



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

Papers downloaded from AgEcon Search may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

WORKING-PAPER – UMR MOISA

Standardisation and guarantee systems: what can participatory certification offer?

Lemeilleur, S. ; Allaire, G.

WORKING PAPER MOISA 2016-5



WORKING-PAPER – UMR MOISA

Standardisation and guarantee systems: what can participatory certification offer?

Sylvaine Lemeilleur¹ ; Gilles Allaire²

¹CIRAD, UMR MOISA, F-34398 Montpellier, France

² INRA, US 0685 ODR, F-31000 Toulouse, France

Abstract

The legitimacy of certification for agricultural products depends on the belief that product labelling can provide information and guarantee the quality that consumers want. The neoclassic paradigm actually suggests that the problem of quality is to do with simple asymmetric information between economic agents. In our paper, however, we consider that the notion of quality is by no means objective: practices required (to obtain the given quality) and the credibility and legitimacy of quality control used in the different guarantee systems (to ensure standard compliance), constitute an institutionalised compromising device. This situation results from the balance of power and beliefs that exists between the organisations concerned. In this paper, we compare two different organisational mechanisms when examining the agricultural product standards designed to improve sustainable development: (i) the third party certification (TPC) is a mechanism that most public bodies recognise as being legitimate for the certification of sustainability standards; and (ii) the alternative mechanism of participatory guarantee systems (PGS), which is struggling to gain recognition from public authorities. Finally, we argue that the effectiveness of proximity and social control for guaranteeing sustainability standards in PGS seems just as credible and legitimate as the effectiveness of the independence and neutrality claimed by the TPC in the framework of international standards. In fact, TPC and PGS are alternative and complementary systems, rather than competitive systems, for implementing different sustainability standards.

Keywords: Voluntary sustainability standards, Third party certification, Participatory guarantee systems, Quality, Organic farming, Institutional approach

Résumé

La légitimité de la certification des produits agricoles repose sur la croyance de la possibilité de garantir une qualité recherchée aux consommateurs, en apposant un label sur les produits concernés. Alors que le paradigme néoclassique postule que la qualité relève seulement d'une problématique liée à la distribution d'information entre les agents du marché, nous pensons que le concept de qualité ne peut pas être considéré comme objectif. De ce point de vue, les pratiques requises pour obtenir cette qualité, ainsi que la crédibilité de la manière de les contrôler pour garantir le respect de ce cahier des charges, deviennent également des compromis institutionnels, issus d'un équilibre entre des rapports de forces et des croyances des organisations concernées. Dans cet article, nous nous comparons deux dispositifs rencontrés lorsque l'on s'intéresse aux normes relevant du développement durable : (i) la certification tierce partie (CTP) qui est le dispositif le plus fréquent pour la certification de standards de durabilité internationaux (ii) les dispositifs alternatifs que constituent les systèmes de garantie participatifs (SPG) qui luttent pour obtenir une reconnaissance légale dans de nombreux pays. Nous concluons que la proximité et le contrôle social pour garantir les labels dans les SPG pourraient donc apparaître largement autant crédibles et légitimes en termes d'efficacité que la CTP. La CTP et les SPG seraient donc des dispositifs alternatifs et complémentaires pour la mise en œuvre de standards de durabilité.

Mots-clés : Standards volontaires de développement durable, Certification tierce partie, Système participatif de garantie, Qualité, Agriculture biologique, Approche institutionnelle

JEL : Q18, Q56, O13

Presented at the 5th IIPPE Annual Conference in Political Economy: The Crisis: Scholarship, Policies, Conflicts and Alternatives, Naples (ITA), 2014/09/16-18

1. Introduction

Over the last 20 years, there has been a tremendous increase in private labels and standards for “sustainable development”. These are designed to establish and diffuse “good” social and environmental practices relating to food production and food systems. However, these standards do not concern tangible properties, but intangible qualities, *i.e.* that are linked to the implications of the methods of production, as well as product distribution and consumption. These standards are driven by social trends, since socio-environmental qualities are increasingly sought after by informed consumers.

A considerable amount of economic research work focuses on the increase in these standards in the agri-food markets, particularly from the point of view of the industrial economy (Henson and Caswell, 1999; Lizzeri, 1999; Jahn et al., 2005). The development of sustainable standards and their labels addresses the classic long-standing problem of the asymmetry of information that exists between parties in a given transaction (Akerlof, 1970). In anonymous transactions the producer can avoid revealing information about actual production practices. However, in general, the fact remains that neither the producer who sells directly, nor the buyer can be certain of the impact of the practices in terms of what is considered to be “sustainable development”, despite the fact that it is a common concern. Nevertheless the aim of standardising practices is to specify the relationships between practices and targets in terms of sustainability. The certification process for compliance with these standards, along with the necessary monitoring and control mechanisms, is supposed to alleviate problems of information. Reducing qualitative uncertainty depends on the authority of the standard itself: *i.e.* is it supported by recognition from public authorities, as in the case of *Organic Agriculture* standard, by scientific evidence or the reputation of those who devised the standard, etc. Nonetheless, from a neoclassic point of view, the standard’s authority is external to the field of economics, which summarises the problem of uncertainty in relation to quality as a simple problem linked to the distribution of information between market agents. Whereas, from the point of view of institutional economics, the standard setting authority and the numerous ways that standards are constructed and adopted, are an important consideration. Quality is a social construct resulting from beliefs, the balance of power that exists between the stakeholders concerned and the changing representations of their interests (Allaire, 2004). From this point of view, the way the requirements are set out in the codes of practice (that implement standards designed to improve sustainable development) constitutes a social construct.

In this paper, we compare two schemes encountered when considering standards relating to sustainable development: (i) third party certification (TPC), which is part of a standardisation regime described as “tripartite standards regime” (TSR) – standard design, audit and certification, accreditation (Loconto and Busch, 2010). TPC is the most common certification scheme for international sustainable standards¹. (ii) The alternative schemes that constitute the

¹ *Organic Agriculture, Fairtrade, Rainforest Alliance, Globalgap, Forest Stewardship Council, Marine Stewardship Council, Round table on Sustainable palm oil, Roundtable on Responsable Soy,*

participatory guarantee systems (PGS) and concern organic or ecological farming and fair trade specifically.

In the field of so-called “sustainable” standards, the first type of scheme (TPC and TSR) has been the subject of critical research work in social science literature. However, little research has been done on alternative schemes. In this paper, we compare the main scheme described in academic literature with participatory guarantee systems by examining more disparate grey literature (particularly in reference to the schemes in the *Ecovida* network in Brazil, *Nature et Progrès* in France, *Certified Naturally Grown* in the United States, *Organic Farm New Zealand*, the Organic Farmers’ Associations in East Africa, or the *Keystone Foundation* in India) and several qualitative surveys conducted with the stakeholders involved².

In the second section, we emphasise the need for an institutionalist approach in order to understand quality guarantee systems. The third section examines the diversity of sustainable development standards. The fourth section provides a comparative analysis of the two types of schemes. Lastly, the paper concludes with a discussion on methods of standard legitimisation, how standards are put into practice and controlled, the blockages they cause and the difficulty encountered in changing them.

2. The need for an institutionalist approach in order to understand quality guarantee systems

2.1.1. Standards from the traditional economic point of view

The legitimacy of certifying so-called “sustainable” agricultural products – *i.e.* for which the production method is considered “sustainable” – depends on the conviction that it is possible to guarantee the quality sought by consumers by using a label³ for the products concerned. Quality becomes visible thanks to the label (Caswell, 1998; Lizzeri, 1999). This conviction makes sense from the point of view of neoclassic economics because labels play the role of market secretary in that they provide all the agents with identical information on quality, which can be understood in an identical way. Thus, using artefacts to achieve an objective appraisal of quality is essential if the regulation of competitive markets is to operate according to Walrasian models (Orléan, 2011). Thus, standards are considered as solutions to market failures when the price system cannot be applied (Arrow, 1971).

Yet, the neoliberal context encourages private stakeholders that benefit from the globalisation of value chains to develop global standards (Labrousse, 2010). The legitimacy of the design

² Surveys in France (different approaches to local quality, local currency, etc.), as well as in Argentina and with the different stakeholders that took part in the third fair trade meetings in Cusco, 2013.

³ A label is a “special trademark created by a professional union or parapublic organisation and awarded to a product for sale in order to certify its origin, quality and the conditions of manufacture in compliance with the predetermined standards set out in a code of practice”. (AFNOR)

and control of standards by private stakeholders depends particularly on the belief that market tools “naturally” perform better than states when it comes to imposing “good practices” for sustainable development on producers and businesses because competitive markets are self-regulatory (Prévost and Ehrhart, 2008; Labrousse, 2010). Nowadays, these standards and their associated independent control procedures have become regulations that are perceived as legitimate by numerous stakeholders who have adopted them, as well as by many states where they are applied (Djama et al., 2011). For many economists, the selection and development of these institutions are governed by a principle of efficiency. However, this statement is refuted both by the historical and theoretical analyses of the coordination processes within these institutions (North, 1990; Boyer, 2003).

2.1.2. Institutional approach to quality standards

According to an institutionalist approach, standards relating to intangible qualities are based on value judgements that result from social cognitive processes. Social value hierarchies are linked to types of production practices. Individual judgements of quality are not “private”, they actually belong to a doctrine and relate to principles that express a goal (Allaire, 2004; Allaire, 2013). It is a collective construct or value not just because the quality standard has some of the attributes of a public good but above all because no single stakeholder can individually create these signs of quality (Chanteau, 2011). Standards come with all types of exchange. In fact, a good cannot become a commodity, be appropriated, exchanged or privatised unless it can be characterised and assessed. Therefore, standards develop at the same time as markets. They create the public space where knowledge can circulate about quality assessment. Thus, standards are above all tools that make it possible for goods, services or procedures to circulate and to be compatible with other goods, services or procedures. They give rise to predictability. As institutions, they correspond to various agreements including codes of practice and rules for setting standards.

To achieve this, standards combine the capacity to measure quality (for example, the amount of pesticides sprayed on a crop) and a value reference or doctrine (beyond a given threshold, pesticides are leached into streams, where the water is no longer considered to be drinkable, which in turn suggests an established link between the level of pesticides and the water's potability, which is debatable, etc.) (Allaire, 2014).

Standardisation originates from the strategies used by economic stakeholders and, therefore, it reflects the balance of power that exists between the stakeholders involved. According to North, institutions are not usually created to be socially efficient; instead they tend to be created – or at least formal rules are created – to serve the interests of those who have the power to negotiate with a view to establishing rules (North, 1990). Stakeholders may differ in terms of their material, financial and cognitive assets. They are not equal in terms of standard development or with regard to standard observation (Labrousse, 2012). Far from being simple socially inert scientific or technical statements, the knowledge inherent in a standard embodies power and

can contribute to defending or increasing market power (Chanteau, 2011; Labrousse, 2012; Bodet and Lamarche, 2013). For example, the definition of private commercial standards will not achieve consensus unless it can guarantee improved efficiency and profitability by creating competitive advantages in certain conditions that are controlled by a minority (Bodet and Lamarche, 2013). The strategic nature of the standard is manifest in the effects of a club or dominant corporate oligopoly keen to impose its specific concept of quality (Chanteau, 2011).

From the point of view of institutional economics, numerous parameters – linked to market organisation, legal systems relating to trademarks and intellectual property rights, territorial contexts, etc. – can explain the conditions that determine the strategic appropriation of standards (in its individual and collective dimensions), the control methods and, ultimately, the variability of institutional agreements, which correspond to the same category of standards or the same doctrine. Therefore, the institutional blockages that determine the relationships between organisational mechanisms and quality domains reduce the diversity of these common resources *de facto* (Allaire, 2013).

3. From the diversity of sustainable development standards to the diversity of “quality” guarantee systems

3.1.1. Diversity of “quality” guarantee systems for sustainable standards

In this section, we look specifically at the case of sustainable standards. We present the diversity of the guarantee systems that regulate this quality, by examining the various empirical questions raised by the problem of guarantee. Every guarantee of “conformity” is based on reducing knowledge: from a global goal to principles (or a doctrine), from principles to requirements and “codes of practice”, from codes of practice to control plans and the definition of anomalies that can be penalised. There are as many strategic issues involved, as there are coordination nexus.

As for the first standards that were “committed” to sustainable development and grew from organic farming or fair trade movements, a large number of “sustainable” certification initiatives have emerged on an international level in recent years. They use the markets as the driving force to change practices. These private standards correspond to what Loconto and Busch (2010) qualify as Tripartite Standards Regime (TSR): a regime that regulates the “conformity assessment” (at the cost of simplifying and reducing knowledge) and which implies (1) a process to define and implement the standard (2) a process to certify conformity with the standard, and (3) a process of accreditation for the certification bodies. This regime is established on an international level. Thus, a large number of standardisation schemes that refer to sustainability are involved in the International Environmental and Social Accreditation and Labelling Alliance (ISEAL). ISEAL is a transnational organisation whose vocation is to harmonise standards according to ten “principles of credibility”, including sustainability, efficiency, accessibility, commitment, transparency, impartiality, etc. These principles are expressed in the form of codes of good practices (Standard-Setting Code, Assurance Code and

Impacts Code), which provide a technical and procedural structure for standard governance (without taking into account the principles and values that each standard is based on). They include: how they should be defined (with the participation of the concerned parties and a review of the standard every 5 years, for example), the control mechanisms and the type of measurement indicators, as well as the methods of impact assessment that are increasingly required (Loconto and Fouilleux, 2013; Renard and Loconto, 2013). In the field of organic farming, IFOAM (which is no longer a member of ISEAL) plays a comparable role by stipulating the principles and codes of good practice for the family of standards recognised by the association.

There are other more marginal methods of guaranteeing sustainability. For example, the recent enthusiasm for local trade, which is supposed to reduce asymmetric information because “direct verification” can be used for the quality sought after (Bougherara et al., 2009). In this case, the situation is simplified or reduced in a different way. A global representation is drawn from the experience of a given context and local knowledge, as opposed to being based on observations of predefined criteria.

In the domains of quality supported by social movements, there has been criticism of numerous standards because they are partial, the codes of practice are too general and TPC schemes are costly. Their credibility has also been called into question. As a result, alternative guarantee systems have been developed, which mobilise producer and consumer networks and rely on “participative certification” in particular. Participatory guarantee systems (PGS) have emerged independently in different geopolitical contexts, especially in the field of ecological and organic farming. Despite the differences in terms of context and function, these systems have common characteristics. The fundamental objective common to all these systems is to develop the guarantee system so that it becomes a tool that can improve local social and ecological conditions and adapt to changes on a continual basis. To achieve this, the systems encourage small-scale production and processing for generally local outlets. Consumers or consumer groups can then recognise a special product that has been produced using sustainable practices and verify the product’s origin and conformity (Ifoam, 2005). Following the international workshop on alternative certification schemes held in Brazil in 2004, the concept of Participatory Guarantee Systems was adopted for organic farming. Since then, IFOAM, the International Federation of Organic Agriculture Movements has tried to summarise the principles of this certification method by proposing a common definition in 2008⁴. Consequently, some of IFOAM’s initiatives can be differentiated from official “Organic Agriculture”, which has become a public standard in many countries and, therefore, is automatically subject to third party certification. While PGS have been developed and

⁴ According to IFOAM (2008), “Participatory guarantee systems are systems of quality insurance that are locally oriented. They certify producers on the basis of the active participation of the stakeholders concerned and are built on confidence, networks and sharing knowledge”.

strengthened primarily within networks that promote organic or ecological farming⁵, other initiatives exist, particularly for fair trade⁶.

3.1.2. Questions for comparing guarantee systems

The increase in sustainability standards and associated control methods in the agricultural sectors raises questions as to the credibility of the standards for guaranteeing sustainable production methods (Jahn et al., 2005; Hatanaka and Busch, 2008; Balineau and Dufeu, 2010).

As we have seen, every standard involves the cognitive reduction of a global objective into general principles (linked to sustainable development, for example). These, in turn, may be broken down into the requirements and a limited number of criteria for monitoring and control. In fact, this reduction can be debated and justified to a greater or lesser extent. It raises the question of the standard's "coherence" from the point of view of the relationship between the practices required and the desired quality, *i.e.* a real improvement in the production/consumption system concerned in terms of sustainable development. *Which doctrines and which balance of power determine standard design?*

A standard can be broken down into two types of object, which are distinct though generally closely linked in terms of their function: (i) the codes of practice, which reduce the standard's values and principles into criteria and indicators, and (ii) the control and guarantee process. This raises the following questions: *which beliefs or balance of power determine whether the specification of the indicators in the codes of practice is "relevant", i.e. capable of verifying whether the quality upheld by the standard is respected? Which belief or balance of power determines the "credibility" of the verification and control system to guarantee compliance with the codes of practice?*

In the next section, we use these questions to analyse the schemes to qualify for sustainable development and how they are broken down into codes of practice and guarantee systems.

4. "Quality" guarantee systems for sustainable standards: comparative test

⁵ PGS registered by IFOAM: *Nature et Progrès* in France, *Bio calédonia* in New Caledonia, *Rede Ecovida de Agroecologia*, *Sistema ABIO de Certificación Participativa en Red*, *Associação Biodinâmica -ABD*, *Associação de Agricultura Natural de Campinas e Região - ANC* in Brazil, *Organic Farm New Zealand* in New Zealand, *Certified Naturally Grown* in the USA, *Fundation keystone* in India, *Tianguis Organico Chapingo* in Mexico, *Namibian Organic Association-NOA*, *PGS Vietnam*, *MASIPAG* in Philippines.

⁶ For instance, the international network World Fair Trade Organization (WFTO) or *Fédération Artisans du Monde* in France.

4.1.1. Coherence of the practices required in the standards for sustainable development

As far as the global standards of sustainable development are concerned, many of the voluntary initiatives legitimise their action using inclusive and participatory procedures, in particular by organising round tables involving multiple stakeholders, which bring together NGOs, manufacturers and producers⁷ (Fouilleux, 2013). As Orléan underlines (2011), the theory of the objectivity of quality in neoclassic economics should exclude the differences linked to its definition. A considerable amount of research work shows that the definition of sustainable standards is central to issues of competition and collusion in the international arena and actually has little to do with objectivity (Cheyns, 2011; Djama et al., 2011; Reinecke et al., 2012). In fact, despite the emphasis on the inclusion and participation of the different stakeholders involved in designing the standards, the authors underline that there are numerous internal divisions. For example, the low level of inclusion of small farmers, whose voices are not heard (cost of participation at round tables, length of time of participation and language barriers) (Cheyns, 2011). In addition, certain topics are not discussed (blind spots), such as the choices of production method (there is no debate on the problems linked to monoculture or GMOs, nor on the living conditions of immigrant labourers on plantations) (Fouilleux, 2013). Ultimately, the global standards only guarantee the means required and not the capacity to achieve a result. They certainly do not guarantee the end result either. The link between the standard's objectives and the means specified in the code of practice amounts to a subjective belief supported by a representation or a doctrine of what quality is. The predominance of major market stakeholders at the round tables orients and imbalances the representations, which means that the definition of the standards is biased in favour of the firms that control them (Daviron and Ponte, 2005). The definition of sustainable development standards, far from being the result of scientific objectification, is a compromise between the firms' interests and social concerns for the sustainable management of natural resources. They are products of compromise resulting from imperfect knowledge and disparate resources. Therefore, nothing can guarantee that the standards are optimum. Similarly, the assessments conducted "after the adoption of the standard" are almost systematic (particularly with the recommendations from the ISEAL impact code). They are frequently commissioned or financed by the very firms that impose the indicators of success. Thus, despite a large amount of research work to assess the impacts of these standards, results are ambiguous and controversial depending on the indicators and the methods used (Raynolds et al., 2007; Blackman and Rivera, 2010; Tallontire et al., 2012; Lemeilleur, 2013).

For the end consumer, the increase in the number of global standards can be confusing. Sometimes several appear on the same product, which also seems to suggest that there are different ways of approaching the quality of sustainable development. Labels, therefore, fail to resolve the problem of asymmetric information.

⁷ Roundtable on Sustainable palm oil (RSPO), Roundtable on Responsible Soy (RTRS), Roundtable on Sustainable Biomaterials (RSB), Roundtable for a Sustainable Cocoa Economy (RSCE), Common Code for the Coffee Community (4C), Better Sugar Cane Initiative (BONSUCRO), Better Cotton Initiative (BCI), Forest Stewardship Council (FSC) or Marine Stewardship Council (MSC), and we can add other type of « mainstream » standards such as Rainforest Alliance and UTZ.

As far as participatory guarantee systems are concerned, the standard's implementation and the practices' coherence depend on the fact that they are developed by the local producers and consumers themselves (even if in many cases the latter are relatively absent, *cf.* Table 1). The standard is specifically adapted to the communities that the stakeholders originally come from and to the ecological, political and economic context, as long as the context is clearly understood by those who set the local rules. This addresses the recurrent problems of the coherence of standards that are designed and specified on a global scale, and which are often ineffective because they are ill-adapted to local conditions (Vogl et al., 2005). However, the lack of homogeneity with regard to the definition of specifications and regulations on a global level rules out the development of a strict common reference framework for standard implementation. Therefore, products qualified by different local standards are difficult to commercialise outside the communities that defined them. Nonetheless, the products are recognised when local PGS belong to global networks like the International Federation of Organic Agriculture Movements (IFOAM) or the International Federation of Alternative Traders (IFAT, also known as the World Fair Trade Organization, WFTO).

Table 1: control methods for different examples of PGS throughout the world.

Organization/label	East Africa Criteria for PGS (Uganda, Tanzania, Kenya)	Nature et Progrès (France, Belgium)	Organic Farm New Zealand (NZ)	Certified Naturally Grown (USA)
Label type	Labelling group	individually labeled	individually labeled	individually labeled
Governance decision	At least producers (+ observers)	Producers and consumers in local group and Federation	Producers at regional group	Producers at regional group
Starting Audit	pledge publicly signed + first visit	Charter + investigation by federation professional	Application form (farmer may be more or less co-opted)	Online self-assessment ++ commitment (including participation to inspect 1 time per year)
Follow-up audit	At least one inspection annually by at least 2 experienced persons (training or learning by doing) With at least one producer; Prohibition of reciprocal inspections between producers or groups	Inspected by at least 2 people (1 time per year if only N&P, if AB every 2 years) without reciprocal inspection Sometimes only one part of the farm but very detailed – another production the following year ; COMAC, the local committee, assesses visit reports, 1 to 2 times per year in the presence of interviewers and interviewees - writing a motivated point of view	visit by all members of the local group (4-8 producers) one group coordinator rotating each year Report by certification director of the regional group	Inspection cycle without reciprocity between close producers (A visits B who visits C who visits A) Or sometimes inspection by extension agent, product manager, organic certified producer...
Other complementary control mechanisms	Control mechanisms outside visit (social control, observations outside, consumer complaints)	If problem, additional controls and accompanying producer to comply	Random and independent external audit of Approval Committees and Groups; If doubts, each member must be able to finance a residual test	Publication of investigated and investigator names online; Reputation effect of the investigator.
label approval	Approval Committee at least three people, at least one producer	National committee CCAM certifies and attributes label (also manages conflicts)	Managers of certification at the national level	At the regional group
Training and exchange of information /advices	Capacity building at least 1 time per year normally: Mandatory training for certified farmer	During the visits, and group meetings Review 5 times per year	During group visits at least	Dynamic of meetings according to regional groups, but not always. Online Forum
Technical specifications revision	Adapted from the East African organic standard	Own standard with possible revision each year in the Federal assembly		follow the US organic standard specifications

Source: IFOAM (2005; 2007b).

PGS depend on the direct participation of network partners (producers, consumers and other stakeholders) for designing the standard, the code of practice and for implementing the procedures, verification and decisions related to certification. In PGS, all the decisions are based on “compromise”, which is shared by all the local stakeholders according to a participatory “democratic” process. The promoters of these systems recommend a “horizontal” type structure of governance by minimising the hierarchical and administrative levels (Ecovida, 2004; Ifoam, 2007a). Nonetheless, while this approach is much less imbalanced than the round tables for international standards, power struggles still exist between the protagonists even at a local level: particularly when some producers take precedence over others (because of their different financial, cognitive or social capacities, for example) or because of dependence on certain stakeholders, such as buyers when they are included in the scheme design. There is no guarantee that local standards are a panacea in terms of sustainability. However, with this approach the standards at least take account of local consumer definition and demand for sustainable quality.

From a legal point of view, local groups are often organised in the form of associations or cooperatives (Nelson et al., 2010). The local group coordinates inspections, on-site training, administration and public relations. Sometimes local groups liaise with a larger-scale organisation, whose role is often to coordinate different groups and produce supporting documents for guidance and advocacy. The highest level of responsibility is maintained at a local level. Each member of the network is supposed to have a broad understanding of the “sustainable” quality standard that is upheld locally (Hochreiter, 2011). This implies the existence of basic documentation on the PGS, which should be available to all the interested parties. The active participation of partners is supposed to empower and enhance the autonomy of each one. PGS give priority to long-term training and capacity building for both producers and consumers (Ifoam, 2005). PGS aim not only to make a production method credible but also to contribute to an ongoing learning process by encouraging interaction between producers. Although some groups actually admit that it is difficult to mobilise all participants for a training programme (the case in East Africa, for example) or to encourage interaction between all the producers because of the distances that separate them (as in the case of Certified Naturally Grown in the United States, which relies on an online forum).

The standard certification in PGS concerns the farms’ entire production⁸ – like fair trade standards. Unlike group certification, which is guaranteed by private certification schemes, each member has a certificate and is usually free to sell individually, even though sales are organised collectively in some cooperatives.

⁸ Since 2009, following the homogenisation of the *Organic Agriculture* standard for all European member states, mixed production is allowed on farms – although this may cease with the new revision of the standard, which is currently underway.

4.1.2. Relevance of the specifications in the codes of practice for checking quality compliance

Global standards and the associated third party certification schemes depend on a metrological approach where indicators are known to be measurable, easy to audit, in all places and at all times. The indicators concern the “means” that can be measured rather than the “end results”. Relationships of causality are too complex to analyse. For example, an indicator that reflects a compulsory requirement, such as workers’ awareness and understanding of a given issue, will check the number of training courses organised to this end rather than the knowledge actually acquired by the workers. The main aim of these progress indicators (*performance-based standards*) is to measure how much effort the producer puts into changing his practices as opposed to compiling valid requirements for the producer’s adhesion. The objective is to include a maximum number of producers in the certification process. Moreover, it is difficult to convert values and principles into generic indicators. Although the specific country context is sometimes taken into account, indicators are primarily defined for a product. This leads to considerable differences in terms of what can really be controlled and measured (Giovannucci and Ponte, 2005). In the case of the sustainable certification of cocoa, Lemeilleur et al. (2014) show that this is particularly true for the indicators linked to environmental protection and biodiversity conservation, as well as the social dimension. In some cases, indicators are unrealistic or poorly adapted to the local situation. Above all, only traceability requirements are strictly applied (Lemeilleur et al., 2014).

PGS recognise and value a whole range of quantitative and qualitative control mechanisms that are part of the certification process and are locally and culturally specific (Ecovida, 2004; Ifoam, 2005). In this way, committed producers are very often required to sign a charter of principles and values. Later on, discussions within the group reveal quite clearly how the producer accepts the values and adopts the principles in his approach to production. It is the opposite of TPC which relies on distance (no communication is allowed between auditor and producer) and independence in order to guarantee conformity.

PGS develop codes of practice tailored to each production system. However, in a PGS, the codes of practice are not always broken down into measurable indicators (for example, in *Nature et Progrès*). Occasionally, there are detailed “checklists” with basic control points that have to be respected. This makes the auditors’ job easier – in general they have to audit a large number of different production systems on diversified farms. Some PGS also use checklists as a way to reduce subjectivity when it comes to interpreting observations. Even when a checklist is prepared so that it is well adapted to the local context, the use of this type of tool is a source of considerable debate within the PGS network. Some network members see it as detrimental to defending a holistic vision of sustainability in farming systems. This can only really be appreciated when practices are discussed in-depth with the producer.

4.1.3. Credibility of the verification and control system

In order to support the credibility of the verification process for product compliance within these schemes, most global sustainable standards rely on private accredited certification bodies. The latter are considered to be independent and impartial – impartiality being one of the principles encouraged by ISEAL. Although producers or traders do have an incentive for adopting the standard, namely, a better price (a premium, which may be included in the standard itself or implicit via product differentiation) or better market access, third party certification is expensive for market stakeholders. In the event of non-compliance, the sanction generally leads to the loss of the certificate. In the TSR, the effectiveness of the certification scheme is related to the separation that exists between the producers that adopt the standard, the certification body and the accreditation body.

In some cases, in order to reduce costs, certification (and, therefore, the certificate) is not awarded individually but collectively for a group of producers. Group certification has become increasingly widespread for small farmers in developing countries (Fonseca, 2004). Otherwise the cost of control for each plot would be exorbitant for certification bodies and would make certification too expensive for each producer on the level of an individual holding. In this case, the standard generally requires an internal control system (ICS). This is a preliminary control conducted within the producer organisation by the members themselves. When the certification body comes to audit the organisation, only some producers are controlled at random. The certificate is attributed to the group, so if one of the members does not comply, the whole group is penalised and loses its certificate. The ICS's self-check system is considered reliable. It is very similar to participatory guarantee systems in terms of the procedures (Van Der Akker, 2009) and is used by most sustainable standards in developing countries.

Traceability requirements involve heavy, inflexible and legalistic procedures (forms and record-keeping for each standard⁹ and for each product). Hibou (2012) defines these procedures as vectors of an increase of neoliberal bureaucracy. Bureaucracy (the cost of processing large volumes of information) is costly. Consequently, producers who are unable to pay the cost are excluded (Vorley and Fox, 2004; Carimentrand, 2009; Lemeilleur, 2012). As a result, the absence of product certification does not necessarily mean that the products in question are not also produced according to sustainable practices. It simply means that the cost of generating the information excludes these products from this classification system. Access to a quality label via TPC can also lead to serious discrepancy between producers and fundamentally calls into question the claims that this instrument is effective at distributing information.

Lastly, the service provided by private certification bodies – whose control is considered more diligent – can also be of dubious quality in terms of the control and verification processes (Balineau and Dufeu, 2010). In some circumstances, particularly in the case of group certification in developing countries, some authors suggest that the low number of control visits casts doubt on the auditors' capacity to control compliance to requirements. The codes of

⁹ It is not uncommon for a farm to adopt several types of standard. However, for a single unique type of standard, formalities can vary depending on the target market. This is the case for organic farming or fair trade on the markets in Europe, the United States, Japan, Canada, etc.

practice are far too complex and the number of auditors (even qualified ones) too few to be credible (Giovannucci and Ponte, 2005; Lemeilleur et al., 2014). In addition, the standards are subject to interpretation because they are incomplete and have to be adapted to the local situation. Therefore, the boundaries between respecting and breaching the standard are open to interpretation, which is sometimes conflictual. Again, the compromises that emerge from these conflicts about standard implementation are the result of distribution of power (Lascombes and Le Galès, 2005; Labrousse, 2012). In addition, the service provided by private certification bodies (that are motivated by commercial profit) can be unreliable. The problem of poor selection, impartiality and true objectivity cannot be completely ruled out, not least because the private certification bodies are paid by the agents that they control (Jahn et al., 2005; Bonroy and Constantatos, 2011). In addition, it is in the producers' interest to call on certification bodies that are known for their lenient inspections in order to increase the probability of being certified (Jahn et al., 2005). Some research work shows that in reality the certification bodies are rarely impartial and objective despite the apparent technical and scientific methods used and the distance between parties (Bain, 2010; Hatanaka, 2010). According to some authors, the accreditation of certification bodies using the standard ISO 65 does not reduce the serious doubts about the objectivity of their control, which is essentially based on documents sent by those being audited (Jahn et al., 2005; Hatanaka and Busch, 2008).

The frauds that hit the headlines from time to time, particularly in "*Organic Agriculture*" highlight the dysfunctions of certification. While negligence and cheating are not just the prerogative of certification, their occurrence does call into question the very existence of the mechanism. These dysfunctions emerge when there are crises of confidence that damage reputations. Over and above local crises, "quality crises" reflect a discrepancy between the effectiveness of a standard and the doctrine that upholds its principles.

In alternative guarantee systems, all the members are concerned and share responsibility equally for the assessment. As with TPC, when the first request is made, the producer is generally audited (initial audit) and the code of practice is used as a reference. After this visit, a review committee designated by the group gives an opinion – in the presence of the auditors and the farmer audited – stating that (i) the farmer already complies with the standard's local requirements and can, therefore, be certified (or admitted with conversion status in the case of organic farming), or (ii) that the producer needs assistance and training in order to comply (Hochreiter, 2011). In the first case, a review committee – generally comprised of agents at a higher regional or national level – can award the label to the producer on this basis. In the second case, regular visits are planned to help the producer comply. Providing support for producers who are in conversion is one of the PGS' main principles¹⁰. It is the opposite of TPC systems. In fact, in the TSR, according to the accreditation standard ISO 65, auditors should be independent and neutral and cannot interfere by giving advice during the audit. On the contrary, PGS develop mechanisms to support producers by providing advice in the field, reports, farm visits, websites, etc. While the PGS agree that audits and visits require an assessment by a third party, they consider that peers and the local community are the best placed to measure

¹⁰ This is a form of solidarity that contributes to the development of a common good, which then obtains territorial value.

compliance in relation to a commitment. This is because the latter can constantly watch their neighbours' activities, both directly and indirectly. The peer-review process reflects this principle. There is a range of peer-review systems, which differ depending on the initiatives (Table 1). In France, *Nature et Progrès*, and in East African organisations, control is carried out once a year¹¹ by at least two experienced people, *i.e.* agents that have been trained, including at least one producer. It is clearly stated that reciprocal inspection between producers is not allowed. In the North American *Certified Naturally Grown* scheme, an inspection cycle is established with no reciprocity between producers in the same geographic zone (producer A inspects producer B, who inspects producer C, who inspects producer A). If producers are too far apart (which means inspection costs are too high), inspection can be conducted by an extension agent or by a producer certified by the public label (recognised by the USDA) who does not belong to the PGS. In all cases, in order to avoid collusive agreements, the inspection report and the investigator's name are available online. In this way, in the event of fraud the investigator's public reputation is at risk. The same applies for the decisions that are taken (Nelson et al., 2010). Lastly, in the *Organic Farm New Zealand* scheme, sub-groups of four to eight people are organised according to their proximity. Inspections are conducted with all the members of the sub-groups on each of the farms in the sub-group. To avoid the danger of collusion, the scheme also includes a random independent external audit.

As with global standards, sanctions are generally applied gradually depending on the extent to which the rules have been breached: they range from a verbal warning in the case of absence from a day's training course, to transitional suspension of the certificate in the case of non-compliance with requirements until the next inspection or for a fixed period if it is a minor recurrent failure to comply. In the most serious cases, such as a clear violation of the code of practice or obvious fraud, the sanction can be, respectively, long-term suspension of the certificate and the producer's transfer to conversion status or permanent exclusion from the group (Hochreiter, 2011). However, in PGS sanctions often tend to be more of a social type because paying a fine is rarely adapted to the reality of the farmers' financial situation (Hochreiter, 2011). Additional controls are often programmed for the units at risk.

Experience shows that non-compliance is relatively uncommon and is often linked to practical problems of recording (Van Der Akker, 2009; Hochreiter, 2011). In reality, the guarantee mechanisms that rely on each person taking responsibility and on social control could seem just as credible in terms of effectiveness as TPC: it is morally more difficult to cheat someone who is making the same effort to obtain quality than it is with an anonymous auditor conducting an annual control; with ongoing community observation, there is the risk of being ostracised in the event of cheating. On the other hand, the control "of each person by each person" with sanctions that are often social can generate considerable tensions within the community. This has been shown to deter some producers from joining.

Each group develops mechanisms of varying degrees of complexity in order to manage the administrative forms and procedures. Nonetheless, the latter are usually kept to a minimum to

¹¹ In France, in the case of *Nature et Progrès*, if the producer is also certified "Agriculture Biologique" (AB), he only has a PGS control once every 2 years to lighten the procedures. Over half of the producers also have the public label AB because it is the only one that is eligible for public grants for the conversion and maintenance of organic farming.

reduce the time spent on administration (and, therefore, the costs linked to the salaries required to process the paperwork), and to take into account the fact that filling in forms can be a very tedious task for many producers. Another basic principle of participatory certification is to keep the cost of joining as low as possible for producers. PGS manage to keep costs down because their members do voluntary work, both for the controls and for some essential administrative procedures. This voluntary basis can be a weakness of the PGS. It is often hard to encourage all the producers to participate – especially in countries in the North because of the greater distances between producers. Similarly, involving committed consumers can be difficult – particularly in developing countries where there are only a few of them and they are a long way from rural areas (in terms of travel time).

5. Discussion on the comparison of guarantee systems

Although sustainable development labels obviously have a role in food and agro-industrial systems, the instruments used by the TSR have been imposed as the only legitimate tools. TPC is part of a commercial system in which certified producers do not cooperate (or not always and not necessarily) and where certification is a market service (it is a market for standard setting organisations and auditors) with a commercial value (premium or access to certain markets). Its legitimacy is none other than the fruit of institutionalised compromise, which relies on beliefs (the independence of control should be more efficient) and economic interests (the market represented by certification and its role in global market governance).

The TSR's hegemony causes real blockages in terms of the property rights linked to the intangible common resources represented by the sustainability standards – all the producers who use the global standard are automatically interdependent in terms of its reputation. As a result, producers can no longer use certain designations or labels freely unless they are certified by private accredited certification schemes. They are excluded from national systems of representation and no longer appear in public statistics – the most emblematic example is the organic farming label (particularly in the United States and Europe) even though engaged farmers' movements originally led to the development of the label and its reputation.

For years, evolutionary analyses have stressed the dependence of the pathway to technical standards. Sustainable standards and the way they are diffused could be considered to paralyse or cripple agricultural practices because they exclude anything that deviates from their configuration (Citton, 2013). They counter innovation and, therefore, risk freezing or preventing innovation that is characteristic of family farming (Ruf et al., 2013), particularly when small farmers, who do not respect the protocol, are also excluded from the market (Carmentrand, 2009; Lemeilleur, 2013). It is hard to imagine how in the long term, the globalising nature of this type of homogenising system – *i.e.* that ignores the diversity of contexts – will be able to deal with diverse and complex issues of sustainable development, spatially and over time. The label as a common resource is managed in a global centralised way. Its reputation can be threatened by “quality crises” (Allaire, 2010), particularly when the

coherence of requirements, the pertinence of indicators or the credibility of control are called into question.

Lastly, the increasing power of third party guarantee systems has led to a concentration in the agri-food sector and to the virtual disappearance of smallholder or artisanal production. Yet, unlabelled products can also be produced using sustainable practices. It is the cost of generating information via a TPC that excludes them from a formal classification of quality.

In response to the domination of this system – which is ill-adapted to the exchange of knowledge, improved practices and breaks with a holistic vision of production systems on a local territorial level – producers have recourse to other guarantee systems, like participatory certification. PGS, which have emerged in different geopolitical contexts, represent an alternative to TPC, particularly for local markets and short distribution chains. The IFOAM database, which provides an inventory of the PGS for agro-ecology throughout the world¹², shows the rapid development of this type of certification, especially in developing countries. There are now about 30 PGS and thousands of certified producers across 20 countries in both the North and South.

PGS rely on different levels of assessment, which is carried out by the producers involved (self-assessment, peer assessment), as well as by other operators concerned (assessment committee, including buyers). In this way, they counter the assumptions of third party guarantee systems that claim that their auditors are independent and neutral because they are distant. In addition, the sustainability standards upheld by PGS are implemented in a decentralised way, adapted to the context and comply with a principle of subsidiarity. This concept can go as far as differentiating itself from centralised standards, such as “Organic Agriculture”. Therefore, it can refer to a broader concept, which may include more diverse methods, like agro-ecology. Each community can then name its initiative carefully. The decentralisation of the standard becomes inseparable from the decentralisation of control. PGS and the standard that they seek to promote locally can, therefore, be perceived as a common good, managed by a community that is responsible for its own “production” and management. This brings us to Ostrom’s research work (Ostrom, 1990), which analyses forms of community governance organised around sharing common pool resources. In the case of the PGS, the system can be broken down into a set of “common” elements: principles and their local translation into codes of practice, “recipes” (know-how) to put them into practice, control requirements and rules of progress towards an objective. Here, however, the resources are intangible: over and above the label itself, it is a question of knowledge (how to produce locally in a sustainable way) and reputation. According to Cardon and Levrel (2009), in their paper about Wikipedia community, individuals participate in the production of a common resource even more readily when they also have power to monitor and sanction other members of the community. Ostrom (1990) underlines that, when producers themselves carry out local control, it is a very effective means of guaranteeing confidence within the community. In fact, proximity between the “guilty party”

¹² It is important to note that a large number of PGS are probably not listed in this database because they are unknown to IFOAM or their mode of operation differs too much from the basic structure as defined by IFOAM.

and the “monitor” means that it is possible to implement suitable progressive sanctions. These generally strengthen the community’s relationships of confidence and values. They contribute to a discussion framework in which vigilance is critical and geared towards reaching an intersubjective agreement (Cardon and Levrel, 2009). Nonetheless, apart from this relative efficiency, it is important not to forget that when everyone controls everyone, it can sometimes cause serious tension within the community. Finally, PGS are not spared from doctrinal criticism or from the loss of product identity generated by quality crises.

In practice, these systems have existed for years (in France, for example, the *Nature et Progrès* movement was one of the first to create a participatory guarantee system in the 1970s). However, they do not have official or legal recognition, except in very few states, for example: Brazil pioneered the recognition of the guarantee system (Fonseca et al., 2008), Bolivia, Mexico and Uruguay recognise PGS as a legal equivalent to other guarantee systems, Brazil and Costa Rica also recognise PGS for external markets. The particularly large number of groups and producers in Latin America can be explained by the local dynamics linked to the fact that these systems have been granted legal recognition in a number of neighbouring countries. The legal recognition of this guarantee system is a determining factor in its success. In particular, recognition makes it possible for the producers concerned to expand their range of buyers in specialist shops or supermarkets.

In fact, TPC and PGS are alternative systems for implementing sustainable standards. As we have seen, PGS could undoubtedly have a key role that is both pertinent and complementary in terms of meeting the expectations linked to issues of sustainable development with local stakeholders. The legitimacy of this type of guarantee system (definition of quality and control methods) is the result of an institutionalised compromise that stems from the beliefs and economic representations in the national and transnational arenas of standardisation. If the situation fails to change, it will not be possible to develop this type of alternative scheme properly.

6. Conclusion

Judging by the tremendous increase in the certification of voluntary sustainable development standards in the agri-food sector in recent years, sustainable development in the sector may seem within reach. Theoretically and empirically, these private tools are perceived as “naturally” more effective than many other types of regulatory tools in terms of regulating “good” social and environmental practices and as a selling point for more ethical and responsible products. The legitimacy of “sustainable” certification, which ranges from the definition of private standards to independent control procedures, is based on the belief that it is possible to guarantee a quality sought after by consumers, by labelling the products concerned. Nonetheless, the principle of efficiency that should govern the selection of institutions according to numerous economists, is belied by both historical and theoretical analyses (North, 1990; Boyer, 2003).

In this paper, we argue that the choice between different guarantee systems is the result of an institutionalised compromise that relies on economic representations and beliefs. We have analysed alternative participatory guarantee systems that are increasingly being developed locally compared to the dominant more widespread type of standardisation and certification, the TSR. The example of organic farming (or ecological farming if the “Organic Agriculture” label is not allowed) or fair trade is emblematic of the systems’ duality.

We show that the effectiveness of proximity and social control for guaranteeing “sustainable” standards that are defined using a local participatory approach seems just as credible and legitimate as the effectiveness of the independence and neutrality claimed by the TSR in the framework of international standards. The latter are driven primarily by economic interests (the dimension of sustainable development that tends to override the social and environmental considerations). PGS are in fact better at including producers in a region, exchanging knowledge as part of an approach to the collective improvement of practices, adaptation and progress (flexible approach), and lastly bridging the gap between the regions and the consumers, who are ultimately the ones asking for this quality.

While standards and labels are considered by many decision makers to be the best tools available for sustainable resource management and for promoting sustainable development, a discussion is however called for to redefine these instruments, their function and governance, as well as their complementarity with current intervention policies. In this way, global sustainable development can truly be taken into account. At a time when “the tyranny” of assessment and transparency is undermining the very foundations of the social activities that they claim to embrace, these participatory guarantee systems should be encouraged via legal recognition. They constitute a hybrid form of guarantee – that comes between formal third party certification and informal guarantee systems via proximity – in which a degree of non-independence and non-verifiability should be accepted (Citton, 2013).

7. References

Akerlof, G.A., 1970. The market for "lemons": Quality uncertainty and the market mechanism. *The quarterly journal of economics*: 488-500.

Allaire, G., 2004. Quality in economics: a cognitive perspective. In: M.A. Harvey M., and Warde A (Editor), *Qualities of Food* Manchester University Press, Manchester, pp. 61-93.

Allaire, G., 2010. Applying economic sociology to understand the meaning of “Quality” in food markets. *Agricultural Economics*, **41**: 167-180.

Allaire, G., 2013. The Multidimensional Definition of Quality. In: L. Augustin-Jean, H. Ilbert and N. Saavedra Rivano (Editors), *Agriculture and International Trade: The Challenge for Asia*. Palgrave, pp. 71-90.

Allaire, G., 2014. Les normes, des utopies en action. In: F. Bourin (Editor), *L'intelligence est dans le pré. Penser la ruralité du XXIe siècle* Jean-Marie Guilloux et Patrick Denoux, Groupe Saint-Germain, pp. 341 pages.

Arrow, K., 1971. Political and Economic Evaluation of Social Effects and Externalities. *Frontiers of quantitative economics*. Papers invited for presentation at the Econometric Society Winter Meetings, New York, 1969 [and] Toronto, 1972. D. A. Kendrick and MD Intriligator. In: M. Intriligator (Editor), *Frontiers of Quantitative Economics*. Amsterdam, North-Holland., pp. 3-25.

Bain, C., 2010. Governing the global value chain: GLOBALGAP and the Chilean fresh fruit industry. *International Journal of Sociology of Agriculture and Food*, **17**(1): 1-23.

Balineau, G. and Dufeu, I., 2010. Are Fair Trade goods credence goods? A new proposal, with French illustrations. *Journal of business ethics*, **92**: 331-345.

Blackman, A. and Rivera, J., 2010. The evidence base for environmental and socioeconomic impacts of “sustainable” certification. *SRNN Discussion Papers*, march.

Bodet, C. and Lamarche, T., 2013. *La RSE contribue-t-elle au développement durable?*, colloque EAEPE, Bobigny, France.

BONROY, O. and CONSTANTATOS, C., 2011. The Economics of Labels: a Review of Literature.

Bougerara, D., Grolleau, G. and Mzoughi, N., 2009. Buy local, pollute less: What drives households to join a community supported farm? *Ecological Economics*, **68**(5): 1488-1495.

Boyer, R., 2003. Les institutions dans la théorie de la régulation. *Cahiers d'économie Politique/Papers in Political Economy*(1): 79-101.

Cardon, D. and Levrel, J., 2009. La vigilance participative. Une interprétation de la gouvernance de Wikipédia. *Réseaux*(2): 51-89.

Carimentrand, A., 2009. La difficile prise en compte des inégalités socio-économiques par le commerce équitable: le cas du quinoa andin. *Ethique et économique*, **6**(2).

Caswell, J., 1998. How labeling of safety and process attributes affects markets for food. *Agricultural and Resource Economics Review*, **27**(2): 151-158.

Chanteau, J.-P., 2011. L'économie de la responsabilité sociétale d'entreprise (RSE): éléments de méthode institutionnaliste. *Revue de la régulation. Capitalisme, institutions, pouvoirs*(9).

Cheyns, E., 2011. Multi-stakeholder initiatives for sustainable agriculture: The limits of the ‘inclusiveness’ paradigm. In: S. Ponte, Vestergaard, J. & Gibbon, P. (Editor), *Governing through standards: Origins, drivers and limits*. Palgrave, London.

Citton, Y., 2013. Le démon de la bureaucratie néolibérale. *La revue des livres*, **10**: 3-10.

Daviron, B. and Ponte, S., 2005. *The coffee paradox: Global markets, commodity trade and the elusive promise of development*. Zed books.

Djama, M., Fouilleux, E. and Vagneron, I., 2011. On the discursive, institutional and technological foundations of multi-stakeholder standards. In: S. Ponte, Vestergaard, J. & Gibbon, P. (Editor), *Governing through standards: Origins, drivers and limits*. Palgrave, London.

ECOVIDA, 2004. Training manual of participatory guarantee of ecological products, www.ifoam.org (last access on 25 July 2010).

Fonseca, M.F., Wilkinson, J., Egelyng, H. and Mascarenhas, G., 2008. The institutionalization of Participatory Guarantee Systems (PGS) in Brazil: organic and fair trade initiatives.

Fouilleux, È., 2013. Normes transnationales de développement durable. *Gouvernement et action publique*(1): 93-118.

Giovannucci, D. and Ponte, S., 2005. Standards as a new form of social contract? Sustainability initiatives in the coffee industry. *Food Policy*, **30**: 284-301.

Hatanaka, M., 2010. Certification, Partnership, and Morality in an Organic Shrimp Network: Rethinking Transnational Alternative Agrifood Networks. *World Development*, **38**(5): 706-716.

Hatanaka, M. and Busch, L., 2008. Third-Party Certification in the Global Agrifood System: An Objective or Socially Mediated Governance Mechanism? *Sociologia ruralis*, **48**(1): 73-91.

Henson, S. and Caswell, J., 1999. Food safety regulation: an overview of contemporary issues. *Food Policy* **24** 589–603.

Hibou, B., 2012. *La bureaucratisation du monde à l'ère néolibérale*. La Decouverte, Paris, 223 pp.

Hochreiter, C., 2011. Certified with trust and solidarity? Attitude, benefits and challenges of organic farmers in Participatory Guarantee Systems, Cacahoatán, Mexico, University of Natural Resources and Life Sciences, Vienna.

IFOAM, 2005. PGS Case Studies 2005 in Brazil, France, India, New Zealand, USA, IFOAM studies, Germany.

IFOAM, 2007a. Participatory Guarantee Systems. Shared Vision, Shared Ideals, www.ifoam.org

IFOAM, 2007b. PGS in East Africa, IFOAM studies, Germany.

Jahn, G., Schramm, M. and Spiller, A., 2005. The reliability of certification: Quality labels as a consumer policy tool. *Journal of Consumer Policy*, **28**(1): 53-73.

Labrousse, A., 2010. Nouvelle économie du développement et essais cliniques randomisés: une mise en perspective d'un outil de preuve et de gouvernement. *Revue de la régulation. Capitalisme, institutions, pouvoirs*(7).

Labrousse, A., 2012. Une industrie normée? Gouvernement par les normes, jeu sur les normes et internationalisation des chaînes de valeur dans le secteur pharmaceutique. *Economie et Institutions*, n°18 et 19. 1er et 2ème semestre 2012.

Lascoumes, P. and Le Galès, P., 2005. *Gouverner par les instruments*. Presses Universitaires de Sciences-Po., Paris, France.

Lemeilleur, S., 2012. *To what extent small farmers are affected by their lack of GlobalGAP certification? Evidence from mango export sector in Peru*, International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil, 18-24 August, 2012.

Lemeilleur, S., 2013. Smallholder compliance with private standard certification: the case of GlobalGAP adoption by mango producers in Peru. *International Food and Agribusiness Management Review*, **16**(4).

Lemeilleur, S., N'Dao, Y. and Ruf, F., 2014. What is the rationality behind a mass certification process? The case of the Rainforest Alliance in the Ivorian cocoa sector. . *International Journal of Sustainable Development*, Forthcoming.

Lizzeri, A., 1999. Information revelation and certification intermediaries. *The RAND Journal of Economics*: 214-231.

Loconto, A. and Busch, L., 2010. Standards, techno-economic networks, and playing fields: Performing the global market economy. *Review of International Political Economy*, **17**(3): 507-536.

Loconto, A. and Fouilleux, E., 2013. Politics of Private Regulation: ISEAL and the shaping of transnational sustainability governance. *Regulation & Governance*.

Nelson, E., Tovar, L.G., Rindermann, R.S. and Cruz, M.A.G., 2010. Participatory organic certification in Mexico: an alternative approach to maintaining the integrity of the organic label. *Agriculture and Human Values*, **27**(2): 227-237.

North, D., 1990. *Institutions, institutional change and economic performance*. Cambridge University Press, Cambridge.

Orléan, A., 2011. *L'empire de la valeur: refonder l'économie*. Éditions du Seuil.

Ostrom, E., 1990. *Governing the commons: the evolution of institutions for collective action*. Cambridge UNiversity Press, Cambridge, 279 pp.

Prévost, B. and Ehrhart, C., 2008. *Aux sources des réformes de seconde génération: quelques questions sur la nouvelle économie institutionnelle et l'usage qui en est fait*. Presses de l'ISMÉA.

Raynolds, L.T., Murray, D. and Heller, A., 2007. Regulating sustainability in the coffee sector: A comparative analysis of third-party environmental and social certification initiatives. *Agriculture and Human Values*, **24**(2): 147-163.

Reinecke, J., Manning, S. and Von Hagen, O., 2012. The Emergence of a Standards Market: Multiplicity of Sustainability Standards in the Global Coffee Industry. *Organization Studies*, **33**(5-6): 791-814.

Renard, M.-C. and Loconto, A., 2013. Competing Logics in the Further Standardization of Fair Trade: ISEAL and the Símbolo de Pequeños Productores. *International Journal of Sociology of Agriculture & Food*, **20**(1).

Ruf, F., N'Dao, Y. and Lemeilleur, S., 2013. Certification du cacao, stratégie à hauts risques. *Inter-reseaux* (http://www.inter-reseaux.org/IMG/pdf/Certification_du_cacao_Ruf_juin2013.pdf).

Tallontire, A., Nelson, V., Dixon, J. and Benton, T.G., 2012. NRI Working Paper Series on Sustainability Standards No. 2 September, 2012.

Van der Akker, J., 2009. Convergence entre les Systèmes Participatifs de Garantie et les Systèmes de Contrôle Interne dans un projet pilote européen d'IFOAM. *Innovations Agronomiques*, **4**: 441-446.

Vogl, C.R., Kilcher, L. and Schmidt, H., 2005. Are standards and regulations of organic farming moving away from small farmers' knowledge? *Journal of Sustainable Agriculture*, **26**(1): 5-26.

Vorley, B. and Fox, T., 2004. Global Food Chains—Constraints and Opportunities for Smallholders, OECD, Agriculture and Pro-Poor Growth Task Team Helsinki workshop.