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## Voluntary standards: impacting smallholders' market participation

Allison Marie Loconto

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# Voluntary Standards for Sustainable Food Systems: Challenges and Opportunities

A Workshop of the FAO/UNEP Programme on Sustainable Food Systems



# **Voluntary Standards for Sustainable Food Systems: Challenges and Opportunities**

A Workshop of the FAO/UNEP  
Programme on Sustainable Food Systems

11–12 June 2013

FAO headquarters, Rome

Edited by

**Alexandre Meybeck  
and  
Suzanne Redfern**

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS  
UNITED NATIONS ENVIRONMENT PROGRAMME

Rome, 2014

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# Acknowledgements

The joint FAO/UNEP Workshop on Voluntary Standards for Sustainable Food Systems: Challenges and Opportunities was organized by the Sustainable Food Systems Programme and held on 10–11 June 2013 at FAO headquarters in Rome, Italy.

We would like to extend our special thanks to all the participants for their contributions and papers. Our appreciation is also expressed to the organizers of this Workshop – Fanny Demassieux, James Lomax, Alexandre Meybeck, Suzanne Redfern, Pilar Santacoloma, Allison Loconto, Irene Hoffmann, Sandro Dernini and Maryam Rezaei. Particular thanks are extended to Ren Wang, FAO Assistant Director-General. In addition, we are grateful to the Swiss Federal Office of Agriculture for their generous support in the preparation of this document.

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# Agenda

The FAO/UNEP joint programme is catalysing partnerships among United Nations agencies, other international agencies, governments, industry and civil society whose activities, together, can promote the necessary transition to sustainability.

An Agri-food Task Force (ATF) on Sustainable Consumption and Production (SCP) has been established, comprised of representatives of Member States, United Nations agencies, the private sector and civil society, and clusters of activities are being designed in response to stakeholders' stated needs. In order to provide the members of the ATF with information for preparing the work of the various activity clusters, the FAO-UNEP Programme is organizing workshops on various technical issues.

As a topic in relation with all the activity clusters, a first workshop on voluntary standards for sustainability (VSS) will be organized on 10–11 June 2013 (one day and half), in the Iran room, at FAO headquarters, Rome. The aim of the workshop is to examine various types of standards and labels and to build upon lessons learned from concrete examples to identify issues and challenges to be addressed, discuss their potential contribution to improve sustainability of food systems, and propose measures in order to improve their effectiveness.

The workshop will try to answer five crucial questions that could facilitate the uptake and scaling-up of VSS: (1) how to make them work for farmers and small food producers; (2) how can VSS be used to enable green trade opportunities, particularly in agri-food products not currently using VSS; (3) how to make them work for consumers globally; (4) how to make it work for the private sector; and (5) what is the role for public actors.

## **Monday, 10 June 2013**

- 09.30 – 10.00    Opening remarks  
FAO: Ren Wang, Assistant Director-General, Agriculture and Consumer Protection Department  
UNEP: Fanny Demassieux, Resource Efficiency Subprogramme Coordinator & Head, Responsible Consumption Unit, Division of Technology, Industry and Economics, United Nations Environment Programme
- 10.00 – 11.30    SESSION 1: OVERVIEW OF VSS  
Chair: Roberto Azofeifa, , Director of Sustainable Agriculture Department, Extension Head Office, Ministry of Agriculture and Livestock, Costa Rica
- What are voluntary sustainability standards?
  - Definitions and meanings, diversity of standards
  - Targets and contribution to sustainable consumption and production



- Comparison and assessments of voluntary sustainability standards through examples from partner projects
- 10.00 – 10.15 Nexus between private and public food standards: main issues and perspectives (Pilar Santacoloma, FAO, Rural Infrastructure and Agro-Industries Division)
- 10.15 – 10.30 Objectives and challenges of the UN forum on sustainability standards (UNFSS) (Frank Grothaus, UNCTAD, on behalf of UNFSS)
- 10.30 – 10.45 Lessons from the past and the emergence of international guidelines on sustainability assessment of food and agriculture systems (Nadia El-Hage Scialabba, FAO, Department of Natural Resources)
- 10.45 – 11.00 Coffee break
- 11.00 – 11.15 Common metrics of sustainable food systems: issues and current developments in the livestock sector (Pierre Gerber, FAO, Livestock Information, Sector Analysis and Policy Branch)
- 11.15 – 11.45 Questions and Answers
- 11.45 – 13.00 **SESSION 2: LESSONS FROM THE FIELD: PROJECTS RELATED TO FOOD VOLUNTARY STANDARDS**  
Chair: Li Xiande, Chinese Academy of Agricultural Sciences, Institute of Agricultural Economics and Development
- Success stories, challenges and areas needing specific actions that should be undertaken at various levels
- 11.45 – 12.15 Lessons learned from field projects on voluntary standards (Pilar Santacoloma, Allison Loconto, Nadia Scialabba, Carmen Bullon, Emilie Vandecandelaere, Cora Dankers and Anne Sophie Poisot, FAO).
- 12.15 – 12.30 Stories behind quality labels around the Mediterranean countries (Annarita Antonelli, International Centre for Advanced Mediterranean Agronomic Studies, CIHEAM-IAMB)
- 12.30 – 13.00 Questions and Answers
- 13.00 – 14.30 Lunch
- 14.30 – 15.30 **SESSION 3: HOW TO MAKE SUSTAINABILITY STANDARDS WORK FOR FARMERS AND SMALL FOOD PRODUCERS**  
Chair: Sávio Jose Barros de Mendonça, Director for Production Systems and Sustainability, Ministry of Agriculture, Brazil
- How to make voluntary standards inclusive and efficient (ensuring social and economic sustainability) for smallholders? What is needed to facilitate the implementation of these tools, especially how to make them accessible to farmers and small-scale food producers, including possibilities to facilitate mutual recognition of schemes?
- 14.30 – 14.45 Voluntary standards: impacting smallholders' market participation (Allison Loconto, FAO, Agribusiness Economist, Rural Infrastructure and Agro-Industries Division).

- 14.45 – 15.00 Geographical indications as a tool for sustainable food systems: importance of territorial approach (Emilie Vandecandelaere, FAO, Economic and Social Development Department. Food Safety Unit)
- 15.00 – 15.30 Questions and Answers
- 15.30 – 17.15 **SESSION 4: WHAT INTEREST AND ROLE FOR THE PRIVATE SECTOR**  
Chair: Sávio Jose Barros de Mendonça, , Director for Production Systems and Sustainability, Ministry of Agriculture, Brazil
- What are the incentives for the private sector stakeholders to come on board. Examples of use of these tools by private sector or initiatives by private sector to optimise their use
- 15.30 – 15.45 FAO's vision on how to engage the private sector (Annamaria Pastore, FAO, Office of Communications, Partnership and Advocacy).
- 15.45 – 16.00 Development and use of FAO guidelines of eco labelling of fish and aquaculture certification (Iddya Karunasagar, FAO, Products, Trade and Marketing Service)
- 16.00 – 16.15 Survey on (private) voluntary standards in the livestock sector (Irene Hoffmann, FAO, Animal Genetic Resources Branch)
- 16.15 – 16.30 Coffee break
- 16.30 – 16.45 Sustainable nutrition and consumer communication (Anne Roulin, Nestlé)
- 16.45 – 17.15 Questions and Answers
- 17.15 – 18.15 **SESSION 5: WHAT INTEREST AND ROLE FOR THE PRIVATE SECTOR**  
Chair: Krishna Kumar Singh, Indian Council of Agricultural Research (ICAR), Department of Agricultural Research and Education, India
- How to ensure the provision of reliable and valuable information to consumers in relation to the voluntary standards?
  - How to increase consumers' awareness and trust in voluntary standards and labels to foster more sustainable food consumption patterns?
- 17.15 – 17.30 PDOs' role in reassuring consumers: the "Parmigiano Reggiano Terremotato" (PR-T) case (Corrado Finardi, Coldiretti).
- 17.30 – 17.45 Voluntary standards and ecolabels as information tools for consumers (Alexandre Meybeck, FAO, Agriculture and Consumer Protection Department)
- 17.45 – 18.15 Questions and Answers

**Tuesday, 11 June 2013**

- 9.30 – 10.45      **SESSION 6: WHAT IS THE ROLE OF NATIONAL AND INTERNATIONAL PUBLIC ACTORS?**  
 Chair: Unati Speirs, Director: Agro-Processing, Department of Trade & Industry, South Africa
- Which role public (international and national) actors can potentially play in improving governance (two main of its principles transparency and participation) in the standards setting process
  - What can public actors do to improve impacts of voluntary standards? The enabling conditions necessary to allow voluntary sustainability standards to work and to facilitate stakeholders's engagement
- 9.30 – 9.45      How can voluntary sustainability standards play a role in South–South food commodity supply chains? The case of the rice sector (James Lomax, UNEP).
- 9.45 – 10.00      Ongoing experiences in Costa Rica: the Ecological Blue Flag Program (Roberto Azofeifa, Ministry of Agriculture, Costa Rica)
- 10.00 – 10.15      Sustainable public procurement and sustainability standards: challenges and strategies (Norma Tregurtha, ISEAL)
- 10.15 – 10.30      Roles of public actors in the voluntary standards (Dominique Barjolle, Research Institute of Organic Agriculture FiBL and Emilie Vandecandelaere, FAO)
- 10.30 – 10.45      Questions and Answers
- 10.45 – 11.00      Coffee break
- 11.00 – 12.30      Discussions on priority actions for sustainable food systems  
 Chair: Erizal Jamal
- 12.30 – 12.45      Conclusions

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# Summary report and main conclusions

The sessions of the workshop considered voluntary standards from points of views in order to better understand and address the needs of the various stakeholders in order to facilitate the uptake and scaling up of voluntary standards for sustainable food systems. This approach is grounded on the idea that for voluntary standards to work for sustainability they have to work for all stakeholders.

The first session considered an overview of voluntary sustainability standards. Presentations stressed the multiplication of schemes, the growing importance of the private sector as a standard setter, increasing linkages between the private and public sectors and the need for more coordination including at international level. They also showed the need for an integrated holistic assessment of sustainability, including its three dimensions and backed up by strong evidence-based analysis, agreed upon by all stakeholders. The discussion focused on the standards adoption process and the need to involve all stakeholder and particularly smallholders. It also questioned certification procedures and ways to reduce costs, including by facilitating mutual recognition and self-certification. It finally recognized the need to better understand drivers of adoption and to assess the various impacts of the standards.

The second session was devoted to analyses of lessons learned from projects related to the implementation of voluntary standards. The session enabled to identify critical points for success with a focus on implementation and adoption of the standard by farmers. Identification of market opportunities is a crucial preliminary step. It should include local markets, often more easily accessible. Farmers capacity to engage in the process is key at every stage, from the initial design to implementation. It is facilitated by the existence of organisation of farmers and by appropriate training and capacity building. A bottom up approach, with a dialogue involving local stakeholders is essential as well as adaptation to local contexts. The discussion stressed the need to have a long term approach and to clearly identify support needs, which could include specific incentives. It was also mentioned that in some cases there is a need to include a food cost accounting analysis as a means to move forward and show that some actions and practices which could be perceived as costly, in the short run, also generate long term benefits, including for instance reduction of environmental impact and employment generation.

The third session considered relations between voluntary standards and smallholders. A literature review of the impact of voluntary standards on smallholders' ability to participate to markets found that most empirical evidence is limited to the analysis of mainly three standards GlobalGAP, fair trade and organic. Most studies focus on two commodities: coffee and horticulture products. While there is an acceptable range of geographic cover, the majority of studies focus on a handful of countries: Mexico, Kenya, Peru, Costa Rica and Uganda. The results can be summarized as follows: first, equitable and sustainable supply chain linkages, increased access to assets and support for cooperative development

are incentives for complying with standards. Second, both public and private actors have comparative advantages for supporting voluntary standards and are most effective when combined. Finally, governments can provide services, for example infrastructure and proper legislation, that facilitate the inclusion of smallholders in certified value chains. The example of geographical indications shows how a strong involvement of producers and especially smallholders can enhance positive impacts and adoption. The discussion stressed that benefits of voluntary standards for smallholders are very much context dependant and that price effects are only part of them. Direct benefits of the implementation of the practices themselves have to be factored in. It also emphasized the need to involve producers in standard setting to have it fit their needs and capacities. A key question is then to have these national standards recognised by export markets. The contribution of geographical indications to sustainability was extensively discussed. There is no doubt that they are voluntary standards. Strictly speaking they do not present themselves as sustainability standards but generally encompass elements that are meant to preserve natural resources. Moreover, they explicitly involve producers in their design and implantation, which contributes to social and economic sustainability.

The fourth session was devoted to the interest and role of the private sector. It looked at the various incentives that encourage private sector stakeholders to participate and provided examples of the tools available. Session Four started with a presentation on UN Global compact on how to engage private sector. The presentations provided information with regard to the certification guidelines for the fish and aquaculture sector; they discussed surveys that have been conducted within the private sector on available standards in the livestock sector; and Nestle's tools on sustainable nutrition and consumer communication (RISE and ECODEX and QR code) and also provided detailed information with regard to databases that are available to try, by working together with suppliers, to share practices in sustainability and to ensure that the activity of long-term supply of agricultural materials is safe, quality tested and complies with rules and regulations. The discussion stressed the need to devise information tools which are adapted to the various stakeholders. For example how could the tools being designed by the European roundtable be used in other contexts. Interventions highlighted in particular the need to adapt the information given to consumers to enable them to use it.

The fifth session focused on the role of voluntary standards as information tools for consumers. It considered the drivers of consumer choices. Schemes focused on very diverse issues are opening choices for concerned consumers. But the multiplication of standards along with ambiguous information about them can be confusing. Therefore there is a need to provide reliable and usable information on standards and labels themselves to build trust and enable consumers to make effective choices. The discussion stressed the need to avoid multiplication of schemes and facilitate their convergence. It was mentioned that some retailers are creating their own sustainability labels. This could transform some schemes from business to consumer types of communication to business to business, retailers assuming the communication to consumers.

The sixth session considered the role of public actors in the design and implementation of voluntary standards for sustainability. Public actors can play a crucial role to provide an

enabling legal framework, convene stakeholders to initiate action, and provide support and incentives. Interventions highlighted the importance of a participatory approach supported by adequate capacity building. Public procurement can play a decisive role, directly as a form of incentive and also indirectly to recognize and promote specific schemes. The discussion mentioned the need to consider also other tools and incentives than voluntary standards. It emphasized the importance of policy congruence and public/private dialogue and approaches.

### **MAIN CONCLUSIONS:**

The various sessions of the workshop considered voluntary standards for sustainability from different points of view. They enabled the identification of some major points:

- There is a multiplication of voluntary standards in the food sector. This multiplicity can be a source of additional costs and barriers to trade. It calls for greater coordination, including mutual recognition. Public actors, national and international, have a role to play to facilitate such coordination.
- Most of the voluntary standards labelled as “sustainability standards” include only some aspects of sustainability. There is a need to assess food chains more holistically. There is also a need to better understand and assess impacts of a specific voluntary standard in a specific context. The implementation of a specific voluntary standard has often other impacts, both positive and negative, than the one it is explicitly aiming for.
- In particular voluntary standards do not always provide positive economic and social impacts for smallholders. First of all it is not always the best tool to be used. It depends on products and contexts and requires analysis beforehand including the identification of potential markets. Their implementation then requires an enabling legal framework, capacity building and appropriate adapted support. A crucial element is the involvement of producers in the very design and implementation of the scheme. Key to it is organization of producers and smallholders, including women.
- Voluntary standards are key tools to share information with consumers in order to enable them to drive production by their choices. Their effectiveness depends on better understanding the drivers of consumers’ choices and on providing consumers with clear information both through the schemes and about the schemes. It also very much depends on business models that are product and context specific.

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# Voluntary standards: impacting smallholders' market participation

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FAO Rural Infrastructure and Agro-industries Division*

## **ABSTRACT**

This paper presents the results of a literature review conducted by FAO in 2012 on the impact of voluntary standards on smallholders' ability to participate in markets (FAO, 2013). The study found that the empirical evidence is limited to the analysis of mainly three standards: GlobalGAP, Fairtrade and organic. Moreover, most studies focus on two commodities: coffee and horticulture products. While there is a decent range of geographic cover, the majority of studies focus on a handful of countries: Mexico, Kenya, Peru, Costa Rica and Uganda. This study adopts an impacts pathway model to organize and analyse the trends found in the empirical evidence. The results can be summarized as follows: first, equitable and sustainable supply chain linkages, increased access to assets, and support for cooperative development are incentives for complying with standards. Second, both public and private actors have comparative advantages for supporting voluntary standards and are most effective when combined. Finally, governments can provide services, for example infrastructure and proper legislation, which facilitate the inclusion of smallholders in certified value chains. The study concludes by making policy recommendations on how the public sector can mediate the effects of voluntary standards.

## **INTRODUCTION**

Since the 1980s, there has been a growing consumer demand for food and other agricultural products that possess specific characteristics linked to composition, origin, production method or terms of trade. This has led to the emergence of numerous voluntary standards, labels and regulations associated with such products, which impact domestic and international markets. The rapid expansion of the use of voluntary standards in international trade is often linked to the effects of globalization whereby the increased control of supermarkets over global value chains is coupled with food safety scares and consumer interest in social and environmental sustainability (Santacoloma, 2014). While the market for certified products is still only a small fraction of international trade in agri-food products (estimated at no more

Voluntary standards are rules, guidelines or characteristics about a product or a process. They are not mandatory regulations, but are used voluntarily by producers, processors, retailers and consumers.

These voluntary standards are usually developed by private sector actors (e.g. firms or consortiums), representative of civil society, or public sector agencies.

than 10 percent), these certified value chains are increasingly relying upon smallholder agriculture in developing countries.

Smallholder agriculture is considered to be the largest provider of food and raw materials at a global level and it is also the first source of employment in rural areas (HLPE, 2013). For some key export markets for certified products, smallholders are the predominant group of producers. For example, smallholders are responsible for more than 60 percent of certified tea production in Kenya (Kinyili, 2003) and around 70 percent of certified coffee worldwide is produced by smallholders (Potts, van der Meer and Daitchman, 2010). However, smallholders are often disadvantaged and rural poverty accounts for about 75 percent of world poverty (FAO, 2012). When market conditions are favourable, the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security (2013) found that smallholders can respond positively. These responses include innovation, organization for accessing new market opportunities, upgrading into processing activities and increasing their market power. All of these responses are ways to increase smallholder income, which in turn contributes to food security. As a result, understanding how voluntary standards impact the ability of smallholders to participate in markets can shed light on how voluntary standards might contribute to FAO's mandate of achieving food security for all.

This paper presents the results of a literature review conducted by FAO in 2012, in response to a request from one of FAO's governing bodies, the Committee on Agriculture (COAG), on the impacts of voluntary standards on smallholders' ability to participate in markets. The objective of this paper is thus to summarize the main results of this study. The paper begins with information about the purpose and scope of the study. A brief description of the study including the data collection methods and analytical framework are presented. The results of the study are summarized according to four main themes found in the literature: (1) there are adoption determinants for achieving certification; (2) economies of scale and market linkages matter in determining which producers are able to participate in certified markets; (3) institutional support is key to enabling smallholders to participate in markets; and (4) there are increases both in the prices producers receive and the costs that they incur for certification. The paper concludes by presenting the main lessons learned through the study.

## **PURPOSE AND SCOPE OF THE STUDY**

The FAO Impacts study had two objectives: (1) to present an overview of the results of independent, empirical studies that have been undertaken to date; and (2) to identify the major gaps in the current literature and those areas that may be of interest for further research by FAO. The scope of the study was limited to the impacts of voluntary standards in the agricultural, fisheries and forestry sectors. The study was also limited to standards schemes in which compliance to the standard is determined through certification or another form of verification.

As with any literature review, the study has a number of limitations. First, it is limited to the availability of studies published by independent researchers in the public domain at the time of its writing. Second, biases that were present in the original studies are carried over



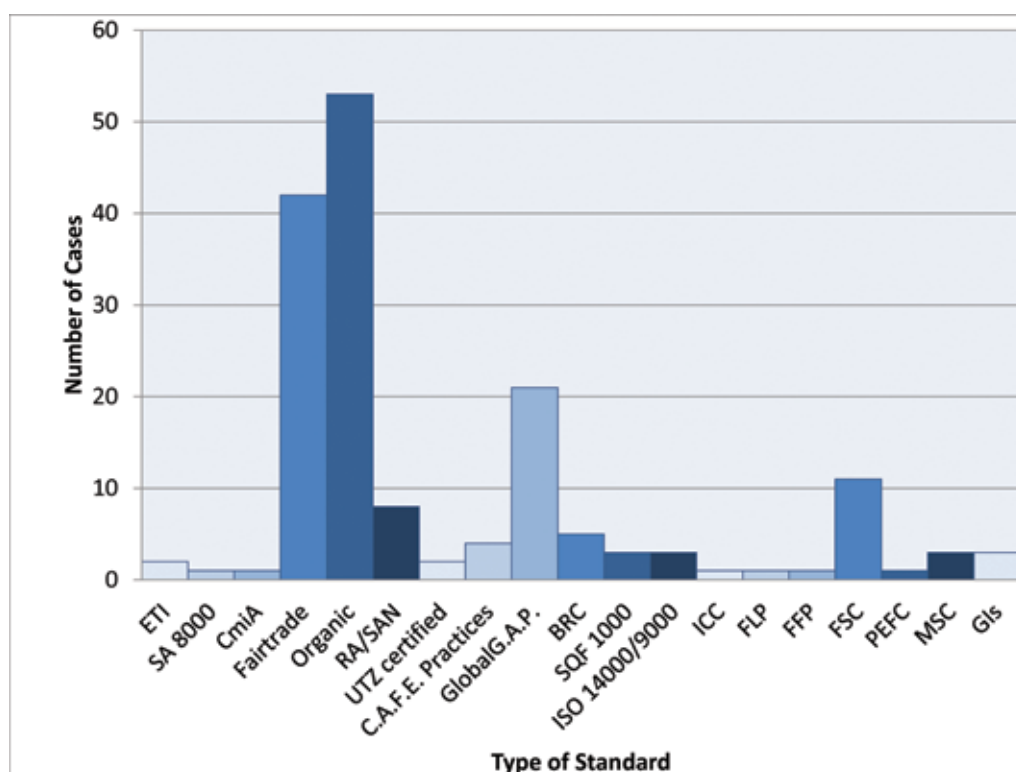
into the aggregate study, thus care should be taken in making broad generalizations from these results. Third, the practice of voluntary standards schemes is a fast-moving field where stakeholders are in constant dialogue and are regularly seeking to improve their systems. This means that both the standards and the systems put into place to implement them have changed significantly since the first study in our dataset was commissioned in 1993. The recent move towards multistakeholder initiatives means that more stakeholders are gaining a voice within the standards-setting processes and some of the problems encountered during implementation may be remedied over time. Nonetheless, the value of a literature review is its ability to expose the state of knowledge on how voluntary standards are affecting the market participation of smallholders and can point to future directions for both research and practice.

## STUDY DESCRIPTION

This study employed a systematic literature review method to produce both quantitative and qualitative descriptions of the knowledge base about voluntary standards in the agriculture, fisheries and forestry sectors in developing countries. The systematic review began with the bibliographies of ten recent literature reviews that were conducted by relevant agencies between 2003 and 2012 (seven of these ten were conducted between 2009 and 2011). Additional literature was included in the original dataset through a snowball sampling method of looking up references for appropriate articles, and by searching the Internet for more literature by specific authors. Applicable FAO publications were also included in the original dataset. Second, following the ITC's (2011) method, keyword searches were conducted in Science Direct's Scopus search and Web of Science to identify those articles published in 2011 and 2012 or missed in the other literature reviews. Third, the Web sites of the main donor agencies (including standards development organizations) that have been involved in technical assistance projects that include a certification component were searched for relevant project reports on these activities. Owing to difficulty in accessing internal evaluations and lack of detailed information for FAO project evaluations, the authors relied upon those project reports and evaluations that have been published in the public domain. These searches revealed additional publications of interest for the study and resulted in an initial corpus of documents totalling 340 documents.

The keywords and abstracts of these 340 documents were examined and the studies that were selected for inclusion in the evidence base met six criteria:

1. **Access:** full text access online from the publisher or through library bibliographic databases.
2. **Empirics:** focus on primary empirical data (*ex post* analysis) rather than *ex ante* simulation or theory-building discussions of secondary data.
3. **Sectoral focus:** agriculture, forestry, fisheries, and general (but not tourism, mining, textiles, or other industrial sectors)
4. **Impact level:** focus on production level or value chain impacts, rather than on consumer demand, policy or governance aspects of the certification system.
5. **Geographical focus:** developing countries or countries in transition
6. **No conflict of interest:** Researchers had to be independent from standards' organizations



**Figure 1: Number of cases analysed per voluntary standard**

Source: Author's elaboration.

Note: The total number of cases is 166; this represents the 123 discrete empirical cases where many of them analysed more than one standard repetition of studies that included more than one standard in their analysis.

Legend: ETI: Ethical Trading Initiative, SA 8000: Social Accountability, CmiA: Cotton made in Africa, RA/SAN: Rainforest Alliance/Sustainable Agriculture Network, C.A.F.E. Practices: Starbucks Coffee and Farmer Equity Practices, BRC: British Retail Consortium, SQF: Safe Quality Food, ISO: International Organization for Standardisation, ICC: International Code of Conduct for Cut Flowers, FLP: Flower Label Programme, FFP: Fair Flowers and Plants, FSC: Forest Stewardship Council, PEFC: Programme for the Endorsement of Forest Certification, MSC: Marine Stewardship Council, GI: Geographical Indications.

This resulted in a total of 138 studies. These studies were then read in their entirety and those that fully met the above six criteria, in addition to a specific focus on the research question for this study (i.e., impact of private standards on smallholder market participation) were selected. Those studies that repeated results from the same research samples were also eliminated to reduce double reporting totalling 101 studies<sup>1</sup> that make up the evidence base in this review.

The evidence base includes project reports, peer-reviewed journal articles and grey literature. To attribute change or differences in indicators (for example profitability) to the effect of the standard and certification, it is necessary to establish counterfactual evidence. Counterfactuals are evidence of what the indicator outcome would be if the farmer or chain would not have been certified (Blackman and Rivera, 2011). There are two ways to

<sup>1</sup> The number of individual cases reported is 123, as some papers recorded multiple cases with different outcomes. In an attempt to reduce confusion, these cases were separated out in the analysis.

gather counterfactual evidence: in an experimental research design or through statistical techniques that can control for such factors. There are surprisingly few studies that control for counterfactuals, only 30 cases in the evidence base. In recognition of these challenges to impact assessment, this study mobilizes both qualitative and quantitative studies in an attempt to get a broad overview of the evidence base. Therefore, in this study we attempt to capture the broad range of effects and outcomes that voluntary standards contribute to, rather than focusing purely on those that can be attributed to standards.

Literature was disaggregated according to the type of study and the methodological rigour, in order to get both a broad overview of the existing literature and to be able to give greater weight to the highly rigorous studies. It was found that much of the literature draws upon a core set of empirical studies that focus mainly on three standards (GlobalGAP, Fairtrade and organic). These studies have been concentrated in a few popular countries (Kenya, Mexico, Peru, Costa Rica and Uganda) and have emerged from key long-term development or donor-funded research projects, or they have been commissioned by interested NGOs. Thus, the focus of these research projects is closely tied to donor objectives. Only a small collection of research projects has focused on market participation by smallholders. The majority of the independent academic literature has focused on two areas that were not considered in this review: (1) environmental impacts that are not necessarily connected with the certification mechanism or (2) standards and certification as systems of governance.

## IMPACT PATHWAYS

When analysing the impact of voluntary standards and the related certification systems, it is important to highlight the main function of these schemes, as they represent far more than purely a written standard. Voluntary standards form a system that is used to define good practices and to ensure that both producers and consumers recognize and reward these practices (Figure 2). The system begins with a standard, which is a written document that contains criteria and indicators. It defines what needs to be done and often how to do it. There is usually some type of certification or control on producers and/or traders that consists of audits and tests. This is how we can know if things are being done properly.

These checks can be done by self-assessment, by a party to the market exchange, usually a buyer, or by an independent third party. Accreditation is an important aspect of these systems as it is an oversight mechanism to make sure that the certification system is working properly. In other words, effective accreditation of certifiers means that we can trust the results that certification provides. Both certification and accreditation are functions of the verification systems of standards. Finally, there is often a label. This label is a logo or a brand that communicates the key message of the standard to consumers. These components are organized in different ways in each of the standards systems currently in use. The use of particular combinations of components depends on the market in which the standard operates as well as the contexts of implementation and enforcement.

The analysis of the literature was based on a conceptual framework of an “impact pathway” where an impact can be analysed in terms of immediate results after certification (outputs), short-term outcomes and long-term impact (Figure 3). This framework illustrates that the impact of a standard will depend on the content of the standard, on the

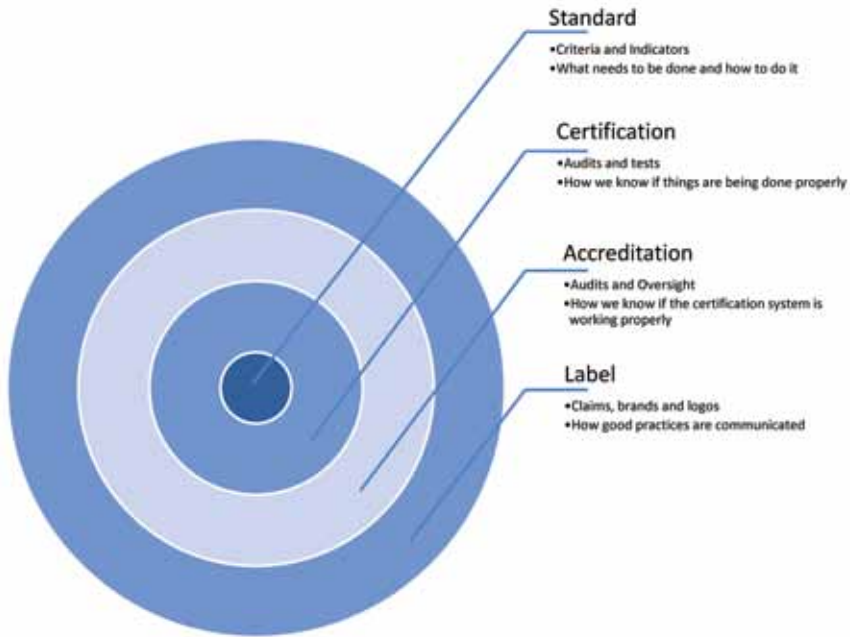


Figure 2: Voluntary standards systems  
Source: Author's elaboration.

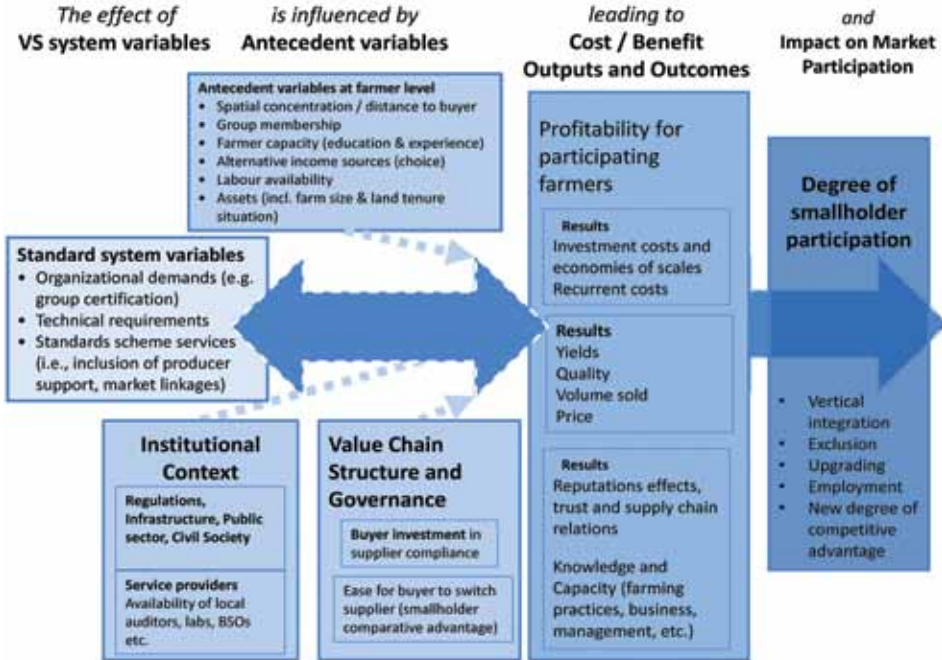


Figure 3: Proposed generic framework for analysis by FAO of the impact of voluntary standards on the participation of smallholders in the chain

Source: Author's elaboration, FAO (2013)

one hand the stringency of its technical requirements for production methods and product characteristics, and on the other hand the organizational demands of the verification system. Whether the standards system has inbuilt support services is also an important factor that influences the impact of the standard.

The impact of these characteristics of the standards system itself also depends on the situation in which the standard is implemented. For example, if a producer already uses production methods that conform to the technical requirements, these technical requirements will have no impact as such. However, some impact always results from the fact that the producer has to demonstrate compliance. *This framework also recognizes that market participation is an intermediary impact and not a development outcome per se. In other words, we are not suggesting that market participation is the same as economic development, sustainability or food security. Market participation is one step on the road to broader and longer-term impacts on development.*

One aspect that is not captured in Figure 3 is that the volume sold and the price received depends on various external factors, such as market demand for certified products and standards' trade rules, for example setting of minimum prices as well as on characteristics that are specific to the product such as quality or origin. Indeed, Figure 3 represents a heuristic tool for understanding impact rather than a normative framework for assigning causal impact. The presentation of the results in the next section follows this framework.

## RESULTS

Four sets of variables were identified as being important in understanding the impact of voluntary standards on smallholder market participation. One set of variables is the adoption determinants, i.e. factors at farmer level such as farm size, household wealth, household size, education or experience, off-farm activities and distance to an urban centre or market that influence whether farmers adopt the standard. A second set was found at the farming system level, and the study reviewed indicators of economies of scale, group membership and institutional contexts. Third, profitability outcomes were identified in studies that collected data on variables that affect profits such as price, yields, quality, knowledge or capacity building, reputation effects, production and compliance costs. Finally, the way in which voluntary standards can condition smallholder market participation was examined according to the following aspects: vertical integration, smallholder upgrading, rural employment and small farmer and exporter exclusion. These sets of variables are discussed in the following subsections according to the following themes: adoption determinants, value-chain integration and economies of scale, existing institutions and profitability.

### **There are adoption determinants**

The number of studies that examined impact based on an attribution of farmer level determinants is rather low, at only 23 percent of the evidence base (28 out of 123 cases). Nineteen studies tested the relationship between farm size and impacts; 18 of these were empirical studies, the majority of which were of medium or high rigour, and one was a journal article based on a project report (Asfaw, Mithöfer and Waibel, 2010). Even fewer studies tested for the other variables: 9 for household wealth, 11 for household size, 16 for

education or experience, 8 for off-farm activities and 7 for distance to an urban centre or market. Due to the low number of studies and the diversity of methods used in the studies, conclusive generalizations cannot be drawn. However, the data do show some trends.

First, farm size is often positively correlated with certification. This finding was not conclusive for the Fairtrade cases; however those studies that examined Organic, Rainforest Alliance, C.A.F.E. Practices, GlobalGAP, BRC and ISO standards did find a correlation (e.g. Aloui and Kenny, 2004; Arnould, Plastina and Ball 2009; Asfaw, Mithöfer and Waibel, 2010; Bain, 2010; Barham *et al.*, 2011; Gibbon, Lin and Jones, 2009; Maertens and Swinnen, 2009; Philpott *et al.*, 2007; Raynolds, Murray and Leigh Taylor, 2004; Roy and Thorat, 2008; Ruben, Fort and Zúñiga-Arias, 2009; Ruben and Zuniga, 2011; Setboonsarng, Leung and Cai, 2006; Vagneron and Roquigny, 2011). Second, a majority of the studies that investigated initial wealth and assets of farmers found that these were positively correlated with certification. This consistent correlation between assets, farm size and adoption hints at the importance of the capacity of farmers to make the initial investments required for certification (Beuchelt and Zeller, 2011). Some of the studies noted that this was more pronounced for early adopters (Eyhorn, Mäder and Ramakrishnan, 2005), in line with innovation adoption theory that early adopters are already in a position (in terms of assets) that enables them to take more risks. However, early adoption can also be influenced by other factors, such as economies of scale reached through smallholder collective action, such as occurred with the early adopters of organic and Fairtrade standards in Mexican coffee, cocoa and sesame production (Gómez Tovar *et al.*, 2005). *In sum, there does seem to be evidence of a tendency for self-selection in these systems as those farmers and exporters who have the means to make the initial investments, for example greater assets at farm level, are the first to join.* These studies also suggest that the ability of exporters and farmers to meet requirements set by voluntary standards largely depends on enhanced capabilities, meaning their abilities to implement the good practices outlined in the standards.

### **Economies of scale facilitate value chain integration**

The way in which smallholders are integrated into certified value chains is very important for determining how and when smallholders will participate in certified markets. The importance of farm size and farmer capacity as adoption determinants suggests that economies of scale are often required for access to certified markets. Indeed, out of the eleven studies (two project reports and nine empirical studies) that made reference to economies of scale, all of these studies found economies of scale to be important for smallholder access to certification. *Economies of scale can reduce the compliance costs for smallholders in two ways, first by spreading the costs among a number of smallholders reducing individual upfront investment, or by inducing processes of consolidation and concentration as larger producers have greater access to resources that can assist in meeting compliance costs* (Cubbage *et al.*, 2009; de Battisti, McGregor and Graffham, 2009; Dolan and Humphrey, 2000; Henson and Humphrey, 2009; Maertens and Swinnen, 2009; Mausch *et al.*, 2009 ; Melo and Wolf, 2007; Santacoloma and Casey, 2011). Beyond individual accumulation of land and assets, there are two main organizational models through which smallholder farmers can achieve economies of scale and gain access to certification.

The first is through a cooperative or other type of farmer organization that manages an internal control system and pays for the certification. Such groups may sell to an exporter or export directly. This was found to be true in 51 cases and moreover there were no studies that covered smallholders who were not organized into a group (e.g. Bacon, 2005; Bass *et al.*, 2001; Utting-chamorro, 2005; Valkila and Nygren, 2009). In some standards (e.g. Fairtrade and some GIs) smallholder participation in a producer organization is compulsory for inclusion in the standards' scheme. The second model is an outgrower scheme in a contract farming arrangement, with the buyer (or trader) organizing the internal control system and paying for the certification (e.g. Asfaw, Mithöfer and Waibel, 2010; OECD, 2007; Okello and Swinton, 2007; Okello, Narrod and Roy, 2007). These schemes are often used to achieve consistent quality and supply from non-organized smallholders in value chains (FAO, 2005). As such, the impact of voluntary standards thus partly overlaps with the impact of these organizational arrangements. However, effects of these organizational forms cannot always be attributed to voluntary standards as product characteristics and other aspects may also favour cooperatives or contract farming arrangements (Loconto and Simbua, 2012; Maertens and Swinnen, 2009).

In sum, membership in a group is *de facto* mandatory for smallholder participation in certified markets. More rigorous studies found a more nuanced picture of group membership, often picking up on some of the difficulties that were sometimes found in the collaboration requirements of Fairtrade. Those that were noted were administrative failures (Sáenz-Segura and Zúñiga-Arias, 2008), particularly regarding the negative correlation between the size of the cooperative and price, which may be linked to problems of oversupply and the difficulties of cooperatives to sell higher proportions of their products on certified markets (Barham and Weber, 2012). Nonetheless, voluntary standards organizational requirements do have a direct effect on the way smallholders can participate in certified value chains, excluding ad-hoc sales to exporters and other uncoordinated trade relationships. *Indeed, the consensus in the literature is that although these standards are considered market-driven, due to consumer preference, corporate buyers and supply-chain captains are the drivers of the expansion of both production and consumption, as well as the gatekeepers for inclusion in certified value chains* (Gibbon and Ponte, 2005; Manning *et al.*, 2012).

### **Existing institutions are important**

The relationship between value-chain organization, farm-level adoption determinants and standards systems are mediated by institutional contexts and intermediaries at the national level, at the international level and at the local level. Half of the studies in this review made some mention of the institutional context. Recent literature has emphasized the importance of institutional contexts within which voluntary standards are used (e.g. Barham and Weber, 2012; Henson, Masakure and Cranfield, 2011). This is important in order to understand how standards interact with pre-existing norms of production and trade. This recognition also suggests that there are many more variables involved in determining impact than those often taken into consideration in impact studies, thus making attribution more difficult.

National or project specific subsidies were the most often cited instance of institutional infrastructural support. Donor-funded projects provided significant support to help

smallholders make the initial compliance investments (Asfaw, Mithöfer and Waibel, 2010; Damiani, 2003; de Battisti, Mcgregor and Graffham, 2009; FAO, 2009a; Giovannucci, 2005; Naqvi and Echeverría, 2010; Ramm *et al.*, 2008). However, for projects linked with GlobalGAP and Organic it is also noted that once the projects phased out, smallholders also became decertified. This was allegedly due to the recurring compliance costs and uncertainty of price premiums (de Battisti, Mcgregor and Graffham, 2009; Van Elzakker and Leijdens, 2000). National subsidies programmes were also shown to be beneficial in helping farmers reallocate resources towards investments in voluntary standards. For example, Barham *et al.* (2011) found that government subsidies in Mexico, led by Progreso/Oportunidades, matched net coffee income levels for the average household. A similar situation was found by another study also in Mexico (Calo and Wise, 2005).

National intermediaries may also play an important role in standard adoption. For example, the Vietnamese Coffee and Cocoa Association (Vicofa) became a founding member of the 4C Association after having participated in a number of public private partnership projects with the German Organization for Technical Cooperation (GTZ), the Neumann Group, Sara Lee, Kraft and other partners (Manning *et al.*, 2012). Today, Vicofa plays an important role in implementing the 4C standard in Viet Nam. Similarly, the National Federation of Coffee Growers of Colombia plays an important role in standard adoption in Colombia (Grieg-Gran, 2005). Henson, Masakure and Cranfield (2011) analysed GlobalGAP adoption determinants of fresh produce exporting firms in ten African countries. Significant effects were found for internal capacity (i.e. firms that had experienced problems meeting other market exigencies were less likely to be certified), for technical and/or financial assistance and for the size of the horticultural sector in the country. Espach (2005) illustrates that supply-side factors such as industry characteristics, public policies and the institutional culture of firms significantly influence programme implementation. Ruben and Zuniga (2011) also illustrate that structural factors influence smallholders' choice of standards system to join and the likelihood that they will find a market outlet for their products.

*Put simply, even when constraints that are internal to the producer/farm, such as human/physical capital and finance necessary to comply with voluntary standards, can be relaxed, numerous constraints external to the producer/farm may remain.* These include the general public infrastructure and services at the macro and sector level, such as transportation and telecommunications systems, energy supplies and testing facilities among others. To the extent these are limiting producers'/exporters' effective capacity to meet commercial export demands they are also impeding market access. These may be particularly binding constraints for small and medium producers, who cannot use their private resources to overcome these systemic constraints (OECD, 2007). This attests to the key role of support services and infrastructure available in the country where smallholders operate. This type of research is only beginning to be conducted, and more of it is needed if we are to understand when and how the institutional context can work in favour of smallholder producers.

### **Do smallholders profit from certification?**

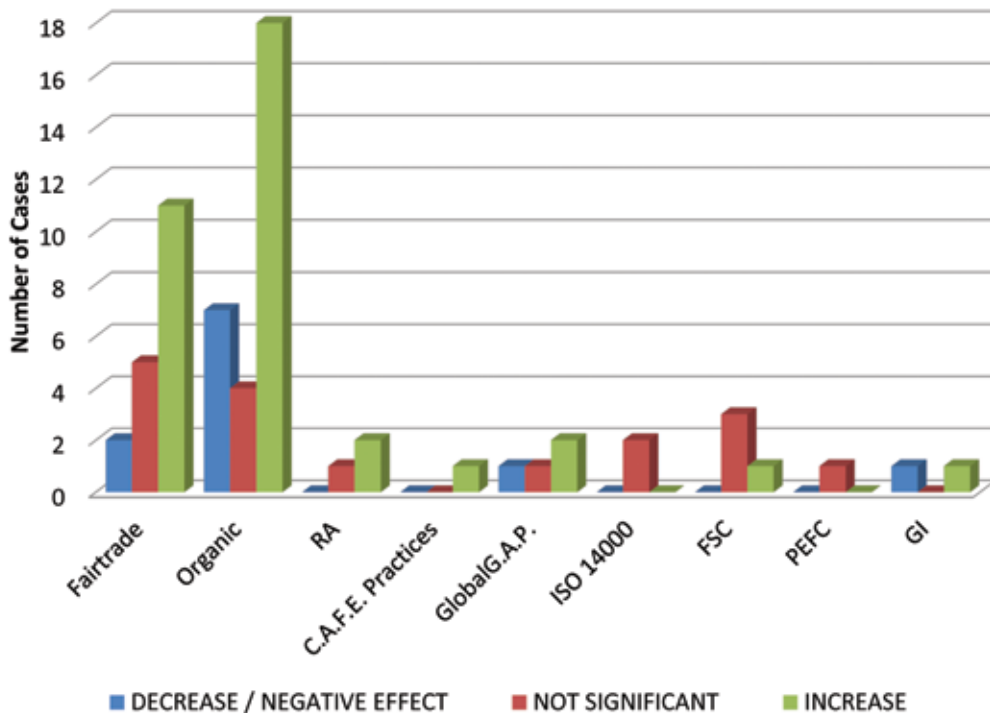
The evidence base includes 50 papers that noted profits, 85 that reported price outcomes, 50 that looked at yields, 15 were related to quality, 28 noted knowledge or capacity



building, 11 reported reputation effects, 35 mentioned compliance costs while 49 reported on production costs. Overall, the literature shows increases in all of these indicators. In other words, increases in profitability as well as increases in costs as a general trend. However, there was significant variation in data collection and analysis techniques as well as reporting on these indicators. Not a single study reported on all of these indicators, rather, two to three indicators were usually tested together for significance in relation to voluntary standards (e.g. price, yield and costs; price, costs, profitability). Given the poor quality of the data, the study reported specific profitability results only from the 29 highly rigorous studies.

The results shown in Figure 4 related to profitability look better for some standards (e.g. organic, Fairtrade, C.A.F.E. Practices and Rainforest Alliance) than they do for others (e.g. GlobalGAP, ISO 14000, Forest Stewardship Council, the Programme for the Endorsement of Forest Certification and Geographical Indications). This does not mean that this last group of standards was found to be unprofitable, just that the evidence is both limited and inconclusive for smallholders in developing countries.

One of the reasons why it is difficult to determine whether or not these standards are profitable is because a number of factors combine to influence profitability, such as price, yields, product quality, costs, management practices, trade relationships and reputation. We have more information about the effects of standards on these individual aspects than



**Figure 4: Profitability of voluntary standards**

Source: Author's elaboration, FAO (2013).

on profitability overall. For example, farmers did see an increase in the prices they received for their product, particularly for organic and fair trade (e.g. Bolwig, Gibbon and Jones, 2009; Ruben, Fort and Zúñiga-Arias, 2009; Setboonsarng *et al.*, 2008). At the same time, the costs that producers incurred to participate in standards also increased or did not change with the introduction of the certification (e.g. Daviron and Ponte, 2005; Henson, Masakure and Cranfield, 2011). Production costs were seen to increase more than compliance costs (e.g. Barham *et al.*, 2011; Santacoloma and Casey, 2011), but the caveat is that many of the producers included in the studies did not pay for certification fees as these were covered by some sort of subsidy, project or by a trader who paid the fees. This fee was frequently calculated into the price that farmers received, which meant that many of the increases (or no change) in prices reported by farmers includes the fees that were paid for certification. It was actually the costs. It is also important to point out that particularly in the case of Fairtrade, C.A.F.E. Practices, Organic and Rainforest Alliance, the higher profits came from increases in yields rather than directly from the increases in prices (e.g. Barham *et al.*, 2011; FAO, 2009b; Lyngbæk, Muschler and Sinclair, 2001; Ruben and Zuniga, 2011; Valkila, 2009). Finally, a handful of studies commented on the positive effects that standards had on market reputation and management capacity for both better farm management and business management (Bass *et al.*, 2001; Daviron and Ponte 2005; de Lima *et al.*, 2008; Raynolds, Murray and Leigh Taylor, 2004; Ruben and Zuniga, 2011; Sáenz-Segura and Zúñiga-Arias, 2008).

## CONCLUSIONS

Although this study found and explored a rather large number of studies on the impact of standards on smallholder market participation, much of the literature draws upon a core set of empirical studies that have focused mainly on three standards (GlobalGAP, Fairtrade and Organic). Many of these studies have been concentrated/consolidated in a few countries (Kenya, Mexico, Peru, Costa Rica and Uganda). This is because many of the studies emerged from significant through key long-term development or donor-funded research projects, or have been commissioned by interested NGOs. This closely ties research results to donor objectives and thus the evidence collected about market participation by smallholders has been the focus of only a small collection of research projects. In other words, the existing literature does not provide an adequate representation of the influence of standards. This limits the current knowledge base and the ability to draw conclusive generalizations.

Moreover, the impact of voluntary standards is very context specific. The inconsistencies in standards systems and the geographic, institutional and value-chain differences of each product that is produced demonstrate that explains the way in which standards influence on smallholder market participation is extremely context-specific. *Thus it is very difficult to draw general conclusions about the exclusionary or inclusionary nature of a particular standard. However, it is clear that smallholders need to be organized to be able to participate in certified value chains. The evidence suggests that equitable and sustainable supply chain linkages (meaning medium- to long-term commitments from buyers), increased access to assets and support for cooperative development act as incentives that enable smallholders to comply with standards.*

Finally, governments can provide services that make participation easier. Contrary to earlier studies, recent empirical studies and comprehensive literature reviews have recognized that there is indeed a role for the public sector in voluntary standards. There has been a shift in the literature from referring to voluntary standards as purely private mechanisms to a recognition of synergies and hybrid models of governance that include voluntary standards in relation to public institutions. In sum, *both public and private actors have comparative advantages for supporting voluntary standards and are most effective when combined.*

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The FAO/UNEP joint programme is catalysing partnerships among United Nations agencies, other international agencies, governments, industry and civil society to promote activities that can contribute to sustainable food systems.

Voluntary standards are increasingly being presented as a tool to foster sustainable consumption and production. They are very often seen as the solution, the tool to make consumption and production more sustainable. They can deliver positive economic, environmental or social impacts, but they can also present challenges, particularly for small-scale producers.

The FAO/UNEP programme organized, in June 2013, a workshop on “Voluntary Standards for Sustainable Food Systems: Challenges and Opportunities”. The various sessions of the workshop considered issues that could address the needs of the various stakeholders in order to facilitate the uptake and scaling up of voluntary standards for sustainable food systems. This publication is a compilation of the papers presented at the workshop, and the workshop summary.

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