Taking stock of the current research on the impacts of voluntary sustainability standards (with particular emphasis on the agri-food sector)¹

Based on a 4-part literature review series published by the International Trade Centre (ITC)

February 2013
**Introduction**

The rapid expansion of voluntary sustainability standards (VSS)\textsuperscript{ii} is having a significant impact on developing countries, including through the emerging role of VSS in supply-chain-management and their possible contribution to important policy issues, such as (a) internalization of environmental and social costs; (b) promotion of sustainable production and consumption methods, including opportunities for energy/material/resource efficiency and related cost savings; and (c) sustainable competitiveness in growing and lucrative markets with many job- and income-generating opportunities. At the same time, certain aspects of VSS content or processes may constrain trade. Developing country producers and exporters have expressed concerns particularly regarding the stringency of requirements demanding considerable know-how, skills, equipment and/or investments, potentially creating market entry barriers.

Against this background, VSS have the potential to generate distinct economic and social development opportunities and can help to mitigate economic, food, water, and environmental risks in developing countries. However, key developing country decision-makers frequently express concerns about VSS, including the lack of credible information about the impacts and costs/benefits of VSS; compliance costs; the lack of transparency in developing VSS content requirements; design of VSS by importing and retailing companies with limited input from producers and the marginalization of small-scale producers. In addition, the lack of harmonization and equivalence across similar VSS often requires compliance with multiple VSS for a single product.

While the main role of VSS historically has been to connect sustainable farm level activities to export markets with consumers demanding "sustainable" products in long, often fragmented supply chains, VSS are gaining importance in developing countries’ domestic markets, too. This has two main reasons: the growing importance of supermarkets and more conscious local consumers. Firstly, supermarkets in developing countries started developing their own VSS, or demanding compliance with international VSS. Both lead to more stringent requirements demanded from suppliers.\textsuperscript{iii} Secondly, there is a strong development towards local consumers becoming more conscious about the way the products they purchase have been grown, processed and transported.\textsuperscript{iv}

Generally, the research about the impacts of VSS focuses on a few VSS, products and countries, usually in response to project evaluation needs.\textsuperscript{v} The most common methodology used is case studies, often conducted by the VSS themselves. While they provide rich qualitative information about the complexity of the impacts of VSS, they do not provide much empirical evidence based on comparative analyses and generally do not allow for the identification of correlation between the variables. There is also a focus on the production side of the value chain. Overall, a systematic evaluation of value chain impacts across VSS and products providing quantitative, statistically valid data is lacking.

However, the research does provide some qualitatively rich findings, which are summarized in this paper according to four areas.

1. The impacts of VSS on global supply chains;
2. The impacts of VSS on producers and exporters;
3. The interplay of regulation and VSS;
4. When do VSS work?

These areas have been selected according to their relevance to policymakers in developing countries and their prevalence in research. The following provides a short outline of the research findings related to each of these areas.

1. The impacts of VSS on global supply chains

Traditionally VSS in agriculture primarily covered technical functions such as reducing transaction costs and easing coordination and communication between chain actors. Today, the purpose of VSS also includes strategic dimensions of product differentiation, market penetration and brand complementation.

Many authors describe VSS as instruments to facilitate supply chain management and governance, particularly when it comes to managing arm’s length relationships in often fragmented chains, resulting from globalization and specialization. Beyond this, VSS impact value chains in many other, often unintended ways. This applies to changes in chain structure and participating actors, mechanisms for standard implementation and monitoring, and effects from mainstreaming strategies.\textsuperscript{vi} For example, the rise of VSS in export supply chains and the demand for consistently high volumes and good quality produce has led to more vertically integrated value chains. This is also the result of complex and stringent VSS that require close monitoring throughout the chain.\textsuperscript{vii} Hence, VSS might be an instrument for supply chain management, but when implemented their actual effects are broader.

The question of whether VSS are a tool allowing buyers to manage interactions with producers without building relationships or getting involved with them (‘hands-off governance’), also seems to depend on the way VSS are understood and used by buyers, often the most powerful actors in the supply chain. For example, VSS might enhance the dialogue between trading partners leading to stronger coordination and increased exchange of information on quality consistency, reliability of supply and managerial skills.

Beyond the concrete aspects of better relationships, trainings, improved credibility, access to credit and as risk-management and avoidance tools other less tangible facets have been associated with VSS. These include increased levels of empowerment\textsuperscript{viii} amongst producers and increased organizational capabilities of specific groups, such as women.

While VSS may generate alternative value chains, their impact in conventional chains seems rather limited and researchers question whether mainstreaming strategies do change governance patterns in global value chains\textsuperscript{ix}. Generally, where the use of VSS at producer level has been strongly fostered without providing additional technical and financial support to the producer or flanking policies, VSS’ objectives of altering the distribution of power and revenues in value chains is rarely achieved.

Positive impacts have been particularly found where dominant chain actors promote and share the values promoted by VSS. These impacts can be summarized according to the following areas:
VSS can provide upgrading opportunities for producers

The involvement in activities further down the value chain, e.g. through product conversion, processing or packaging has been described in the literature as an opportunity for firms to improve their position in a chain or as a sheer necessity to not be excluded from business. Anecdotal evidence shows that VSS might facilitate or even demand upgrading by producers/exporters. Effects were found to be twofold:

i. vertical integration puts additional demands on producers and exporters, and requires organizational and financial strength or support from other actors (inside or outside the chain), and

ii. vertical integration enables producers to carry out value-added activities that can be captured and increase their revenues. Adding value to the product may allow producers to sell products at higher prices and to diversify their range of product offerings.

The limitation in evidence might be due to the fact that upgrading opportunities largely depend on other aspects of the value chain, such as its structure, barriers to entry (disadvantages for new competitors entering the market), access to finance, income distribution and chain governance. VSS impacts on upgrading opportunities are rarely found to be researched in isolation.

Role of VSS and small producer participation in value chains is contested

The nature of requirements set by VSS has been changing from performance-type criteria (characteristics of the product at a certain point in the agrifood chain) to process and production related criteria (defining the way in which a product is made). The question whether these developments led to the exclusion of small farmers and increased barriers to entry, or whether VSS actually contributed to small producers’ participation in global value chains is contested in the literature.

The majority of authors agree that stringent quality and safety compliance requirements limit small farmer participation in global value chains. Also, sourcing from a large number of small farmers is more difficult for companies, for several reasons: (i) higher transaction costs for monitoring conformity, (ii) need for more intensive farm extension, and (iii) need for financial resources.

At the same time, vertical integration potentially benefits small producers by increasing income, productivity and product quality, providing guaranteed prices and sales, and improving access to capital. Nevertheless, in some cases vertical integration has been found to lead to the exclusion of small farmers. This resulted in a shift from smallholder contract-based production towards large vertically integrated production controlled by food processing and trading companies. Nevertheless, Ponte concludes that a ‘general shakeout of African smallholders does not seem to have taken place’ despite large processors and exporters gaining market share.

Research has shown that assistance programmes can provide farmers with the necessary capabilities to reduce transaction costs when using VSS. In labour intensive production with small economies of scale, small farmers might also have cost advantages.
VSS increase costs and revenues, with disparate distribution along the value chain

Research on cost and revenue distribution is relatively comprehensive and outlines that (i) compliance with VSS increases cost and revenues along the value chain, (ii) additional costs and revenues are mostly distributed unevenly along the value chain to the benefit of the retailer, and (iii) value chain structures and governance play a significant role in how costs and revenues are distributed. Nevertheless, results need to be considered cautiously as none of the studies reviewed represents a complete cost-benefit analysis. Consequently, no conclusion can be drawn as to the actual net income of value chain actors derived from VSS compliance. Likewise, statements on the appropriation of the premium by the retailers need to take into consideration that logistics, inventory and the marketing costs of stock keeping units (SKU – a unique identifier for each product and service sold by a company) can be considerably higher for reduced volumes of these products. Therefore, a direct comparison is not possible. However a program called the Committee On Sustainability Assessment (COSA) has created an internationally accepted and comparative indicator set to measure the costs, benefits and impacts of implementing a VSS at the producer level (www.thecosa.org). The resulting data should provide some interesting insight in actual costs and benefits and will be publically available on the International Trade Centre’s database on standards, Trade for Sustainable Development (T4SD) http://www.standardismap.org/

2. The impacts of VSS on producers and exporters

Most VSS include requirements that pertain to social and environmental conditions on the producer/farm or factory levels with few including value chain requirements. In most cases producers and/or factory workers are the primary target group as VSS aim to improve living and/or working conditions as well as positively impacting producers’ surrounding communities, or the wider environment. Findings on the impacts of VSS can be summarized as follows:

Producers tend to be better off financially when participating in VSS

Overall, the direct impact of participating in VSS in terms of price received and profits made by producers was found to be moderately positive among the research reviewed\textsuperscript{viii}. Most of the positive reviews regard higher prices as the main factor influencing an increased net income for producers. This was found to be the case in sectors such as organic cocoa in tropical Africa, organic bananas in Peru and smallholder coffee in Uganda.

However, this was not a consistent conclusion. A number of studies found mixed evidence on the net income for producers and some research indicated a negative impact on net income for producers.\textsuperscript{xviii} This was the case where the increased earnings did not compensate for the additional costs and increased labour involved in complying with VSS’ provisions. For example, organic certification often resulted in cost-savings due to improved resource and input management, however, those savings were often offset by lower yields.\textsuperscript{xix} The actual impact of VSS is not always entirely considered when donors or non-governmental organizations (NGOs) subsidize costs, including certification costs. Lastly, there is a concern that increased supply of certified products may create increased competition to find buyers interested in sustainable products. Oversupply may lead to
certified products being traded without being distinguished from non-certified products, resulting in diminishing or eliminated premiums.

Financial viability of certification is an important topic and needs to be further understood, as farmers living at subsistence level and barely covering their costs of production are already in a difficult (high-risk) situation and unable to make additional investments with uncertain payoffs.

Although some explicit goals of VSS include improving the situation of disadvantaged producers, several researchers point out the opposite may actually often be the case, with VSS actually favouring the ‘better off’ rather than those ‘needing it the most’. For example, a FAO literature review found that there were positive correlations between initial assets, farm size and certification status that suggest self-selection bias in VSS participation. These studies point to the asymmetric conditions producers face when deciding whether to participate in VSS, depending on the relative level of ‘preparedness’ to face the conditions imposed by such VSS.

**Business-related positive effects can outweigh direct financial impact of VSS**

In much of the reviewed research, other business conditions for producers were significantly enhanced, possibly outweighing direct and immediate monetary benefits. These business conditions include: better relationships with buyers, guaranteed sales for certified produce, empowerment, increased credibility or self-assurance and enhanced quality and increased yields. These changes at producer/exporter level were identified in multiple cases in the research. In addition, when technical support and training as well as increased access to credit are provided, they have important positive effects of the participation of producers in VSS.

**Closer relationships between buyers and sellers lead to better results for producers and exporters**

Stable and close relationships between buyers and sellers appear to be a factor influencing the chances of success in the implementation of VSS. Nevertheless, the strengthening of buyer-seller relationships is not an assured by-product of the implementation of VSS. Rather; it appears that it demands a purposeful approach, intentions and processes beyond what is needed to implement the VSS. When this did happen, however, such strengthened relationship was generally linked to positive outcomes, both for the producer and for the buyer. For smallholder farmers, stable and close buyer-seller relationships are sought through the organization of smallholders into larger groups; either in the form of smallholder led cooperatives or organized out-grower schemes (also known as contract farming).

Supply chain structure is an important determinant of success of VSS. In chains characterized primarily by arms' length, short-term relationships, the effective implementation of VSS was difficult primarily because there were few incentives for companies to influence contractors and for suppliers to take them seriously. Likewise, contractors and suppliers had little incentive to invest in VSS implementation since they lacked long-term buying commitments from sourcing companies. However, in cases where trading and/or contracting relationships were more long-term and established, fostering the adoption of principles and norms in suppliers and contractors showed more success. In well-
organized, ‘hierarchical’ value chains based on direct and long-term trading/contracting relationships, the implementation of VSS appeared to be the easiest.

Distinction is made between mission-driven, quality-driven and market-driven buyers according to the role they play in the value chain. Mission-driven buyers often, for example, exclusively sell Fairtrade products and promote alternative values in their business models. These buyers build close partnerships with suppliers. While the pattern of coordination might be characterized as ‘relational’ in nature, buyers do exert power particularly relating to quality demand. In quality-driven buyer-seller relationships buyers collaborate with producers aiming to reach and maintain a certain quality level of the product. This relationship is characterized by more direct and stable trading relations, income predictability and pre-financing. Market-driven buyers, on the other hand, pursue conventional business practices, promote competition among certified producers, and mainly see certification as a traceability enhancing tool. Certification in these cases allows for ‘hands off’ quality management from buyers and facilitates dictating conditions of production and processing for producers.

VSS are one tool in a broader set of voluntary and regulatory options

Linked to the previous conclusion, VSS that have strategies to address multiple areas such as technical support, training and pre-financing were consistently linked to positive results at the producer level. Ultimately, improvements in yield and in quality resulting from these trainings led, in some cases, to higher financial rewards than price premiums did. In forestry, a focus on environmental issues showed that there could be limited additional effects when comparing VSS to other effective local forest management practices. There were also strong similarities between VSS and regulation. For example, one study finds that the most valuable contribution of forestry VSS with regards to conservation has been filling the gap when governments were not willing and/or able to regulate. See Research Area 3.

A closer linkage with other development programmes as well as national regulations is thus important to generate broader positive impacts of VSS. This also raises the question of which role VSS should play in the course of other local and national initiatives in developing countries. Integrated initiatives of government and civil society could result in a higher impact on sustainable development - not least because VSS are often focused on singular objectives, i.e. specific sustainability issues. Assuring a holistic approach is therefore difficult.

3. The interplay of regulations and VSS

While the regulatory framework is set by governments or intergovernmental bodies, dynamic interdependencies between VSS and regulation are growing. Regulation increasingly includes principles and provisions developed by VSS and VSS require compliance with local laws and regulations, e.g. labour and environmental laws, and could follow international regulation guidelines. Research provides some good examples of this interplay, including:

- how governments engage with VSS and use them in legislation;
• how cooperation of the public and private domain facilitates the development of regulation which enhances global harmonization of good agricultural practices;
• how collaboration between institutions fosters harmonization of VSS;
• how VSS provide a baseline for compliance with regulation; and
• how regulation bodies play important roles in defining rules for the development of private and public VSS.

Yet, the challenges companies face in dealing with regulation and VSS illustrates that these examples remain isolated cases. Neither public nor private sector initiatives have yet been successful in reducing the number of VSS with which firms need to comply.

The question on how regulation and VSS interact constitutes relatively new research terrain. The main findings in this research include:

• The development of an efficient system of regulation and VSS is more advanced for food safety and quality standards as opposed to social and environmental VSS or other VSS with sustainability claims: in food safety and quality, public norms define the minimum requirements to be fulfilled and VSS establish the tools and processes to meet these requirements. It is particularly the HACCP standard system that allows identifying potential food safety hazards during the food production and preparation process. In combination with product traceability systems this allows for enforcement through inspection of production records rather than finished product inspection.

• Private sector coalitions developed collective standards: due to high transaction costs for establishing their own standard in supply chains, firms reacted by creating coalitions (national and international) for the development of collective standards, such as the Global Food Safety Initiative (GFSI), Global GAP, or the British Retail Consortium (BRC). This has a number of advantages: firms can (i) potentially create competitive advantages; (ii) jointly pursue common interests on a non-competitive platform; and (iii) reduce compliance, monitoring and auditing costs on both, supplier and buyer side. This leads to more harmonized VSS.

• Potential gains to be realized from more harmonized VSS are considerable: studies show that agreed upon international standards increase trade and exports, both having positive welfare impacts. For example, harmonized VSS would make trade more efficient as exporters could comply with globally accepted VSS instead of complying with different VSS for each target market or buyer. These gains could be leveraged if governments assure a balance between efficiency and equity related objectives of VSS.

• Legitimacy of VSS perceived by stakeholders is essential for acceptance and use of VSS: the increasing number of VSS and the increasingly important role these play in ensuring food safety, food quality and social and environmentally friendly production conditions, inevitably leads to the discussion about the legitimacy of VSS and the question of what makes a legitimate standard. This is particularly relevant when discussing overlaps in VSS and regulation and in cases where VSS assume de facto regulative functions. For example, if a VSS is not perceived as legitimate by policymakers, it will surely not be incorporated in public regulation. Yet, many governments already refer to VSS in their procurement policies recognizing their importance. For instance, the position of the MSC certification for wild-capture fisheries
was strengthened after FAO developed the guidelines for fisheries and labeling following government’s mandate.xxvi

• **What makes a legitimate standard?** There are different approaches to determine the legitimacy of VSS. Henson and Humphreyxxvi propose an independent set of indicators: extent to which the VSS-setting process is transparent; influence of agri-food value chain stakeholders on the VSS-setting process; extent to which developing country interests are taken into account in the VSS-setting process; speed of the VSS-setting process and responsiveness to the demand for new or revised VSS; VSS harmonization. Another key concern surrounding the legitimacy of VSS is whether they are ‘science-based’, questioning if voluntary food safety standards do in fact provide appreciably higher levels of protection against food safety hazards than those under the purview of the SPS Agreement.

• **Governments are important stakeholders influencing the legitimacy of VSS:** the legitimacy of VSS can depend on the course of action taken by a government. Legitimacy may be conceded indirectly to the VSS where governments decide to (i) support training activities for companies to enable compliance with a standard, (ii) disseminate knowledge about the use or value of VSS or (iii) encourage suppliers to get certified to a standard by providing financial incentives and technical assistance. Granting legitimacy can be done with varying degrees according to the specific role played by public authorities. For example, public authorities acknowledge a standard’s legitimacy more directly by (i) certifying their own operations against a standard, (ii) explicitly requiring products purchased or imported to be certified or (iii) incorporating this standard in statutes, regulations, permits or international agreements.

The multitude of VSS creates inefficiencies in the trading system as a whole. Numerous and often stringent VSS might discourage producers from exporting in the first place. Inefficiencies occur when market participants need to comply with several VSS resulting in duplication of compliance and administration costs. Initiatives, such as the ISEAL Alliance, the FAO/IFOAM/UNCTAD International Task Force on Harmonization and Equivalence in Organic Agriculture and its follow-up project on enhancing Global Organic Market Access (GOMA), or the Sustainable Commodity Assistance Network (SCAN) work towards the harmonization of VSS and their more efficient and effective implementation.xxvi Some of their important outputs include (i) the production of guidelines for developing consensus, (ii) creating enhanced relationships, trust, and understanding among stakeholders, a fundamental issue for future convergence, and (iii) cooperating and collaborating on the content and implementation of related technical assistance.

Harmonization is important both between regulations and VSS as well as among VSS themselves. Companies have to comply with both, regulation and VSS and the amount and stringency of both are steadily increasing. This makes compliance to these VSS a costly endeavor in terms of human, financial and technical resources.
4. When do VSS work?

It is important to understand under which circumstances the application of VSS are effective tools to foster sustainable development. The underlying question is in which situation does compliance with a certain standard (or several VSS) benefit all supply chain actors? And if these groups would not benefit from implementing a standard, which factors enhance positive impacts and how could support be provided to make VSS work for improving sustainable production and fostering sustainable development?

The research reviewed supports a set of ten initial findings:

- VSS have the potential to result in positive effects and lead to positive impacts both at the producer and at the supply chain level.
- The effects of VSS need to be analysed in a broader system encompassing context conditions, instruments and mechanisms.
- Adoption of VSS tends to be favoured in contexts where (i) the type of product has high requirements regarding traceability, (ii) in extractive businesses, (iii) where commodities are identifiable in end-products, or (iv) where there are shorter supply chains with fewer actors.
- VSS tend to be more viable in contexts with higher levels of producer and institutional preparedness. The institutional preparedness is often linked to public or donor support for services and national food control systems.
- VSS need to be recognized as ‘legitimate’ by their stakeholders, both, in terms of the degree of inclusiveness and transparency of the standard setting process, and the effectiveness of the standard setting initiative and its enforcement mechanisms.
- Successful implementation of VSS requires a balance between global scope and adaptation to local conditions.
- The implementation of VSS is enhanced when clear and visible incentives by value chain actors for their adoption exist, at least in the short term.
- The role of the buyer is critical in determining the effects for producers, with positive impacts often being associated with mission-driven buyers. These buyers build close partnerships with suppliers, provide pre-finance opportunities and exert power mostly related to quality demands.

The review of the evidence gathered so far points to VSS having the potential to contribute positively to the economic and social well-being of producers and environmental conditions in developing countries. However, a broader question arises when reviewing the research. Is this enough? Can voluntary sustainability standard systems make a significant contribution in key issues such as helping farmers out of poverty, in reversing deforestation or improving climate-change mitigation and adaptation?

Overall, research needs to take more systemic views of VSS. Most of the research looks at VSS in isolation and in specific contexts, making it hard to extend conclusions beyond their specific circumstances.

The United Nations Forum on Sustainability Standards (UNFSS) was created as a response to the outlined rapidly evolving markets and trends. The objective of UNFSS is to facilitate and

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strengthen the effective and active participation by developing countries in the international dialogue on VSS. This dialogue will inform key decision-makers in governments, the private sector and civil society in developing countries about the strategic significance and key policy requirements of VSS. The dialogue will also help the decision-makers formulate strategies that address the potential negative impacts of VSS while maximizing the sustainable development benefits that VSS can offer.

The UNFSS, with guidance by five UN Agencies, and the expertise of its members, is uniquely positioned to improve understanding of VSS impacts and opportunities in developing countries in an efficient, consistent, inclusive, and demand-driven manner. It will provide credible information and assist in giving developing countries a voice in the dialogue on standard-setting and governance.

The ITC paper series can be accessed at:

http://www.standardsmap.org/publications-list-en/
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The term VSS also includes the entire conformity assessment system related to a standard. VSS are often termed private standards (e.g. by the WTO). Private standards and certification schemes are developed by a range of different non-governmental entities such as businesses, not-for-profit organizations, companies or initiatives involving multiple stakeholders. However, VSS can also be created by public entities and remain voluntary (e.g., Organic standards). It is the adoption of VSS by governments that makes them mandatory, rather than who creates them.

Hatanaka, Maki, Carmen Bain and Lawrence Busch. Third-party certification in the global agrifood system, Food Policy, 30, 2005.


he term mainstreaming strategies refers to, for example, Fairtrade certified products that were formerly only sold by alternative trade organizations (ATOs; exclusively selling certified products) but that can now be carried by all kinds of traders, wholesalers and retailers.


Empowerment refers to a process of enabling or authorizing an individual or group to think, behave, take action, and control work and decision making in autonomous ways.


Vertical integration is defined as several steps in the production, processing and distribution of a product controlled by one company.

VSS include performance-type criteria and production and process related criteria or a combination thereof. Although there is a trend towards using production and process related criteria, many VSS still combine performance and production/process criteria. Nevertheless, production and process related criteria should build the basis of any effective impact assessment and Monitoring and Evaluation system.


HACCP is a food safety management system and stands for hazard analysis critical control point. HACCP addresses physical, chemical and biological hazards and is used in the food industry to identify potential food safety hazards.


For more details please refer to the UNFSS flyer and the website: http://unfss.org