAP's development led to the creation of new jobs (quality manager) within POs, it also contributed towards the development of a new profession, that of private consultants who could advise independent producers.[5] Just like the agricultural consultants studied by Aasprong (2013), these independent consultants play a central role in farmers' interpretations and implementations of the standard. Farmers are very reluctant towards GLOBALGAP, seeing it as a bureaucratic constraint imposed by retailers and as a necessary evil in order to continue to work with foreign markets. Independent consultants help farmers with the entire certification process, from writing the documents and preparing their implementation (risk control procedures, recording practices, etc.) through to the external audit.[6] Faced with this reluctance, they try to promote GLOBALGAP as a tool to improve management:

> 'Farmers have no idea of their impact on the environment: "product half-life", "vapour pressure" – they don't know what these things are. When we show them how much money they are losing on a given plot of land by not using their tools and chemicals properly, they realize that they are causing pollution' (Consultant for independent producers).

In other words, these consultants interpret GLOBALGAP and all of its requirements (which are relatively new from a producer's point of view) relating to health and the environment from a managerial and economic standpoint: they expect producers to adapt to these new requirements if it can be demonstrated that they will save money and improve the profitability of their businesses.

> 'They mainly see EurepGAP as a hindrance… Nowadays producers have to be managers. They need to know everything that happens on their farms. They need management charts but they don't have any. They are not in control of their processes. They haven't identified the sectors that need priority action. If I had to modernize farming, I'd turn producers into managers. That's about it!' (Consultant for independent producers).

According to the consultant we interviewed, GLOBALGAP certification applications are complicated to manage, both for Chambers of Agriculture and for independent consultants, because producers' lack of experience in risk management makes certification a very lengthy process. As the time spent with producers to help them understand the prescriptions is not billable generally, consultancy organizations necessarily lose money in this area.

Finally, in the case of PO-member farms and non-organized sector farms assisted by independent consultants, what is at stake in the adoption of GLOBALGAP and in the development of global risk management is the dissemination of a managerial norm. For the standardizing network that brings GLOBALGAP to the farmer, the

way to properly manage health, environmental and social requirements is to turn these requirements into good-management tools.

Conclusion

In this article we have used a science studies approach to interpret the GLOBALGAP voluntary standard. We have examined the material nature of the GLOBALGAP scheme, highlighting how the standard works as a repository for heterogeneous prescriptions. GLOBALGAP is a set of documents bringing together heterogeneous requirements: risk management procedures, good practices, the production of recordings, compliance with the law in different legal areas (social law, health and safety, environmental law). In uniting these elements, ordinarily separate, the standard operates as a centre of calculation, and produces a specific effect of managerial rationalization.

The way in which the standard is implemented also has legal consequences. First, GLOBALGAP tends to blur the boundaries between the different sources of prescription. As a result, it is increasingly difficult for grass-roots actors to distinguish between what is obligatory and what is voluntary (Doussan, 2004).

Second, GLOBALGAP's format as a collection of prescriptions allows for distributed implementation. Compliance with the standard's requirements is embedded in a network, thus making compliance with the law a collective matter, whereas the law relies on individual responsibility.

Finally, we can hypothesize that this collection of prescriptions has a specific effect that we might call codification. The codification process is based on three essential principles established by J. Bentham (Lascoumes and Martin, 1995). To him, codification makes it possible: 1. to systematize fragmented legal elements; 2. to come to an agreement on principles and values, and to prioritize them; 3. to ensure the legal security of exchanges. In Bentham's case, it is a case of protecting citizens against political arbitrary, whereas for GLOBALGAP it is a question of protecting commercial transactions. Yet from the standard makers' point of view, it is definitely legal rationalization that is at work. From the grass-roots actors' standpoint, the utility of a global quality standard lies in its transversal and inclusive nature and in the legal coherency that it provides. If GLOBALGAP is constantly evolving, it is so that it can meet this expectation of exhaustiveness.

Notes

1. In this article, we use Black's definition of regulation: 'regulation is the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome, which may involve mechanisms of standard-setting, information gathering and behaviour modification' (Black, 2002, p. 20).
2. $N = 46$, including PO producers, technicians, quality managers and directors. Jean-Marie Codron and Zouhair Bouhsina (INRA-Moisa) took part in this survey.
3. $N = 10$, including private producers and consultants. These independent vegetable growers were interviewed twice, with a three-year interval, which allowed us to ask them why some among them had dropped their GLOBALGAP certification.
4. This documentary system is further complicated by the introduction of add-on modules to allow producers who wish to take their certification even further on certain points, such as social or animal welfare. GLOBALGAP now publishes documents that summarize the changes and new aspects relating to upgrades of the standard. The complexity of the system has also caused GLOBALGAP to introduce a procedure for gradual entry into the standard, via a simplified version known as LocalGAP.

5. At the time of our survey, this consultant was in charge of a professional organization that he had himself helped to create and that represented and comprised independent agricultural consultants. At that time, the organization had approximately 20 members, but our interviewee estimated that at that time 60 to 70 people were working as independent agricultural consultants.
6. During audits by certification bodies, farmers often ask their consultants to be present so that the inspection does not degenerate into a confrontation.

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