The State of Sustainability Initiatives Review 2010:

SUSTAINABILITY AND TRANSPARENCY

The State of Sustainability Initiatives Review 2010: Sustainability and Transparency

A Joint Initiative of IISD, IIED, Aidenvironment, UNCTAD and ENTWINED

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The State of Sustainability Initiatives (SSI) project is facilitated by the Sustainable Commodity Initiative (SCI) and has been directly managed by Aidenvironment, the International Institute for Environment and Development (IIED), the International Institute for Sustainable Development (IISD) and the United Nations Conference on Trade and Development (UNCTAD). The SSI project is motivated by recognition of the need for improved information exchange among stakeholders in voluntary sustainability initiatives (VSIs) and among VSIs themselves. The objective of the SSI project is to stimulate regular reporting on the state of play across VSIs. The SSI Review offers a framework for understanding the characteristics and market trends for select sustainability initiatives and standards operating in global markets. As such, it is hoped that the Review can serve as a valuable tool for learning and strategic decision-making between the private sector and the sustainability initiatives themselves.

Sustainably yours,
The SSI management team

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SSI State of Sustainability Initiatives

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entwined

Foreword

Seventeen years ago, forced to reckon with impending social and environmental breakdown, the global community came together over the course of the Rio Earth Summit to sign the Rio Principles and launch Agenda 21. From that moment onward, the concept of sustainable development, that is to say, the imperative of "meeting the needs of the present without sacrificing those of the future," has become a call to action not only for politicians but for citizens and businesses alike.

In the wake of the Rio Earth Summit, supply chain decision-makers and economic actors have learned not only of their growing common responsibility, but also of their growing capacity to act "together" through individual choice. This is, of course, the spirit that has inspired the popularity and growth of the myriad of voluntary labels, standards and other market-based sustainability initiatives such as Fairtrade, Organics, Forest Stewardship Council, the Global Compact and the Global Reporting Initiative, to name but a few.

One of the core promises of these market-based approaches is their ability to generate new markets and investment for sustainable practice by allowing decision-makers to explicitly support sustainable supply chains through improved information. And although there can be no doubt that the growth of such initiatives has definitively improved our capacity to act according to our conscience, the multiplication of "opportunities" to save the world has also given rise to a new information burden—that of determining which, when and where a particular initiative is more suitable than another—or perhaps simply that of determining what one initiative means in the face of another.

In the absence of a common language for understanding what the multitude of different sustainability initiatives might actually mean to any one of us, the very promise that such initiatives are meant to bring is undermined. This report provides a starting point for building such a common language, a common language based on integrity, transparency and shared understandings—a common language for our common future.

Jason Potts, November 2010

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Acronyms

4C	4C Association (formerly the Common Code for the Coffee Community Association)
COSA	Committee on Sustainability Assessment
CoC	Chain of Custody
CSR	Corporate and Social Responsibility
ENTWINED	Environment and Trade in a World of Interdependence
ESG	Environmental, Social and Corporate Governance
ETP	Ethical Tea Partnership
FAO	Food and Agriculture Organization of the United Nations
FLO	Fairtrade Labelling Organizations International
FOB	Free On Board
FSC	Forest Stewardship Council
GRI	Global Reporting Initiative
IFOAM	International Federation of Organic Agriculture Movements (aka "Organic")
IIED	International Institute for Environment and Development
IISD	International Institute for Sustainable Development
ILO	International Labour Organization
ISEAL	International Social and Environmental Accreditation and Labelling Alliance
ISO	International Organization for Standardization
ITC	International Trade Centre
MSC	Marine Stewardship Council
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PEFC	Programme for the Endorsement of Forest Certification
RA	Rainforest Alliance
RSPO	Roundtable on Sustainable Palm Oil
RTRS	Roundtable on Responsible Soy
SA8000	Social Accountability International standard
SAI	Social Accountability International
SAN	Sustainable Agriculture Network
SCI	Sustainable Commodity Initiative
SFI	Sustainable Forestry Initiative
SFL	Sustainable Food Laboratory
SSI	State of Sustainability Initiatives
T4SD	Trade for Sustainable Development (Project of the ITC)
UNCTAD	United Nations Conference on Trade and Development
VSI	Voluntary Sustainability Initiative
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization

Executive Summary

As the number and market share of voluntary sustainability standards and initiatives grow, there is also a growing need among stakeholders to better understand how the different initiatives are designed and implemented. The SSI Review 2010 provides an overview of the system characteristics and market trends regarding ten of the most mature voluntary sustainability initiatives (VSIs) in the forestry, coffee, tea, cocoa and banana sectors.

System Trends

The Review, which takes an in-depth look at each initiative's conformity assessment and traceability systems, governance, public disclosure and content criteria, reveals that initiatives are succeeding in opening decision-making along global supply chains to non-traditional stakeholders, as well as strengthening supply chain management, with

- 70 per cent of the initiatives surveyed being member-based organizations;
- non-governmental organizations (NGOs) remaining a dominant force at the board level of the ten initiatives surveyed and industry taking a minority representation at the board level in almost all of the initiatives surveyed; and
- significant developing country representation at the board level across a large majority of the initiatives.

Conformity assessment procedures across different initiatives are showing signs of convergence around accepted "best practice," with

- 70 per cent of the initiatives reporting compliance with ISO 65 or application of an independent accreditation system;
- almost all of the initiatives surveyed applying an annual audit process to ensure compliance with specified criteria, although there is considerable diversity in the degree of flexibility with which such processes are implemented; and
- 70 per cent of the initiatives surveyed managing a separate Chain of Custody standard and a majority of initiatives applying some form of segregation of compliant products to allow for traceability.

The depth of information available online varies immensely by organization. As a general rule, there is a high level of consistency toward providing online access to board members and annual reports, while almost none of the initiatives reported providing online access to complaints, dispute resolution and/or board minutes.

Although budgets of the initiatives varied greatly, with the largest budget in 2008 being 19 million euros and the smallest budget being 1.5 million euros, many of the initiatives surveyed rely on grants for 50 per cent or more of their annual revenues, suggesting challenges for financial stability and a potential need to revise current revenue models.

Criteria Scope and Depth

The criteria applied by different initiatives are in a period of rapid change and increasingly address multiple sustainable development issues explicitly. Although most initiatives are still differentiated by the distinct criteria they monitor and enforce, some general trends can be observed across the initiatives reviewed:

- Environmental criteria remain the most prevalent and robust across initiatives. Criteria related to energy conservation, GMO prohibitions and greenhouse gas management, however, tend to have less presence or emphasis across initiatives. Strong convergence exists on synthetic inputs criteria, with almost all initiatives either requiring integrated pest management or compliance with a prohibited chemicals list.

- Social criteria revolve largely around International Labour Organization (ILO) conventions, with virtually all initiatives requiring compliance with core ILO conventions as well as most initiatives having strong criteria coverage of health and safety and employment conditions. The majority of the initiatives reviewed place less emphasis on gender, employment benefits, community involvement, and humane treatment of animals in their criteria.
- Economic criteria are the least developed across the initiatives surveyed, with the majority of initiatives reviewed having few or no economic criteria. Where economic criteria exist, the most common revolve around product quality requirements and minimum wage requirements. Requirements related to living wages, price premiums and written contracts are particularly rare.

Market Trends

Markets are growing rapidly across all VSIs, in all sectors reviewed, at rates far beyond the growth of markets for conventional products. The production of VSI compliant goods is now reaching significant levels of market penetration, accounting for over 10 per cent of global production across several of the sectors surveyed. Supply remains highly concentrated among a small number of countries, with the largest supply coming from more organized and developed markets. Specific sector highlights follow.

Forestry

- The land area covered by global sustainable forestry initiatives (FSC and PEFC) has grown by a total of 232 per cent over the past five years and, at 341,703,696 hectares, accounted for 18 per cent of global managed forests (nearly 9 per cent of global forested land) by the end of 2009.
- Boreal and temperate forests in the developed world make up the vast majority (93 per cent) of certified forest management area.

Coffee

- Over the past five years, sustainable coffee sales have grown by 433 per cent and, at 457,756 metric tons, accounted for 8 per cent of global exports in 2009.
- Global supply of sustainable coffee, however, is still significantly higher than demand, with supply reaching 1,243,257 metric tons, or 17 per cent of global production.
- A total of 75 per cent of all sustainable coffee comes from Latin America, as compared to approximately 59 per cent for conventional global production.
- Reported premiums for sustainable coffees for 2009 ranged from US$0.025 to US$0.405 per pound, with most premiums falling in the US$.05 to US$.10 per pound range.

Tea

- Over the past five years, sustainable tea production has grown by 2,000 per cent and, at 281,105 metric tons, accounted for approximately 7.7 per cent of global tea production for export.
- Africa is the dominant supplier of sustainable tea for export (70 per cent) but only accounts for 32 per cent of tea for conventional export markets.
- Price premiums reported for sustainable tea in 2008 ranged from US$0.17–1.59 per kilogram.

Cocoa

- Over the past five years, sustainable cocoa sales have grown by 248 per cent and, at 3,480,565 metric tons, accounted for 1.2 per cent of global sales by 2009.
- Latin America and Africa are the predominant suppliers of certified cocoa, accounting for approximately 48 per cent and 51 per cent of total production, respectively, while 70 per cent of conventional cocoa on the global market is produced in Africa.
- Premiums reported for sustainable cocoa in 2009 ranged from US$67–292 per metric ton.

Bananas

- From 2007 to 2009, sustainable banana sales have grown by 63 per cent and, at 3,480,565 metric tons, accounted for approximately 20 per cent of world exports by 2009.
- Latin America is the largest supplier of conventional bananas (72 per cent) but accounts for 97 per cent of sustainable banana production.
- Premiums reported in 2007 ranged from US$1.00–$9.47 per box.

Sustainability and Transparency

Transparency improves what we know about markets and the institutions that drive them. Improved access to information helps everyone in the market better understand the implications of their investments and dealings within the market. In enhancing the ability of the market to communicate, transparency can promote market efficiency, social welfare and cost-internalization, all core principles of sustainable development.

VSIs have played an active role in building the transparency of international supply chains by collecting and verifying information related to production and trading practices at various stages of production. And while VSIs have excelled in providing information about the institutions and supply chains they monitor, they have spent much less attention on providing information regarding their own operations and impacts. A number of new conditions, ranging from growing market shares to growing multiplicity, to growing sensitivity among regulatory agencies regarding marketing claims made to consumers, are leading to a paradigm shift, with a growing number of initiatives reporting on a growing range of indicators.

As market conditions lead to increased measurement and reporting, it is also becoming increasingly important to ensure the comparability and accessibility of information coming from different sources. One of the greatest areas of need, and opportunity, in the short term relates to the facilitation of common data gathering and reporting systems on the market trends and impacts of different initiatives.

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1 | Introduction

1.1 | Background to the State of Sustainability Initiatives Project and This Report

The State of Sustainability Initiatives (SSI) project is an outcome of a series of multi-stakeholder meetings on sustainable commodities production and trade facilitated by the United Nations Conference on Trade and Development (UNCTAD) and the International Institute for Sustainable Development (IISD) between 2003 and 2006 under the auspices of the Sustainable Commodity Initiative (SCI). Through a series of meetings and consultations, the SCI sought to identify key constraints to mainstream supply and demand for sustainable commodities. Time and time again stakeholders pointed toward the growing complexity and diversity of sustainable markets and the initiatives operating in such markets. Information on the characteristics, requirements, performance and market trends associated with these different initiatives was repeatedly identified as a *prerequisite* to further investment within the sector.

Building on the request for improved information on the impacts and opportunities associated with voluntary sustainability initiatives (VSIs), the SCI, through a special partnership with the International Institute for Environment and Development (IIED) and Aidenvironment, launched the SSI project in 2008, with the objective of providing a framework and resources for regular reporting on the characteristics and vital statistics of VSIs, as well as the market and supply chain trends across the sector. By gathering and regularly updating information on the core indicators, the SSI project hopes to facilitate transparency, efficiency and learning within the VSI sector.

In order to ensure that the information gathered under the SSI project would be meaningful to the drivers of international supply chains, the project began with the formation of a high-level advisory panel. The members of the advisory panel were selected based on ensuring representativeness across the private, public and non-governmental (NGO) sectors, as well as across the domains of operation (either by products or sustainability themes). The resulting 20-plus member advisory panel represents remarkable depth and breadth of knowledge and viewpoints related to international supply chains and sustainability. Critically, the SSI Advisory Panel provides a well-placed weathervane on the needs of the private, public and NGO sectors with respect to VSIs and, as such, has played in invaluable role in ensuring the SSI project's relevance and usefulness.

1.2 | Scope, Audience and Structure of the Current Report

For the purposes of this report, we consider a VSI to be any non-obligatory initiative explicitly designed to promote the objectives of sustainable development, including sustainability standards, certification initiatives, eco-labelling programs, corporate social responsibility (CSR) programs, business-to-business initiatives, roundtables and other collaborative or multi-stakeholder initiatives. There are thousands of VSIs operating around the world and it would be impossible for the SSI Review to provide useful analysis on the complete range of VSIs currently in existence. Given the SSI project's interest in specifically enabling the capacity of markets to promote sustainability and its limited resources, a strategic decision was made to limit the SSI Review to covering (1) criteria-based initiatives with the potential to generate formal markets and (2) international initiatives with the potential for global reach. Examples of the kinds of initiatives that the SSI Review seeks to cover over the short to medium term include: roundtables and multi-stakeholder initiatives such as the Roundtable on Sustainable Palm Oil, Roundtable on Responsible Soy, Better Cotton Initiative, etc.; certification and labelling initiatives such as Fairtrade, Marine Stewardship Council, etc.; and multi-sector cross-cutting initiatives such as the Global Compact, ISO 26000, Global Reporting Initiative, etc.

The SSI Review is written for "supply chain decision-makers," including procurement agents, investment advisors, CEOs, policy-makers, sustainability initiatives and NGOs at each node of the supply chain who seek enhanced information on the characteristics, market trends and performance of VSIs in order to improve their own strategic decision-making. With this in mind, the report adopts the following structure:

> **Part I: SSI Comparative Analyses and Indexes:** A series of comparisons and indexes recording vital statistics of major global VSIs, developed and vetted by the SSI project's international Advisory Panel. Four broad dimensions of the structure and performance of sustainability initiatives have been identified to analyze their contributions to sustainable development: general scope and coverage, implementation and verification framework, participatory governance systems, and content requirements (social, environmental and supply

BOX 1.1

The State of Sustainability Initiatives project: What and why?

The State of Sustainability Initiatives (SSI) project is a joint initiative of Aidenvironment, IIED, IISD, ENTWINED and UNCTAD, facilitated by the Sustainable Commodity Initiative. The project is motivated by recognition of the fundamental relationship between commodity production and global sustainability, and the growing role of corporations and other voluntary private sector initiatives in attempting to ensure that global markets can and do promote sustainable development. But the SSI is also motivated by recognition that neither companies, supply chain initiatives, nor the markets that drive them can be expected to resolve all of the sustainability challenges raised by commodity production and trade on their own. By improving our understanding of the characteristics and market performance of voluntary standards and sustainability initiatives, the SSI project provides a basis not only for stimulating improvement in the design and implementation of these initiatives, but also in the design and implementation of public policy to complement them.

The SSI project seeks to enhance global understanding and learning on the role and potential of market-based VSIs such as eco-labels, sustainability standards and roundtables in the promotion of sustainable development by:

1. Providing a regular reporting service on major VSI events;
2. Facilitating thematic discussions on the relationship between VSIs and key sustainable development issues; and
3. Documenting the market trends and developments of the VSI sector through a regular series of "SSI Reviews," of which this Review is the first example.

The SSI project's information and reporting services are designed to fill a critical void in our understanding in the development and strategic use of VSIs as instruments for sustainable development.

chain coverage). Each of these dimensions is sub-divided into categories and sub-categories that are measured with a set of quantitative indicators. The SSI project's reporting seeks to apply these indicators in the most neutral and objective manner possible.

Part II: Market Overview: A review of market shares and trends among VSIs in commodity production and trade. This section provides a global overview of markets related to sustainability standards. Among the parameters considered in this section are market growth, market share, prices and premiums, and certification costs. This section of the report provides a basis for more strategic business planning and development within the context of sustainable markets.

Part III: Thematic Focus: An overview analysis of the relationship between VSIs and a specific theme. This section provides an opportunity for a more in-depth exploration of the relationship between VSIs and key sustainable development themes such as biodiversity, poverty reduction, Millennium Development Goals, climate change, gender, and so forth.

In order to maximize the potential for data completeness, as well as data meaningfulness, the 2010 Review covers ten of the most mature initiatives and sectors operating in the forestry, coffee, cocoa, tea and banana sectors: 4C Association, Fairtrade Labelling Organizations (FLO), Forest Stewardship Council (FSC), GLOBALGAP, International Federation of Organic Agriculture Movements (IFOAM), Programme for the Endorsement of Forest Certification (PEFC) schemes, SA8000 of Social Accountability International (SAI), Sustainable Agriculture Network (SAN) of the Rainforest Alliance, Sustainable Forestry Initiative (SFI), and UTZ Certified.[1]

The theme of the first report—transparency—was chosen due to its fundamental relevance to the objectives of the SSI reporting overall and the inherent linkages between sustainable development and access to information more generally. By focusing on transparency as the opening theme for the SSI Review, it is hoped that a dialogue toward a more refined and developed information collection and dissemination process for the voluntary sector can be launched. Notwithstanding the important work carried out by the SSI's Advisory Panel and the diligent efforts of the SSI implementing partners, there remains considerably more work to be done in the refinement of reporting indicators for the future, as well as in rendering information more accessible as time goes on. With this in mind, we welcome any feedback you might have on this and future reports.

"By focusing on transparency as the opening theme for the SSI Review, it is hoped that a dialogue toward a more refined and developed information collection and dissemination process can be launched."

[1] To be included in the first SSI Review, the initiatives had to meet the following criteria: (1) initiative operates in more than one country, and (2) at least two years of market data are available. The SSI Reviews plan on covering other initiatives in the future as market data become available.

1.3 | Voluntary Sustainability Initiatives, Increased Sustainability, and Transparency

In affirming that "states should reduce and eliminate unsustainable patterns of production and consumption,"[2] the Rio Declaration set a foundation for not only governmental action, but for all stakeholders to integrate sustainable development considerations and goals into their consumption and production decisions. In many respects, the development of the numerous VSIs we observe today can be traced back to this original call to action.

One of the immediate outcomes of the Rio process was a growth in the development of voluntary national eco-labelling and private CSR strategies. Over the course of the past decade, these approaches have been complemented by a growth in the use of *global* and *sector-wide* VSIs. In the agricultural sector alone, there are now more than 30 *international* standards and initiatives either in operation or in the process of being developed. Although the intentions across the different sustainability initiatives are largely similar, the processes, criteria and actors involved vary immensely; there are few opportunities for a potential user or practitioner to obtain a bird's-eye perspective on the current offerings and trends across initiatives. This, in turn, means there has been little opportunity for the development of strategic approaches to promote the continual improvement and growth of the "sector" of voluntary sustainability approaches as a whole.

BOX 1.2

What is a voluntary sustainability initiative?

A voluntary sustainability initiative, or VSI, is any non-obligatory initiative explicitly designed to promote the objectives of sustainable development, including eco-labels, certification initiatives, standards, CSR programs, business-to-business initiatives, roundtables and other collaborative or multi-stakeholder initiatives. The SSI Review limits its coverage to (1) criteria-based initiatives with the potential to generate formal markets and (2) international initiatives with the potential for global reach.

Over the past half-decade in particular, there has been a massive growth not only in the number but also in the uptake of such initiatives with wider global consumer and private sector acceptance. Where such initiatives were initially regarded as being limited to "niche" markets and often associated with luxury items, the past several years has seen the entry of such initiatives into mainstream channels. Within the last four years alone, Wal-Mart, Mars, Cadbury, Nestle, Kraft and Unilever—to name but a few—have each made explicit commitments to sourcing their mainstream product lines from sustainable producers linked to one or more multi-stakeholder voluntary sustainability standard.[3]

One of the major challenges facing VSIs within this context of rapid growth and development relates to the very means by which such initiatives aim to bring about change in the marketplace—namely, by improving the information base upon which consumers, companies and governments make decisions. Ideally, information provided to external stakeholders will enable them to make meaningful and purposeful decisions that ensure accountability. This is where the issue of transparency intersects with VSIs and their goals of increased sustainability.

Historically, VSIs have focused more on improving transparency within corporations and along supply chains than on ensuring transparency surrounding their own operations. As VSIs become increasingly important in international markets, however, there is a growing recognition of the need to facilitate information regarding the structure and impacts of VSIs themselves.

[2] Rio Declaration, Principle 8.
[3] Wal-Mart—fish, 2006; Mars—Rainforest Alliance, 2009; Cadbury—Fairtrade, 2009; Kraft—Rainforest Alliance, 2009; Unilever—soy, 2009.

The ability of VSIs to transform markets toward increased sustainability depends on their ability to effectively measure and communicate how they contribute to meeting the objectives of sustainable development. As the multiplicity of initiatives grows, so too does the number of competing claims for the consumer's "sustainable development" dollar. Faced with this challenge, stakeholders are increasingly asking questions about the relative meaning, characteristics and impacts of different initiatives, but typically without access to any adequate means for answering these questions. The SSI Review offers one piece in a broader toolbox of information tools designed to facilitate more informed and strategic stakeholder decision-making.[4]

"Voluntary sustainability standards and initiatives, as multi-actor, rules-based systems with public-good sustainable development objectives, play a role similar to public sustainable development policy."

[4] The SSI project was launched and has been developed alongside complementary information and impact related initiatives such as the Sustainable Commodity Initiative's "Committee on Sustainability Assessment" (COSA) project, the International Social and Environmental Accreditation and Labelling Alliance's "Impacts Code of Good Practice," Big Room's "Ecolabelling.org" project and the International Trade Centre's "Trade for Sustainable Development" project.

BOX 1.3

VSIs as a form of quasi-public policy

The demand for sustainably produced goods and services is a result of a growing recognition of the social, economic and environmental impacts of global markets and the potential power in leveraging market forces to bring about positive change for sustainable development. There is now a widespread recognition that current market activity is leading to the destruction of the global environment without providing for those most in need on a pervasive basis. There is also a widespread recognition, that many, if not most of the challenges facing the implementation of sustainable development are the result of market failure due to the inability of the market to communicate the full social and environmental costs of individual and firm-level economic activity.

One of the fundamental roles of public policy is to put forth rules, property rights and other market signals that correct for these market imperfections. Voluntary sustainability standards and initiatives, as multi-actor, rules-based systems with public-good sustainable development objectives, play a role similar to public sustainable development policy. By setting rules for communication across a broad number of market players, they have the capacity to improve the communication function of the market, particularly with respect to matters of importance to sustainable development outcomes.

At the same time, because VSIs are typically limited to governing decisions *along* supply chains and within the competitive constraints of the market, they cannot be expected to fulfill or replace the need for public policy. One of the rationales for this report is to facilitate a deeper understanding of when and where VSIs can and cannot be expected to effectively address key sustainability issues.

1.4 | About the Initiatives Covered in This Report

The 2010 SSI Review covers major initiatives operating across the forestry, coffee, cocoa, tea and banana sectors. In order to provide consistent data, our presentation is limited to initiatives that have been in existence for more than three years and that were able to participate in the data collection and verification process. Below is a listing of the initiatives covered within this report.

Initiative Name: 4C Association

Year Founded: 2006
Address:
Adenauerallee 108
53113 Bonn
Germany

Executive Director: Melanie Rutten-Sulz
Url: http://www.4c-coffeeassociation.org
Sectors Covered: Coffee
History and Approach:
The 4C Association started as a public–private partnership between the German Federal Ministry for Economic Cooperation and Development (BMZ), the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH and the German Coffee Association (DKV) in 2002 to initiate a multi-stakeholder dialogue for defining a mainstream code of conduct for sustainability. In 2004, SECO, the Swiss State Secretariat for Economic Affairs, joined the BMZ as the public partner in financing the project, while the European Coffee Federation replaced the DKV as the private partner. Stakeholders from coffee producer, trade and industry, NGOs, trade unions, research institutes and other experts were involved in the development of the 4C code of conduct and the framework of the 4C system. The 4C Association was founded as an international membership association in December 2006 and has been operational in the market since the coffee year 2007–2008.

In accordance with its mandate to promote sustainability across mainstream supply chains, the 4C Association has emphasized setting baseline standards that allow as many producers as possible to begin a stepwise approach to sustainable practices. The vision of the 4C Association is to be recognized by the coffee sector as the first step toward a more sustainable and transparent worldwide coffee community.

BOX 1.4

The SSI indicators: Vital statistics for VSIs

The SSI Review reports data along approximately 100 indicators related to the market trends, governance, verification systems, criteria content and institutional status. The indicators were developed through an iterative process under the guidance of the SSI Advisory Panel and in coordination with the International Trade Center's T4SD (Trade for Sustainable Development) project, over a year-long process. Drawing from perspectives from industry, multi-lateral institutions, standards-setters and NGOs, the SSI indicators represent a "core" set of internationally recognized indicators deemed to be of key importance to the overall sustainability of the VSI sector—here represented by the ten initiatives listed in Section 1.4—as well as to the strategic planning for supply chain decision-makers seeking to implement sustainability in their supply chains through the VSI sector (see Appendix I and Appendix II for a complete listing of SSI Indicators).

Initiative Name: Fairtrade Labelling Organizations International (FLO)

Year Founded: 1997
Address:
FLO
Bonner Talweg 177
53129 Bonn
Germany
Executive Director: Rob Cameron
Url: http://www.fairtrade.net
Sectors Covered: Agricultural products including food products, flowers, plants and cotton, as well as sports balls
History and Approach:
The history of the fair trade movement can be traced back to organizations in the United States and Europe, such as Ten Thousand Villages and SOS Wereldhandel, which sought to improve the livelihoods of the poor in the developing world through trade. In 1988 the first fair trade labelling organization was established under the name of "Max Havelaar" in the Netherlands. This was followed by the establishment of a series of comparable fair trade labelling initiatives across Europe, North America, Australia, New Zealand and Japan. These national labelling schemes came together in 1997 to form Fairtrade Labelling Organizations International to ensure the consistency and harmonized implementation of Fairtrade criteria internationally. FLO membership now consists of 19 Labelling Initiatives, three Producer Networks and two Associate Members.

In 2003, FLO separated its standard development activities from its certification activities by creating FLO-CERT. FLO-CERT manages the independent certification of all FLO certified producers and most of the traders, while FLO manages the standards development process and provides producer support services. All Fairtrade affiliated initiatives implement the FLO international criteria.

Following on its original mandate of poverty alleviation, FLO standards have historically focused on helping producers marginalized by conventional trading relationships to secure access to markets. One of the distinctive characteristics of the FLO system is the inclusion of standards related to pricing, financing and other elements of the trading relationship.

Initiative Name: Forest Stewardship Council (FSC)

Year Founded: 1993
Address:
Charles de Gaulle Str. 5
53113 Bonn
Germany
Executive Director: Andre de Freitas
Url: http://www.fsc.org/
Sectors Covered: Forest management, timber forest products and non-timber forest products
History and Approach:
The Forest Stewardship Council grew out of three years of dialogues between NGOs and industry leaders leading into the Rio Earth Summit. Following Rio, a group of these stakeholders agreed on the need for an independent worldwide system of sustainable forest certification, giving rise to the founding of the FSC in 1993 and its eventual incorporation as a legal entity in 1996. The FSC represented the first effort to define a *global certification system* for sustainable forest management. The FSC system defines a generic global baseline standard for responsible forest stewardship that serves as the basis for a series of national standards developed through local consultation processes.

Although the FSC was originally established with the objective of promoting sustainable forest management and preventing the conversion of natural forest activities to non-forest or plantation activities, sustainable plantation management was formally accepted within the FSC system in 1996. In addition to its forest management standards, the FSC manages a Chain of Custody standard and defines the rules and regulations for the accreditation of certification bodies.

Reflecting its aspirations to operate globally, the FSC operates as a member-based organization governed by a three-chamber General Assembly consisting of industry, environmental and labour representatives from around the world. As of 2009, FSC had more than 800 members (individuals and organizations).

Initiative Name: GLOBALGAP

Year Founded: 1997
Address:
GLOBALG.A.P Secretariat
c/o FoodPLUS GmbH
P.O. Box 19 02 09
50499 Cologne
Germany
CEO: Kristian Moeller
Url: http://www.globalgap.org
Sectors Covered: Agriculture
History and Approach:
GLOBALGAP began in 1997 as an initiative of the Euro-Retailer Produce Working Group (EUREP), an association of European retailers, in reaction to public concerns about product safety, environmental and labour standards. In order to ensure that imported agricultural products would meet new EU health and safety requirements, EUREP established a system of voluntary standards for application along the supply chain.

Initially launched as the EUREPGAP Protocol in 1999, the focus of the Protocol was to ensure that food products would meet basic food safety requirements while also ensuring that production practices were safe for workers and the environment. In 2007, EUREPGAP changed its name to GLOBALGAP to accommodate a more global audience of retailers and other stakeholders. GLOBALGAP approves ISO 65 accredited certifiers who then perform audits to measure compliance with the standard.

The GLOBALGAP standard is based on the Hazard Analysis and Critical Control Point (HACCP) system, with requirements focusing on a hazard analysis of the production process from the seed stage to dispatch to customers. The primary focus of the standard is to prevent food contamination and, although the GLOBALGAP standard does include criteria on social and environmental practices, GLOBALGAP places an emphasis on complementing, rather than duplicating, existing social and environmental standards. The GLOBALGAP Integrated Farm Assurance standard is published as modular documents, with distinct modules for fresh fruit and vegetables, meat products, flowers and ornamentals, grains, and so forth. This allows farms to be certified in one or more concurrent operations at the same time.

Initiative Name: International Federation of Organic Agriculture Movements (IFOAM)

Year Founded: 1972
Address:
Charles-de-Gaulle-Str. 5
53113 Bonn
Germany
Executive Director: Markus Arbenz
Url: http://www.ifoam.org
Sectors Covered: Agricultural products
History and Approach:
IFOAM began as a union of national and regional organic movements led by Nature et Progrès (France), the Soil Association (United Kingdom and South Africa), the Swedish Biodynamic Association, and Rodale Press (United States) in 1972. Following on its mission of "leading, uniting and assisting the organic movement in its full diversity," IFOAM has played a leading role in uniting the organics sector, both through information exchange and by facilitating the adoption of common approaches to organic certification at the national level.

In the mid 1980s, IFOAM established its Basic Standards and Accreditation Criteria to provide a harmonized framework for ensuring the integrity of national organic standards. Today IFOAM is probably best known for its role in developing the global accreditation framework for national certifiers of organic production. Through its sister organization, the International Organic Accreditation Service (IOAS), IFOAM operates as an accreditation agency that accredits national standards complying with its global standards. As of July 2010, 32 national certification bodies were accredited under the IFOAM Norms. Under the IFOAM system, national organic standards are developed through independent processes, with varying individual criteria that must meet the baseline requirements of the IFOAM Norms.

Although primarily focused on ensuring the production of agricultural products without the use of synthetic chemicals or processes, IFOAM's Organic Norms are guided by four high-level principles that reach beyond the use of chemicals per se: (1) Principle of Health; (2) Principle of Ecology; (3) Principle of Fairness, and (4) Principle of Care.

Initiative Name: Programme for the Endorsement of Forest Certification schemes (PEFC)

Year Founded: 1999
Address:
10, Route de l'Aéroport
Case Postale 636
1215 Geneva
Switzerland
Secretary General: Ben Gunnenburg
Url: http://www.pefc.org
Sectors Covered: Timber forest products
History and Approach:
PEFC was founded in 1999 as the Pan-European Forest Certification scheme by national multi-stakeholder forestry organizations from 11 European countries as a framework to mutually recognize national forest certification schemes that applied the Pan European Criteria. PEFC has since included non-European forestry programs and, in 2003, changed its name to the Programme for the Endorsement of Forest Certification schemes to reflect this change. Although established as a privately operated and independent not-for-profit, the PEFC's sustainability benchmarks draw heavily from the principles and conclusions of a series of ministerial conferences on European sustainable forest management held between 1990 and 1994. The ministerial process produced the *Pan-European Criteria and Indicators for Sustainable Forest Management of European Forests,* which has subsequently been adopted as a key reference document for the PEFC.

One of the distinctive characteristics of PEFC is that rather than stipulating a detailed standard for application at the global level, it provides a framework for endorsing nationally developed standards taking key guidance from regionally negotiated intergovernmental principles for sustainable forest management (relying heavily upon Pan-European Operational Level Guidelines for Sustainable Forest Management, PEOLG, and the ITTO Principles, Criteria and Indicators for Sustainable Forest Management in African Tropical Forests, ITTO PCI). While PEFC's sustainable forest management criteria are based on intergovernmental policies and guidelines for sustainable forest management, PEFC requires mandatory compliance and specified additional requirements for issues such as free and prior informed consent. National certification systems wishing to obtain recognition by PEFC are subjected to an independent assessment process to verify their compliance with PEFC's Sustainability Benchmarks, after which all PEFC members vote whether any such system should be recognized by the organizations. PEFC's Sustainability Benchmarks are comprised of various sets of requirements for different areas such as the standard setting process, Chain of Custody, certification procedures, and sustainable forest management.

Initiative Name: Rainforest Alliance/Sustainable Agriculture Network (SAN)

Year Founded: 1987
Address:
665 Broadway, Suite 500
New York, NY 10012
USA
CEO: Tensie Whelan
Url: http://www.rainforest-alliance.org
Sectors Covered: Agricultural products, tourism, forestry
History and Approach:
The Rainforest Alliance was founded in 1987 in response to the massive deforestation and extinction of many species in tropical rainforests throughout Central America in the 1980s. Its first programs, launched in 1989, focused on responsible forest management (SmartWood) and environmental education (Conservation Media Center, later the Neotropics Communications Center). The first agriculture standard (ECO-OK) for bananas came into being in 1990, followed by coffee (1995), citrus and cocoa (1997), which laid the groundwork for establishing the Conservation Agriculture Network (1998), now called the Sustainable Agriculture Network (SAN).

SAN is a member-based organization consisting of seven Latin American NGOs, one Indian NGO, and Rainforest Alliance; it now operates as the standard developer and manager for Rainforest Alliance agricultural standards. SAN's mission is to improve environmental and social conditions in tropical agriculture through conservation certification. Products that are deemed compliant with SAN established standards can carry the Rainforest Alliance label. Rainforest Alliance's growth strategy has been closely linked with its ability to negotiate supply arrangements with major manufacturers such as Unilever, Mars Inc., Kraft, Chiquita, McDonalds, Costa, Gloria Jeans, and so forth.

Initiative Name: Social Accountability International (SAI)/SA8000

Year Founded: 1997
Address:
15 West 44th Street, 6th Floor
New York, NY 10036
USA
CEO: Alice Tepper Marlin
Url: http://www.sa-intl.org
Sectors Covered: All
History and Approach:
During the 1990s, as customers became concerned about the conditions under which their clothing and other goods were produced, businesses began to draft codes of conduct describing the appropriate workplace conditions for goods they manufactured or purchased. Responding to the confusion created by diverse company codes and widespread stakeholder discomfort with company self-monitoring, Social Accountability International was launched as a project of the Council on Economic Priorities in 1997 with the objective of monitoring and enforcing the integrity of claims related to compliance with internationally recognized labour standards and human rights.

In 1996 the SAI Advisory Board came together to work on this issue and develop SA8000—a standard based on international norms, not on the regulations or system of a single country, NGO or corporation, combined with the labour law of the country where a workplace is located—and simultaneously a verification system based on the widely used international methodology of the International Organization for Standardization (ISO).

Building on the major conventions of the International Labour Organization and United Nations General Assembly, the SA8000 standard was launched in 1998 as a private voluntary standard defining criteria and an independent verification system for ensuring compliance with international labour standards.

In 2007, SAI created the Social Accountability Accreditation Services (SAAS) as an independent organization with the mandate of accrediting certification agencies to certify against the SA8000. Today the SA8000 operates as a business-to-business standard that can be applied in any sector or supply chain. The SA8000 is an issue-specific standard seeking to ensure ethical production in international supply chains. The standard addresses core labour rights, human right and sustainable livelihoods issues within the workplace.

Initiative Name: Sustainable Forestry Initiative (SFI)

Year Founded: 1994
Address:
Sustainable Forestry Initiative, Inc.
900 17th Street, NW, Suite 700
Washington, DC 20006
USA
CEO: Kathy Abusow
Url: http://www.sfiprogram.org
Sectors Covered: Timber forest products
History and Approach:
The Sustainable Forestry Initiative was launched in 1994 by the American Forest and Paper Association (AFPA) in response to consumer and industry demands upon the forestry industry to implement sustainable forestry management practices. The first SFI principles and implementation guidelines were developed in 1995 for voluntary, self-managed application. In 1998 the principles and guidelines were complemented by a system of third-party audits. Until 2000 the SFI was managed under the AFPA, at which time it spun off and established as an independent not-for-profit with its own multi-stakeholder Board of Directors. In 2005, the SFI became endorsed by the Programme for the Endorsement of Forest Certification schemes (PEFC).

Although originally operating as a "national standard" for sustainable forest management within the United States, the SFI now operates as a truly North American standard, with more than half of SFI compliant production coming from Canada. Due to its North American focus, the SFI standards and principles are largely aimed at ensuring sustainable forest management on all forest types in North America. The SFI does, however, also include fibre sourcing requirements, as well as Chain of Custody certification for ensuring the traceability of sustainable products throughout global supply chains. Notwithstanding its North American focus, SFI is currently the largest member of the PEFC and the largest single certifier of sustainable forest products globally.

Initiative Name: UTZ Certified

Year Founded: 1997
Address:
UTZ Certified Foundation
De Ruyterkade 6
1013 AA
Amsterdam
The Netherlands
Executive Director: Han de Groot
Url: http://www.utzcertified.org
Sectors Covered: Coffee, cocoa, tea, Rooibos
History and Approach:
UTZ Certified (originally UTZ Kapeh) began as an initiative in 1997 under the Dutch Ahold Coffee Company, along with Guatemalan coffee producers, to create transparency along the supply chain and reward responsible coffee producers. At the time, there was a growing demand for assurance of responsibly grown coffee and UTZ recognized the need to provide roasters with the tools to do so. In 2002, UTZ became an independent organization and has since expanded to other commodities (cocoa, tea, palm oil) to create an open and transparent market for agricultural products, as well as sustainable supply chains.

The original UTZ Kapeh criteria were based on an expanded version of the EurepGap criteria and, as such, placed a strong emphasis on responsible farm management. Another defining feature of the UTZ system has been its inclusion of requirements for traders to provide information on premiums paid for UTZ certified products, which are then aggregated and made available as averages to producers as a means to promoting market transparency and liquidity in UTZ products.

2 System Indicators and VSIs: Observations and Comparisons

The following section provides an overview and comparison of select VSIs operating across the forestry, coffee, cocoa, tea and banana sectors. The section, which is divided into four sub-chapters dealing with the general aspects of VSIs, reporting and verification systems, governance and criteria content, aims to provide a high-level introduction to the fundamentals of the different systems operating in sustainable commodities trade. The data presented throughout the section are drawn from the list of "core SSI indicators"—specific characteristics of importance to supply chain decision-makers and external stakeholders—developed by the SSI implementing partners and Advisory Board in coordination with the International Trade Centre. The full list of indicators in tabular format can be found in Appendix I.

In reading the data on the following pages it is important to recognize that each standard system has its own history, priorities, target markets and implementation structure. The wide variety of VSI systems in operation makes it rather difficult, and in many cases inappropriate, to compare across a single indicator or indicator set. Part of the SSI's effort in providing a number of different indicators has been to allow readers to identify how the different systems and priorities play out across a number of areas.

It is also important to recognize that although many of the indicators covered in this section can be expected to have some influence on the impacts of different systems, none of them alone, or in their totality, provides an adequate picture of actual impacts. Impact measurement is a complex task that others are actively involved in developing but upon which the SSI, in its current form, does not report.[5]

Finally, and based on the above, it is important to note that none of the ensuing analysis or presentation should be considered as a judgment of the success or failure of any of the programs surveyed. The information presented here is provided with the strict intent of providing stakeholders with the tools necessary to determine what actions and investments in the voluntary sector are most strategic with respect to their own internal priorities by providing information that is both factual and relevant.

[5] The Sustainable Commodity Initiative (SCI) and the International Social and Environmental Accreditation and Labelling Alliance (ISEAL), for example, have been promoting a common impact assessment framework through the Committee on Sustainability Assessment (COSA) and the Code of Good Practice for Assessing the Impacts of Social and Environmental Standards Systems (Impacts Code), respectively. The results of these efforts are still young and therefore cannot yet be reported upon effectively through the SSI Review.

2.1 | General Aspects of the Systems

SUMMARY POINTS

All ten of the voluntary sustainability initiatives reviewed share the same basic objective of promoting more sustainable supply chains within the sectors they operate. In addition, these initiatives exhibit the following trends:

- **The VSIs across the coffee, tea, banana, cocoa and forestry sectors are young and dynamic; many of the initiatives have been established within the last decade.**
- **The initiatives tend to be multi-issue and multi-sectoral, indicating a growing attention to the adoption of an "integrated approach" to sustainable development.**
- **The majority of the initiatives surveyed (70 per cent) represent global standards systems. Only two of the initiatives (IFOAM and PEFC) operate as a "unified grouping" of national initiatives.**
- **Budgets of the initiatives vary greatly, with the largest budget in 2009 being 19 million euros and the smallest budget being 1.5 million euros.**
- **The majority of the initiatives surveyed rely on grants for 50 per cent or more of their annual revenues, suggesting challenges for financial stability and a potential need to revise current revenue models.**

Table 2.1: Basic information surrounding various Voluntary Sustainability Initiatives.

	4C Association	UTZ	FLO	Rainforest Alliance (SAN-specific)*
Organization type	Private	Private	Private	Private
Legal form of organization	Not-for-profit	Not-for-profit	Not-for-profit	Not-for-profit
Primary objective[◉]	Standard-setting organization	Standard-setting organization	Standard-setting organization	(Standard-setting organization)*; marketing body and/or labelling organization; certification body
Total annual income (2008)‡	€ 1,524,000	€ 2,481,828	€ 6,479,000	€ 19,025,996
Total annual expenditures (2008)‡	€ 1,253,310	€ 2,385,893	€ 6,478,000	€ 18,118,315 (€ 4,276,275)*
Standard system type[◉]	Product/process specific	Product/process specific	Product/process specific	Product/process specific
Industry scope	Production/extraction; conversion/processing; trade and retailing	Production/extraction; conversion/processing; Chain of Custody; communication claims and labelling	Production/extraction; conversion/processing; trade and retailing; Chain of Custody; communication claims and labelling	(Production/extraction)*; conversion/processing; Chain of Custody; communication claims and labelling
Activities monitored	Agriculture	Agriculture	Agriculture; Manufacturing	(Agriculture)*; Forestry; Tourism
Geographic scope (production)	Asia, Africa, Australia and Oceania, Central America and Caribbean, North America, South America	Asia, Africa, Australia and Oceania, Central America and Caribbean, North America, South America	Asia, Africa, Australia and Oceania, Central America and Caribbean, North America, South America	All continents (Asia, Africa, Central America and Caribbean, North America, South America)*

* Bracketed items in this column indicate SAN-specific references.
**FSC data in this table refer to data for FSC AC and FSC IC.
† More recent financial data are available for PEFC and SFI but for comparative purposes, 2007 data were used.
‡ Financial data were converted to euros using the 2008 average historical conversion rate on oanda.com.
◉ Organizations were required to select from a pre-determined list of "primary objectives" as follows: i. Standard setting; ii. Framework; iii. Certification; iv. Accreditation; v. Independent project; vi. Marketing and labelling. Some organizations may also have other primary objectives such as "capacity building" which are not captured by this listing. See Appendix I for more information on the different objective listings.

VSIs come in many shapes, sizes and forms. Even the subset of VSIs covered in this review, namely criteria-based VSIs with international reach, displays a great diversity of organizational makeup and approaches for implementing criteria related to sustainable development. Below is a listing of some of the key ways in which the initiatives covered in this report differ from each other in terms of management, implementation and overall approach to the market; Table 2.1 presents and compares aspects of the VSIs covered in this report, side by side. The following high-level characteristics set the context within which the different initiatives should be considered in the following sections.

IFOAM	**GLOBALGAP**	**SAI**	**FSC****	**PEFC**†	**SFI**†
Private	Private	Private	Private	Private	Private
Not-for-profit	Not-for-profit	Not-for-profit	Not-for-profit	Not-for-profit	Not-for-profit
	Standard-setting organization, Framework organization	Standard-setting organization	Standard-setting organization, Framework organization	Standard-setting organization, Framework organization	Standard-setting organization
€ 1,592,000	€ 3,711,000	€ 2,145,001	€ 3,695,326 (2007)	€ 572,802 (2007)	€ 3,757,086 (2007)
€ 1,590,000	€ 3,683,000	€ 2,033,958	€ 3,594,529 (2007)	€ 589,628 (2007)	€ 3,514,388 (2007)
Product/process specific	Product/process specific; integrated system	Generic system	Product/process specific	Product/process specific	Product/process specific
Agriculture	Agriculture; Livestock; Aquaculture	Facility management in all industries	Forestry	Forestry	Forestry

® Organizations were required to select from a pre-determined list of "standard system types" as follows: i. Generic system; ii. Integrated system; iii. Product/process-specific. Some organizations may use different terminology to describe their standard system type; see Appendix I for SSI definitions.

History:

Age of Initiative:

While some initiatives were developed a decade or more ago (FLO, IFOAM, Rainforest Alliance), other initiatives are only just getting started. In addition to exhibiting higher per annum market growth, newer initiatives are likely to be subject to revision and change more rapidly. More mature initiatives, on the other hand, can be expected to have a broader reach as well as a longer history from which to draw evidence of impacts.

Origin of the Initiative:

Some of the most important and definitive decisions related to any given VSI are made in its initial establishment. As such, the history of an initiative can reveal important information related to the priorities and approach. Some initiatives, such as UTZ Certified, SFI and GLOBALGAP were initially established as projects of the private sector, whereas others such as Fairtrade, IFOAM and Rainforest Alliance were initiated by civil society. Another group of initiatives has been led by multiple parties, in the form of joint civil society or public/private sector initiatives (FSC, SAI, PEFC and the 4C Association).

Strategic Approach:

Depth versus Breadth:

While some initiatives place an emphasis on providing the most robust criteria, others explicitly seek to develop systems that are the most efficient and cost-effective.[6] While the former may suggest a focus on creating significant impacts among a select group of stakeholders or criteria, the latter may suggest a focus on creating impacts across a larger number of stakeholders or criteria. The actual impacts in any given case will depend upon a number of variables beyond actual criteria definition, including, of course, enforcement capacity and market size.

Scope:

Single Issue versus Multi Issue:

Historically, voluntary initiatives tended to focus on a single theme or issue, such as the ozone, or dolphin friendly practices. Since the Rio Earth Summit, there has been a growing emphasis on broad-based sustainable development that includes attention to social, economic and environmental issues as part of a complete package.[7] Initiatives focusing on a single issue, all other things being equal, can be expected to be able to devote more attention to fixing a specific problem than initiatives attempting to address multiple issues in a single effort. Initiatives adopting an integrated approach to sustainable development, on the other hand, can be expected to have a better capacity at identifying and acting on linkages between different sustainable development challenges. All of the initiatives surveyed in this report are multi-issue with most specifying criteria across all three pillars of sustainable development.

Single Sector or Multi Sector:

Whereas some initiatives are developed to address challenges within a single sector, others are developed to address challenges across multiple sectors. The FSC, SFI, PEFC and 4C Association represent sector specific initiatives while Fairtrade, UTZ Certified, Rainforest Alliance, IFOAM, GLOBALGAP and SAI represent cross-cutting multi-sector initiatives.

[6] These are not, of course, mutually exclusive objectives, but as a general rule the rigour of a requirement can be expected to be directly proportionate to the costs of implementing the requirement.

[7] Note, however, that the more recent focus on climate change issues has given rise to a growing number of climate-specific initiatives.

Structure:

Global Standard Setters versus National Standard Setters in Global Union:

Variations on two basic models of global VSI structure can be observed in this report. *Global Standard Setters* are organizations that develop and implement a single set of global standards across a given sector; Global Standard Setters take full and sole responsibility for the establishment and implementation of their standards. Examples covered in this report include FLO, UTZ Certified, Rainforest Alliance, 4C Association, GLOBGALGAP and SAI. *National Standards Setters in a Global Union* are institutions that set high-level principles and criteria at the global level, which are then translated into actual standards at the national level. Examples covered in this report include PEFC, IFOAM and FSC. Global Standard Setters may have better capacity to gather information along the supply chain due to tighter vertical integration, whereas National Standard Setters in a Global Union may have a better capacity to ensure that impacts and information are relevant to users in the local context.

Financial Context:

Annual Budget:

Although one of the promises offered by voluntary initiatives is that they have the capacity to facilitate a transition to sustainable practices more efficiently than government-led command and control mechanisms alone, it is nevertheless the case that the development and implementation of any given VSI entails real, and often significant, costs. Indeed, many of the constraints facing VSIs related to monitoring, enforcement and stakeholder engagement at the international level are a function of the resources available for systems management. Rainforest Alliance and FLO, with annual budgets of €19,025,996 and €6,479,000, have the highest annual budgets among the initiatives reviewed.[8] All of the other VSIs have annual budgets of less than $€10 million, with the majority working on a budget of less than €5 million.

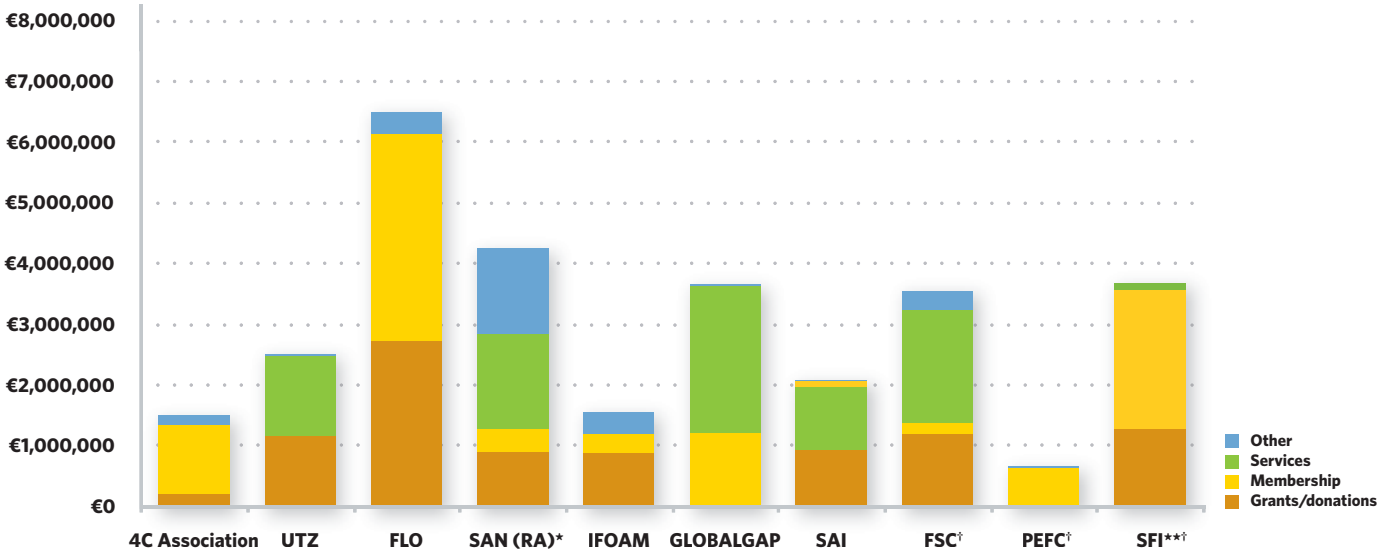
Revenue Model:

All of the VSIs reviewed offer accreditation, certification, licensing or other services related to the development and maintenance of sustainable supply chains; however, the degree to which service delivery and other recurring revenue sources—such as membership fees—account for annual revenues varies among organizations (see Figure 2.1). A notable, though perhaps not surprising, feature of the VSIs reviewed is the relatively high reliance on non-recurring revenue sources to cover regular operational costs.[9] Services and membership fees, the clearest examples of recurrent revenue sources, account for about half of the total annual revenue stream for six of the initiatives surveyed (FSC, SAI, SFI, UTZ, Rainforest Alliance and FLO)—a ratio that appears to be something of an industry average. Exceptions to this average are found with GLOBALGAP, whose revenues are entirely based on service and membership fees, PEFC, whose revenue stream is almost entirely covered by member fees, the 4C Association, whose income is derived mostly from service fees, and IFOAM, which depends upon grants and other sources for the majority of their revenues. A VSI's ability to draw resources from recurring sources can be an indication of longer term financial sustainability.

[8] A significant portion of Rainforest Alliance's revenues comes from its sustainable tourism and forest certification programs, which other standard setters do not provide. To understand where the agriculture program stands within the organization, it is worth noting that Rainforest Alliance reports spending €4,278,843 ($6,261,019) on agriculture programs in 2008, equating 23.8 per cent of total program expenditures. Note also that other initiatives with smaller budgets are often linked to larger networks that may provide significant producer and other infrastructural development support. It was not possible to estimate the value of these support networks in the context of this report.

[9] Given that VSIs carry the burden of protecting public goods, one might expect the market to under-provide resources to protect those goods (in a manner similar to which markets under-provide for the protection of public goods). As such, it may be necessary to complement service-oriented approaches with systemic public sources of funding in order to ensure that VSIs can retain their positions as providers of credible and accurate information for the marketplace.

Figure 2.1: Breakdown of income sources for VSIs in this report, 2008.



*Agriculture budget of the Rainforest Alliance (represents 23.8% of total RA expenditures for 2008. Total RA revenues for 2008: €19,025,996).
**SFI does not charge membership fees; the revenues designated as "membership" in this graph are licensing fees paid by SFI Program Participants.
†Data for all forestry standards are from 2007.
Source of currency conversion: performed using average historical rates from oanda.com.

2.2 | Criteria Development, Implementation and Conformity Assessment

SUMMARY POINTS

The processes related to criteria development, implementation and conformity assessment have important impacts on participatory governance, the relevance of the criteria to local needs and conditions, and cost-effectiveness, as well as on the overall integrity of the system. Although these characteristics need not be exclusive, they can often imply difficult tradeoffs. In our review we found that:

- **Almost all of the initiatives report having localized indicators. Four of the initiatives surveyed provide for nationally distinct standards.**
- **70 per cent of the VSIs reviewed were either ISO 65 compliant or apply an accreditation process, showing the importance of credibility concerns as drivers in the VSI sector.**
- **Almost all of the initiatives surveyed apply an annual audit process to ensure compliance with specified criteria, although there is considerable diversity in the degree of flexibility with which such processes are implemented.**
- **70 per cent of the initiatives surveyed manage a separate Chain of Custody standard, while the majority of initiatives apply some form of segregation of compliant products to allow for traceability.**
- **The forestry sector is notable for its higher reliance on mass balance systems for determining compliance levels across products.**

The criteria associated with any given VSI form the backbone for the initiatives. The initiative itself is effectively defined by its criteria, while the credibility of the initiative will be closely linked to the processes related to the implementation and enforcement of the identified criteria. Below we consider four key issues related to the development and implementation of sustainability criteria: (1) Subsidiarity, (2) Conformity Assessment, (3) Traceability, and (4) Continual Improvement.

2.2.1 | VSIs and Local Interests: The Principle of Subsidiarity

The principle of subsidiarity is a widely recognized principle of sustainable development.[10] In its simplest form, the principle suggests that centralized rule-making and implementing organizations should only perform those tasks that cannot not be performed effectively at a more intermediate or local level. The principle of subsidiarity is closely linked with the idea of participatory governance and the notion that institutions are most likely to reflect the local interests and needs when they are developed specifically with those interests and needs in mind. One of the strengths of VSIs is the ability to work outside of traditional national boundaries, giving them the potential to include, and be responsive to, the needs and interests of stakeholders in multiple nationalities and regions. Similarly, VSIs can undertake specific efforts to ensure that the criteria setting and implementation process are customized to the local context and capacity. The SSI Review gathers information on whether VSIs have regionally specific standards and/or indicators for their initiatives, as well as whether or not local auditors are engaged in the verification process (see Table 2.2).

Table 2.2: A checklist delineating various applications for the VSIs in this review also helps to illustrate the principle of subsidiarity.

	FLO	Rainforest Alliance/ SAN	IFOAM	UTZ	4C Association	GLOBALGAP	SAI	FSC	PEFC	SFI
Regional standard development			✓			✓		✓	✓	
Localized indicators	✓	✓	✓*	✓		✓		✓*	✓*	
Local auditors engaged in the verification process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*Localized indicators not developed or managed by global initiative, but under the national standard setting members and, in the case of FSC, accredited Certification Bodies.

The standards reviewed diverged in how they addressed the concept of subsidiarity. The FSC, PEFC and IFOAM displayed the deepest coverage across SSI subsidiarity indicators—a result that is a reflection of the fact that each of these initiatives applies a common set of global principles as a basis for developing nationally specific standards and indicators.

[10] K. von Moltke, 1995, Winnipeg Principles on Trade and Sustainable Development, IISD.

There are many reasons for not developing regional standards or localized indicators. On the one hand, the development and adoption of multiple standards systems necessarily entails additional transaction costs that can ultimately lead to additional costs for producers and/or consumers. On the other hand, any process that provides equal legitimacy for stakeholders applying different criteria, risks providing unfair advantage to certain stakeholders over others—thus generating the potential for market distortions and inconsistent compliance with the globally defined criteria.

At the same time, the diversity of conditions faced by stakeholders around the world, particularly among those in developing countries, suggests that the equal application of equal rules may not always be the most effective vehicle for securing maximum sustainable development impact. Differences in the economic conditions, geography, industrial and legal infrastructure, social rules and safety nets vary widely between countries and can give rise to different sustainable development priorities. In determining the appropriate degree of subsidiarity the tradeoffs between costs, equity and potential sustainability impacts with respect to the given sector and target regions should be considered.

In a similar manner, VSIs operating in the agricultural sector may have reason to develop separate criteria and processes for smallholder operations in light of their distinct capacities. Such flexibility can have important implications for developing country stakeholders where the majority of supply often comes from undercapitalized smallholder producers. Of course, the same considerations facing the principle of subsidiarity (namely cost effectiveness and equity) also apply to the implementation of smallholder specific standards and processes. Only FLO, UTZ Certified, GLOBALGAP and FSC currently implement smallholder specific criteria and processes, although other initiatives have made specific efforts to reach out to smallholders by offering group certification and/or by developing standards with smallholders in mind.[11]

2.2.2 | Conformity Assessment

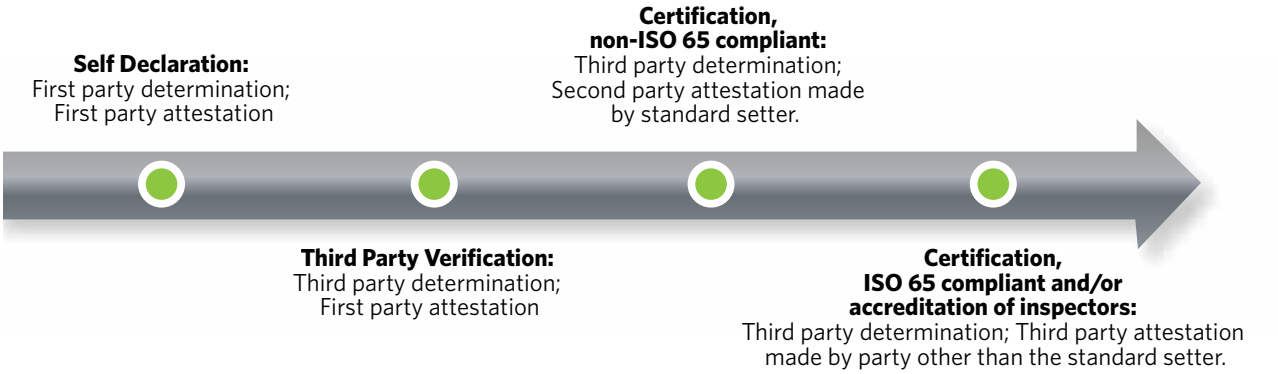
The ability of VSIs to achieve their mission of improved sustainability impact is closely linked to the ability of the VSI to enforce compliance with sustainability criteria. The first step in the enforcement process begins with assessment of the actual practices on the ground the conformity of those practices with those prescribed by the initiative's sustainability criteria.

Many different systems exist for performing conformity assessment. Following ISO guidelines, EN/ISO/IEC 17000:2004 the main distinction between conformity assessment systems depends on the kinds of entities making the determination of compliance and the kinds of entities reviewing/attesting to compliance. Figure 2.2 shows a continuum in the degree of separation between the manufacturer of a product and claims of conformity assessment. In principle, the higher the level of independence, the lower the risk that commercial interests can influence the nature of the claims being made. As a general rule, however, increased independence also comes at a higher cost that, again, must be absorbed by the supply chain in one form or another and that can negatively impact the overall competitiveness of the system.

"One of the strengths of VSIs is the ability to work outside of traditional national boundaries, giving them the potential to include...the needs and interests of stakeholders in multiple nationalities and regions."

[11] PEFC, for example, reports having developed its global standards with the specific objective of enabling access for smallholders. PEFC had certified 475,675 smallholders as of October 2010 (personal communication with Thorsten Ardnt, PEFC, October 2010).

Figure 2.2: Degree of independence of conformity assessment process.



First party attestation (under verification) means that the producer of the product makes the claim (not the standard setter). Second party attestation refers to attestation by the standard setter—which, when improved to have attestation by an independent "third party" body (such as a standards "certification organization"), becomes ISO 65 compliant.

As can be seen in Table 2.3, the vast majority of the systems covered in this report use some form of certification as their means of conformity assessment with only one using third party verification and none using self declaration. ISO 65 sets quality and independence requirements for certification bodies and offers an internationally recognized instrument for assessing the strength of the conformity assessment process. Another manner by which standard setters ensure independence of the conformity assessment process is by accrediting inspectors to carry out the certification process. A total of eight of the ten VSIs reviewed were either ISO 65 compliant or apply an accreditation process showing the importance of credibility concerns as drivers in the VSI sector.[12]

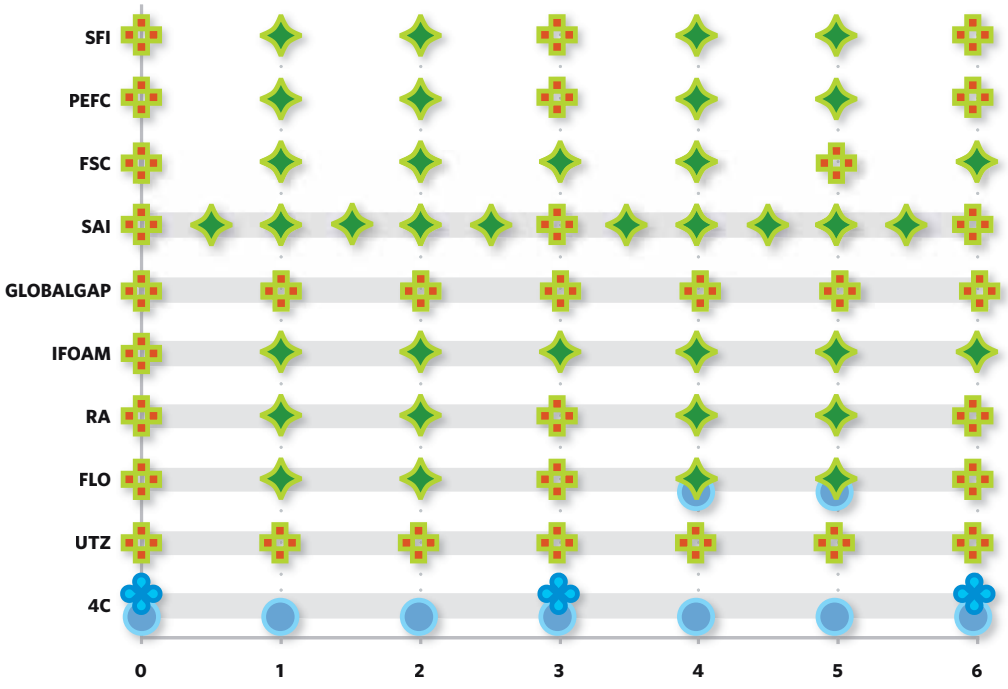
Table 2.3: Conformity assessment indicators with respect to the various VSIs in this review.

	4C Association	UTZ	FLO	Rainforest Alliance/ SAN	IFOAM	GLOBALGAP	SAI	FSC	PEFC	SFI
Verification	✓				✓	✓	✓			
Certification		✓	✓	✓	✓	✓	✓	✓	✓	✓
Accreditation					✓	✓	✓	✓	✓	✓
ISO 65 Compliant		✓	✓			✓	✓	✓	✓	✓
ISO/IEC 17000/ 17011/17021 Compliant							✓	✓	✓	✓

[12] ISO Guide 2 provides industry definitions of certification and accreditation: "Certification: Procedure by which a third party gives written assurance that a product, process, or service conforms to specified requirements"; "Accreditation: Procedure by which an authoritative body gives formal recognition that a body or person is competent to carry out specific tasks" (ISO/IEC Guide 2).

The frequency of audits and audit sample size offer additional indicators of the depth of the conformity assessment process. As Figure 2.3 reveals, the different systems covered for this review, use a wide range of different audit combinations and frequencies. Each VSI must seek a balance between cost-effectiveness and the degree of certainty generated by the conformity assessment process. All require an initial certification/verification audit in order to enter into the "compliant" supply chain. Similarly, all of the systems, other than the 4C Association perform, at a minimum, annual surveillance audits over the first three years of entry. Five of the VSIs (SFI, SAI, PEFC, Rainforest Alliance (SAN) and FLO), require a full certification audit on the third year of certification, while UTZ and GLOBALGAP require a full certification audit every year with additional requirements. The 4C Association, which allows entry into its supply chain based on a self assessment and third-party verification process, requires an annually updated self-assessment and re-verification after 3 years, has geared its auditing process to ensure that heavy verification requirements do not prevent access to 4C Association's markets among the most marginalized producer groups. GLOBALGAP, IFOAM, Rainforest Alliance, FLO, UTZ and the 4C Association also backstop their regular auditing procedures with random site visits.

Figure 2.3: Conformity assessment procedures and frequency. Note that re-certification takes place every five years for SFI Chain of Custody.



Certification audit: an independent third-party certifier checks producer's performance against a certain set of criteria. Compliance with these criteria is confirmed by a certificate.

Verification audit: an independent verifier checks the process behind a certain performance. It checks whether the producers themselves have reliable systems in place that monitor and control their sustainability performance.

Surveillance audit: an independent third-party auditor visits the producer to verify and monitor the ongoing fulfillment of the standards and to identify any corrective actions necessary to maintain compliance.

Self-assessment or desktop certification: the producer assesses his/her performance against a certain set of criteria and sends the report back to the standard-setting organization. (In the case of FLO, a desktop certification for 2 out of 3 years is only granted to producers with exceptional track records.)

Random field checks or surprise audits can take place during this time.

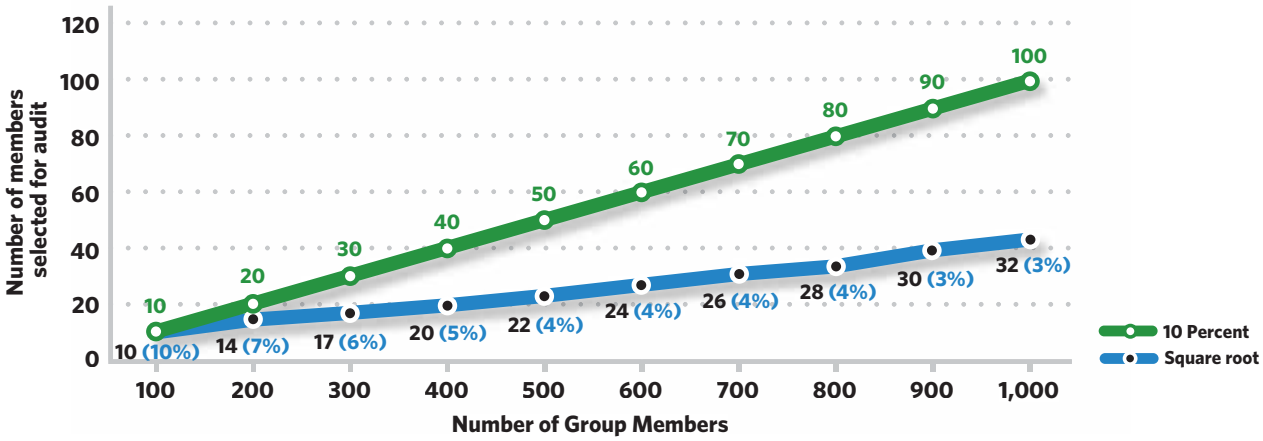
Source: Personal communication with Allison Welde at SFI (6 April 2010); PEFC webpage "Get PEFC Certified" (2010); FSC webpage "5 Steps toward FSC Certification" (2010); SAAS webpage "The Certification Process" (2010); GLOBALGAP Membership Package (2009); Personal communication with Ana Maria Garzon at SAN (15 April 2010); Fairtrade Certification: Principles and Process; Personal communication with Vera Espindola Rafael at UTZ (12 February 2010); 4C Association, "Step by Step: The Road to Joining the 4C Association System".

For group certifications, it is widely recognized that it is not practical or even feasible to audit all facilities feeding into a given supply chain. However there is the trade off of risk. All of the initiatives reviewed use the ISO 62 square root approach, which is based on a simple formula $x=\sqrt{y}$ for determining the size of the audit group (e.g., for a group of 100 producers, 10 members are audited). While internationally accepted, application of the square root method means that the size of the audited sample becomes a progressively smaller percentage of the total as the group size grows. This in turn increases the risk of missing "bad" actors when audit sample size is relatively small.

For some systems (e.g., FLO) there is a cap of number of producers audited but for most the square root of the total producer base is the minimum number of group participants audited, with additional group members included depending on the discretionary risk assessment of the auditor. Other VSIs may apply a multiplicity of systems depending upon the country/standard being applied (especially in the case of VSIs with separate regional standards) or the size of the group. For example, some IFOAM members were reported as applying the per cent method (whereby a fixed percentage of producers are audited) even though IFOAM only requires the use of the square root method. FSC, on the other hand, uses a percentage-based sampling for large and medium Forest Management Units (FMUs) and a square root sampling for small FMUs. A comparison of the two methods is shown in Figure 2.4.

Clarity on the costs and benefits associated with the different methods of sampling will be important determinants for investors who participate in a given VSI as part of an overall risk management strategy.

Figure 2.4: Comparison of audit sampling methods: per cent method versus square root method.



2.2.3 | Traceability

Identity control along the supply chain helps ensure that market claims are matched by actual practices on the ground. The SSI project collects information related to the kinds of traceability systems used in VSIs as well as recording whether or not explicit Chain of Custody criteria (standards) exist as part of the system.

Four basic systems are used in commodity production and trade for ensuring that claims about practices match actual marketing claims. They are:

Book and Claim: where "sustainable" certificate granted based on the application of sustainable practices, but certificate is completely decoupled from the product and transferable on the market.

Mass Balance: where the amount of compliant product sourced and sold by each supply chain actor is tracked, but where the compliant product does not need to be sold with the certificate.

Segregation: where compliant products are segregated at all stages of the supply chain and only compliant products are sold as compliant products.

Identity Preservation: where the product is individually identified, physically separated, tracked and documented at each stage of the supply chain.

In order to ensure the greatest degree of flexibility with respect to specific supply chains, many of the VSIs examined apply more than a single system for ensuring that product claims match product practices. Of the ten initiatives reviewed, five use identity preservation, eight use segregation and five use mass balance, with seven of the initiatives using more than one model. At the end of the day, each of these accounting systems produces equal results as far as the market is concerned-for every amount of compliant product sold, and equal amount of compliant product is produced.

By reducing the degree of physical separation and the continuity of certificates being sold with actual product, the potential for economies of scale and reduced transaction costs are maximized. At the same time, the opportunities for creating differentiated (decommodified) markets by maintaining direct links between products and producers is reduced through non-identity preservation methods.

The appropriateness of one system over another will depend on the specific product (is it conducive to identity preservation?), market (mainstream or differentiated) and value proposition (unfettered market access or direct trade linkages) that any given investor brings to the table. By providing access to more than one Chain of Custody model, VSIs retain enhanced flexibility to meet the specific needs of potential clients and stakeholders—hence the tendency toward the use of multiple Chain of Custody models (see Table 2.4).

Table 2.4: Chain of Custody indicators.

	4C Association	UTZ	FLO	Rainforest Alliance/ SAN	IFOAM	GLOBALGAP	SAI	FSC	PEFC	SFI
Separate Chain of Custody standard		✓	✓	✓		✓		✓	✓	✓
Chain of Custody model:										
Identity preservation	✓	✓		✓		✓		✓	✓	✓
Segregation	✓	✓	✓	✓	✓	✓		✓	✓	✓
Mass balance		✓				✓		✓	✓	✓
Book and claim								✓		

Naturally, the application of Chain of Custody traceability criteria provides an additional instrument for monitoring and measuring the processes related to traceability and, as such, provides additional assurances that compliant products are accounted for appropriately in the marketplace. As Table 2.4 reveals, seven of the ten VSIs reviewed had an explicit Chain of Custody standard as part of their implementation system. Similarly, the level of percentage content minimums permissible for making on-package claims with respect to compliance also provides an indication of the robustness of the compliance claims. Although SAI, 4C Association and GLOBALGAP do not use on-package labelling, the latter two have policies on content requirements for trading up the supply chain. All of the other VSIs have requirements for on-package labelling, but apply different rules that largely reflect the different types of products with which they work. For more specific information on these VSI labelling policies, please see Table 2.5.

Table 2.5: Labelling policies.

Voluntary Sustainability Initiative	Policies for labelling claims	Policies for composite products	Explicit policies regarding content requirements for labelling
4C Association	yes	no	The 4C Association does not work with product claims nor does it provide labels or seals for use on coffee packs. Members may use a membership statement on pack to communicate their membership; When referring to a specific coffee as "4C Coffee", it has to be 100% 4C Compliant Coffee. Claims to this effect can only be made with the prior approval of the 4C Secretariat and must be supported by verifiable internal traceability mechanisms.
UTZ Certified	yes	yes	Chain of Custody (origin countries) states that coffee products bagged as UTZ must be 100 per cent UTZ products, while cocoa and tea products must contain a minimum of 30 per cent to use the UTZ logo (this minimum will increase in 2012 when more UTZ Certified cocoa and tea becomes available).
FLO	yes	yes	For single ingredient products, like coffee, 100 per cent of the product must be Fairtrade certified. In multi-ingredient products, all ingredients for which there are Fairtrade standards must be Fairtrade certified. A statement must appear on the packaging of multi-ingredient products that clearly highlights which specific ingredient(s) are certified. At least 50 per cent of the volume of liquid composite products must be Fairtrade certified.
Rainforest Alliance/SAN	yes	yes	For cocoa, coffee, tea and bananas, a minimum of 30 per cent of RA-certified content is necessary for use of the seal, along with a qualifying statement that communicates the percentage quantity of certified content.
IFOAM	yes	yes	There needs to be a minimum of 95 per cent "certified organic;" less than 95 per cent but not less than 70 per cent "organic" may be used on the principal display in statements like "made with organic ingredients;" less than 70 per cent organic may appear in the ingredient list
GLOBALGAP	yes	no	Requirement is 100 per cent (note that GLOBALGAP does not have a consumer-facing label; this is the content requirement for a GLOBALGAP number (GGN), which allows the product to be traced); GLOBALGAP also offers GGN on products for traceability purposes.
SAI	no	no	SA 8000 certification applies to companies, not products. SAI does not offer product certification or labelling.
FSC	yes	yes	FSC allows the FSC logo to be used in three different circumstances: (1) Pure FSC—when 100 per cent of the raw material is sourced from FSC managed forests; (2) Mixed Sources—when raw material is sourced from FSC managed forests, controlled sources, and/or recycled material (no minimum percentage requirement for wood from FSC managed forests); and (3) FSC Recycled—when 100 per cent of the raw material is recycled in accordance with FSC rules.
PEFC	yes	yes	Must contain a minimum of 70 per cent of raw material sourced from PEFC-certified sources (or PEFC managed forests). Alternate mixed source usage allows use of label where a minimum of 70 per cent of raw material sources is either PEFC compliant or recycled material.
SFI	yes	yes	No minimum percentage requirement, but label must specify what percentage of product content is sourced from certified forests, certified fibre, and post-consumer recycling.

2.2.4 | Continuous Improvement

Continuous improvement refers to the degree to which the initiative contains built in feedback loops for building on new learning and scientific developments with respect to the models of best practice applied by the VSI. Those initiatives that formally plan for improvement can adapt to new developments in social and ecological knowledge. An understanding of the changing impacts over time represents a first step in adopting a systemic approach to continual improvement. The principal measure of continuous improvement is a given VSI's application of a formal monitoring and evaluation system across its programs. Of the systems reviewed, eight reported having formal monitoring and evaluation systems (see Table 2.6).

Table 2.6: Presence of formal monitoring and evaluation (M&E) systems across VSIs.

	4C Association	UTZ	FLO	Rainforest Alliance	IFOAM	GLOBALGAP	SAI	FSC	PEFC	SFI
Formal M&E system	✓	✓	✓	✓	none	✓	✓	✓	none	✓

2.3 | Governance Systems

SUMMARY POINTS

Participatory governance represents a pillar of sustainable development and a value that many VSIs promote, but participatory processes also imply considerable costs and may therefore be impractical and unaffordable beyond a certain point. Ensuring active developing country participation represents an area where VSIs have faced particular challenges. Our review found that:

- **60 per cent of the initiatives surveyed provide external stakeholders with the ability to vote or decide on criteria.**
- **70 per cent of the initiatives surveyed are member-based organizations; however, several of the organizations restrict membership to select NGOs or national initiatives.**
- **VSIs are opening decision-making to a wider range of "non-industry" stakeholders. NGOs remain a dominant force at the board level of the ten initiatives surveyed, with industry representing a minority at the board level in almost all of the initiatives surveyed.**
- **VSIs are opening supply chain decision-making to developing country stakeholders, with significant developing country representation at the board level; however, majority representation among almost all of the VSI boards rests with developed country stakeholders.**
- **50 per cent of initiatives provide for independent dispute settlement, and 40 per cent of the initiatives surveyed only provide complaints processes in English.**

"Ensuring the adequate level of openness in governance without sacrificing efficiency and relevance in the market represents a fundamental challenge...for which new and innovative forms of governance will need to be developed..."

Capacity for self-determination is not only a human right, but a cornerstone of sustainable development itself. Participatory governance across sustainability initiatives offers a direct path to ensuring that the "needs of present and future generations" are met by including those needs and interests within the development, planning and implementation processes associated with such initiatives.[13] Given the historical dominance of the consumption side of international supply chains in determining the conditions of production and trade, the prospect of initiatives with international, multi-stakeholder representation from all segments of the global supply chain raises the potential for participatory governance in global trade. It is this premise that has largely driven the development of many VSIs; however, a wide range of forms and practices exists across different initiatives, giving rise to a corresponding range of impacts on participatory governance.

The SSI Review seeks to assist stakeholders to understand the potential governance impacts of different initiatives in two ways. First, by keeping track of core governance indicators stakeholders can more easily assess whose interests are most likely to be represented in a given initiative and take steps to ensure that those most in need are represented appropriately. Second, by reporting on the characteristics and performance of sustainability initiatives more generally (by improving transparency within the sector), stakeholders that might not otherwise be privy to the inner workings of a given system are empowered to play a more active role in system development.

Following this logic, the SSI's governance indicators attempt to capture stakeholder representation across the legislative, executive and judiciary function of governance institutions, as well as the degree of ease of access to information with respect to the individual initiatives through a Public Disclosure Index.

2.3.1 | Initiative Organizational Structures

Most of the initiatives surveyed provide for some sort of membership within the initiative. Depending on the powers associated with membership, the membership structure can have significant implications on how the initiative is governed. The most direct form of member integration and ownership is provided where members have full voting and decision-making powers through the AGM and board elections.

Seven of the ten initiatives reviewed (FLO, IFOAM, PEFC, 4C Association, FSC, Rainforest Alliance/SAN and GLOBALGAP) are constituted by voting members (see Table 2.7).[14] Of these, two restrict voting membership to affiliated national or regional initiatives (FLO and SAN) rather than "stakeholders" per se, while two open voting membership to any interested stakeholders (4C Association and FSC). SAI, Rainforest Alliance, and UTZ Certified also allow for membership but where members are defined as non-voting service users or supporters.

Although participatory governance might be maximized by larger and more open membership models, it is important to acknowledge the deep challenges in running an international organization with limited resources using an "international membership" model. The costs associated with bringing international members to meetings and in enabling them to take part in strategic decisions can multiply rapidly. Moreover, the additional transaction costs associated with international member-based governance can also lead to reduced flexibility and efficiency in operating within the market—two of the key characteristics that make VSIs so appealing in the first place. Ensuring the adequate level of openness in governance without sacrificing efficiency and relevance in the market represents a fundamental challenge that any initiative operating in the VSI sector must face and for which new and innovative forms of governance will need to be developed as VSIs become increasingly widespread and important in their use.

[13] Paragraphs 23.1 and 23.2 of Agenda 21 not only emphasize the need for participatory governance for ensuring sustainable development, but also "the need for new forms of participation." UNCED, Report of the United Nations Conference on Environment and Development, Annex II—Agenda 21A/CONF.151/26, 12 August 1992.
[14] Rainforest Alliance also has a separate membership from SAN that is made up of non-voting supporters.

Table 2.7: Member constitution of VSIs, 2010.

Initiative	# of voting members	Restrictions on voting members
4C Association	120	Producer organizations, trade and industry, civil society
GLOBALGAP	202	Producer/supplier representatives and retailer/food service representatives
FLO	22	Fairtrade national initiatives and producer networks
FSC	828	None—open to individuals and organizations
IFOAM	731	Only organizations that have 50 per cent or more of operations as organic
PEFC	42	Voting members consist of National Governing Bodies (35 as of 2010) and International Stakeholders which can be companies, NGOs or associations (7 as of 2010)
SAN	9	Conservation NGOs
Rainforest Alliance	none	n/a
SAI	none	n/a
SFI	none	n/a
UTZ	none	n/a

2.3.2 | Executive Decision-Making

The core operations of any initiative are governed by its internal management structure, which plays a role similar to the executive powers in public government. Executive decision-making responsibilities refer to the day-to-day implementation of the sustainability initiative and include matters such as market development, training, transaction processing and monitoring and enforcement. In most member-based organizations, the highest management authority usually rests with the General Assembly; however, as a practical matter, the highest level of "hands-on" executive management typically comes from a Board of Directors.

All of the initiatives covered in this report are governed by a Board of Directors—four of which are elected by stakeholders. Board representation provides an indication of potential ownership, buy-in and participation of stakeholder groups within the day-to-day management of organization. Within the context of a global economy historically driven by consumer and private sector demand in the developed world, one of the key challenges for participatory governance has been to find mechanisms for empowering stakeholders upstream on global supply chains to participate in downstream supply chain management decisions.[15]

With this in mind, Figure 2.5 shows the current distribution of representation by supply chain role and by geographic location across the initiatives reviewed in this report. Perhaps not surprisingly, given the strong NGO leadership in establishing many of the initiatives covered in this report, civil society continues to play a prominent role in all of the initiatives. Rainforest Alliance's agricultural standard setting board (SAN) stands out in this regard as consisting *entirely* of NGO representatives.[16] Nevertheless, considerable variety in the levels of producer and industry representation exist across the different initiatives. One of the remarkable features of the board makeup of the VSIs examined is the degree to which their boards reach out of the traditional "corporate boardroom" stakeholder base—suggesting that VSIs are having a positive role in increasing external stakeholder participation in supply chain decision-making.

[15] The literature on Global Value Chain Analysis reveals both the challenge and the importance of governance as a basis for securing prosperity among the poorest of the poor. See, for example, G. Gereffi, 1994, "The organization of buyer-driven global commodity chains: How U.S. retailers shape overseas production networks," in G. Gereffi and M. Korzeniewicz (Eds.), *Commodity Chains and Global Capitalism*, Westport, CT and London: Praeger; P. Gibbon, 2001, "Upgrading primary production: A global commodity chain approach," *World Development 29* (2): 345-363; P. Raikes, et al., 2000, "Global commodity chain analysis and the French filiere approach: Comparison and critique," *Economy and Society 29* (3): 390-417.

[16] For the purposes of our report, we consider representation on the Sustainable Agriculture Network (SAN), the standard setting body affiliated with Rainforest Alliance and responsible for setting and implementing Rainforest Alliance agriculture standards. Rainforest Alliance itself has an independent board with a different makeup altogether.

Figure 2.5: Board representation by stakeholder role in supply chain.

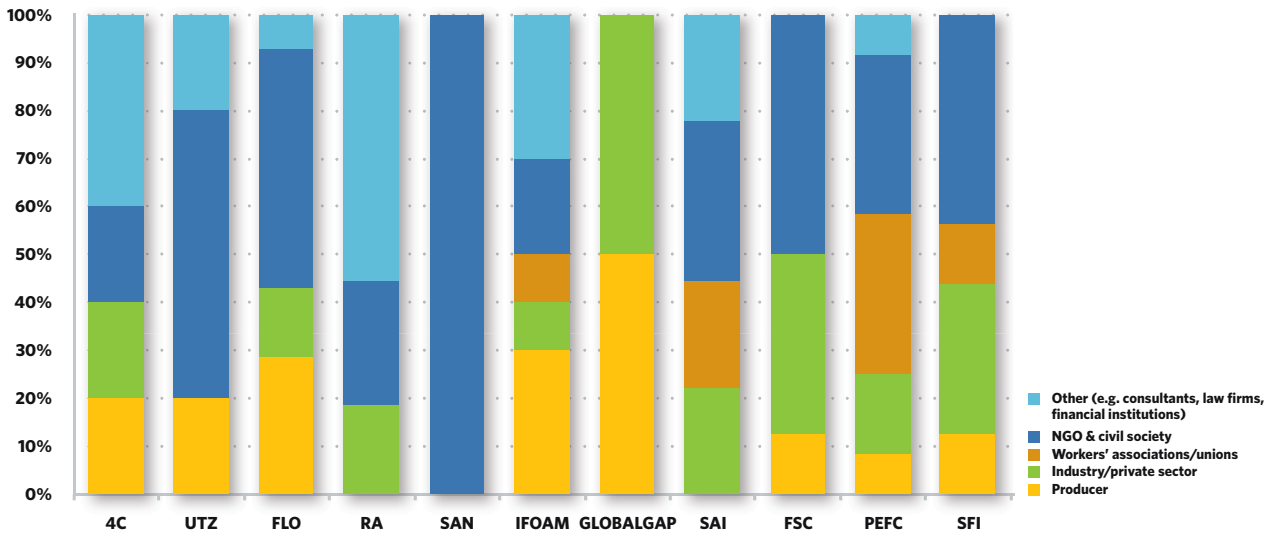
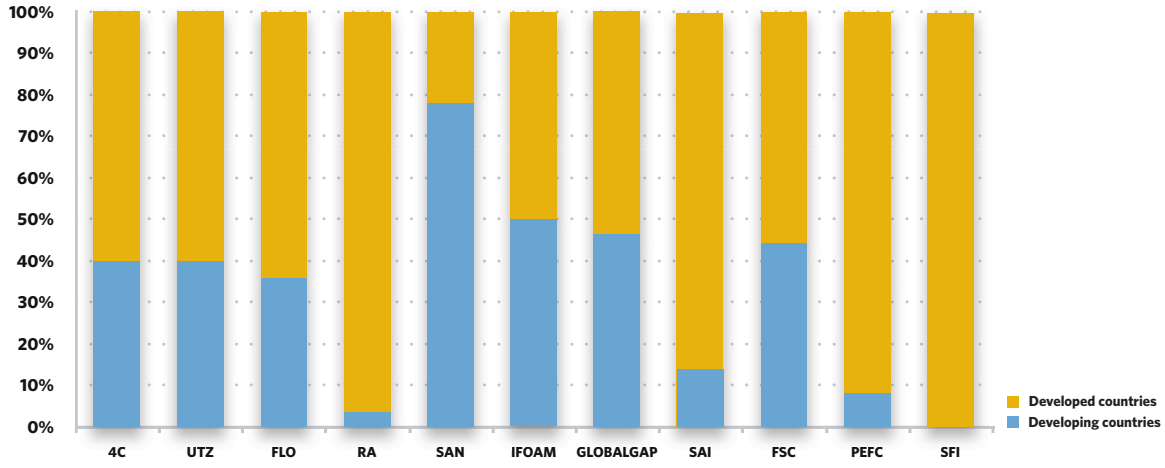


Figure 2.6, which reveals the division of board makeup based on geographic representation shows that although sustainability initiatives do offer concrete opportunities for developing country representation in international supply chains, developed country stakeholders continue to maintain majority representation on almost all of the systems reviewed, with the Rainforest Alliance standard setting board (SAN) representing the exception to this rule, with more than 75 per cent of its board coming from developing countries.[17]

Figure 2.6: Board representation by geographical location (developing/developed countries).



[17] Note that the SFI is only mandated to source from developed country producers, rendering the presence of developing country representatives non-applicable.

2.3.3 | Legislative Decision-Making

The rule-making process embodied within standards and other criteria-based sustainability initiatives plays a role analogous to the development of legislation in public government. By opening the rule-making process to all stakeholders who may be held accountable to such rules, sustainability initiatives have the potential to mimic democratic institutions. Of course, private international institutions face several challenges in opening their rule-making processes to stakeholders at the international level—both at the practical and political level.

On a practical level, with literally millions of potentially affected stakeholders, under any given initiative, the costs associated with ensuring full participation and representation across all stakeholders would be far beyond the budget capacity of any institution currently in existence. One of the attractive features of private initiatives revolves precisely around their ability to adjust to market conditions relatively freely—however, heavy multi-stakeholder decision-making procedures could make this impossible and lead to reduced efficiencies.

At the political level, it's not clear that all stakeholders *should* have an equal voice in the legislative process. If rules only apply to a specific segment of the supply chain, should other segments of the supply chain have an equal say in their formation? Perhaps more importantly, although, all initiatives analyzed in this report are committed to the concept of sustainable development, each of them has a distinct mission and/or markets that they pursue within that broader objective. These variables will determine to a certain extent who the appropriate stakeholders are and what decision-making authority they should have. While it is true that sustainable development is a concept that MUST speak to the needs of all stakeholders at some level, it is also true that individual initiatives are often designed to speak to the needs of specific stakeholders.

Without looking into the precise makeup of stakeholder involvement in the legislative processes of different sustainability initiatives, the SSI measures the degree to which any given sustainability initiative includes external (i.e., non-member) stakeholders within its rule-making process (see Table 2.8).

Table 2.8: External participation in rule-making processes for VSIs.

	4C Association	UTZ	FLO	Rainforest Alliance/ SAN	IFOAM	GLOBALGAP	SAI	FSC	PEFC	SFI
Stakeholder participation on boards and committees	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stakeholder consultation in standard setting process	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stakeholder decision-making authority in standard setting process	✓	✓	✓				✓	✓	✓	

2.3.4 | Judicial Decision-Making

Adjudication on rule compliance operates as a core pillar of any governance system. Because adjudication is meant to deal with disputes when the system breaks down (and is therefore not a core objective of the sustainability efforts of different sustainability initiatives), adjudication activities have tended to be under-resourced within the context of voluntary initiatives.

Across the initiatives reviewed for this report, as with the sector more generally, dispute settlement remains a relatively underdeveloped category of governance. Nevertheless, all of the initiatives do have publicly available policies and procedures on dispute settlement. 4C Association, GLOBALGAP, SAI, FSC, PEFC, and SFI all use formally independent dispute resolution bodies—a key element for ensuring that due process is provided through the adjudication process. FLO, GLOBALGAP, SAI, and SFI, on the other hand, stand out as the only organizations permitting local and informal complaints—indicating a specific effort toward making dispute resolution accessible to marginalized groups. Table 2.9 provides a side-by-side comparison of the dispute settlement characteristics and options.

Table 2.9: Dispute settlement index for VSIs reviewed in this report.

	FLO	Rainforest Alliance/ SAN	IFOAM	UTZ	4C Association	GLOBALGAP	SAI	FSC	PEFC	SFI
Existence of independent dispute settlement body					✓	✓	✓	✓	✓	✓
Public access to policies and procedures for complaints available	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Complaints and dispute resolution procedures are available in other languages	✓	✓			✓		✓	✓	✓*	
Ability to launch complaints at local level	✓					✓	✓			✓
Complaints accepted through informal means	✓				✓	✓	✓			✓

* PEFC does not handle certification complaints at a global level, but rather, handles complaints about endorsement decisions and these procedures are not available in other languages. Complaints about the decisions made by certification bodies or national schemes are handled at a local level and the procedures are available in the local language.

2.3.5 | Public Disclosure

As noted in Section 4.0, Transparency as a Window for Sustainable Development, transparency and access to information represents both one of the basic principles and motivations for many, if not most, VSIs. It also represents one of the core objectives of the SSI. Stakeholders that have insufficient information on the characteristics, decisions and impacts of different initiatives are, other things being equal, going to be less able to play an effective role in the governance of such systems. International sustainability initiatives face significant hurdles in keeping their stakeholders informed on developments within the system. The geographic, cultural and linguistic complexity of the stakeholder base for international organizations can make effective communication with stakeholders an extremely costly endeavour.

Given these challenges, the most practical means for ensuring broad access to information is by allowing public or online access to key documents and decisions, noting, of course, that many stakeholders may not even have access to the internet. While the thematic discussion on transparency presented in Section 4.0, provides a more detailed discussion on possible parameters for measuring and promoting transparency across VSIs, the SSI's Public Disclosure Index provides a high-level measure of the degree to which key information is available online across different initiatives based on seven parameters.

Table 2.10 suggests that although the institutions reviewed in this report provide public or online access to many core documents, none of the institutions has made all of the core documents outlined in the SSI indicator list publicly available. Only SAI provides online access to appeals and resolutions, while only FLO, FSC and SFI provide the minutes of their committee meetings online (not all committee meeting minutes and records are posted online). None of the standards provide board minute meetings online.

Table 2.10: Availability of VSI documents online.

Type of Information	Information Detail	FLO	Rainforest Alliance	IFOAM	UTZ	4C Association	GLOBALGAP	SAI	FSC	PEFC	SFI
Decision Makers	List of board members	✓	✓*	✓	✓	✓	✓	✓	✓	✓	✓
	List of committee members	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Decisions	List of compliant enterprises	✓	✓		✓		✓	✓	✓	✓	✓
	Complaints							✓			
	Appeals							✓	n/a***		
	Resolutions							✓	n/a***		
	Certification decisions						✓	✓	✓	✓	✓
Documents	Committee meeting minutes and records**	✓							✓		✓
	Standard setting and review procedures	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Policies and procedures for complaints	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Summary of standard setting org's financial statements	✓	✓	✓	✓	✓	✓	✓	Up until 2007	Up until 2006	
	Independently audited full financial statements		✓				✓	✓			✓
	Annual report	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*There is a separate SAN board, whose list of members is available by request.
**Although a variety of committee meeting minutes and records are publicly available for the indicated organizations, not *all* committee meeting minutes and records are posted online.
***FSC does not have any appeals or resolutions to post online.

2.4 | Content and Criteria Coverage

SUMMARY POINTS

The criteria applied by different initiatives are in a period of rapid change and increasingly address multiple sustainable development issues explicitly. Although most initiatives are still differentiated by the distinct criteria they monitor and enforce, some general trends can be observed across the initiatives reviewed:

- **Environmental criteria remain the most prevalent and robust across initiatives. Criteria related to energy conservation, GMO prohibitions and greenhouse gas management, however, tend to have less presence or emphasis across initiatives. Strong convergence exists on synthetic inputs criteria, with almost all initiatives either requiring integrated pest management or compliance with a prohibited chemicals list.**
- **Social criteria revolve largely around International Labour Organization (ILO) conventions, with virtually all initiatives requiring compliance with core ILO conventions, as well as most initiatives having strong criteria coverage of health and safety and employment conditions. The majority of the initiatives reviewed place less emphasis on gender, employment benefits, community involvement and humane treatment of animals in their criteria.**
- **Economic criteria are the least developed across the initiatives surveyed, with the majority of initiatives reviewed having few or no economic criteria. Where economic criteria exist, the most common revolve around product quality requirements and minimum wage requirements. Living wages, price premiums and written contract requirements are particularly rare.**

All of the standards reviewed in this report are technically classified as process-based standards rather than performance-based standards. A process standard sets requirements for practices that must be undertaken, but not for actual outcomes that must be achieved. Process-based standards focus on compliance or progress with recommended or required "best" practices, not on the results of those practices, nor do they set criteria for the performance of the management system. Having said this, many process-based standards, including most of those contained in this report, also contain performance-based requirements, making it difficult to draw a clear distinction.[18]

All of the systems surveyed include prescriptive indicators (in some cases several hundred) that describe the social, economic and environmental requirements for compliance. The criteria of the VSIs covered in this report form the backbone of an initiative's strategy for ensuring sustainable practice along the supply chain. As such, the rules play a large role in setting forth the values, approach and, direction of any given initiative.

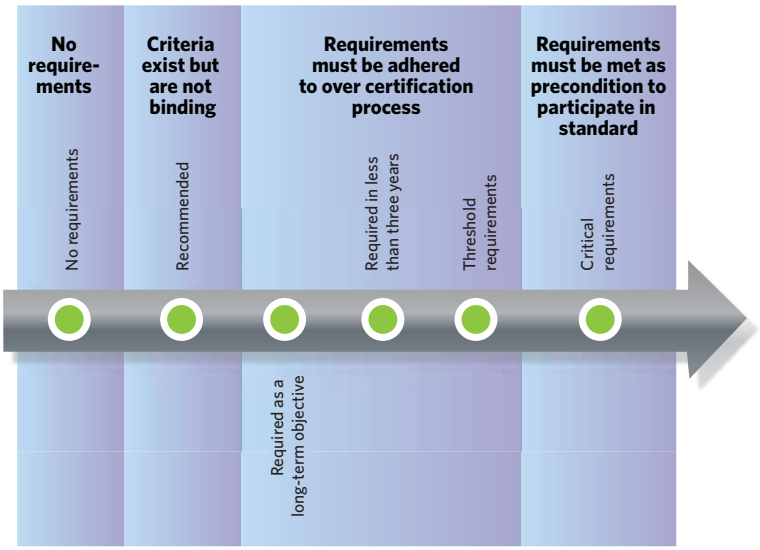
Criteria may also provide an indication of expected impact, but it is critically important to note that criteria alone are in no way a sufficient condition for concluding that specific impacts are achieved.[19] The relationship between any given criteria and actual outcomes may be highly complex and any given criteria can lead to unexpected results. Even well designed criteria may fall short of generating desired impacts due to weak implementation or enforcement mechanisms.

[18] In some cases this distinction is blurred, such as in the case of labour standards, which often represent both required practices and performance outcomes.
[19] The SCI's Committee on Sustainability Assessment (COSA) initiative offers one example of an initiative expressly designed to address the question of field-level sustainability impacts of VSIs. The level of data available on impacts at present is insufficient to report in a systemic manner at present; however, the SSI does envision reporting on impacts once a more systemic and reliable information base is available.

The SSI's content review is therefore designed to shed light on the orientation of a given initiative but does not suffice as a proxy for actual impacts. The SSI's content indicators, which were developed over a year-long process under the oversight of the SSI Advisory Panel, are designed to address social and environmental sustainability issues of major importance to the global community.[20] In order to provide the most insight possible on the orientation of the initiatives surveyed, the SSI indicators classify individual criteria based on whether or not they are (1) Not required, (2) Recommended, (3) Required as a long-term objective, (4) Required in less than three years, (5) Required with specific threshold requirements (including outright prohibitions), or (6) Critical (meaning that non-compliance will result in de-certification); Figure 2.7 graphically represents this range of possibilities. Appendix I provides detail on the indicators that make up the indexes. Appendices II and III list the coverage across initiatives and methodology for presentation in the Figures 2.8 through 2.10.

In reading the following sections a few words of caution are worth noting. First, the SSI's analysis is limited to criteria listed in global standards documents and does not include the range of criteria that might be included at the local, national or regional levels. In many of the initiatives, systems are in place for identifying and enforcing criteria at the local and national level that go beyond those specified at the global level (see Box 2.1).[21] Second, in some cases, initiatives reference compliance with national law in lieu of specification of certain requirements in the standard itself with the understanding that such legal requirements are *part and parcel* of the standard itself.[22] Given the complexities associated with these two challenges, the SSI's indicator analysis on the following pages is limited to criteria ***explicitly contained in the standard's global documents and not those at either the regional level or referenced through national law***. Appendix II documents where the criteria are reported as being higher at the national level or in light of local laws but it is important to note that these national and legal requirements are not reflected in Figure 2.8 to Figure 2.10.

Figure 2.7: Degree of obligation scale for criteria indexes.



2.4.1 | Social Criteria

Although social sustainability remains one of the more difficult pillars of sustainable development to define and measure, there is a general consensus that social sustainability is built upon fair treatment between members of society and equitable access to social institutions and benefits such as education, medical care and decent living conditions.[23] To the extent that VSIs set rules for social relations along commercial supply chains, there is a definite role for such initiatives to play in ensuring that these relations respect and reinforce commonly recognized principles of social sustainability. Social sustainability, however, is also intimately linked to inter-personal relations and institutions that extend into the community and broader society, and, that are often far beyond the reach of individual supply chains or commercial actors. One of the major challenges for the VSI sector, like the private sector more generally, is to identify what the appropriate lines of responsibility and feasibility for managing social sustainability are for supply chain actors. The SSI core social indicators are designed to provide a high-level overview of the degree to which a given VSI addresses key issues related to social sustainability at the levels of the community, household and the workplace. The SSI indicators for monitoring the scope of VSI criteria coverage on social issues rely heavily on UN and International Labour Organization (ILO) human and labour rights documents through the following indexes:

[20] Most of the indicators are inspired by existing international conventions such as the Rio Declaration, ILO Conventions, Human Rights Conventions, Convention on Biodiversity, Millennium Development Goals, and so forth.

[21] Note that this applies specifically to IFOAM, FSC and PEFC, each of which are affiliated with and/or manage a complex set of national and regional standards. See Appendix II for an indication of where higher requirements have been reported at the national level.

[22] Note that this applies specifically to the SFI, where reference to compliance with North American legislation covers many of the basic social and environmental indicators in the SSI set. See Appendix II for more detail.

[23] See A. Colontanio, 2007, "Social Sustainability: An Exploratory Analysis of its Definition, Assessment Methods, Metrics and Tools," 2007/01 EIBURS Working Paper Series, Oxford Institute for Sustainable Development.

Human Rights Index: The United Nations Declaration on Human Rights (UNDHR) sets the foundation for internationally recognized human rights. The SSI project tracks key themes contained within the UNDHR by tracking the degree of obligation to protect rights to (1) Education, (2) Medical care, and (3) Housing and sanitary facilities.

Labour Rights Index: The International Labour Organization's Core Conventions form the basis of internationally recognized labour rights. The SSI project tracks VSI criteria coverage on the following issues: (1) Equal remuneration, (2) Freedom of association, (3) Collective bargaining, (4) Non-discrimination, (5) Child labour, (6) Forced labour, and (7) Minimum age.

Gender Index: Gender equality and opportunity is recognized as a leading indicator of sustainable development and livelihoods. The SSI project monitors the existence and extent of obligations related to (1) Gender in governance, (2) Women's labour rights, and (3) Women's health and safety.

Health and Safety Index: Worker health and safety represents a core responsibility of employers and is directly linked to human well being. VSIs can monitor and enforce practices related to investments and protections for employee health and safety. The SSI project monitors criteria coverage on (1) Safety at work, (2) Healthy work conditions, (3) Access to safe drinking water, (4) Access to sanitary facilities at work, (5) Access to medical assistance, and (6) Access to training.

Employment Conditions Index: The conditions and treatment of employees is governed by employers. Poorer employees or those associated with minority groups may be subject to discrimination or inequitable treatment due to their unequal bargaining power or status among other employees. VSIs can play a role in ensuring fair working conditions and employer treatment through their rules processes. The SSI project's employee conditions index monitors VSI criteria coverage with respect to (1) Contract labour, (2) Transparency of employment practices, (3) Written contracts, (4) Timely payment, (5) Maximum number of working hours, and (6) Intimidation.

Employment Benefits Index: Employers seeking to ensure the long-term well-being of their employee base will often invest directly in additional non-work-related benefits. The SSI project monitors the presence of criteria related to the following employment benefits: (1) Paid leave (sick/maternity and/or paternity) and (2) Pension and security benefits.

BOX 2.1

Global versus regional standards

Several of the initiatives reviewed in this report, notably, IFOAM, PEFC and FSC, specify global standards that are then adapted to the regional context in the form of a national or regional standard. As per the principle of subsidiarity, this approach helps ensure an initiative's efficiency and relevance to local conditions. Regional standards must always adhere to the "bottom line" established by global standards, but typically, regional standards go beyond the set global minimum requirements; both PEFC and FSC, for example, often provide more stringent regional standards for social sustainability in developing country applications. The SSI Review 2010 was not able to reflect the diversity exhibited by many different regional versions and therefore does not always fully represent the extent of *actual* criteria applied on the ground. **With this in mind, the conclusions and graphs on the following pages should be understood as "minimum requirements" and not necessarily indications of actual criteria applied at field level.**

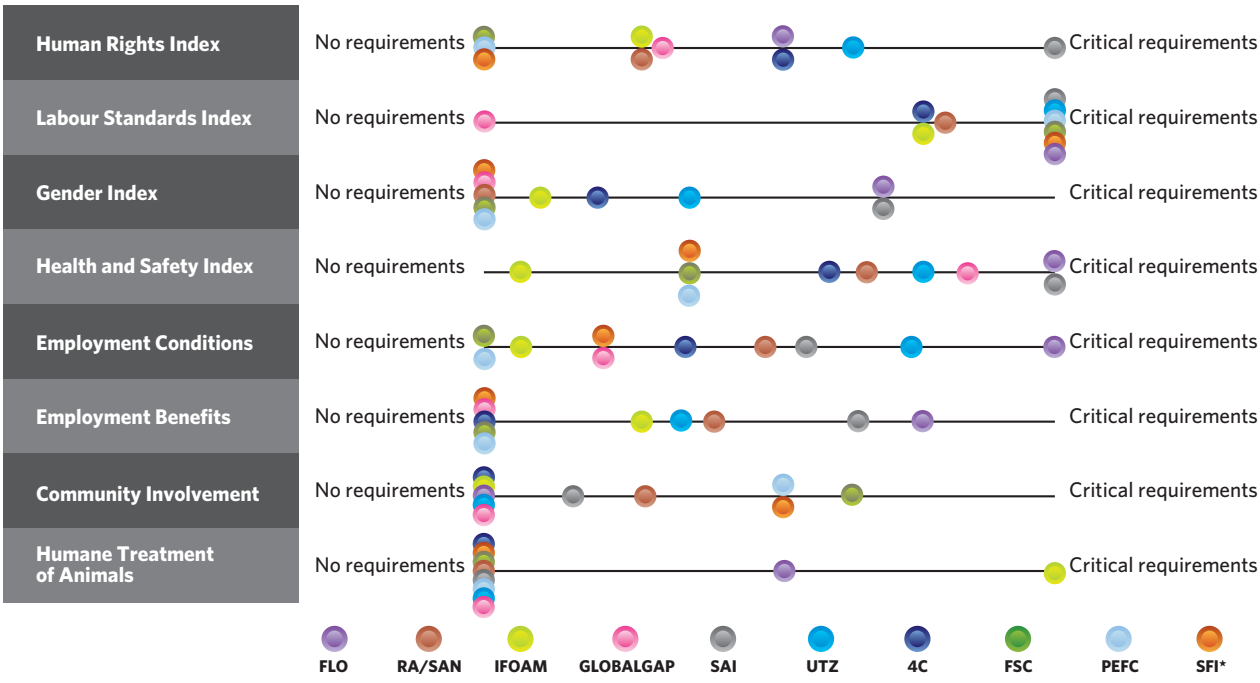
Community Involvement Index: Companies and supply chains draw from community resources while directly impacting community relations. As a result they also bear responsibility to the communities within which they operate. Increasingly, companies are attaching importance to communication with, loyalty to, and the involvement of, communities, in their own decision-making. The SSI project monitors VSI criteria coverage for community involvement along the following categories: (1) Community consultation and (2) Local hiring and purchasing.

Humane Treatment of Animals Index: The humane treatment of living and/or sentient creatures is commonly regarded as a human ethical responsibility with implications for the health and well-being of society more generally. The SSI project monitors criteria coverage related to the humane treatment of animals.

Figure 2.8 outlines the scope and degree of criteria coverage across the eight SSI social indexes. A clear convergence among the initiatives exists around labour standards, with virtually all of the initiatives requiring compliance with the full range of ILO Core Conventions as a prerequisite for participation. The Gender, Employment Benefits, Community Involvement and Humane Treatment indexes reveal a similar convergence, but at the opposite end of the spectrum, with most of the initiatives containing no criteria or leaving such criteria as optional for participation. One explanation for this is likely due to the fact that these issues are largely linked to "positive" rights, rather than "negative" rights. Another lies in the fact that many of these indicators are related to circumstances that arise outside of the supply chain and, as a result, may be less likely to be addressed through supply chain initiatives. Across the Human Rights, Health and Safety and Employment Conditions Indexes the initiatives display a high degree of diversity with many of the initiatives listing criteria under these indexes as formal requirements under the initiative.

FLO stands out with the highest coverage of SSI social indexes as "critical" requirements for compliance. Overall, FLO, SAI and UTZ reveal higher than average breadth and depth coverage across the SSI social indicators.

Figure 2.8: Social criteria indexes, degree of obligation. (See Appendices II and III for source calculations).



* If the requirements of US and Canadian law were to be considered in the index calculation, the marker for SFI would sit at the very rightmost point of the spectrum (all critical requirements) for both the health and safety index and the employment conditions index.

2.4.2 | Environmental Criteria

The environmental impacts related to production are rarely visible in the final product itself and yet, typically, the vast majority of environmental impacts occur during the materials extraction and production phases of a product's lifecycle. VSIs have the potential to inform consumers and other supply chain stakeholders about a vast array of potential environmentally relevant practices and outcomes associated with the product lifecycle. The SSI indicators cover a series of major environmental sustainability areas at the site of production/extraction. This reflects the fact that the most important environmental impacts usually occur at this stage and the fact that most of the standards reviewed (with the exception of SA8000) focus the application of their criteria at this stage of the supply chain. The SSI environmental indicators record the degree of obligation specified by VSIs with respect to the following categories:

Soil Index: Soil is a key environmental resource of agricultural systems and ecosystems. The SSI soil index records criteria coverage with respect to (1) Soil conservation (erosion prevention) and (2) Soil quality maintenance.

Biodiversity Index: Biodiversity has long been recognized by the international community as a key variable in ensuring ecosystem resilience and integrity. Drawing from the framework of the Convention on Biological Diversity, the SSI Biodiversity index monitors criteria coverage with respect to (1) Habitat set-asides, (2) Flora densities, and (3) Prohibition of high conservation value land.

Genetically Modified Organism Prohibition: Although the use of Genetically Modified Organisms (GMOs) in agricultural production remains an issue of considerable controversy from a sustainable development perspective, consumers and other stakeholders have displayed strong positions either in favour of, or against, the use of GMOs in production. At the same time the inclusion of GMO-related criteria within a VSI can have wide-reaching impacts on the supply chain. As a result, the SSI project monitors criteria related to the prohibition of GMOs.

Waste Index: Waste production from primary production and industrial processes represents a major source of environmental pressure in many product and commodity supply chains. The SSI Waste Index monitors criteria coverage with respect to (1) Waste disposal, (2) Waste management, and (3) Pollution.

Water Index: Water is a major resource for agricultural production, ecosystem sustainability and human well-being. The SSI Water Index measures the existence of criteria related to the following categories: (1) Water practices in scarcity (dependencies), (2) Water use management plan, (3) Water reduction criteria, and (4) Wastewater disposal.

Energy index: Energy use can affect waste generation more generally, as well as climate change-related impacts of production. The SSI Energy Index monitors the existence and degree of criteria related to (1) Energy use and management, and (2) Energy reduction.

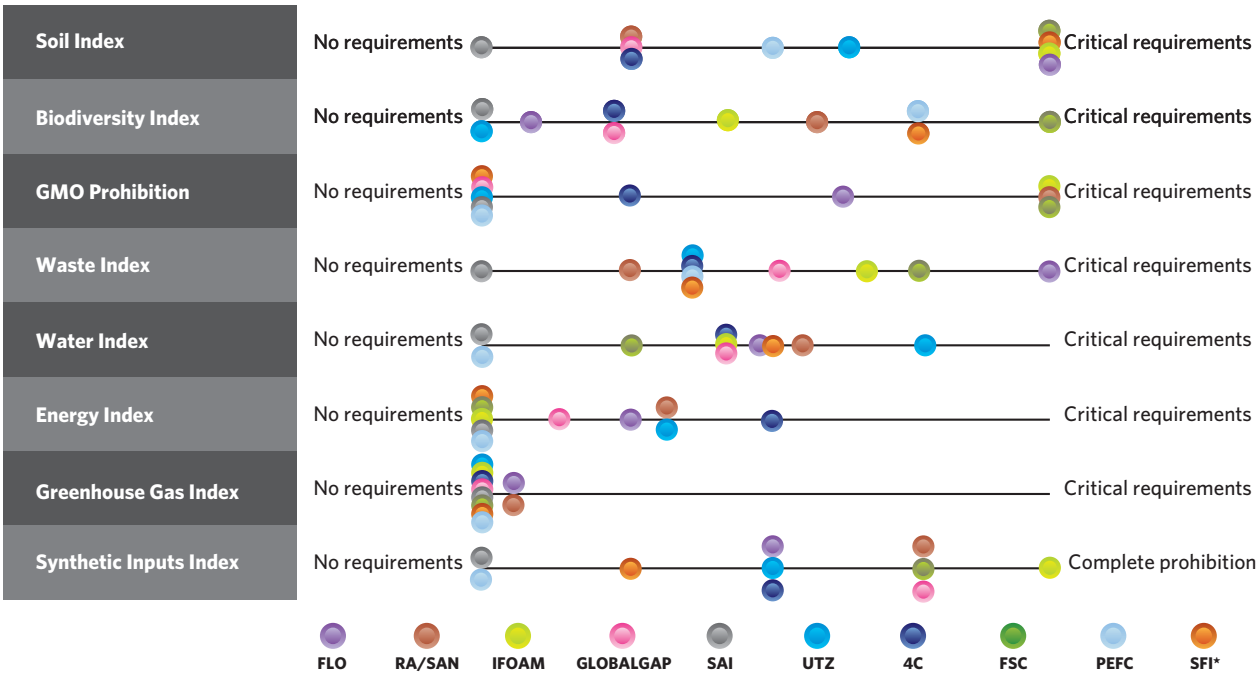
Greenhouse Gas Index: Greenhouse gas (GHG) reduction and management is a core strategy for reducing global pressures on climate change. The SSI project tracks criteria coverage related to (1) GHG Accounting, (2) GHG Reductions, and (3) Soil Carbon Sequestration.

Synthetic Inputs Index: Synthetic inputs can have important implications for energy use, waste generation, worker health and ecosystem health. As a general rule, good agricultural practices prescribe methods for ensuring that the potentially negative impacts arising from the use of synthetic chemicals are minimized. The SSI project monitors the level of constraint placed on the use of synthetic according to the following categories: (1) Unregulated, (2) Integrated pest management, (3) Enforcement of a prohibited list, and (4) Complete prohibition of synthetics.

Figure 2.9 shows the criteria coverage over the SSI environmental indexes. The strongest consensus among the VSIs reviewed is found in the synthetic inputs index where most of the initiatives included either requirements for integrated pest management or compliance with a prohibited chemicals list. Another striking point of convergence among the initiatives reviewed is found in the greenhouse gas index, which finds almost no criteria directly addressing greenhouse gas accounting or reductions. The water, greenhouse gas and energy indexes are all similar in that there is a general absence of the specification of such criteria as threshold or critical elements for compliance with the VSIs reviewed. Nevertheless, a high degree of diversity, with many including full requirements, was found in the criteria covering water, energy, biodiversity and soil issues. Treatment of GMOs and waste issues were found to be more or less evenly divided between those who count these issues as important issues for their systems and those who do not. The highest concentration of critical level requirements was found across the GMO index, waste index and the soil index.

On the whole, FSC, IFOAM, FLO, SFI and Rainforest Alliance/SAN all revealed higher than average coverage and depth across the SSI environmental indexes. FSC, SFI, FLO and IFOAM list critical requirements on all of the SSI indicators for soil quality. Only FLO has all critical requirements on waste management while FSC, PEFC and SFI had the highest average degree of obligations on biodiversity issues. UTZ had the highest coverage on water management while the 4C Association had the highest coverage on energy.

Figure 2.9: Environmental criteria indexes, degree of obligation. (See Appendices II and III for source calculations).



* If the requirements of US and Canadian law were to be considered in the index calculation, the marker for SFI would sit at the 66% point for the biodiversity index and the 75% point for both the synthetic input index and water index.

2.4.3 | Economic Criteria

Economic sustainability is commonly referred to as the pillar upon which all of the other pillars of sustainable development rely. This conception of sustainability is also supported by the Brundtland definition of sustainable development with recognizes the primacy of "meeting the needs of those most in need." One of the virtues of all voluntary systems is that they all hold the promise of some level of economic benefit in the form of better market recognition, better market access and/or higher prices as a result of the guarantees and market opportunities they

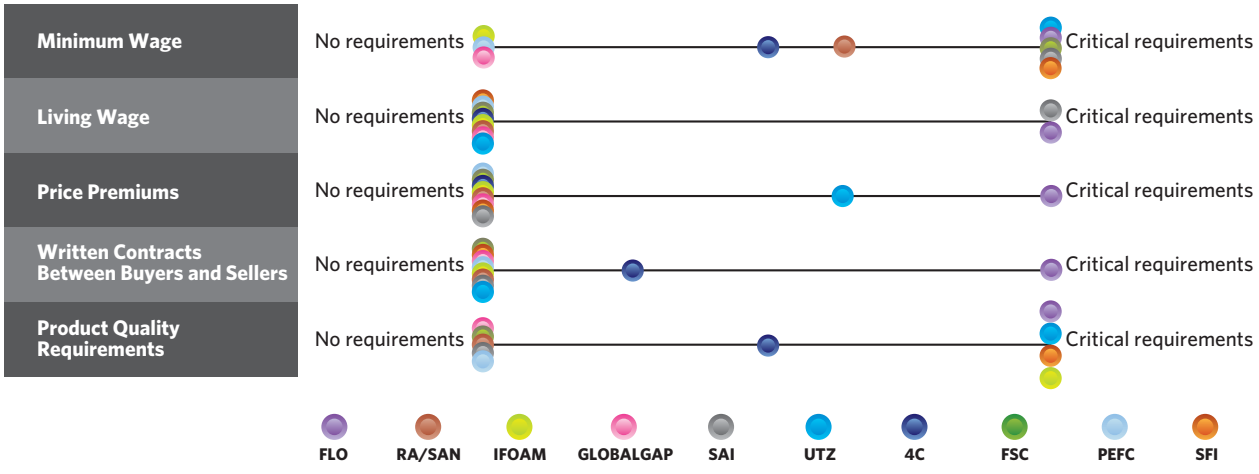
provide related to improved sustainability practices. These benefits will often exist without any specific requirements on prices or other economic indicators and are briefly expounded upon in the conclusions of this report. Nevertheless, the criteria implemented within any VSI can promote explicit attention on critical economic issues by including related requirements. The SSI project measures coverage of the following categories:

Minimum wage: requirements related to compliance with local minimum wage laws.
Living wage: requirements related to payment of a living wage.
Premiums: requirements related to the payment of premiums for compliant products.
Written contracts: requirements related to the provision of written contract to employees.
Product quality requirements: requirements related to ensuring product quality.

As a general rule, criteria related to economic sustainability are less common within VSIs than criteria related to the other pillars of sustainable development. This can be explained, in large part, by the fact that VSIs are typically understood as "market-based" mechanisms designed to deliver economic benefits in return for compliance. A fundamental belief in the potential market value of sustainable practices underlies most all VSIs. By creating market demand for compliant products (through marketing and awareness raising), compliance with initiative criteria is automatically expected to deliver market benefits. The implicit reliance on market forces also leaves many initiatives reluctant to dictate the operation of such forces through actual criteria on the assumption that the market will simply make adjustments to compensate for criteria dictating market outcomes. Moreover, it is worth noting that in many regions the stipulation of prices and premiums by the private sector can be interpreted as a form of "price fixing" that may be prohibited by national antitrust legislation. As a result, most of the economic criteria covered by VSIs tend to relate to promoting the efficient operation of the market through improved transparency and market performance.

Figure 2.10 shows the criteria coverage over the SSI economic indexes. Minimum wage criteria, based on legal obligations represent one of the more common examples of economic criteria included within VSIs. Similarly, requirements on the maintenance of product quality help ensure the delivery of increased economic benefits through the initiative without stipulating how product quality will be compensated by the market. Only FLO and UTZ specify requirements related to actual price premiums though they do so in very different ways. While FLO specifies minimum pricing depending on the product type and location, UTZ requires that a minimum premium of US$0.01 per pound be paid in order for the product to be labelled UTZ Certified, but allows the final premium amount to be negotiated between the buyer and seller. FLO and 4C Association are the only initiatives which, in their standards documents, explicitly outline the need for written contracts between buyers and sellers. FLO and the SAI are the only initiatives specifying an obligation to pay living wages (above and beyond minimum wages).

Figure 2.10: Economic criteria indexes, degree of obligation. (See Appendices II and III for source calculations).



3 Market Overview

One of the core objectives of voluntary initiatives is to promote sustainable production and consumption by providing market signals that can explicitly reward sustainable behaviour. Although VSIs provide the opportunity for the adoption of sustainable practices by monitoring, enforcing and marketing them, they don't, of course, guarantee it. Market presence and market growth are virtual prerequisites for VSIs to succeed in transforming conventional market practices toward sustainable practices. And yet, clear, regular and accurate information on the market performance of such initiatives is notoriously difficult to obtain.

The absence of consistent and regular market data related to VSIs has been a persistent challenge to stakeholders working within the sector. With access to incomplete and anecdotal market information, it is difficult for stakeholders to include such initiatives within their own strategic planning.

Part of the reason for the absence of more robust market data can be traced to the absence of trade statistics related to the import and export of "sustainable" products. Although some countries, such as Canada, have developed HS Codes for Organic products,[24] this remains the exception, and hasn't yet been carried over to other sustainability initiatives and marks. This means that regular sources of trade data cannot distinguish between, and report upon, the trade of sustainably versus conventionally produced products.

Another source of the lack of quality information on markets for VSIs is merely due to the absence of common systems for gathering and reporting on such information in a comparable and regular format across initiatives. One of the aspirations of the SSI project has been, and continues to be, to assist the VSI sector in the development of a common reporting framework so that market developments can be tracked more completely and cost effectively.

Table 3.1 provides an outline of the initial data sought across initiatives operating in the Forestry, Cocoa, Coffee, Tea and Banana sectors in the preparation of this report. Although data were not available from all of the VSIs along all of the requested parameters, the process of compiling the data for this report has provided a meeting ground for the different initiatives and holds the promise of enhanced consistency and comparability in the future.[25]

[24] In 2007 Canada became the first country in the world to include specific listings for organic products in its HS Code system for tracking the trade of goods. Canada now lists more than 60 HS Codes for organic products. See canadagazette.gc.ca/partII/2006/20061221-x6/html/extra-e.html.

[25] It is also worth noting that a "single" reporting system may not do justice to all types of systems. Our coverage of market trends on a commodity-by-commodity basis assumes that initiatives develop their own implementation strategies along commodity divisions. However, some VSIs, such as SA8000, build their implementation strategies based on a specific issue or supply chain objective that need not distinguish between commodities and products in their implementation strategies. Different implementation strategies can give rise to different operating systems that arguably warrant different approaches to reporting. In this edition of the SSI review, we have maintained a commodity-based approach to reporting, but acknowledge that this only represents one avenue of analysis and may not be appropriate in all circumstances.

Table 3.1: Framework for SSI market data.

1	Retention rates	Returning certificate holders as a percentage of total certificate holders from previous year
2	Calculation of Chain of Custody certification costs	Select from the following: AUDIT COSTS: actual costs of audit, including professional fees PERCENTAGE OF SALES: fees based on the percentage of sales or volume OTHER: other means of calculating Chain of Custody costs, besides audit and percentage of sales
3	Volume produced	Unit volume per product per country produced
4	Area	Number of hectares per product certified
5	Certificates	Number of certificates per product per country
6	Producers	Number of producers per product per country
7	Exports	Volume of exports per product per country
8	Imports	Volume of imports per product per country
9	Retail sales	Volume of retail sales per product per country
10	Farm gate price	Average estimation of price per product and per country
11	Premium	Average estimation of premium per product and per country
12	Costs of certification	Average estimation of certification costs per product and per country
13	Chain of Custody costs	Average estimation of Chain of Custody costs per product and per country

In what follows, we provide a listing of the data actually retrieved through our research process, which drew from a combination of submissions from VSIs directly as well as a survey of secondary literature (for various sources, see Appendix IV, as well as the References).

3.1 | Forest Initiatives Market Data

SUMMARY POINTS

- **The land area covered by global sustainable forestry initiatives (FSC and PEFC) has grown by a total of 232 per cent over the past five years and, at 341,703,696 hectares, accounted for 18 per cent of global managed forests (nearly 9 per cent of global forested land) by the end of 2009.**
- **Boreal and temperate forests in the developed world make up the vast majority (93 per cent) of certified forest management area.**
- **FSC reported premiums ranging from 4 to 20 per cent for North American and Western European production, compared to PEFC, whose range was between 0 and 1 per cent for North American and Western European production (based off available case studies).**
- **Observed examples of direct certification costs—e.g., certification, inspection and auditing fees—for sustainable forestry initiatives were found to range between US$0.12 and $2.00 per hectare, with evidence of certification costs decreasing significantly with the size of the certified forest.**

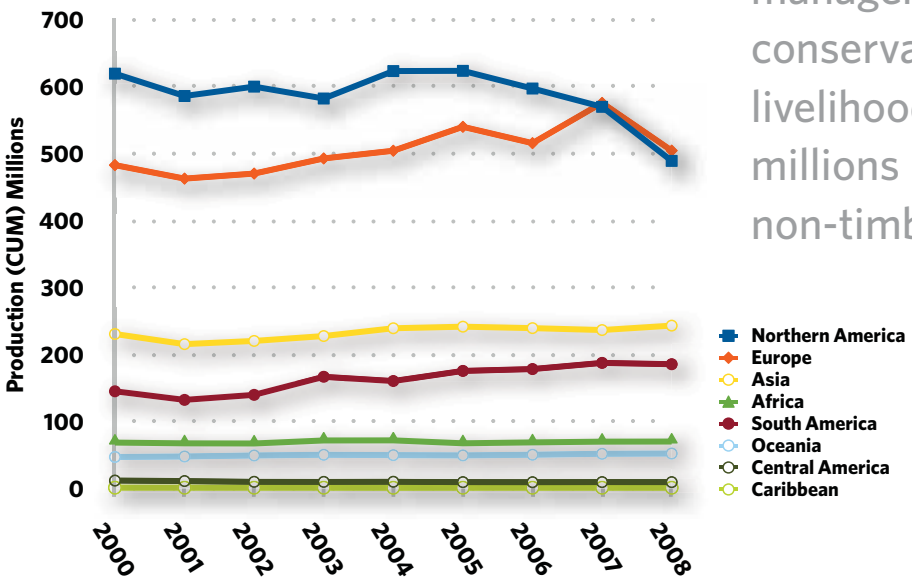
Forests operate as a core element of the global economy and the global ecosystem. An estimated 10 million people are directly dependent upon forest management and conservation for their livelihoods, with many more millions being dependent on non-timber forest products. Deforestation, on the other hand, is responsible for an estimated 20 per cent of global greenhouse gas emissions. When combined with its importance as a foundation for ecosystem and biodiversity development, forest protection rates among the most important goals in securing global environmental integrity.[26]

While forests also contribute to the global economy through a variety of non-timber products, all parts of the world use some portion of their forests for timber logging, which is the primary economic usage of forests. Different regions, however, use forest timber materials for different purposes and at different rates depending on the climate and level of development. In Northern Africa, for example, 96 per cent of all wood use is for fuelwood, compared to only 7 per cent in North America. Worldwide, 60 per cent of human wood use is for industrial roundwood (see Figure 3.1), which is used to produce timber and wood-based panels, and 30 per cent of timber is used for pulp and paper products.[27]

Regional differences also exist in the types of forest products grown. Boreal forests in the North tend to be composed of softwood species that are suited for the production of pulp and paper. The most important producers of industrial roundwood are North America and Europe, who together account for about 59 per cent of global production.[28] In contrast, tropical timber forests contain more high-value and hardwood tree species that are well suited for use in outdoor construction or valuable furniture, flooring and joinery products. Major producing countries of tropical timber are Brazil and Indonesia and Malaysia, each also contain some of the most important rainforests in the world.[29]

"An estimated 10 million people are directly dependent upon forest management and conservation for their livelihoods, with many more millions being dependent on non-timber forest products."

Figure 3.1: Global industrial roundwood production.



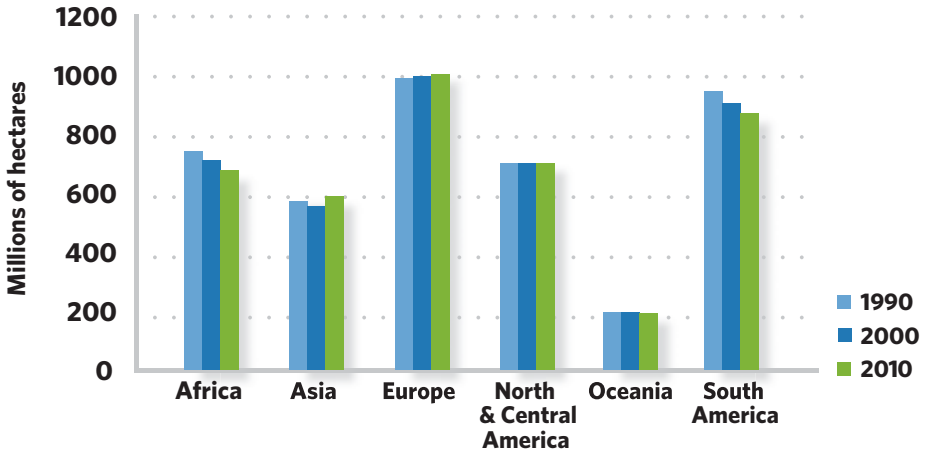
[26] Intergovernmental Panel on Climate Change, 2007.
[27] WWF, 2008.
[28] Food and Agriculture Organization of the United Nations (FAO), 2009.
[29] International Tropical Timber Organization (ITTO), 2008. Additionally, it should be noted that a significant share of illegal timber from Indonesia passes through Malaysia for export.

Unlike many commodities, timber usually undergoes at least minimal processing in producing countries. The production chain of timber and wood-based products begins in natural forests or plantation areas, where trees are felled and stripped using relatively simple machinery. In the first stage of processing logs are debarked and sliced into sawn wood or sliced into veneer strips for the production of plywood. About 88 per cent of the global production of tropical timber logs is processed into sawn wood and panels in the country of origin.[30] The timber is then further processed at saw mills where raw logs are cut and smoothed, or at plywood factories where thin strips of wood are pressed into boards. Mills tend to be owned independently or by forestry companies; their output is traded both by the milling company and by international traders and importers in other countries.

The forest products chain tends to be dominated by relatively small, family-owned enterprises and medium-sized companies. Logging companies are often still small operations that frequently travel between logging areas. Recently, many large multi-national companies have become active in certain countries, for example, Indonesia and Cameroon. Some companies also use subcontractors to meet excess mill capacity. Some larger forestry companies are active in both logging and primary processing phases, but integration further downstream is rare. Producers of windows, floors and furniture are usually not integrated with companies active in the forest, timber processing and trading sectors.[31]

The timber sector, as an extractive industry, is characterized by deep environmental and social sustainability challenges. A key environmental concern is unsustainable forest management, the worst of which results in complete deforestation, depriving forests of their ability to regenerate. As portions of Figure 3.2 below illustrate, this is a serious sustainability threat, particularly to the world's tropical forests. Brazil and Indonesia lose an estimated 2.4 million hectares of forestland every year.[32] Tropical forests represent critical ecosystems, harbouring more than half the Earth's terrestrial biodiversity and providing homes to many of the world's surviving indigenous populations. At the same time, deforestation, primarily in tropical regions, accounts for one-fifth of global greenhouse gas emissions.[33]

Figure 3.2: Trends in global forestation, 1990–2010, by area (millions of hectares).

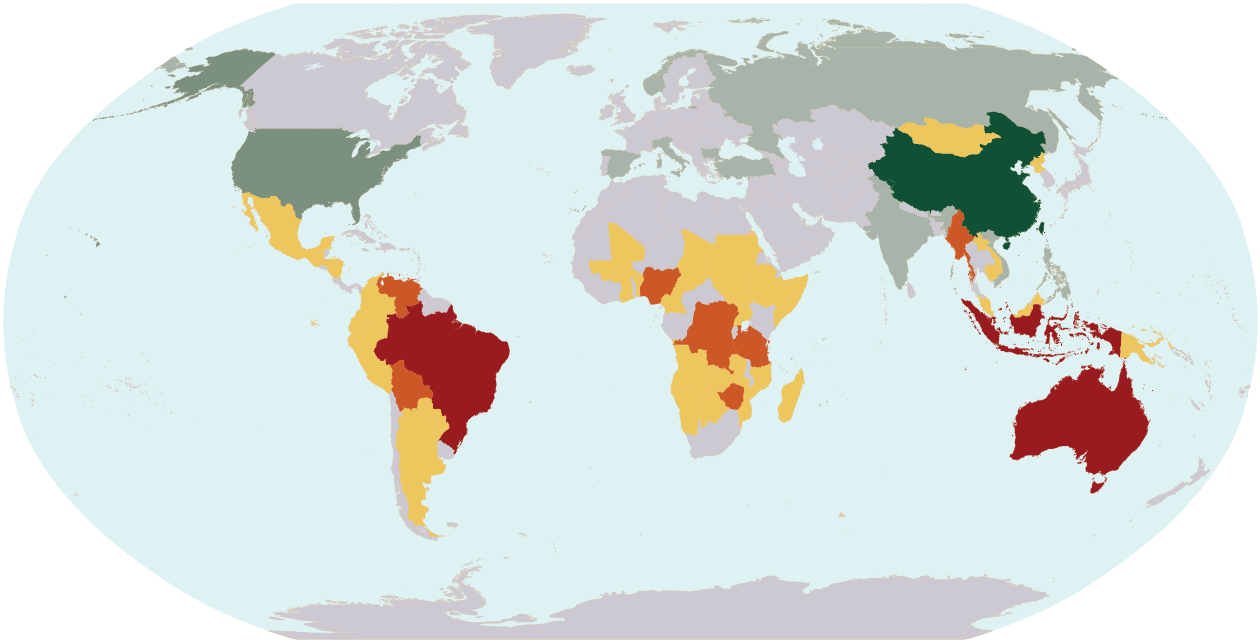


Source: FAO, 2010.

[30] van Gelder et al., 2006.
[31] van Gelder et al., 2006.
[32] Aidenvironment and International Institute for Environment and Development (IIED), 2007.
[33] Prince of Wales, www.rainforestsos.org.

Sustainable forest management is significantly more developed across boreal forests than tropical forests and the regenerative capacity of forests in Northern countries is comparatively high. The fact that actual rates of deforestation are highest in the tropical and subtropical regions (see Figure 3.3) suggests that meeting the Southern need for sustainable forest management represents a critical challenge and target for voluntary initiatives in the sector.

Figure 3.3: Net change in forest area by country, 2005–2010 (hectares per year).



Source: FAO, 2010.

Net loss
- More than 500 000
- 250 000–500 000
- 50 000–250 000

Small change (gain or loss)
- Less than 50 000

Net gain
- 50 000–250 000
- 250 000–500 000
- More than 500 000

In addition to their economic and environmental contributions to sustainability, forests also play a critical role as part of the social fabric of many communities. When logging concessions are granted by central governments or when logging companies operate illegally, the customary land rights of local communities are often ignored, perpetuating fraud and corruption while reducing global prices. Worldwide, it is estimated that approximately 50 million people live in forests endangered by illegal logging.[34] Conflicts over forestland are frequent; in Brazil land disputes accounted for around 350 conflicts over property involving 70,000 families.[35]

The opportunity of using forest certification as a tool for forest preservation originally arose in the context of the UN Earth Summit negotiations in 1992. Although the global sustainable forestry market is currently limited to two certification initiatives, the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC), each of these are affiliated with or include a wide number of national standards. A rapid growth in certified land coverage over the past decade has established forest certification as one of the most mature product areas within the voluntary sector.

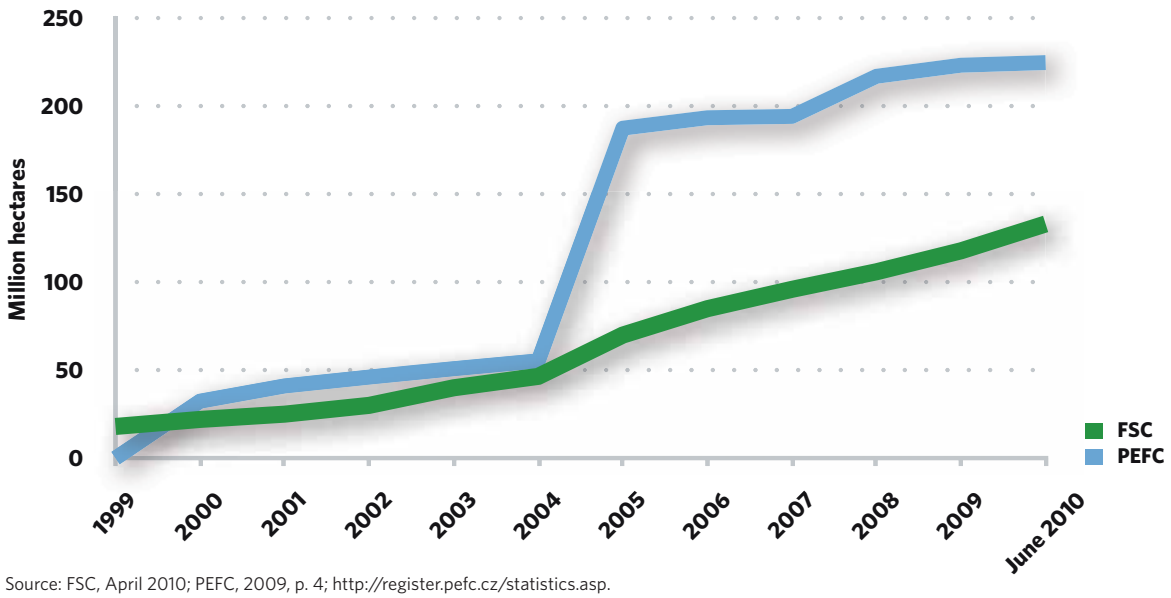
[34] WWF, 2006.
[35] Thiel and Viergever, 2006, referencing a study by the Comissão Pastoral da Terra, a church-based organization in the Amazon region; illegal logging is reported as having depressed global timber prices by 7 per cent to 16 per cent in 2004 (WWF, 2005).

3.1.1 | Sustainable Forestry Market Growth and Coverage

The FSC, founded in 1993, is a private partnership between industry, social and environmental groups, divided evenly between Southern and Northern country representatives. It was the first large certification scheme introduced for sustainable forest management. FSC recognizes 19 national standards.[36] PEFC, started in 1999, is the world's largest forest certification regime, operating as an umbrella organization of national forest certification systems. As of 2010, 29 member schemes were officially recognized as meeting the PEFC Sustainability Benchmarks.[37] In recent years, PEFC endorsed three North American standards—the Sustainable Forestry Initiative (SFI), the American Tree Farm System (ATFS), and the Canadian Standards Association (CSA)—which, alone, account for over two-thirds of PEFC's total certified land mass.[38]

Both FSC and PEFC have been experiencing persistent and rapid market growth over the past decade (see Figure 3.4). Over the past five years, PEFC has grown the fastest among the two global schemes increasing its total certified coverage from 55,320,000 hectares to 223,545,608 hectares, up 306 per cent since 2004. Over the same period, FSC has grown from 48,020,358 certified hectares to a total of 118,158,088, up 146 per cent. A major portion of PEFC's growth can be attributed to its endorsement of SFI in 2005, which gave rise to a dramatic one-time increase in certified land coverage. Over the last two years, FSC certification area has grown slightly faster than PEFC at 11 per cent per annum—compared to PEFC's 8 per cent annual growth over the same period.[39] FSC, like PEFC, has concentrated forest management in specific regions, with North America and Europe accounting for almost 82 per cent of total certified land mass.[40] Together, the land area covered by both sustainable forestry initiatives (FSC and PEFC) has grown by a total of 232 per cent over the past five years and, as of December 2009, was 341,703,696 hectares.

Figure 3.4: Growth of certified forest area, 1999–2010.



Source: FSC, April 2010; PEFC, 2009, p. 4; http://register.pefc.cz/statistics.asp.

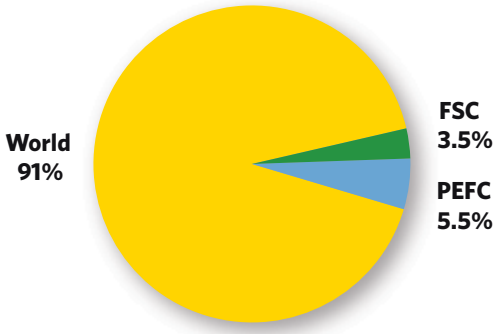
[36] FSC applies and manages the globally applicable Principle & Criteria (P&C), and sets of indicators, adapted to national or sub-national conditions in order to be implemented at the Forest Management Unit level. The FSC P&C, together with a set of such indicators accredited by FSC, constitute an FSC Forest Stewardship Standard. The P&C also requires that they have to be used in conjunction with the relevant national and international laws and regulations.
[37] PEFC reports 35 member schemes; however, only 29 meet requirements and are endorsed.
[38] PEFC Newsletter no. 45, January 2010.
[39] FSC Annual Reports, 2007-2009; PEFC Annual Reports, 2007-2009.
[40] FSC Facts and Figures, 2010.

As of May 2010, approximately 9 per cent of the total global forest area[41] (see Figure 3.5) and 18 per cent (11 per cent PEFC; 7 per cent FSC) of total managed forest area[42] (Figure 3.6) was certified by either PEFC or FSC. The penetration of certification in the forest sector, although still only a fraction of global production, is higher than in most other commodity sectors.

The main drivers behind the recent growth in forest certification are procurement policies requiring legal and sustainable sourcing and a growing body of national legislation requiring that forest products marketed in national markets be derived from legal sources. At least six EU member states Belgium, United Kingdom, Netherlands, France, Germany and Denmark) have or are currently developing systems that require proof of legal or sustainable origin for central government purchases of timber and wood products.[43] Meanwhile, major retailers such as Home Depot and Rona in North America have stipulated preferences for forest products from sustainable sources.[44] On the other hand, the EU's Forest, Law, Enforcement, Governance and Trade (FLEGT)[45] Action Plan and the United States' Lacey Act[46] are also driving importers, manufacturers and retailers of forest products to adopt Chain of Custody (CoC) certification—certification that traces wood from origin to market in order to ensure its legal sourcing. As companies are required to take on CoC certification, sustainable certification has become an increasingly attractive option.

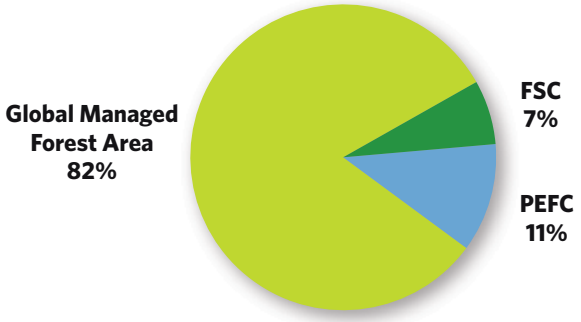
"The main drivers behind the recent growth in forest certification are procurement policies requiring legal and sustainable sourcing."

Figure 3.5: FSC and PEFC as a percentage of global forest coverage, 2009–2010.



Source: FAO, 2010; FSC, 2009; PEFC, 2009.

Figure 3.6: FSC and PEFC as a percentage of total forest covered by a management plan, 2009–2010.



Source: FAO, 2010; FSC, 2009; PEFC, 2009.

[41] Total forest coverage includes 13 per cent of forest area that is already legally protected (FAO, 2010). Forest lands already legally protected, like National Parks, are able to apply for FSC Forest Management Certifications, with these forests being managed and not used for timber (Non-Timber Products). FSC is finalizing guidelines for certification of legally protected forest lands; these will be published in mid-2011.

[42] Data on area of forest covered by a management plan are only available for 80 per cent total forest area (FAO, 2010).

[43] http://www.illegal-logging.info/approach.php?a_id=44

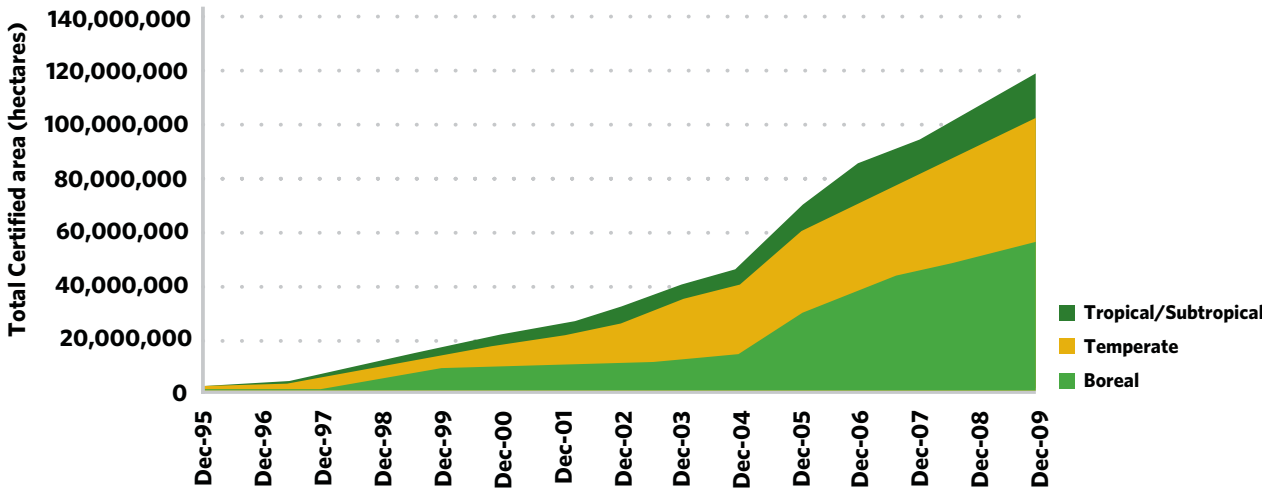
[44] Home Depot and Rona both specify preferences for certified forest products in their respective procurement policies.

[45] The FLEGT Action Plan was published in 2003. At its core is a voluntary timber licensing system covering imports of a number of forest products to the European market. In the absence of a multilateral regime governing forests, the legality licensing scheme is being implemented via a number of bilateral agreements (known as Voluntary Partnership Agreements, or VPAs) between the European Union and tropical timber producing countries that wish to be involved. The agreements commit the European Union to funding capacity building and institutional investment that would allow countries to enforce forest law and capture revenue from planned exploitation of forest resources. Following an agreed period of investment, the European Union will make import from these partner countries contingent on presentation of a legality license. For further information, see http://ec.europa.eu/environment/forests/flegt.htm.

[46] The Lacey Act of 1990 combats trafficking in illegal plants, fish and wildlife by creating civil and criminal penalties. As of 15 December 2008, it will be unlawful to import certain plants and plant products without an import declaration. For further information, see http://www.aphis.usda.gov/plant_health/lacey_act/index.shtml.

The vast majority of certified forest management area is located in Northern temperate and boreal forests. As of mid-2010, 88 per cent of the forest management area certified by FSC was in boreal and temperate forests.[47] As Figure 3.7 also illustrates, temperate and boreal forests have been the forest types with greatest historical FSC certification growth.

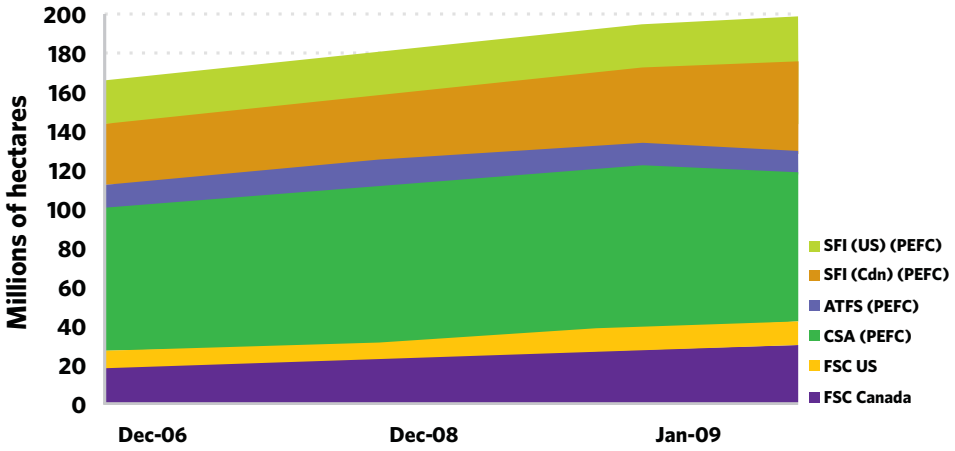
Figure 3.7: FSC certified forest area growth, by forest type.



Source: FSC, Global FSC Certificates: Type and Distribution, April 2010.

PEFC certification follows a similar pattern, with 94 per cent of the forest management area certified under PEFC coming from North American and European forest operations alone (see Figure 3.8 for certified forest area in North America). Canada and the United States are the top two holders of FSC and PEFC certified forest area (39 per cent, combined, for FSC and 70 per cent, combined, for PEFC). Developed countries account for 93 per cent of total certified timber globally. The concentration of sustainable supply from developed countries is even more accentuated in the case of industrial roundwood.[48]

Figure 3.8: Certified forest area in North America, 2006-2010 (millions of hectares).

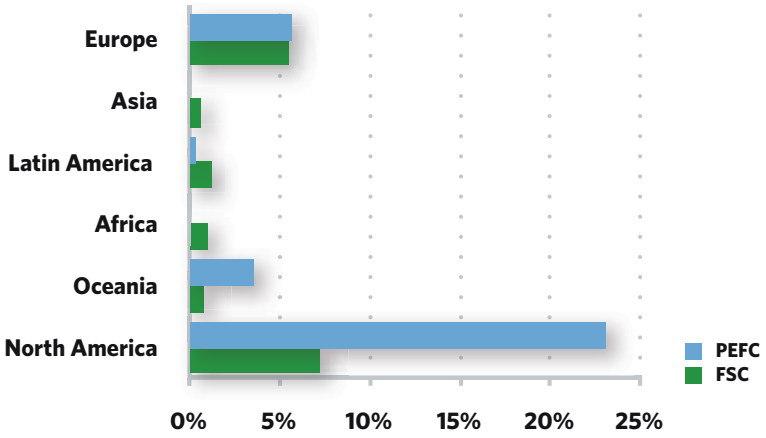


Source: SFI "SFI Growth Slides" (2010).

[47] FSC, Global FSC Certificates: Type and Distribution, June 2010. Accessed at http://www.fsc.org/fileadmin/web data/public/document_center/powerpoints _graphs/facts_figures/Global-FSC-Certificates-2010-06-15-EN.pdf.
[48] PEFC market database, accessed online; ITTO, 2008b.

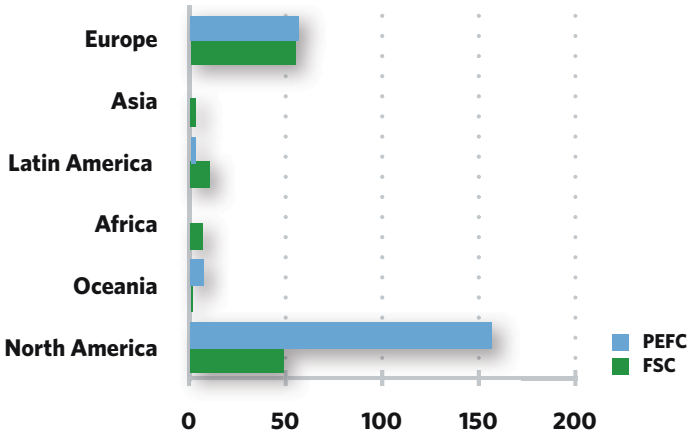
Figures 3.9 and 3.10 show that while the certified shared of total forest cover is significant in North America (32 per cent) and Europe (including Eastern Europe and CIS) (10 per cent), penetration across developing country regions remains below 2 per cent for both systems combined. Figures 3.11 and 3.12 show the global distribution of industrial roundwood production and the global distribution of certified industrial roundwood production. In 2008, global certified roundwood production was about 28 per cent of global industrial roundwood production. North America and Western Europe accounted for approximately 97.5 per cent of global certified industrial roundwood, whereas the two regions combined account for a total of 42 per cent of global (certified and non-certified) production.

Figure 3.9: Regional distribution of FSC and PEFC certified industrial roundwood production, percentage total forest cover (2009-2010).



Source: FAO, 2010; FSC Global Certificates, 2010; PEFC Annual Report, 2009.

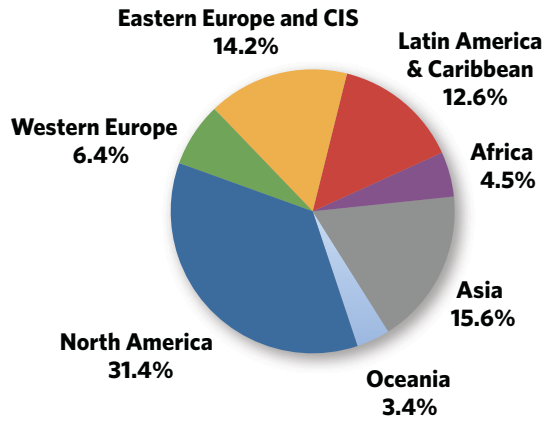
Figure 3.10: Regional distribution of FSC and PEFC certified industrial roundwood production, millions of hectares per region (2009-2010).



Source: FAO, 2010; FSC Global Certificates, 2010; PEFC Annual Report, 2009.

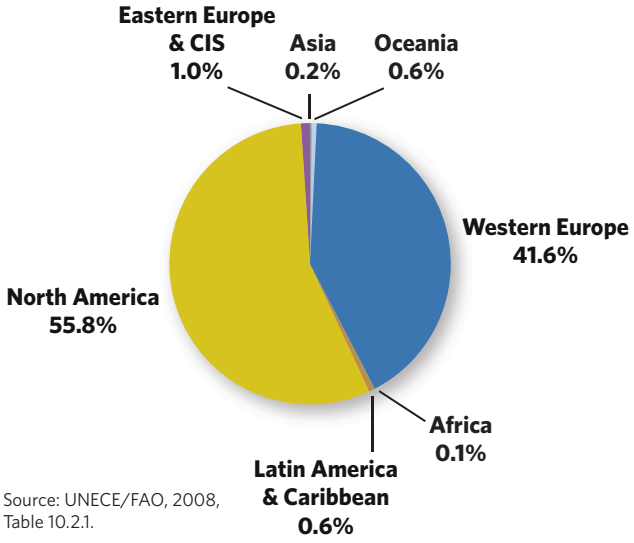
"North America and Western Europe accounted for approximately 97.5 per cent of global certified industrial roundwood, whereas the two regions combined account for a total of 42 per cent of global (certified and non-certified) production."

Figure 3.11: Regional distribution of industrial roundwood production, 2008.



Source: FAO, 2010.

Figure 3.12: Estimated regional distribution of certified industrial roundwood from global roundwood production, 2008.



Source: UNECE/FAO, 2008, Table 10.2.1.

While the market data does not provide any indication of the reasons for the difference in distribution between Northern and Southern producers, it does suggest that developing country forest managers face deeper challenges in accessing sustainable markets than developed country forest managers. Given that this is where many of the most pressing sustainable development challenges reside at present, this suggests a role for prioritizing access among developing country managers within the sector.[49]

BOX 3.1 Capacity building as a foundation for ensuring equitable access to sustainable development

The high concentration of sustainable forest management certification in developed countries reveals the deep challenge in addressing sustainability issues, such as deforestation, in the developing world. Ensuring significant impact on the most important sustainability hotspots in the sector will likely require measures explicitly aimed at expanding developing country market share. Growing demand for certified forest products, in the context of insufficient developing country capacity to access such markets, could lead to the exclusion of poorer forest managers from global markets, giving rise to additional sustainability challenges. Recognizing this, six companies came together in 1999 to form Tropical Forest Trust, now The Forest Trust (TFT), which facilitates the certification in developing countries through specific projects. To date, the TFT has facilitated the certification of 8.5 million hectares through its projects. See http://www.tft-forests.org/projects/ for more information.

[49] Commentators have identified the following obstacles to forest certification in developing regions: (1) Lack of local capacity for implementation, particularly at the forest management unit level, and (2) Inadequate legislation and policy enforcement (3) Lack of national certification and accreditation capacity (4) Poorly defined property and land-ownership rights (5) Absence of consumer markets for certified timber (where developing country timber is exported to other developing country markets). See B. Cashore, F. Gale, E. Meidinger, D. Newson eds., 2006, *Confronting Sustainability: Forest Certification in Developing and Transitioning Countries.* Yale School of Forestry and Environmental Studies.

3.1.2 | Sustainable Forestry Premiums, Pricing and Certification Costs

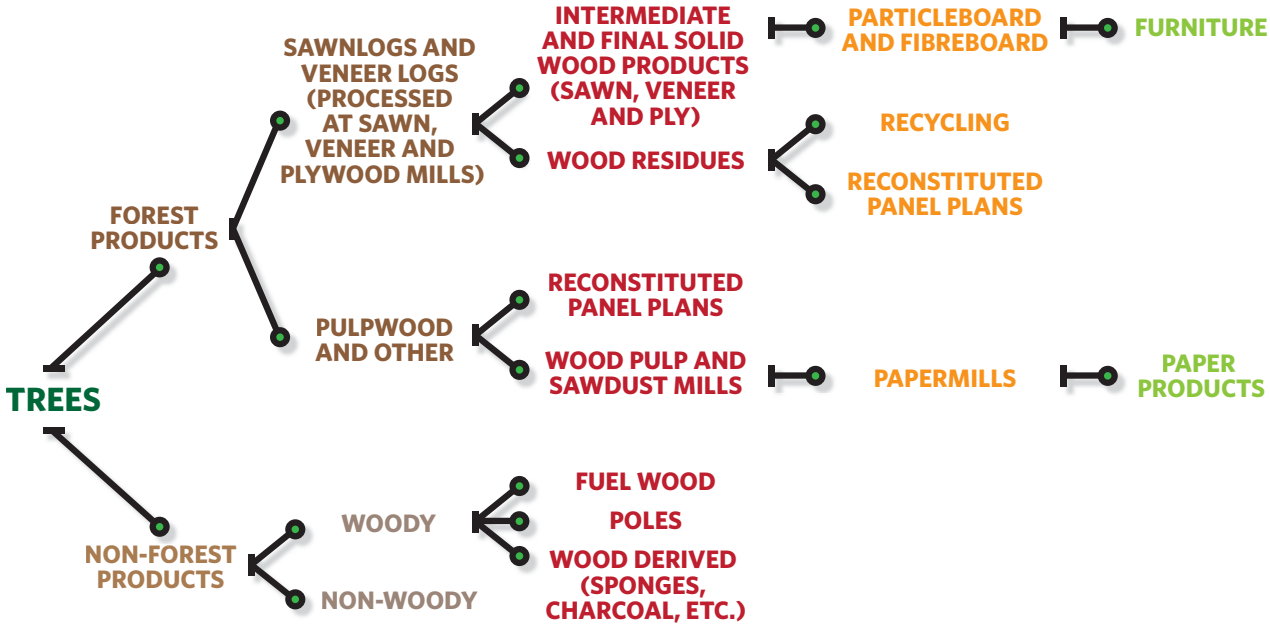
Global prices for forest products are driven by the quality and type of timber, as well as the overall match between supply and demand (see Figure 3.13 for a visualization of the forest products chain). Superior quality timber goes on to become a lumber product while lower quality timber products are used for pulp or paper. Additionally, the type of wood also contributes to pricing differentials.[50]

Sustainable forest products follow the same pricing system as that for conventional forest products with certified products being traded along mainstream channels and are often sold next to conventional forest products—both with and without labelling.

3.1.2.1: Certification Costs

Forest certification entails a series of process that bring with it direct and indirect costs (some of which are shown in Figure 3.14). Direct costs can be defined as those related to direct fees associated with certification, inspections and auditing. Indirect costs are those associated with reduced production (e.g., loss of stumpage fees) related to sustainable practices and organizational costs such as additional labour costs for training, and compliance management infrastructural investments related to compliance. Although conditions vary among regions, indirect costs are typically as important, if not more important, than the direct costs associated with forest certification.

Figure 3.13: Forest products chain.



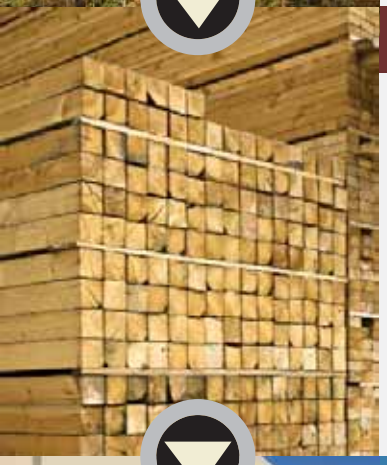
[50] For example, Malaysian teak, a highly prized tropical roundwood used for flooring and furniture, sold for an average price of US$2,156 m3 in 2008, whereas an African plywood, used for construction and industrial purposes, sold for US$350 m3 during the same period (International Tropical Timber Organization (ITTO), 2008).

Figure 3.14: Forest certification processes and costs overview.

Forest Management

What: certification of forests or tree plantations.
For Whom:
- Forest owners
- Forest managers

Certification Process
- **Year 1: Initial Certification**
  - Direct Costs:
    - ~ Certification fees paid to the accredited certifier. These vary per country and per certifier.
    - ~ Audit fees. These vary based on:
      - -level of pre-existing compliance with the standard
      - -number of certification bodies available in the producer's area
      - -speed with which an auditor works
      - -size of operation being audited
      - -number of products being audited
      - -distance auditor has to travel to production site
      - -existence of processing and production facilities at the site
    - ~ Certificates and mandatory membership fees.
  - Indirect Costs:
    - ~ Loss of Stumpage Revenues: indirect costs caused by changes in forest management due to the standard requirements that exceed those of the law; mainly by various restrictions on harvesting.
    - ~ Organisation Costs: mainly labour costs for awareness raising and training of forestry organisations, forest owners and contractors. In the forest industries and state forestry, by contrast, the costs of certification training and internal auditing are usually not separated from other development inputs and, therefore, not included in this calculation.
    - ~ Compliance Costs: certification bodies can require improvements to the forestry system that were necessary prior to the field assessment and request for certification.
- **Year 2-4:**
  - Direct Costs:
    - ~ Annual audit
    - ~ Annual certificate/membership fee
- **Year 5 : Reaccreditation**
  - Direct Costs:
    - ~ Reaccreditation fees
    - ~ Audit fees
    - ~ Certificate/membership fee



Chain of Custody

What: tracks material through the production process - from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution.
For Whom: anyone handling wood as it passes through the supply chain (e.g. forest owners to printers).
Certification Process
- **Year 1: Initial Certification**
  - Certificate/membership fees
  - Annual Audit
  - Certification fees paid to accreditated certifier
- **Year 2-4:**
  - Direct Costs:
    - ~ Annual audit
    - ~ Annual certificate/membership fee
- **Year 5: Reaccreditation**
  - Direct Costs:
    - ~ Reaccreditation fees
    - ~ Audit fees
    - ~ Certitifcate/membership fee

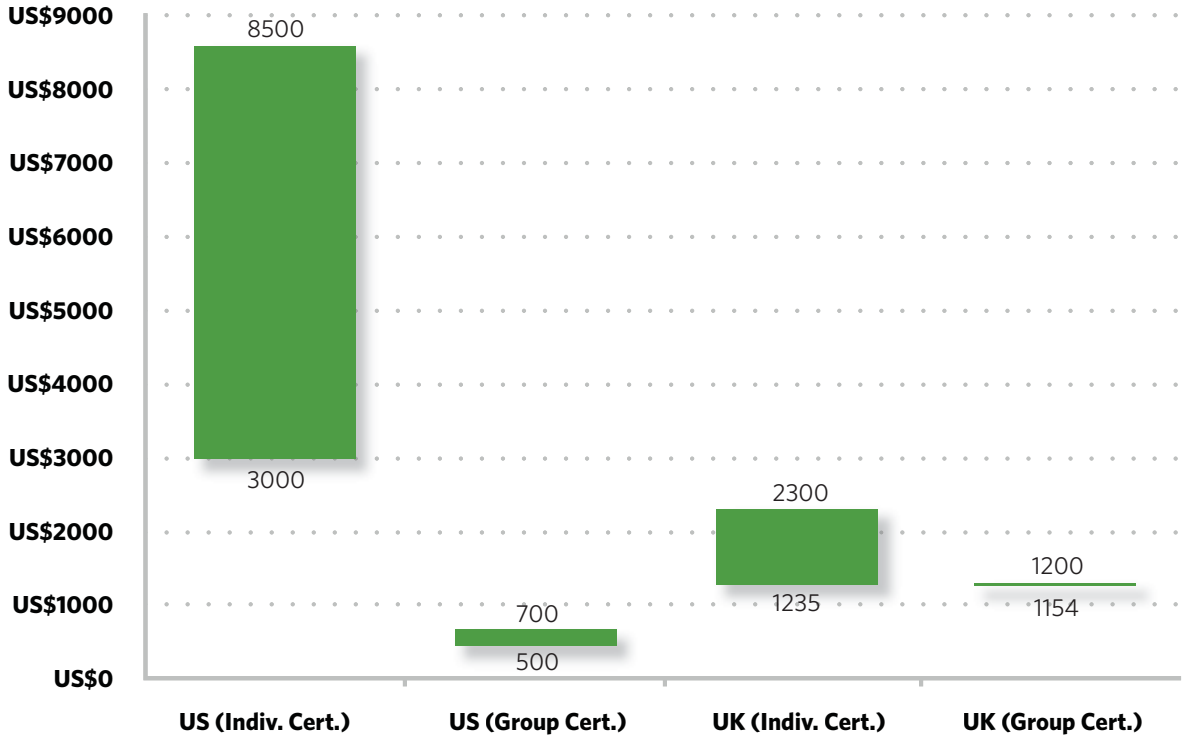
End Users

What: allows those not directly involved in the production process of forest products to support forest certification initiatives, typically through the use of the logo not linked to a product ("off product"), for instance for promotional or educational purposes.

For Whom: stores using certified paper and wish to publicise their use amongst customers.
Logo/Trademark Usage Fees:
- FSC: currently no usage fees apply to end users.
- PEFC: currently no usage fees apply to end users (group d users).

Figure 3.14 and Figure 3.15 illustrate FSC forest management certification costs and FSC Chain of Custody costs, utilizing case study information (note, however, that costs shown in the graphs do not reflect national average prices per hectare for the entire country). FSC Chain of Custody certification costs differ by country, and also by type of certification, with individual certification—as a general rule—being more expensive than group certifications. Figure 3.16 describes the great range of prices per type of forest management certification and by country case study. In Germany, for instance, a forest management certificate from FSC Germany will cost between €0.03–0.04 per cubic meter for a forest under 200 hectares, and approximately €0.10–0.30 per hectare per year for a five year FSC Forest Management Certificate for larger forests.[51]

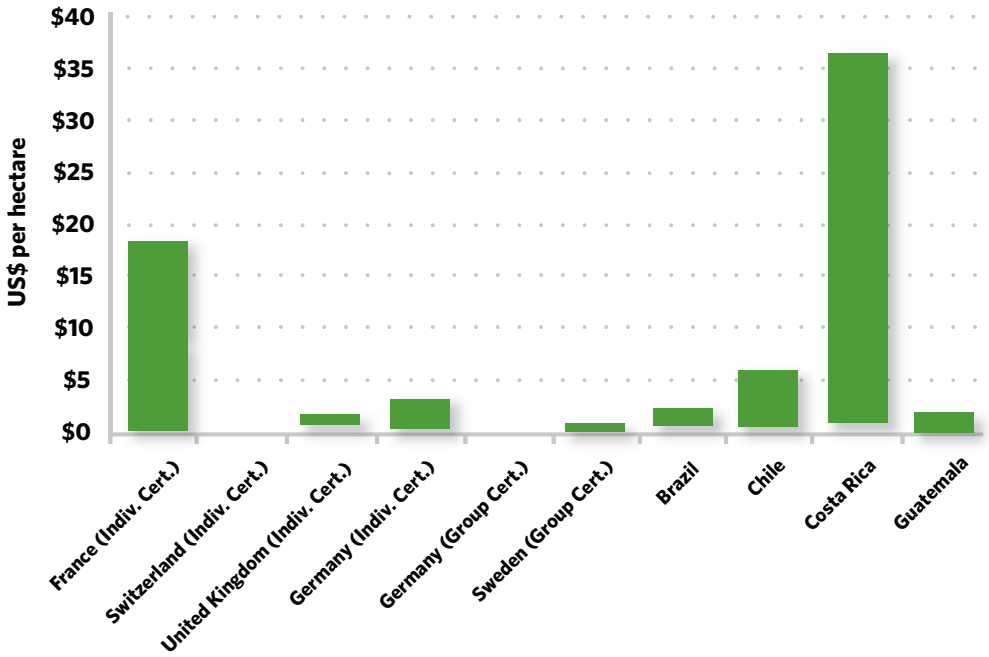
Figure 3.15: FSC Chain of Custody certification costs, US and UK group versus individual certifications (excluding annual audit fees).



Source: Wood Products Manufacturers Association (2010); Howard Smith Paper Group (2009).

[51] Personal communication with Chairperson of FSC Germany, 18 June 2010.

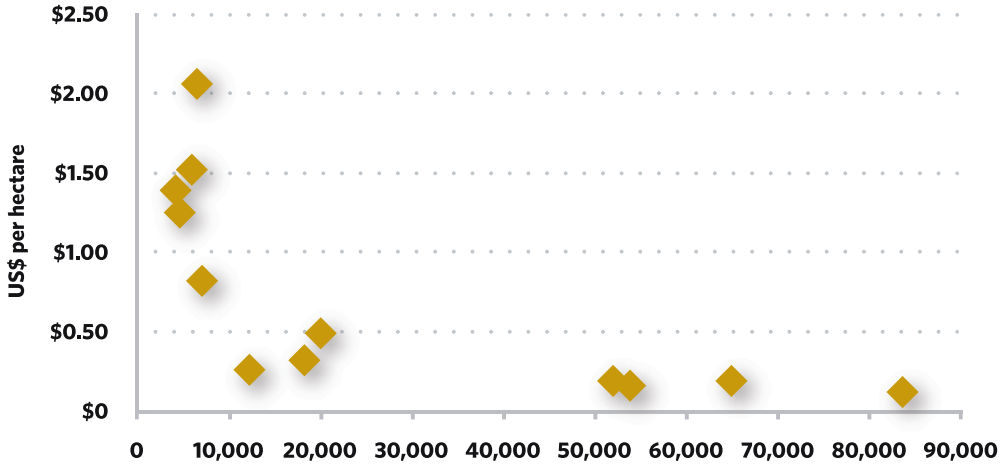
Figure 3.16: FSC Forest management certification costs, Europe and Latin America.



Source: Ministère [Français] de l'Économie, des Finances et de l'Industrie (2005); WWF Switzerland (2001); ITTO (2008); Manosalva Quinteros (2004); Salazar and Gretzinger (2005); Carrera and Bácama Figueroa (2003).

FSC smallholders can sometimes have their certification costs underwritten by NGOs, such as WWF or Rainforest Alliance through its SmartWood program, to help them gain market access. Although certification fees range from US$0.06 per hectare reported in Brazil[52] to US$36 per hectare reported in a case study in Costa Rica,[53] a general trend in the data available for FSC certification suggests that per hectare certification costs are inversely proportional to forest operation size. Figure 3.17 reveals this trend for FSC certified operations in Guatemala.

Figure 3.17: Case study of certification costs for FSC forest management certification in Guatemala by farm size.



Source: Adapted from Salazar and Gretzinger (2005).

[52] ITTO, 2008, p.15
[53] Salazar and Gretzinger, 2005, p.14

PEFC's certification fees are fixed by individual certification bodies and therefore vary by country and certification body.[54] The basic fee structure under PEFC national initiatives consists of an annual certification fee accompanied by auditing costs (see Table 3.2). Annual certification fees vary by national initiative but are typically nominal—ranging from nothing (for smallholders) to US$100 per annum for larger operations. Auditing costs (Table 3.3) are more significant, ranging from .02 to .46 euros per hectare across select European farm operations.[55] Recertification audits must take place within a maximum period of five years for both forest management and Chain of Custody certifications.[56] Table 3.4 provides information on estimated distribution of direct and indirect costs of PEFC forest management certification in Sweden.

Table 3.2: Programme for the Endorsement of Forest Certification schemes (PEFC) fee chart.

Country	Size of holding (hectares)	Fee (euros)
Belgium	<1 ha	Free
	1–10 ha	12.50 €/year
	10–50 ha	25 €/year
	50–100 ha	75 €/year
	>100 ha	100 €/year
France	Any	10 € + 0.10 €/ha/year
Luxembourg	<2 ha	10 € for 5 years of certification
	>2 ha	10 € + [(# of ha x 0.2 €) x 5 years]

Sources: Silva Belgica (2004); Ministère [Français] de l'Économie, des Finances et de l'Industrie (2005); PEFC Luxemburg.

Table 3.3: PEFC audit costs, using case study evidence from Finland, Norway and Sweden.

Country	Cost per hectare
Finland	€ 0.02
Norway	€ 0.13
Sweden	€ 0.46

Source: Indufor Oy (2005).

Table 3.4: Estimated costs of PEFC in Gavleborg, Sweden.

		euro/ha	euro/annum	%
Direct costs				
	External audit	0.08	2,200	8.0
	Internal audit	0.38	11,000	40.1
Indirect costs				
	Organizational costs/ Stumpage revenue loss	0.50	14,200	51.9
Total		0.96	27,400	100.0

Source: Indufor Oy (2005).

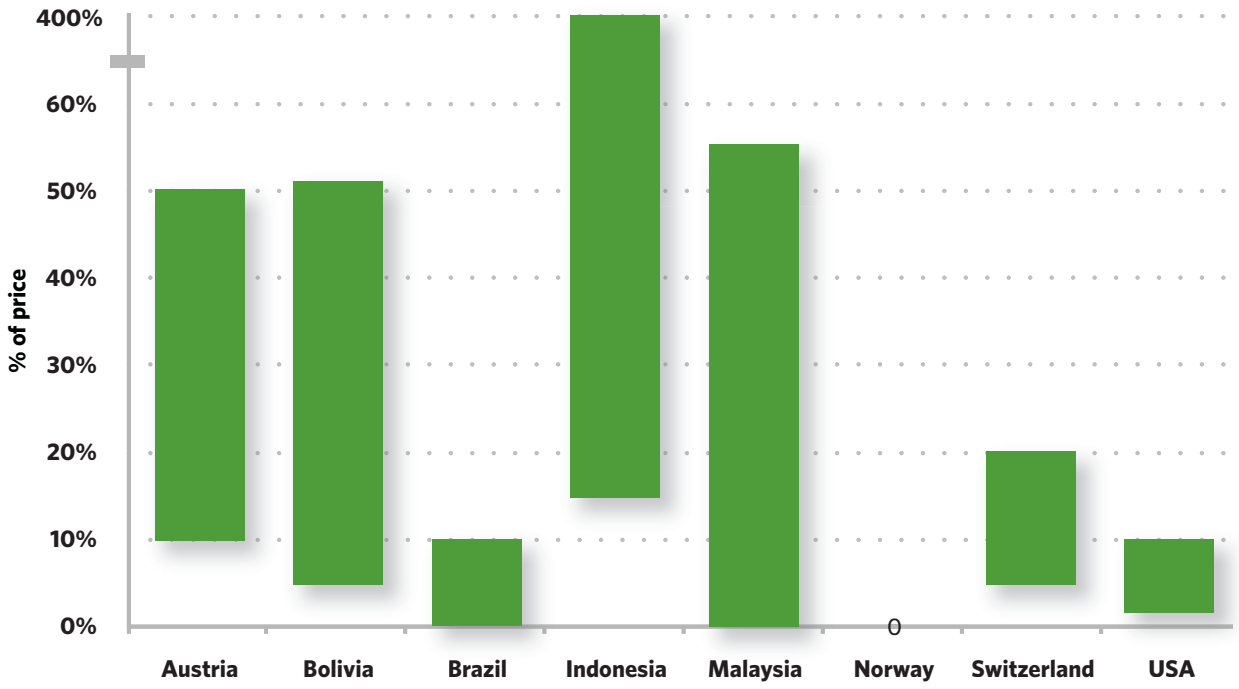
[54] PEFC, 2010. See http://www.pefc.org/certification-services/overview.
[55] Indufor Oy, 2005, pp. 67, 89, 90. No data were available for certification costs in developing country operations for PEFC managed forests.
[56] For PEFC, the average for reaccreditation of Chain of Custody certification is three years.

3.1.2.2: Pricing and Premiums

While there are examples of premiums being paid in company-to-company or landowner-to-company transactions, they are always voluntary under both the PEFC and FSC systems and thus subject to a wide array of arrangements between producers and buyers. The high variability in commercial arrangements makes it difficult to quantify premium levels in any generalized manner. Moreover, the absence of consistency in premium levels across both PEFC and FSC suggests that other commercial factors, such as market access, are likely more important drivers in a wide number of cases.

Figure 3.18, using case studies describing FSC reported premiums, shows observed premiums range from 0 per cent in Norway[57] to more than 400 per cent in some instances in Indonesia.[58] In case studies describing Switzerland and the United States, on the other hand, premiums for FSC certified products are generally reported to be much lower, ranging from 4 per cent to 20 per cent. Information on premiums for PEFC certified lumber, on the other hand, are extremely limited, with only a few examples ranging from 0 to 3 euros per metric cube in European markets being reported.[59]

Figure 3.18: Observed premiums for FSC by region, 2000-2009.



Source: FSC Literature Study (2009); Nebel, Quevedo, Jacobsen and Helles (2003); de Lima et al. (2008); De Koning (2008); Northwest Natural Resource Group (2010); Indufor Oy (2005); Cashore, Gale, Meidinger and Newsom (2006); FSC (2009); Kollert and Lagan (2006).

[57] Indufor Oy, 2005, p. 90.
[58] FSC advocate awarded for promoting responsible forest management in Indonesia, 23 January 2009.
[59] PEFC, October 2005, p. 1; Indufor Oy, 2005, pp. 68, 90.

3.2 | Coffee Initiatives Market Data

SUMMARY POINTS

- **Over the past five years, sustainable coffee sales have grown by 433 per cent and, at 457,756 metric tons, accounted for 8 per cent of global exports in 2009.**
- **Global supply of sustainable coffee, however, is still significantly higher than demand, with supply reaching 1,243,257 metric tons, or 17 per cent of global production.**
- **Supply of sustainable coffee is set to increase significantly in the coming years due to various buyer initiatives: Kraft, Nestlé and Sara Lee all have made commitments to increase sustainable supply in the near future.**
- **A total of 75 per cent of all sustainable coffee comes from Latin America, as compared to approximately 59 per cent for conventional global production.**
- **Four countries—Colombia, Brazil, Peru and Vietnam—account for 77 per cent of total sustainable coffee production.**
- **Reported premiums for sustainable coffees for 2009 ranged from US$0.025–0.405 per pound, with most premiums falling in the US$0.05–0.10 per pound range.**

Coffee is the second most important agricultural commodity in terms of volume and value traded in international markets. It is produced in 106 countries around the world—overwhelmingly (70 per cent) by small-scale farmers[60]—with over 90 per cent of global production taking place in the developing world. It is estimated that approximately 25 million people around the world depend directly on coffee for their livelihoods.[61]

Historically, long-term declining terms of trade and price volatility have been closely linked with coffee production, making poverty reduction both an important and difficult challenge to the sustainability of the sector.[62] These economic concerns are complicated by the fact that vast majority of the word's coffee is produced by small holder farmers, which typically face an array of social issues, ranging from no or little access to potable water, health care and/or education.[63] At the same time, coffee production often defines the primary source of revenue for many communities and regions making the link between coffee production and overall community well-being extremely important.

Although traditional coffee farming systems have relatively low-level environmental impacts, efforts over the past several decades to increase productivity have intensified the negative impacts of coffee production on the natural environment considerably.[64] With more than 80 per cent of the 11.8 million hectares devoted to coffee production around the world planted in areas of former or current rainforest—including production in 13 of the world's 25 biodiversity "hotspots"—technified production methods pose a serious threat to biodiversity and climate change.[65]

[60] Small-scale farmers defined as farming on less than five hectares of land.
[61] Oxfam, 2002; Daviron and Ponte, 2004: 50.
[62] Over the past several decades, global export revenues from coffee have fluctuated between $5 and $14 billion per annum (International Trade Centre, 2002, "Coffee: An Exporter's Guide," at 3).
[63] Oxfam, 2002.
[64] The average rate of conversion to shade mono-culture and sun coffees for Northern Latin America as a whole has been estimated to be 40 per cent (Rice and Ward, 1996).
[65] Halweil, 2002.

The earliest labelling schemes in the coffee sector, namely Fairtrade (founded in 1988 under the Max Havelaar label), Rainforest Alliance (coffee standards launched in 1995) and IFOAM (coffee standards launched in 1995) were developed to address these core social and environmental issues. More recent initiatives, such as UTZ Certified and the 4C Association, have also been driven by a desire to address these issues but also by a more specific aspiration of improving livelihoods across *mainstream* coffee supply chains. Following on the lead of these global initiatives, a number of private companies have also established their own criteria and monitoring and enforcement systems for sustainable coffee.[66] Two of the more important private sector initiatives in terms of market coverage are Starbuck's CAFE Practices and Nespresso AAA Quality Standards:

- Starbucks CAFE Practices: An initiative was started in 2004 by Starbucks in an effort to develop a system of sustainable practice and that was wholly integrated within the corporate business plan and decision-making structure. CAFE Practices standards combine a cross-cutting set of social and environmental standards with a number of quality-based parameters developed in collaboration with Conservation International and other stakeholders. Producers must score certain levels against the requirements in order to maintain preferred buyer status.
- Nespresso AAA Sustainable Quality Program: Developed by Nespresso in collaboration with the Rainforest Alliance in 2005, this collaboration looks to serve the growing demand for sustainability standards across the specialty coffee sector. The standards are largely modelled on the Rainforest Alliance standards, but are designed expressly for integration within the Nespresso supply chains.
- Sustainable Agriculture Initiative (SAI) Platform Indicators: The SAI Platform is a collaboration between major food processors and traders, which aims to share learning and establish industry benchmarks for sustainable production in agriculture. Toward this end, the SAI Platform developed a set of Sustainability Indicators for the coffee sector in 2005. While there is no intention to roll the indicators out as a labelling or certification system, they may play a significant role in informing corporate approaches to supply-chain sustainability within the sector.
- Neumann Coffee Group Sustainability Index: A set of comprehensive sustainability indicators developed by the Neumman Coffee Group, the Neumann Index seeks to meet market demands for sustainability performance. The Index is not currently marketed to consumers under a label but is used as a tool for monitoring sustainability impacts on partner farming operations.

Although private sector initiatives are playing an important role in the coffee sector, our coverage is limited to five of the most important independent sustainability initiatives in the coffee sector: Fairtrade, Organic (IFOAM), Rainforest Alliance, UTZ Certified and the 4C Association.

[66] A few examples include Neumann Coffee Group Sustainability Criteria, Starbucks CAFE Practices, and Nespresso Sustainability Criteria.

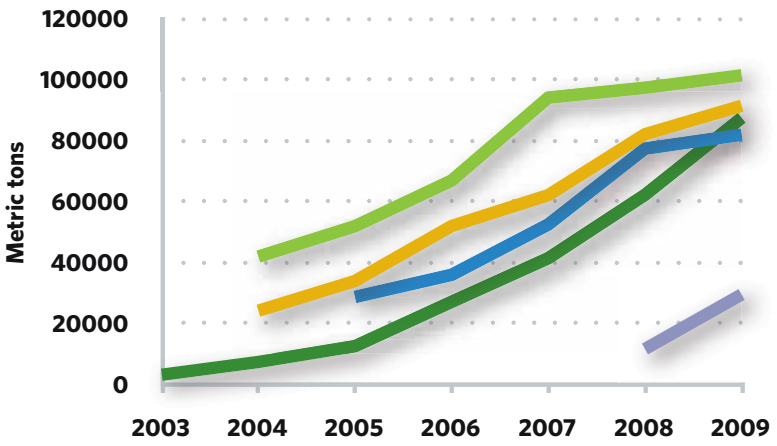
BOX 3.2

Defining sales and production

The SSI Review draws from a wide variety of partial data sources. Due to the multiple methods used by different researchers and organizations in documenting production and sales, our protocol is as follows: we define "sales" as the volume of product "sold as" compliant or certified with a given VSI. This figure does not necessarily translate into the actual volumes sold as compliant or certified at the *retail level,* since some manufacturers may purchase compliant product without marketing the product as such. Product that is "sold as" compliant or certified is formally *traded* (e.g., purchased and sold as compliant *somewhere* along the supply chain) and is distinguished from product that is merely "produced as" compliant but that may not actually be bought anywhere along the supply chain as compliant.

3.2.1 | Sustainable Coffee Market Growth and Coverage

Figure 3.19: Sales of sustainable green coffee, 2003–2009.



Source: Pay, 2009; Giovanucci and Pierrot, 2010; FLO Annual Reports 2004-2009; Rainforest Alliance/SAN, 2009; UTZ Certified, 2009; UTZ Certified Annual Report, 2007; 4C, 2009.

The past five years have witnessed major growth (433 per cent) in the sales (see Box 3.2) of sustainable coffees, with all of the major VSIs witnessing growth well beyond the average 2 per cent annual growth rate of conventional coffees (Figure 3.19, Table 3.5).[67] The 4C Association reported 2009 sales of 29,547 metric tons (up by 153 per cent from 11,640 metric tons in 2008).[68] Organic, Fairtrade, Rainforest and UTZ Certified all experienced significant market penetration over 2009 with each recording sales volumes above 80,000 metric tons.

Rainforest Alliance grew from 7,380 metric tons in 2004 to 87,583 metric tons in 2009 (up by 1,086 per cent), with an average annual growth of 64 per cent.[69] Fairtrade[70] sold approximately 91,573 metric tons in 2009, from 33,994 metric tons in 2004, having grown 278 per cent in those five years, with an average annual growth rate of 30 per cent;[71] Organic coffee sold an estimated 101,583 metric tons in 2009 (up by 141 per cent from

[67] 4C Association did not enter the market until 2008. UTZ Certified entered the market in 2005. Organic data sources are highly variable. Giovannucci and Pierot (2010) figures were used for this chart. By way of example, the range for 2008 sales of Organics ranges from 27,465 metric tons, WP statistics 140/09 (ICO, 2009) to 99,800 metric tons (Giovannucci and Pierot, 2010). For the same year, others reported 36,821 metric tons (2007/2008) (Pay, 2009).

[68] 4C Association Press Release, 12 March 2009. 4C had previously reported this number as 474,000 bags "purchased" (28,440 metric tons) but later decided to only include volumes of coffee in commercial reporting that were not only contracted, but actually received by final buyers during the reporting period (194,000 in 2008; reporting period October through September (ICO Coffee Year)).

[69] Rainforest Alliance email communication, 2010. Personal communication from Petra Tanos to SSI on 6 April 2010 regarding request for additional information.

[70] As noted by Pierrot, Giovannucci and Kasterine, 2010: "Due to reporting differences, the data from 2008-09 are green bean equivalent and from 2004-2007 are not. Unlike other initiatives, FLO reports consumer country sales rather than coffee exported from origin (the latter is usually higher). Calculations are based on conversions to green bean equivalence of FLO accounting for both soluble and roast/ground."

[71] Pierrot, Giovannucci and Kasterine, 2010.

42,000 metric tons in 2004), with an average annual growth rate of 19 per cent.[72] UTZ Certified sold 82,058 metric tons of certified coffee in 2009 (up from 185 per cent since 2005) with an average annual growth rate of 30 per cent.[73] In 2009 total sales of Starbuck's CAFE Practices and Nespresso combined were estimated to be approximately 130,440 metric tons.[74] In 2009 total sustainable coffee sales, adjusted for multiple certification, amounted to 457,756 metric tons.[75]

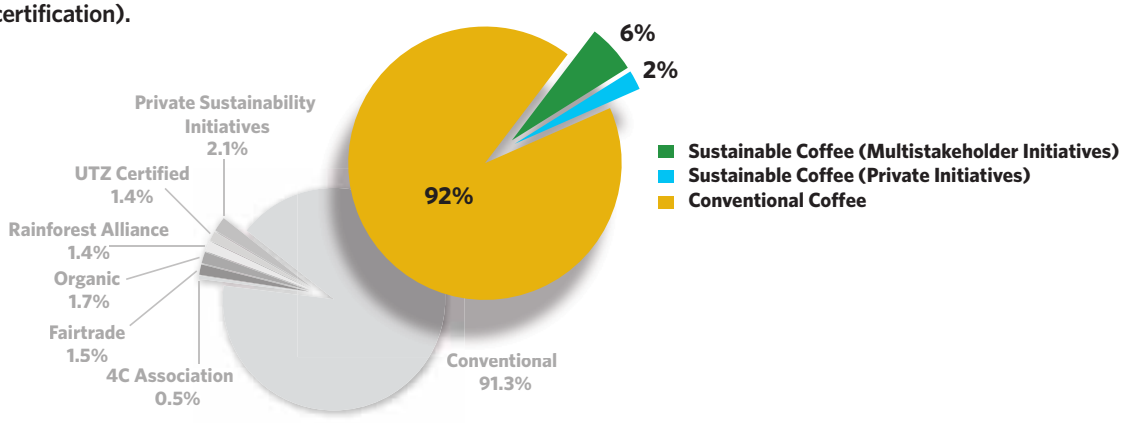
Table 3.5: Sustainable coffee sales, 2004-2009 (metric tons).

	2004	2005	2006	2007	2008	2009	Avg. Annual Growth	Five Year Growth
4C Association	0	0	0	0	11,640	29,550	153%	n/a
Fairtrade Labelling Organizations International	24,222	33,994	52,064	62,209	82,212	91,573	30%	278%
IFOAM (Organic)	42,000	52,002	67,002	94,242	97,482	101,583	19%	142%
UTZ Certified	0	28,740	36,027	52,571	77,478	82,058	30%	n/a
Rainforest Alliance	7,380	12,585	27,152	41,494	62,295	87,583	64%	1,087%
Total (excluding private sector initiatives)	73,602	127,321	182,245	250,516	331,107	392,347	40%	433%

Source: Pay, 2009; Giovanucci and Pierrot, 2010; FLO Annual Reports 2004-2009; Rainforest Alliance/SAN, 2009; UTZ Certified, 2009; UTZ Certified Annual Report, 2007; 4C, 2009

Notwithstanding the rapid growth of the markets for the initiatives covered in this survey, the overall total market share for sustainable coffees (including Starbucks CAFE Practices and Nespresso AAA Quality) still only accounted for approximately 8 per cent of global green coffee exports in 2009 (Figure 3.20). Global production statistics, however, show a different picture (Figure 3.21).

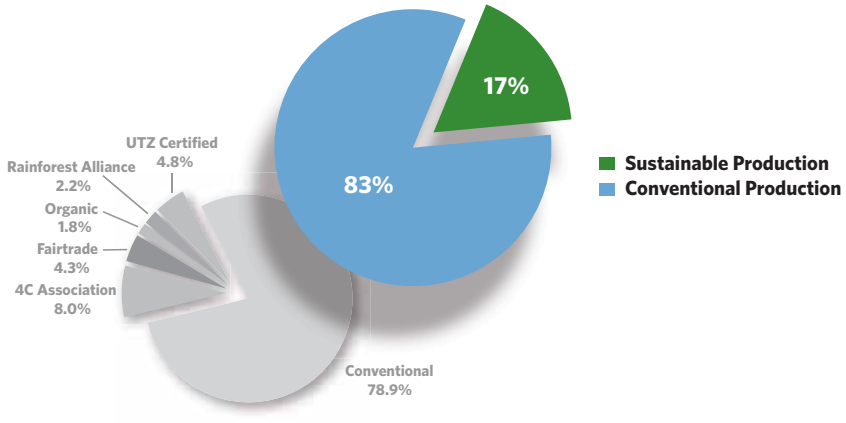
Figure 3.20: Sustainable green coffee sales as a portion of global green coffee exports (metric tons and percentages). Shadow graph displays percentages of individual certifications; magnified graph displays total sales adjusted for multiple certification).



Sources: Pierrot, Giovannucci and Kasterine, 2010; FLO Annual Report, 2008; UTZ Certified Annual Report, 2009; ICO, 2010.

[72] Based on estimates taken from Pierrot, Giovannucci and Kasterine, 2010. This has higher estimates than those supplied by Pay, 2009; ICO WP 140/09, September 2009 that are based on certificates of origin data, which the ICO admits are incomplete.
[73] UTZ Certified Annual Report, 2007; UTZ Certified, 2010.
[74] Giovannucci, 2010.
[75] Based on estimates of double certification from Pierrot, Giovannucci and Kasterine, 2010, the CBI Monitor, TCC Coffee Barometer and personal communications with standards bodies, estimates for double certification were made for Organic and UTZ (estimate 5 per cent double), Organic and Rainforest (15 per cent), Organic and Fairtrade (48 per cent) and 4C with all of the other initiatives (25 per cent). It should also be noted that multiple certification can vary from year to year.

Figure 3.21: Sustainable coffee total share of global coffee production, 2009 (metric tons and percentages). Shadow graph displays percentages of individual certifications; magnified graph displays total production adjusted for multiple certification.



Source: FLO Annual Reports, 2008; FLO Press Release, 2009; Rainforest Alliance/SAN, 2009; UTZ Annual Report, 2009; 4C Annual Report, 2009; TCC Coffee Barometer, 2009.

Due to a variety of factors related to variations in quality, the timing of demand, and the additional licensing, marketing and product costs associated with carrying compliant or certified coffee through the supply chain as sustainable coffee, more sustainable coffee is produced than is actually sold as sustainable.

In the case of the 4C Association, production levels were more than 20 times actual sales with a total of 604,086 metric tons produced in 2009,[76] accounting for 8.12 per cent of global production—by far, the highest production volume for any sustainable coffee over the year. UTZ Certified production registered a total production of 365,009 metric tons,[77] or 4.9 per cent of global production in 2009. FLO compliant production was estimated at 324,000 metric tons[78] (4.35 per cent of global production) and Rainforest Alliance at 168,114 metric tons (2.26 per cent of global production) in 2009.[79] Organic production is estimated to be roughly 132,058 metric tons in 2009.[80]

Accounting for known and suspected double and multiple certification/compliant production, we estimate total sustainable production to be approximately 1,243,257 metric tons, or 17 per cent of global production.[81] The percentage of sustainable production therefore represents a significant portion of overall production.

[76] 4C, 2008 Annual Report, p. 9.
[77] UTZ Certified Good Inside Annual Report, 2008, p. 9.
[78] This number is reported by FLO as being production volume for 2008.
[79] Only data for 4C, Rainforest Alliance and UTZ was available for 2009 production. Fairtrade and Organic values were estimated based on production-to-sales ratios from 2008.
[80] Based on an estimated overproduction rate of 30 per cent; Giovanucci, 2010.
[81] Based on estimates of double certification from Pierrot, Giovannucci and Kasterine, 2010, the CBI Monitor, TCC Coffee Barometer and personal communications with standards bodies, estimates for double certification were made for Organic and UTZ (estimate 5 per cent double), Organic and Rainforest (15 per cent), Organic and Fairtrade (48 per cent) and 4C with all of the other initiatives (25 per cent). It should also be noted that multiple certification can vary from year to year; Pierrot, Giovannucci and Kasterine, 2010 observe this when they state: "In 2009, 42 per cent of all Fairtrade sales also bore the organic certification; this is a decline from 2008 when 48 per cent was organic and 52 per cent was conventional."

"Understanding the rates of multiple certification is... a critical element for policy-makers and other decision-makers seeking to understand the actual market penetration of VSIs. This is an area where dedicated investment will be necessary to enable a more accurate understanding of the impacts of VSIs on markets and on the ground."

BOX 3.3

Multiple certification

Producers, manufacturers and retailers often find additional value added in certifying their products with more than a single initiative. Doing so potentially increases access to markets and consumer recognition; however, double and triple certification can cause serious strife for those seeking to determine total sales and/or production statistics of sustainability initiatives. Stakeholders are free to choose who they certify with and, at present, most VSIs have no mechanism (or authority) for measuring the rates of double and triple certification of their products. Understanding the rates of multiple certification is, however, a critical element for policy-makers and other decision-makers seeking to understand the actual market penetration of VSIs. This is an area where dedicated investment will be necessary to enable a more accurate understanding of the impacts of VSIs on markets and on the ground.

BOX 3.4 What counts: sustainable production or sustainable sales?

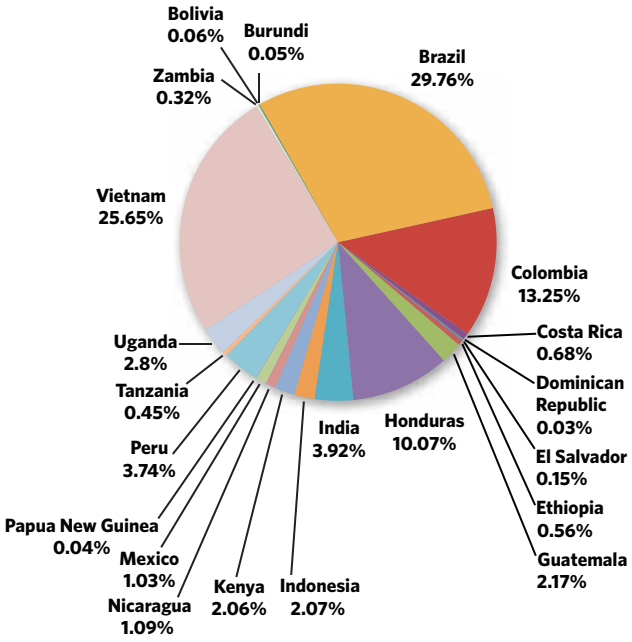
With more sustainable product being *produced* than sold in any given year, it is tempting to measure overall impact in terms of the volume of compliant or certified goods produced in a given in year since sustainable production, whether sold as such or not, can still be expected to have positive social and environmental impacts on the ground. While production statistics can be a useful indicator of growth and distribution of social and environmental impacts, they provide a poorer indication of economic impact.

When coffee is produced sustainably, but not sold as a sustainable product, the potential benefits of preferential market access, more direct commercial relations and premiums may not be present. Moreover, sustainability initiatives typically have somewhat better information on the levels of multiple certification in sales than they do on production. Where multiple certification is particularly prevalent, such as in the coffee sector, production statistics can easily lead to an over-estimation of actual impact.

The viability of one measure over another will depend on the specific measure in question, the actual prevalence of multiple certification and the types of sustainability benefits a given initiative seeks to provide.

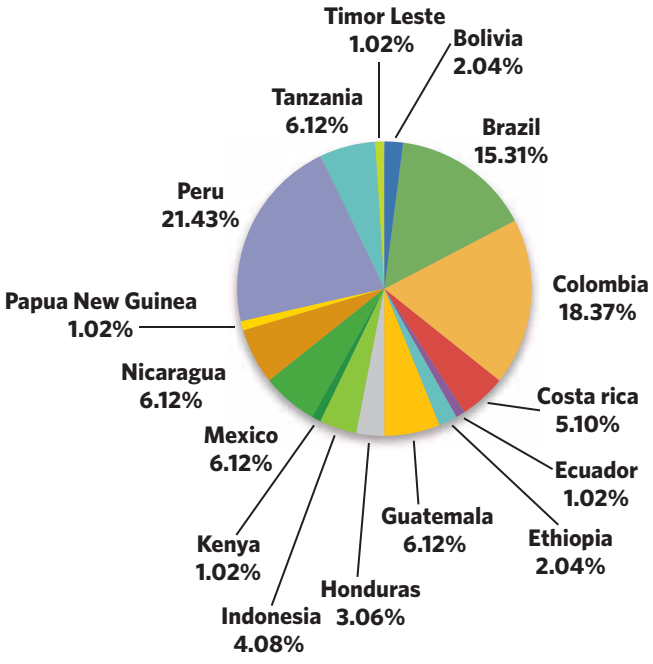
Figures 3.22, 3.23, 3.24, 3.25 and 3.26 illustrate the different initiatives' distributions of coffee production, calculated using per-country volume (hectares) data.

Figure 3.22: UTZ Certified distribution of coffee production, 2009.



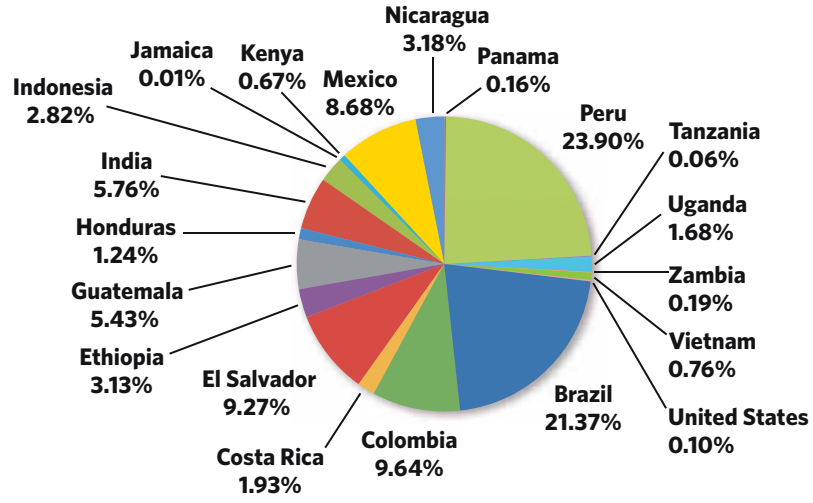
Source: UTZ Certified, 2010.

Figure 3.23: Fairtrade distribution of coffee production, 2008.



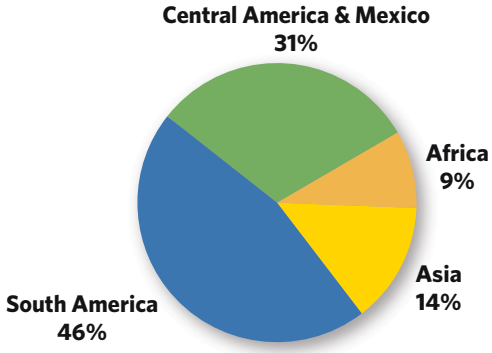
Source:FLO International, 2010.

Figure 3.24: Rainforest Alliance distribution of coffee production, 2009.



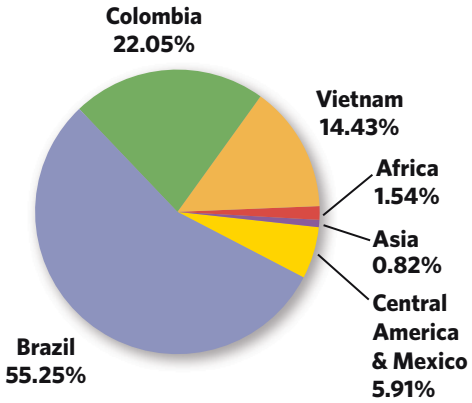
Source: Rainforest Alliance, 2010.

Figure 3.25: Organics certified distribution of coffee production, 2008.



Source: Giovanucci and Peirrot, 2010a.

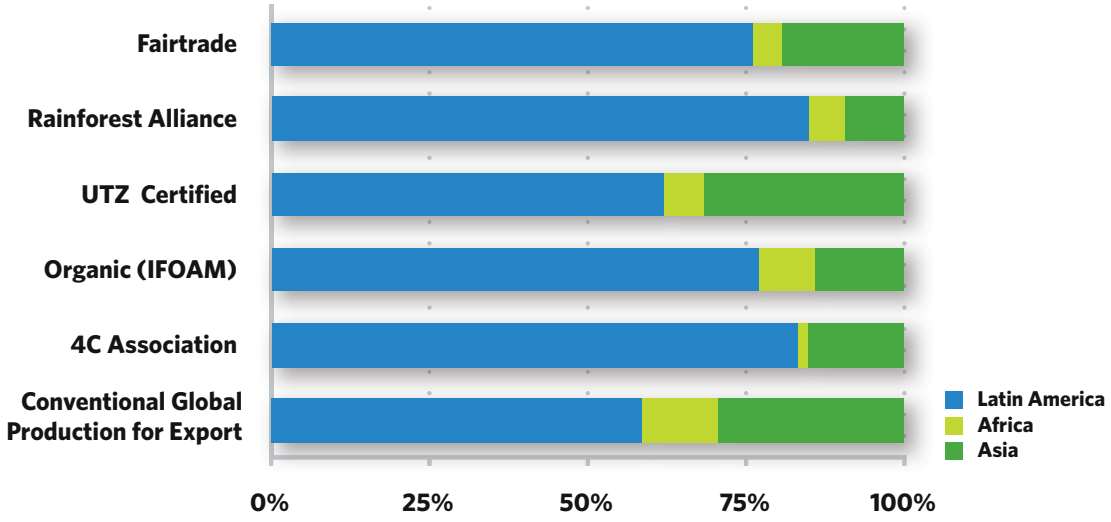
Figure 3.26: 4C Association distribution of coffee production, 2009.



Source: 4C Association Annual Report, 2009.

Figure 3.27 compares the regional distribution of production for Fairtrade, Rainforest Alliance, UTZ Certified, Organic and 4C Association coffee to the regional distribution of conventional global coffee production. A total of 76.5 per cent of all sustainable coffee comes from Latin America, as compared to 59 per cent for global production for export. Four countries—Brazil, Colombia, Peru and Vietnam—dominate sustainable coffee production, accounting for nearly 78 per cent of all sustainable coffee, while these same four countries together account for only 57 per cent of conventional production of coffee for export. Although historical and quality reasons likely account for this concentration to a large degree, an additional explanation for the high concentration of sustainable production in Latin America could be the region's relatively more advanced production systems and higher degree of organization. The distribution of UTZ Certified is notable as being the closest to global distribution of conventional production.

Figure 3.27: Regional distribution of coffee supply by production system, 2008-2009.



Source: FLO, Annual Reports, 2008; FLO Press Release, 2009; RA/SAN, 2009; UTZ Annual Report, 2009; 4C Association Annual Report, 2009; TCC Coffee Barometer, 2009, Giovannucci and Peirrot, 2010a & 2010b.

Nestlé, Kraft and Sara Lee are the three largest roasters.[82] The decisions these three companies make can have significant impacts on overall demand. Each of these major coffee roasters has developed strategic alliances with a limited number of sustainability initiatives as part of their overall corporate strategies. Rainforest Alliance (Kraft) and UTZ Certified (Sara Lee) managed to secure a small, but not insignificant, market penetration (3.8 per cent and 4.3 per cent, respectively) with at least of one of these major manufacturers by 2008.[83]

"76.5 per cent of all sustainable coffee comes from Latin America, as compared to 59 per cent for conventional production."

[82] TCC Coffee Barometer, 2009.
[83] TCC Coffee Barometer, 2009: 10.

3.2.2 | Sustainable Coffee Premiums

Both world market prices and specialty market prices vary globally based on the physical and flavour quality of the coffee. Production from any given country is typically price adjusted based on internationally recognized quality differentials. Premiums in the coffee sector arising from certification—when certified coffee is sold as certified[84]—are measured as prices that are earned above the local price for similar coffee. With the growth of the specialty coffee sector, however, quality-based differentials can, and indeed often do, move far beyond those stipulated by the world market price, and can vary considerably from farm to farm.[85] The variability in coffee pricing and quality gives rise to variances in conventional prices, often making it difficult to determine when a premium is due to certification or other quality features.

Notwithstanding these challenges, several high-level observations can still be made with respect to the pricing of different sustainability initiatives in the coffee sector. Among the five systems observed, only Fairtrade specifies requirements on prices paid. Table 3.6 shows the minimum price Fairtrade specifies by coffee type (there is a US$0.20 per pound differential for organic coffee), as well as a fixed "social premium"[86] (US$0.10 per pound). When world market prices rise above the Fairtrade floor price, the Fairtrade premium consists of the FLO stipulated "social premium"[87] alone. When the world market price is below the minimum Fairtrade floor price, the price differential for certified Fairtrade is the combination of the difference between the floor price and the world market price and the stipulated social premium.[88]

BOX 3.5

Sustainable livelihoods: looking beyond premiums

With many commodity producers in the developing world living below poverty levels, one of the major objectives of sustainability schemes is to improve the livelihoods of producers. Although prices and premiums are one important variable in determining access to sustainable livelihoods, they are not the only, and often not even the most important, element in determining the overall sustainability of a given commodity producer. Other key determinants include yield, cost of production, access to financing and access to markets. This SSI Review only reports on premiums and costs associated with certification fees, but these should not be mistaken as proxies for the ability of individual initiatives to provide sustainable livelihoods for producers. In order to provide answers to these questions, a more detailed analysis of the field level impacts of different initiatives is required. The Sustainable Commodity Initiative's Committee on Sustainability Assessment (COSA) project is seeking to build the evidence base to determine the impacts of different VSIs on sustainable livelihoods more generally. For the latest updates on information related to COSA, please visit http://www.sustainablecommodities.org/cosa.

[84] Not necessarily all coffee that is produced as certified, is sold as certified. Only coffee that is sold as certified will receive a premium.

[85] One of the challenges in assessing premiums for certified coffees lies in the fact that many certified coffees sell to both the mainstream and specialty markets, making it difficult to determine when a premium is attributable to compliance with a sustainability initiative's criteria or simply to a higher quality product (which may, inadvertently, actually be due to compliance with sustainability criteria). The ideal test is to assess the price received by a single farm for compliant coffee and non-compliant coffee of equal quality. Such examples are rare—at present the data available are based on calculations or assessments made by the initiatives themselves or third-party researchers and may not represent the application of equivalent methodologies. In order to accurately assess premiums attributable to certification alone, dedicated resources and methodologies for gathering data across standards bodies will be necessary.

[86] The social premium differs from price premium in that the social premium must be reinvested in a project that benefits the producers. It is not merely a premium paid over a conventional price.

[87] The social premium is also known as the Fairtrade premium. To avoid confusion, throughout this report, we will refer to the Fairtrade premium as a social premium, as it is required to be reinvested in the producer community.

[88] Note that this is a simplified calculation of the Fairtrade premium. Given the price-related requirements, there is often a self-selection process whereby predominantly high quality "specialty" coffees are sold as Fairtrade certified. The actual price such coffees seek on the conventional market is typically much higher than the world market price. Accordingly, the actual premium that can be attributed to Fairtrade certification in such cases is lower than the difference between the Fairtrade floor price and the world price.

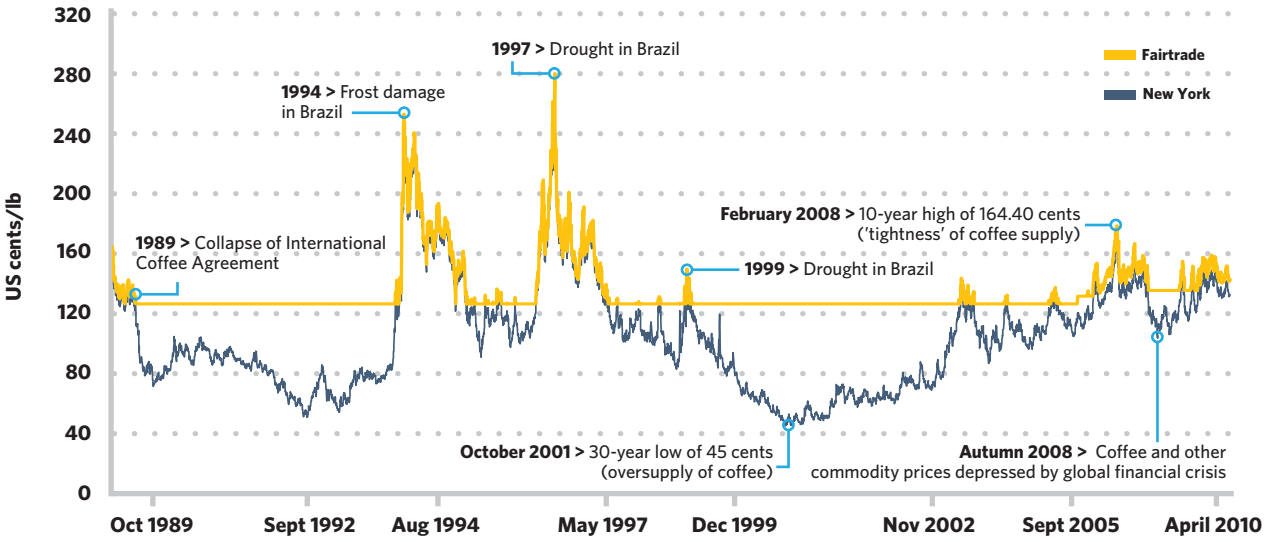
Table 3.6: Fairtrade minimum price and social premium by coffee type, 2008 (US$ per pound).

	Free On Board (FOB)		
Type	**Conventional**	**Organic**	**Social premium**
Arabica			
Washed	1.25	1.45	0.10
Non-washed	1.20	1.40	0.10
Robusta			
Washed	1.05	1.24	0.10
Non-washed	1.01	1.21	0.10

Source: FLO, 2009, Fairtrade Minimum Price and Fairtrade Premium Table.

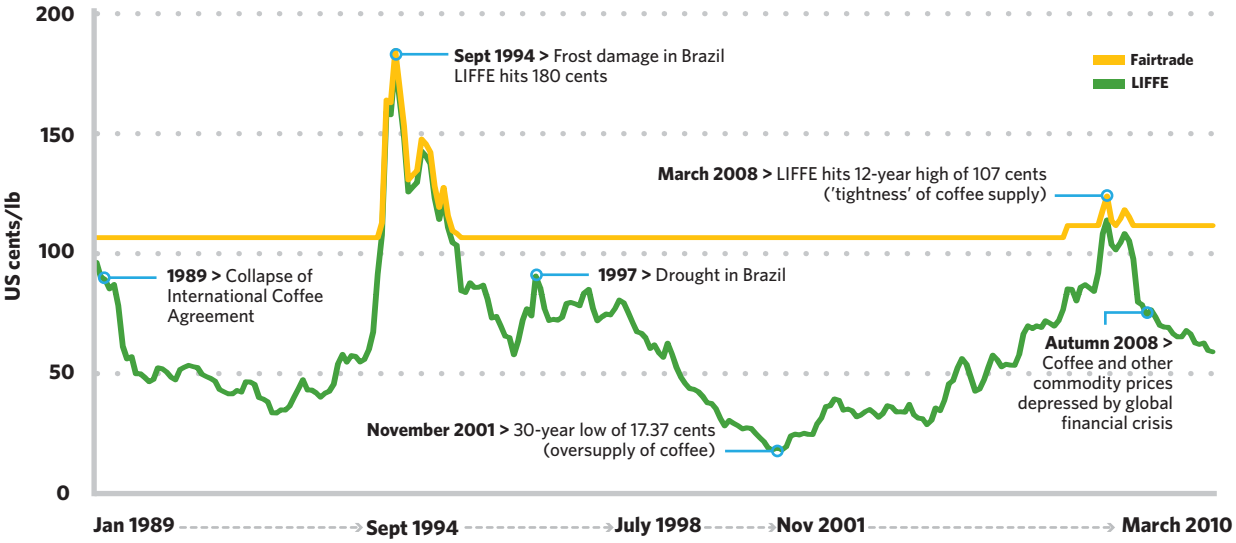
Figure 3.28 and Figure 3.29 are time series graphs showing Fairtrade minimum prices and the conventional market prices for Arabica from 1989 to 2010 and for Robusta from 1989 to 2010. The two figures show how Arabica coffees, which are typically associated with higher quality and specialty coffees, are also less likely to be impacted by the Fairtrade minimum pricing requirements. This is a reflection of the underlying importance of quality in determining premiums, not only in Fairtrade, but in other certified coffees as well.

Figure 3.28: Fairtrade minimum prices versus conventional market prices for Arabica, 1989-2010.



Source: FLO, 2010. Accessed at http://www.fairtrade.net/coffee.html.

Figure 3.29: Fairtrade minimum prices versus conventional market prices for Robusta, 1989-2010.



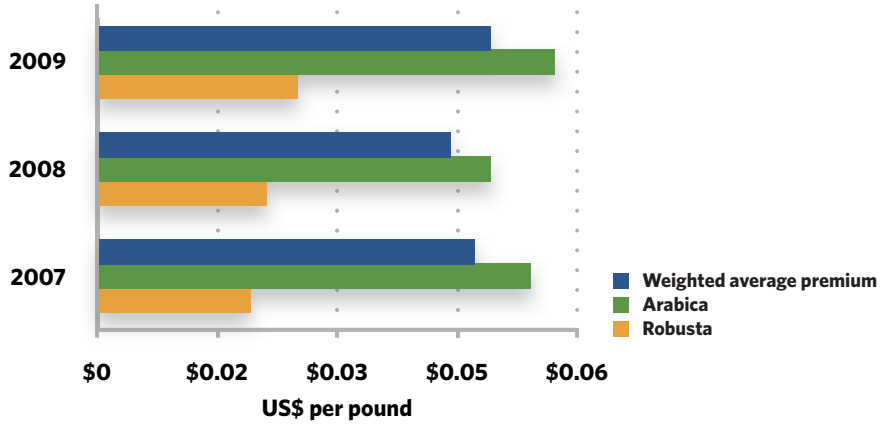
Source: FLO, 2010. Accessed at http://www.fairtrade.net/coffee.html

UTZ Certified requires a minimum premium of US$0.01 per pound and actively promotes premiums by requiring traders to report premiums to UTZ Certified. Average premiums are then made publicly available to producers.[89] Actual premiums for UTZ Certified coffees have been (self) reported to range from $0.01 to $0.13 per pound of green coffee.[90] The weighted average premium for UTZ Certified green coffee in 2009 was just under $0.05 per pound.[91]

"Although prices and premiums are one important variable in determining access to sustainable livelihoods, they are not the only, and often not even the most important, element in determining the overall sustainability of a given commodity producer."

[89] UTZ website, www.utzcertified.org.
[90] UTZ Certified, 2010.
[91] UTZ Certified is the only initiative to provide a publicly available weighted average of premiums for certified coffee: UTZ Certified "Supply and Demand Analysis, 2010," http://www.utzcertified.org/serve_attachment.php?file=archive/downloads/2010_supply_-_demand_report.pdf.

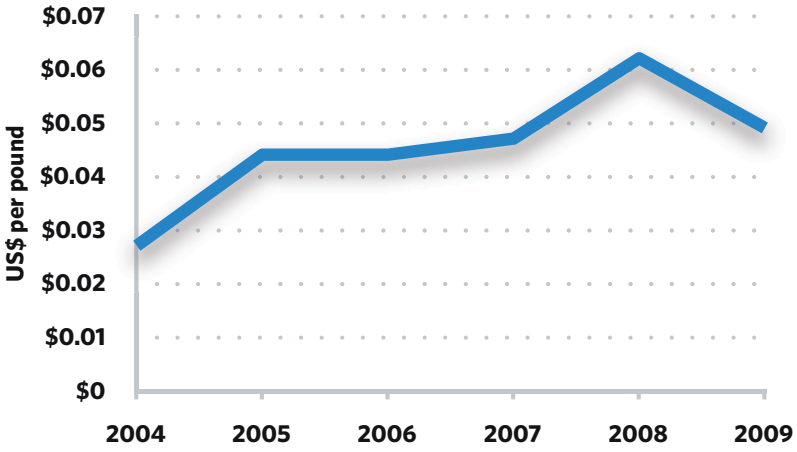
Figure 3.30: UTZ Certified average premiums, 2007-2009 (US$ per pound).



Source: UTZ Certified Supply and Demand Analysis, 2010.

Figure 3.31 shows UTZ Certified's average weighted premium between 2007 and 2009.

Figure 3.31: UTZ Certified average weighted premium (self) reported for green coffee, 2004-2009 (US$ per pound).



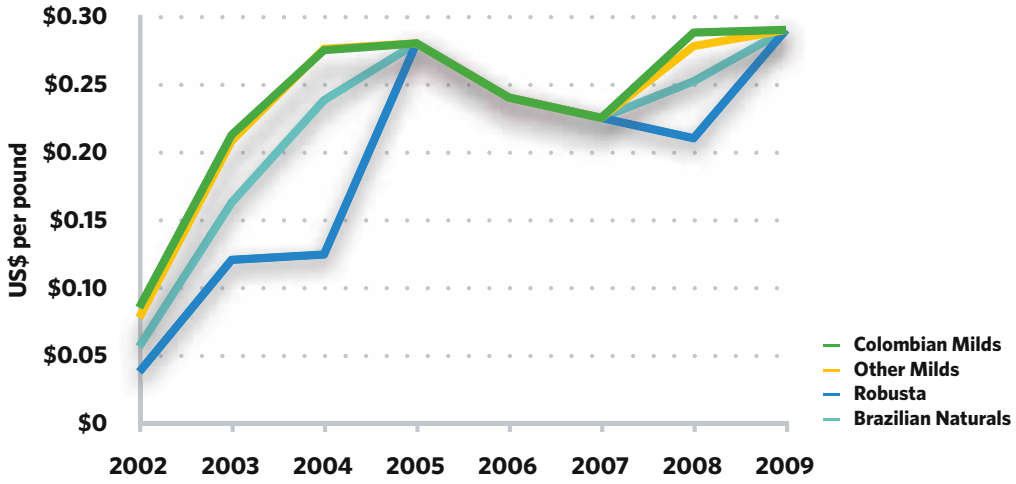
Source: UTZ Certified, 2010, p.3.

Although the 4C Association does not set any fixed, guaranteed or minimum prices or premiums, 4C Association standards stipulate that prices should reflect the coffee quality and sustainable production practices. Because 4C Association Compliant Coffee is not associated with a consumer-facing label, the potential to generate market premiums is considerably lower than the other initiatives surveyed in this report. Producers report occasional evidence from $0.01 to $0.03 per pound of green coffee.[92]

Neither, Rainforest Alliance, nor Organic standards contain pricing requirements as part of their standards. Rainforest Alliance certified coffees have nevertheless been reported to earn premiums ranging from $0.04 to $0.14 per pound and averaged $0.11 per pound in 2009.[93] Similarly, case studies produced between 2002 and 2010 report premiums of between US$0.05 and US$0.30 per pound for Organic coffee.[94]

Figure 3.32 shows the reported prices for Organic certified coffee, by type, for the period 2002-2009.[95] Prices for organic and conventional coffee have been rising over the same period. Colombian Milds and Other Milds obtained the highest reported prices and the prices follow each other closely, in many years often differing by only a few cents. Organic Robusta consistently receives the lowest prices. In 2009 Organic Robusta received US$1.04 per pound (a premium of US$0.29 per pound). This stands in contrast to Organic Colombian Milds, which received US$2.06 per pound (a premium of US$0.29 per pound); Organic Other Milds received US$1.73 per pound (a premium of US$0.29 per pound); and Organic Brazilian Naturals received US$1.44 per pound (again, receiving a premium of US$0.29 per pound). At the height of its conventional price, in 2008, Organic Robusta received US$1.26 per pound (a premium of US$0.21).

Figure 3.32: Reported price premiums for Organic certified coffee by type, 2002-2009 (US$ per pound).

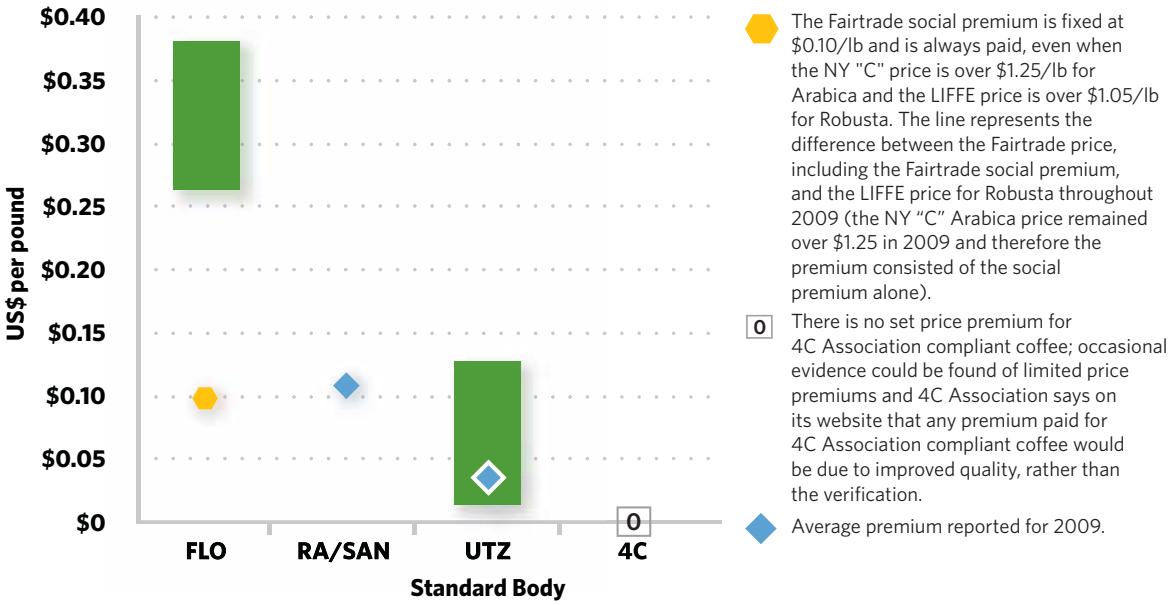


Source: OECD, 2003; UNCTAD, 2006; Rocha, 2004; Giovanucci and Villalobos, 2007; Liu, 2008; Kurian and Peter, 2007; Russell, 2007; Coffee and Conservation, 2008.

[92] Personal email communication with Melanie Rutten-Sultz, 4C Association, 24 June 2010.
[93] Vidri, 2007; Russell, 2007; Rainforest Alliance, 2010.
[94] Intracen, 2002; OECD, 2003; UNCTAD, 2006; Rocha, 2004; Giovanucci and Villalobos, 2007; Liu, 2008; Kurian and Peter, 2007; Russell, 2007; Coffee and Conservation, 2008; Giovanucci, 2010.
[95] This graph has taken, where necessary, the average of the range for reported price premiums.

Figure 3.33 shows the range of reported price premiums for Fairtrade, Rainforest Alliance, UTZ Certified, 4C Association compliant, and Organic certified coffee over 2009.

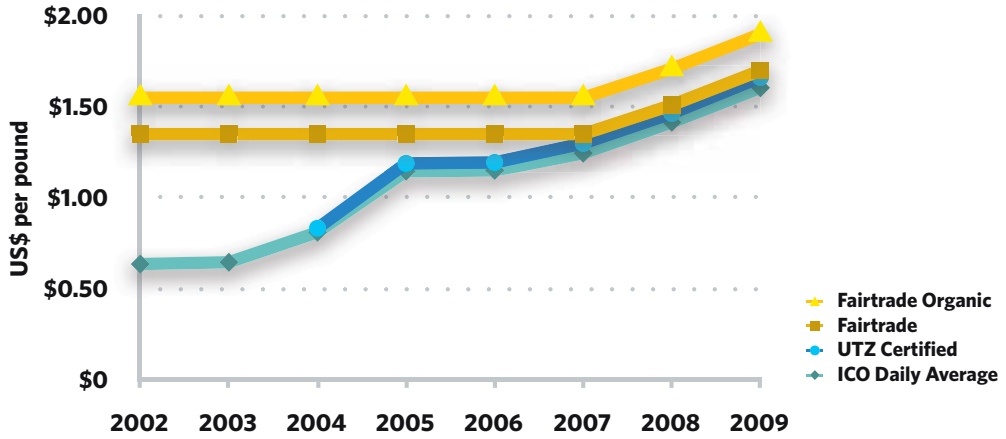
Figure 3.33: Range of reported price premiums, selected initiatives for coffee, 2009 (US$ per pound).



Source: FLO, 2009; ICO, 2010; Rainforest Alliance, 2010; UTZ, 2010; 4C Association, 2010; Giovannucci, 2010.

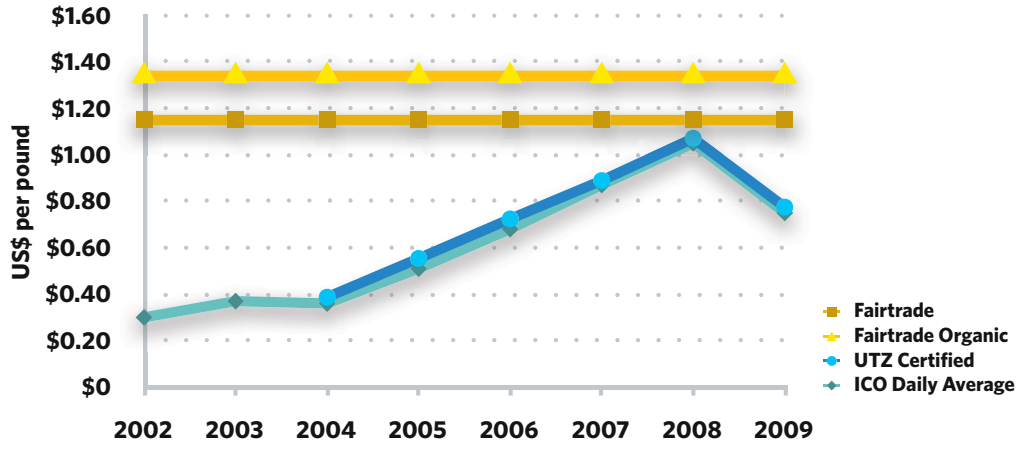
Figure 3.34 and Figure 3.35 each show a time series graph for reported prices of Arabica and Robusta green coffees, by initiative, from 2002 to 2009.

Figure 3.34: Reported prices for certified Arabica green coffees by initiative, 2002-2009 (US$ per pound).



Source: ICO, 2009; FLO Pricing Database, 2010 (accessed at http://www.fairtrade.net/793.html); UTZ Certified Annual Report 2010.

Figure 3.35: Reported prices for Robusta green coffees by initiative, 2002-2009 (US$ per pound).



Source: ICO, 2009; FLO Pricing Database, 2010 (accessed at http://www.fairtrade.net/793.html); UTZ Certified Annual Report 2010.

3.3 | Tea Initiatives Market Data

SUMMARY POINTS

- **Over the past five years, sustainable tea production has grown by 2,000 per cent and, at 281,105 metric tons, accounts for approximately 7.7 per cent of estimated global tea production for exports in 2009.**
- **Africa is the dominant supplier of sustainable tea for export; 70 per cent of all sustainable tea is currently produced in Africa, whereas Africa only accounts for 32 per cent of conventional tea for export.**
- **Supply of certified tea is set to increase significantly in the coming years due to various buyer initiatives: Tetley, Unilever and Twinings either have sourced, or have committed to, sourcing from sustainable supply in the coming years.**
- **Price premiums reported for sustainable tea in 2008 ranged from US$0.50–1.38 per kilogram.**

After water, tea is the most popular drink in the world.[96] The tea plant originated in southeast Asia, and is now grown around the world in tropical and sub- tropical regions. Tea grows well at high altitudes and in mildly acidic lands and can therefore be cultivated in areas unsuitable for other crops. Although, tea is produced in more than 35 countries, only four—China, India, Sri Lanka and Kenya—account for nearly 75 percent of the production.[97]

Although tea and coffee, as caffeinated drinks, are substitutable in some consumer markets, the production systems for the respective crops are significantly different. Most importantly, tea is typically grown under plantation conditions rather than smallholder production systems (as in the case of coffee).[98] The resulting efficiencies and economies of scale give rise to significantly higher per hectare output.[99] In 2007, an area of approximately 2.8 million hectares of tea was cultivated around the world, with the average hectare yielding roughly 1.4 metric tons (compared a total land area of 10.4 million hectares devoted to coffee with an average output of 0.75 metric tons per hectare.)

The cultivation of tea can be an attractive source of income, as it provides employment and earnings throughout the year, while requiring relatively small investment. Also, the risk of complete crop failure is relatively low. Tea bushes, once established, can be profitable for 40-50 years. Being harvested every 7-14 days, only the leaves from the tips of shrubs are harvested. Once picked, tea leaves are withered to remove moisture, and placed in a rolling machine where they begin to oxidize. The oxidization time determines the type of tea produced. Green tea, which accounts for 27 per cent of global production and seven percent of trade,[100] is not oxidized at all. Black tea, which accounts for more than 70 per cent of global production and trade, oxidizes for up to two hours.[101] Heating and drying stops the oxidization process and the leaves are then sold either directly to packers and blenders or sent to national auction houses.

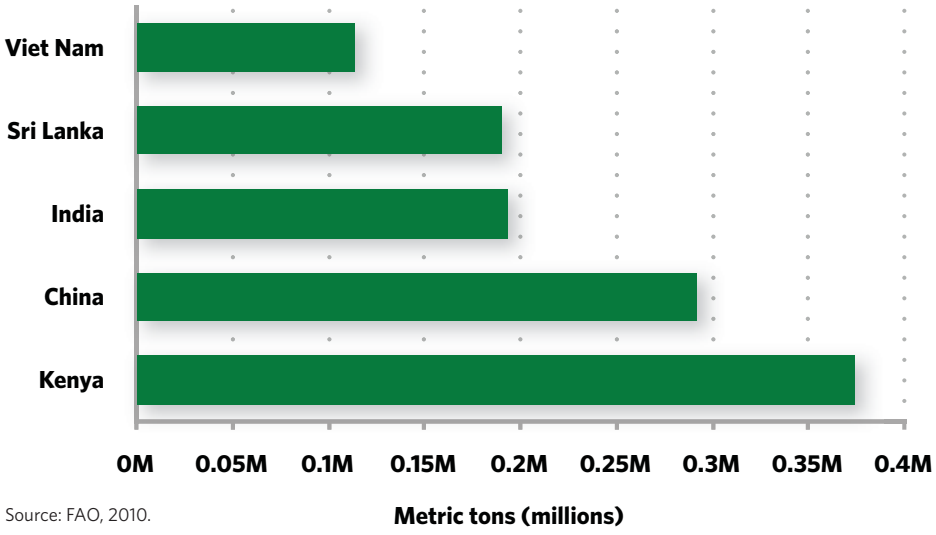
Roughly 70 per cent of global tea production is traded at auctions; the main auction centers being in India (Kolkata and Kochi), Sri Lanka (Colombo) and Kenya (Mombasa).[102] Blending and packaging, the most lucrative part of the tea trade, are mostly carried out by tea companies in buyer countries. Blending is always carried out to ensure constant quality and uniformity of the final product; blending also is used to produce distinct flavours (e.g., English Breakfast, Earl Grey) for tea bags. As a result, the largest value—added along the supply chain tends to occur in Northern consuming countries. In Europe, it is estimated that 30 to 50 percent of the consumer price of tea goes toward blending, packing, packaging materials and promotion.[103]

[96] Transfair Canada, accessed at http://transfair.ca/en/products/tea.
[97] FAO, 2009.
[98] van der Wal, 2008.
[99] FAO, 2009.
[100] van der Wal, 2008.
[101] van der Wal, 2008.
[102] van der Wal, 2008.
[103] H. Lee, 2004.

With the majority of tea production, however, processing and blending occurs in local markets. Almost 56 per cent of all tea produced worldwide is consumed locally, and in some regions produced exclusively for domestic markets.[104] Kenya, China and India are the three most important sources of tea exports.

Figure 3.36 shows the top exporters of tea.[105]

Figure 3.36: Top five tea exporters, 2007 (metric tons).



Source: FAO, 2010.

"Almost 56 per cent of all tea produced worldwide is consumed locally, and in some regions produced exclusively for domestic markets."

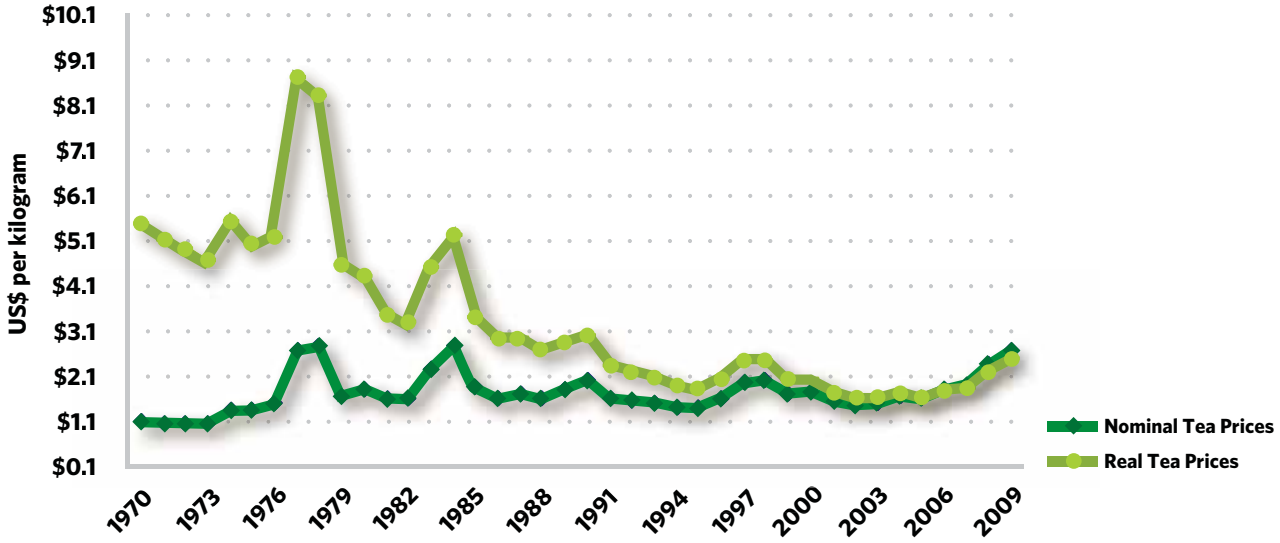
[104] van der Wal, 2008.
[105] A time lag exists in the export data from the FAO. The most recent export data available are from 2007 and were used in this graph.

Forest conversion is a major sustainability challenge facing the tea sector. When natural vegetation is replaced with mono-culture tea plantations, soil erosion, biodiversity and climate change pressures are typically increased simultaneously. The longevity of tea bushes, combined with problems of soil erosion, can lead to significant depletion of soil fertility. High levels of both organic and inorganic fertilizers are therefore used on tea plantations to compensate and put additional stresses on local waterways.[106] The long-term effects of this practice, on both the environment and human health, are unknown.[107] Combined with soil erosion, the effects of agrochemical use on soil biodiversity and water pollution are significant.[108]

In addition to environmental issues, the tea sector is also faced with a number of social sustainability challenges. Although tea workers tend to receive minimum wages, minimum wage levels commonly fall short of providing a living wage in many tea-producing countries.[109] In addition to wages, health impacts from agro-chemical use are also an important worker safety issue. ILO studies have revealed that two categories of illnesses—respiratory and water-borne diseases—account for 60 to 70 percent of the diseases affecting tea plantation workers.[110] Finally, child labour has occasionally been reported in the tea sector.[111]

Addressing sustainable development priorities in the tea sector is rendered particularly difficult by long-term price declines and price volatility (Figure 3.37).[112] The global importance of tea to sustainable development in the developing world has given rise to several sustainability initiatives in the tea sector.

Figure 3.37: FAO tea composite price (US$ per kilogram).



Source: FAO, 2010.

[106] Kenya has the highest fertilizer productivity; in the estate sector, a ratio of 20 kilogram of made tea for every kilogram of nitrogen is reported. FAO, 2009; online.
[107] Aidenvironment and Partners In Tea Initiative, 2008.
[108] Some plantations in India have lost up to 70 per cent of soil life compared to nearby natural habitats. J. Clay, 2003, World Agriculture and the Environment, Washington, DC: Island Press.
[109] See van der Wal, 2008, for a general description of the social issues facing the tea sector. In Kenya, field research has revealed pay slips showing wages for pickers that were about US$50 (low season) and up to $100 per month (high season). As in Indonesia, temporary workers on Kenyan smallholder farms are paid less than those on large plantations. This is the result of large plantations paying about US$0.093 (KES 6.30) per kilo of green leaf, while at small farms this might range from US$0.059-0.074 (KES 4 to 5) only. This means that picking the average 15 kilograms a day would result in a wage of about US$1.10 a day. See "Report on Research on the Small-Scale Tea Sector in Kenya," 2008, Nairobi: Christian Partners Development Agency.
[110] B. Sivaram, ILO website, "Productivity Improvement and Labour Relations in the Tea Industry in South Asia," http://www.ilo.org/public/english/dialogue/sector/papers/proschem/proasia5.htm, 10 June 2008.
[111] A UNICEF report from 2002 concluded that more than 30 per cent of the tea pickers in Kenya were under the age of 15 (Both ENDS & COS Limburg, 2004). Additionally, it is estimated by the ILO that 100,000 and 500,000 children are employed illegally in Sri Lanka, according to unofficial estimates—many of them on tea plantations (ILO-IPEC website, 2005, "Worst Forms of Child Labour").
[112] It should be noted that in the past two years, tea prices have hit historical highs.

Fairtrade and Organic represent the longest standing certification initiatives operating in the tea sector, with both initiatives specifying criteria for sustainable production before the 1990s. Since then, a number of other initiatives have entered the tea market, each with its own specific focus or approach to promoting sustainable development in the sector, including:

- Ethical Tea Partnership: Since 1998, providing monitoring, assessment and technical assistance framework for sustainability criteria for mainstream tea producers (see Box 3.6).
- Rainforest Alliance: Since 2007, certifying tea production against sustainable production standards as defined by the Sustainable Agriculture Network.
- GLOBALGAP: Since 2008, certifying the implementation of good agricultural practices in the tea sector as defined by retailers and producers.[113]
- UTZ Certified: Since 2009, certifying the implementation of good agricultural practices and responsible trade in the tea sector.[114]

BOX 3.6

The Ethical Tea Partnership: An industry initiative

In 1998 a number of leading tea packing companies created the Ethical Tea Partnership, a membership-based organization that addresses sustainability issues within the sector. Currently, ETP has 22 members representing over 50 brands on sale in over 100 countries. The ETP's geographical scope has grown since its foundation and now covers all the major tea producing regions; together, these supply over 85 per cent of world tea exports.

ETP manages a monitoring and assessment program as well as a broad technical assistance program. Under the monitoring and assessment framework, members have to disclose the sources of the tea to the ETP secretariat and apply ETP's monitory criteria to these sources.

ETP's regional managers run workshops for producers on the ETP standard and self-assessment process. During the self-assessment process, the regional manager works with the producer to develop a jointly owned plan setting out how the required improvements will be delivered. Where common issues that affect a lot of estates have been identified, ETP investigates whether there are capacity building projects that can be developed to assist producers to deal with the issues in an effective manner. Once remediation activities are in place, ETP instructs independent auditors to check that the conditions at the producer are as have been reported and that remediation is being carried out as planned. ETP monitoring and engagement covers both social and environmental issues and is based on the principle of continuous improvement.

ETP also works to address the underlying issues that are holding back the sustainability of the tea sector. It does this by developing a range of projects with specialist organizations with complementary skills to ETP—development organizations, UN organizations such as UNICEF, tea bodies and governmental institutions.

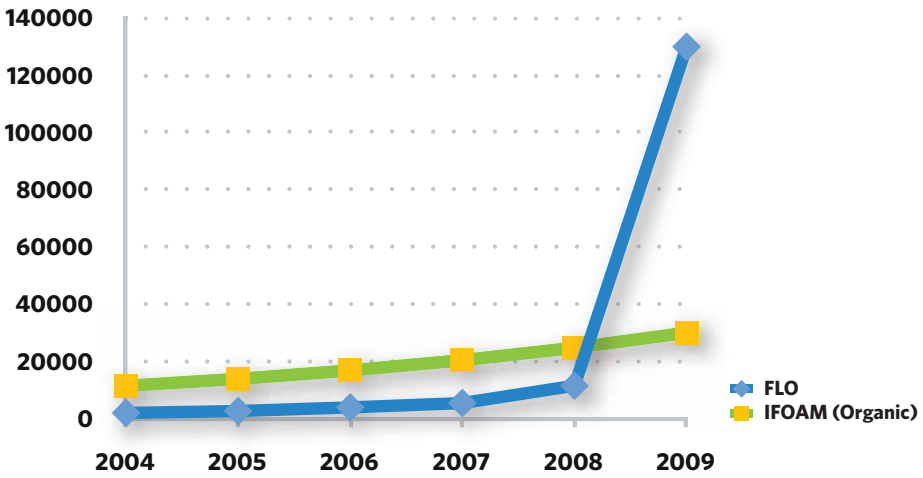
In 2009 ETP and Rainforest Alliance announced a collaborative effort to jointly develop a program to train producers in how to use ETP monitoring and self-assessment tools should they decide to pursue Rainforest Alliance certification. In the first year of collaboration, ETP and Rainforest Alliance will work together to assist tea farmers in important tea-growing countries such as India, Kenya, Malawi and Indonesia.

[113] GLOBALGAP introduced the tea standard in 2006 and the first tea producers were certified in 2008.
[114] UTZ Certified, 2009. UTZ certified 12,500 farmers in Kenya in 2009.

3.3.1 | Sustainable Tea Market Growth and Coverage

The past three years have seen a rise in the number of sustainability initiatives taking part in the tea sector. Fairtrade and Organic, the oldest initiatives active within the tea sector, have experienced steady growth over the past five years (Figure 3.38).[115] Historically, Organic tea sales have led the way in sales volumes, growing from an estimated 11,423 metric tons in 2004 to 30,000 metric tons in 2009 (21 per cent average annual growth).[116] Fairtrade sales, on the other hand, although starting from a smaller base (1,965 metric tons in 2004), have recently surged to an estimated production of 130,000 metric tons in 2009 (131 per cent average annual growth).[117] Similarly, Rainforest Alliance has skyrocketed over the past few years, from having no certified tea on the market in 2006, to an estimated volume of 105,000 metric tons in 2009.[118] The rapid growth across Fairtrade and Rainforest Alliance certified teas are due to a growing trend of alliances with mainstream manufacturers. UTZ Certified, although just beginning its operations in certifying tea in 2009, also shows strong growth potential, with 16,105 metric tons being certified in 2009 (its first year).[119] Overall, sustainable tea sales have grown by 2,000 per cent over the past five years, displaying an average annual growth of 84 per cent.[120]

Figure 3.38: Historical growth in sales of Fairtrade and Organic tea, 2002-2009 (metric tons).



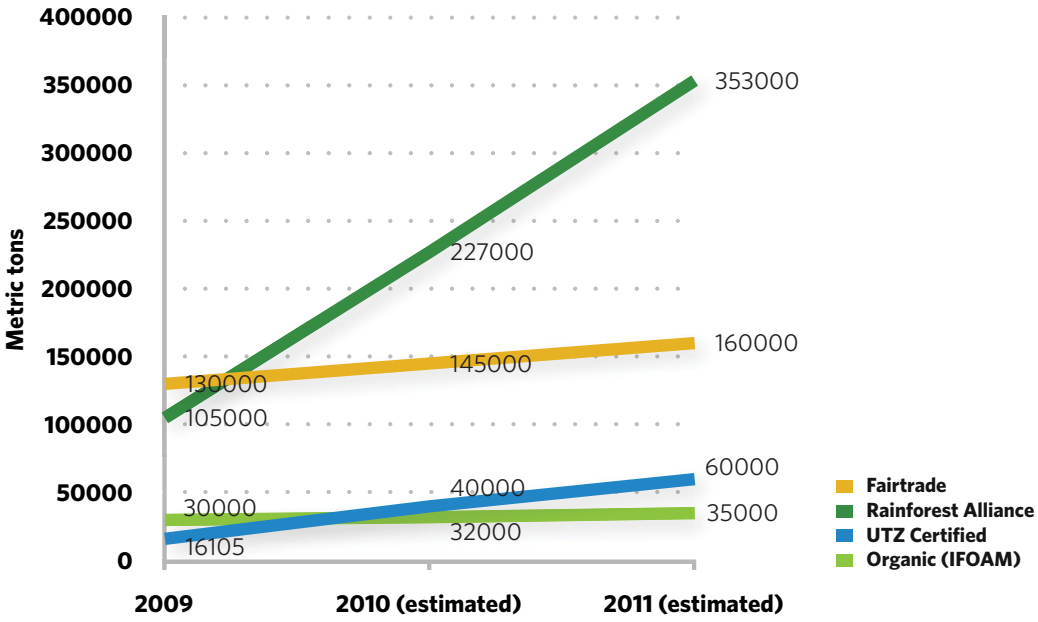
Source: FLO Annual Reports, 2002-2009.

Over the past five years, sustainable tea production has grown by 2,000 per cent and, at 281,105 metric tons, accounted for approximately 7.7 per cent of global tea production for export in 2009.[121]

[115] FLO Annual Reports, 2002-2008. SIPPO, Naturaland, 2002, "Organic Coffee, Cocoa and Tea: Market, Certification and Production Information for Producers and International Trading Companies," accessed at http://www.sippo.ch/internet/osec/en/home/import/publications/food.html#ContentSlot9070; TCC Tea Barometer, 2010.
[116] Estimate based on data from SIPPO, 2002 and TCC Tea Barometer, 2010.
[117] FLO, personal communication with Rob van Hout, 12 July 2010 and Lee Byers, FLO Tea Manager, 26 October 2010.
[118] TCC Tea Barometer, 2010.
[119] UTZ Certified Annual Report, 2009: 22.
[120] FLO, personal communication with Rob van Hout, 12 July 2010 and Lee Byers, FLO Tea Manager, 26 October 2010; FLO Annual Reports, 2002-2008; TCC Tea Barometer, 2010; UTZ Certified Annual Report, 2009: 22; SIPPO, 2002.
[121] FLO, 2010 and TCC Tea Barometer, 2010.

Figure 3.39 shows the estimated volume of tea certified by initiative from 2009 to 2011.[122] All initiatives foresee significant increases in demand, with Rainforest Alliance and UTZ Certified expecting to double their volumes within a year.[123]

Figure 3.39: Projected volume of certified teas, 2009-2011 (metric tons).



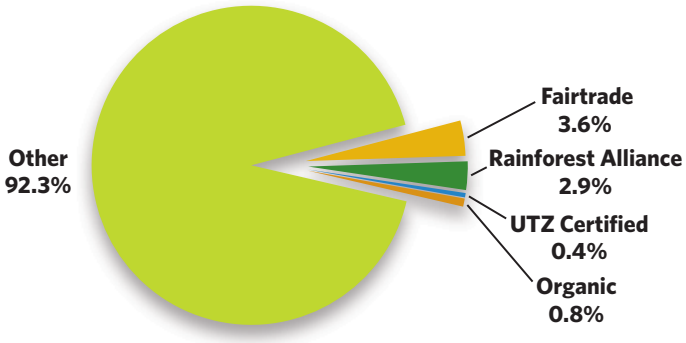
Source: FLO, 2010; TCC Tea Barometer, 2010.

"Over the past five years, sustainable tea production has grown by 2,000 per cent and, at 281,105 metric tons, accounted for approximately 7.7 per cent of global tea production for export in 2009."

[122] Expected volumes, reported by TCC Tea Barometer, 2010 and by FLO, 2010.
[123] TCC Tea Barometer, 2010:12, and by FLO, 2010.

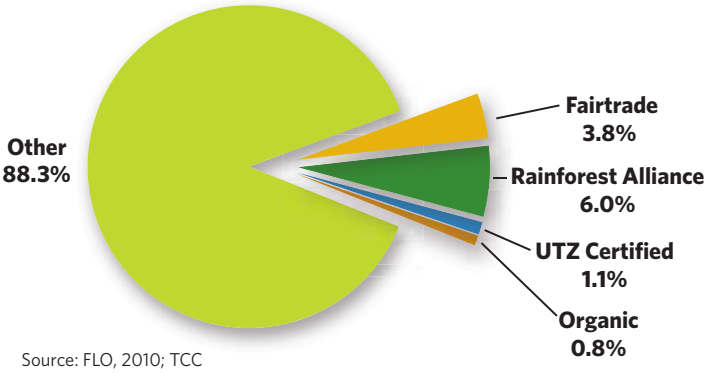
Figures 3.40, 3.41 and 3.42 show the expected volume of certified tea, by initiative, as an estimated share of global tea production for export in 2009, 2010 and 2011.[124]

Figure 3.40: Volume of tea certified by production system as a percentage of global production for exports, 2009 (estimated, unadjusted for multiple certification).



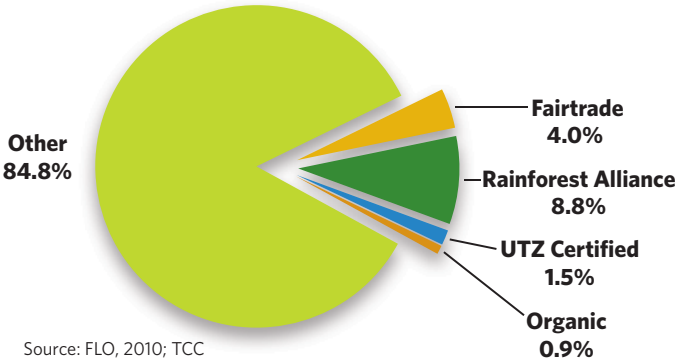
Source: FLO, 2010; TCC Tea Barometer, 2010.

Figure 3.41: Volume of tea certified by production system as a percentage of global production for exports, 2010 (projected, unadjusted for multiple certification).



Source: FLO, 2010; TCC Tea Barometer, 2010.

Figure 3.42: Volume of tea certified by production system as a percentage of global production for exports, 2011 (projected, unadjusted for multiple certification).



Source: FLO, 2010; TCC Tea Barometer, 2010.

BOX 3.7

Multiple certification in the tea sector

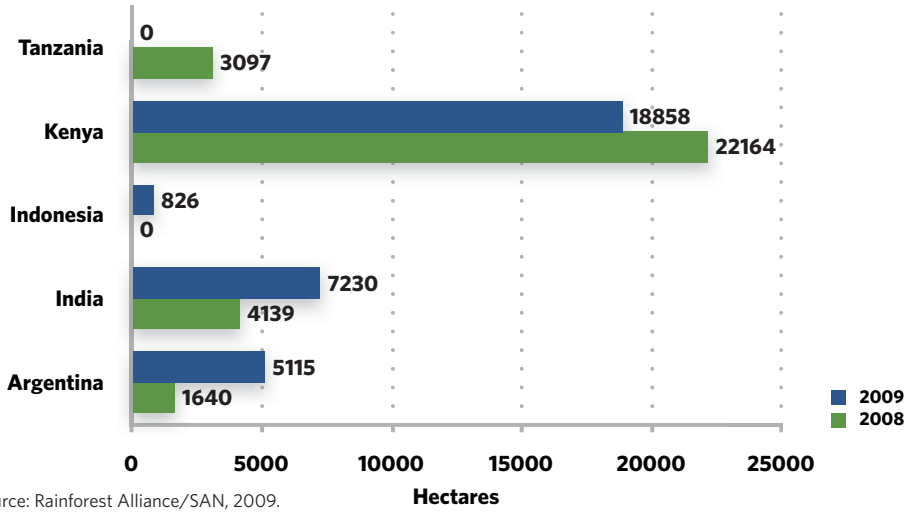
As with other agricultural sectors—namely coffee—multiple certification exists within the tea sector. In Kenya, for example, tea estates producing for the tea company Finlay's hold certifications with Fairtrade and Rainforest Alliance. In Malawi, examples of triple certification (Rainforest Alliance, Fairtrade and UTZ Certified) have been observed.[125] As with other sectors, data on multiple certification rates across production and sales are virtually non-existent, making it very difficult to accurately assess global production and sales levels of sustainable tea as a whole.[126]

[124] Note that these figures have not been adjusted for double and triple certification.
[125] Personal communication with Petra Tanos, Rainforest Alliance, 30 June 2010.
[126] One expert has suggested that less than 6 per cent of global tea is certified to a sustainability standard (Petra Tanos, Rainforest Alliance, 30 June 2010).

The growth trends in producer certificates for Rainforest Alliance (as seen in Figure 3.39; also see Figures 3.40 through 3.42) reveal significant increases in the certification of Kenyan production (from 16 estates in 2008 to over 30,000 smallholder farms and estates in 2009[127]), which has been the principal source for meeting growing demand for Rainforest Alliance certified tea over the past two years. In addition to certification growth in Kenya, Rainforest Alliance had also certified, by the end of 2009, 69 tea factories and estates in Argentina, India, Indonesia and Tanzania. This is primarily due to Kenya having the first Rainforest Alliance certified tea estate (Unilever's Lipton Tea brand sources tea from the 33,000-acre Kericho Estate in Kenya, the first tea farm in the world to become Rainforest Alliance certified in 2007). Unilever has been the driving force behind this growth as it has committed to sourcing all of its Lipton and PG Tips tea bags from Rainforest Alliance certified estates by 2015.[128]

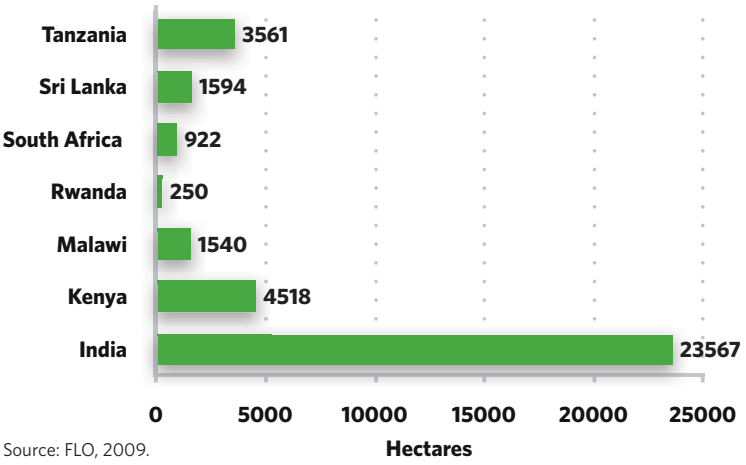
Figure 3.43 and Figure 3.44 show the total area (in hectares) of certified tea production by country for Rainforest Alliance (2008-2009) and Fairtrade (2007)[129] certified teas. South Africa is included in the Fairtrade graph due to its production of, specifically, Rooibos tea.

Figure 3.43: Rainforest Alliance, total area of certified tea production by country, 2008 and 2009 (hectares).



Source: Rainforest Alliance/SAN, 2009.

Figure 3.44: Fairtrade, total area of certified tea production by country, 2007 (hectares).



Source: FLO, 2009.

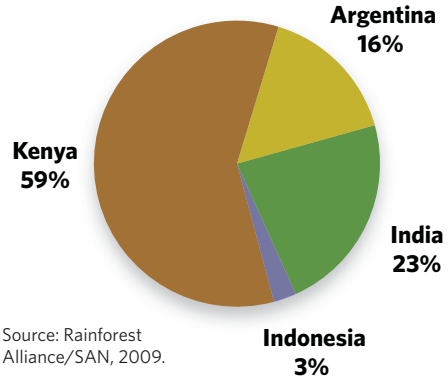
[127] Rainforest Alliance counts the total number of farms certified, whereas Fairtrade counts factories as one producer organization. To highlight this difference, in Kenya there are ten KTDA factories certified by Fairtrade, which equates to approximately 100,000 farmers.
[128] Rainforest Alliance, 2008.
[129] 2007 represents the latest available data from FLO; FLO, 2009.

Using production capacity data, Figure 3.45 shows the regional distribution of Rainforest Alliance certified tea supply. Kenya is the majority supplier of Rainforest Alliance tea, supplying 58.9 per cent of the standard's certified tea.

Figure 3.46 shows the regional distribution of Fairtrade certified tea in 2009. Kenya (44 per cent), India (22 per cent) and Tanzania (12 per cent) are the top three suppliers of Fairtrade certified teas.

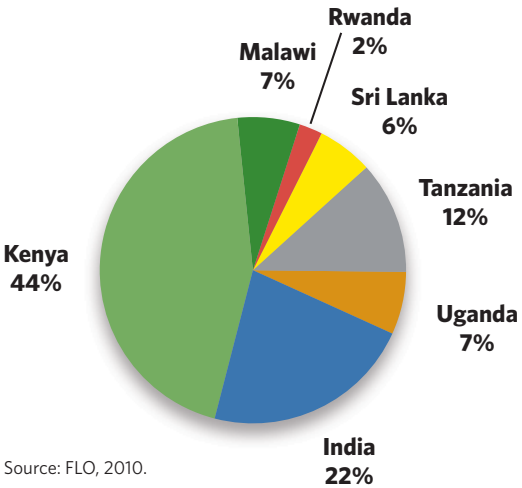
Figure 3.47 shows the regional distribution of UTZ Certified's tea supply. Malawi is the majority supplier of UTZ Certified tea, supplying 68 per cent.

Figure 3.45: Rainforest Alliance, regional distribution of tea supply, 2009.



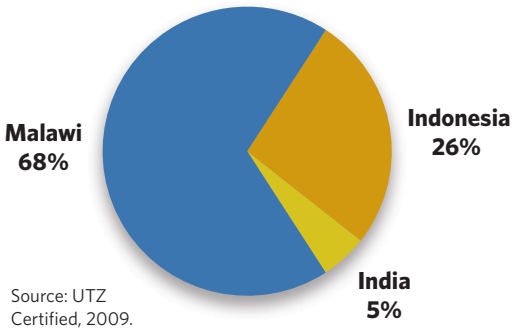
Source: Rainforest Alliance/SAN, 2009.

Figure 3.46: Fairtrade certified regional distribution of tea supply by small producers, 2008.



Source: FLO, 2010.

Figure 3.47: UTZ Certified, regional distribution of tea supply, 2009.

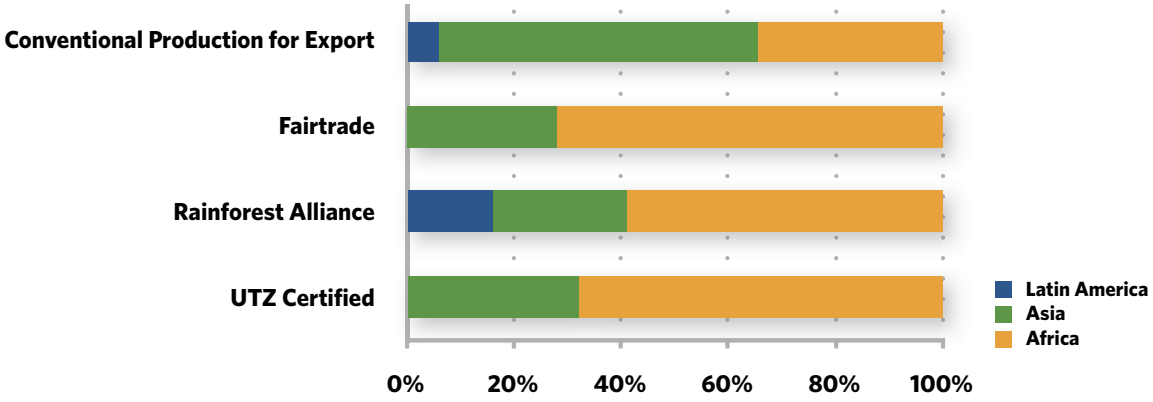


Source: UTZ Certified, 2009.

All three initiatives have a regional production distribution that differs from that of conventional tea production for export, as seen in Figure 3.48 (data from 2007). The majority of conventional tea exports are from Asia (56 per cent), with Africa accounting for 32 per cent of global exports and Latin America for 6 per cent.[130] This stands in contrast to sustainable production of tea for export, where nearly 70 per cent is sourced from Africa and 29 per cent is sourced from Asia; nearly 3 per cent is sourced from Latin America.

Rainforest Alliance certified sources 59 per cent of its tea from Africa with 25 per cent coming from Asia and 16 per cent from Latin America.[131] Similarly, the vast majority (72 per cent) of Fairtrade tea comes from Africa, with the remaining 28 per cent being produced in Asia.[132] Note that Argentina is a producer of Fairtrade tea, but its certified tea exports vary from year to year. Sixty-eight per cent of UTZ Certified's relatively nascent tea production comes from Africa, with two countries in Asia making up the remaining 32 per cent; the three countries appearing in Figure 3.48 represent the first estates to be certified by the standard. The difference between certified production for export and conventional production for export is likely explained by existing strategic relationships, the limited number of source plantations.

Figure 3.48: Geographic distribution of tea production for export by production system, 2007-2009.



Source: FAO, 2010; FLO, 2010; Rainforest Alliance/SAN, 2009.

[130] FAO, 2010.
[131] Rainforest Alliance/SAN, 2009.
[132] FLO, 2010.

Table 3.7: Rainforest Alliance, number of certified tea producers by country, 2008–2009.

Country	2008	2009
Argentina	91	296
India	183	189
Indonesia	0	2
Kenya	16	30,299
Tanzania	1	0

Source: Rainforest Alliance/SAN, 2009.

Table 3.8: Fairtrade, number of certified tea producer organizations by country, 2009.

Country	Small producer organizations	Multi-estates and plantations
Argentina	0	1
China	5	0
Egypt	0	1
India	3	15
Kenya	11	7
Laos	1	0
Malawi	1	3
Rwanda	1	2
Sri Lanka	1	4
South Africa	1	11
Tanzania	2	4
Uganda	4	0
Vietnam	2	0
Total	**32**	**48**

Source: FLO, 2010.

As Tables 3.7 and 3.8 show, certified tea production is highly concentrated, with a limited number of farms and plantations actually providing supply. For example, in 2009 Fairtrade certified 32 small producer organizations, and 28 multi-estates and plantations. Similarly, GLOBALGAP has one group certification in Sri Lanka with 19 producer members.[133] UTZ Certified had certified 9 estates across Malawi and Indonesia and a producer group in India by the end of 2009.[134]

Recent buyer alliances with specific VSIs in the tea sector are set to increase the number of farms and plantations that produce certified tea. Rainforest Alliance is expected to significantly increase its market coverage in the tea sector with recent commitments by Tetley (Tata Tea Group) to have all its Tetley tea certified (4 per cent global market share[135]). In addition, Unilever has committed to have all its Lipton and PG Tips tea bags Rainforest Alliance-certified by 2015 (12 per cent global market share[136]). Furthermore, Twinings has also committed to source 100 per cent of its Everyday tea from Rainforest certified estates by 2015 (3 per cent global market share[137]).[138] Sara Lee has committed to buying UTZ Certified teas, having purchased 2,000 metric tons in the first half of 2010.[139] Finally, Organic tea also has some support from buyer initiatives; well-known tea corporations, such as Unilever, Twinings and Tetley all have Organic product lines but have not made commitments to full transition toward Organic certification.

[133] GLOBALGAP, 2009.
[134] UTZ Certified, 2009.
[135] TCC Tea Barometer, 2010:13.
[136] TCC Tea Barometer, 2010:13.
[137] TCC Tea Barometer, 2010:13.
[138] TCC News, 2010. Accessed at http://www.teacoffeecocoa.org/tcc/News/Tea/Twinings-puts-Rainforest-Alliance-seal-on-Everyday-brand.
[139] Personal communication with Tessa Laan, UTZ Certified, 17 June 2010.

3.3.2 | Sustainable Tea Premiums

Both world market prices and specialty market prices vary globally based on the physical quality and type (green, white, black, oolong) of tea. Production from any given country is typically price adjusted based on internationally recognized quality differentials. Premiums in the tea sector arising from certification are measured as prices that are earned above the local price for similar tea for export. A notable aspect of tea pricing is the significant price differentials across production from different countries and regions. Table 3.9 shows conventional pricing in 2008 ranging from US$0.74/kg to US$2.05/kg, depending on the country of production alone.

Table 3.9: Producer prices for non-certified conventional blend tea, 2008 (US$ per kilogram).

Country	Price
Indonesia	0.52
Argentina	0.74
Kenya	1.74
Malawi	1.37
Rwanda	1.72
Sri Lanka	2.86
South Africa	1.49

Source: FAO, 2009; National Food Administration of Argentina, 2008 (accessed at http://www.alimentosargentinos.gov.ar/0-3/revistas/r_41/cadenas_ingles/Infusiones_tea_yerba_mate.htm).

Of the initiatives reviewed, only Fairtrade stipulates pricing requirements as part of its criteria. More specifically, Fairtrade requires the payment according to a minimum price (variable between countries) and a fixed "social premium"[140] of US$0.50 per kilogram for CTC and Orthodox Dust and Fanning grade and US$1.10 Orthodox grades (excluding Dust and Fannings).[141] Table 3.10 shows the minimum prices based on location and whether the tea is Organic or not; the table also shows whether or not the tea is sold at auction or through Free On Board.

Table 3.10: Fairtrade minimum prices and social premiums for tea, 2008 (US$ per kilogram).

Region/country	Type	Auction/FOB*	Fairtrade minimum price	Social premium
Eastern Africa (except Malawi and Rwanda)	Conventional	Auction	1.40	0.50
Eastern Africa (except Malawi and Rwanda)	Conventional	FOB	1.50	0.50
Malawi	Conventional	Auction	0.95	0.50
Malawi	Conventional	FOB	1.20	0.50
Rwanda	Conventional	Auction & FOB	1.70	0.50
Africa (except Eastern Africa)	Conventional	Auction &FOB	1.20	0.50
Asia (except China, India, Sri Lanka)	Conventional	Auction & FOB	1.40	0.50
South America	Conventional	Auction & FOB	1.20	0.50
North India	Conventional	Auction & FOB	2.00	0.50
South India (except Nilgiri)	Conventional	Auction & FOB	1.40	0.50
India Nilgiri	Conventional	Auction & FOB	1.75	0.50
Sri Lanka	Conventional	Auction & FOB	2.00	0.50
China	Conventional	Auction & FOB	1.20	0.50
Fairtrade organic	Conventional	Worldwide	commercial price	0.50
Herbal teas	Herbal (hibiscus, camomile, peppermint)	Worldwide	commercial price	0.50

*FOB = Free On Board. Source: FLO, 2009.

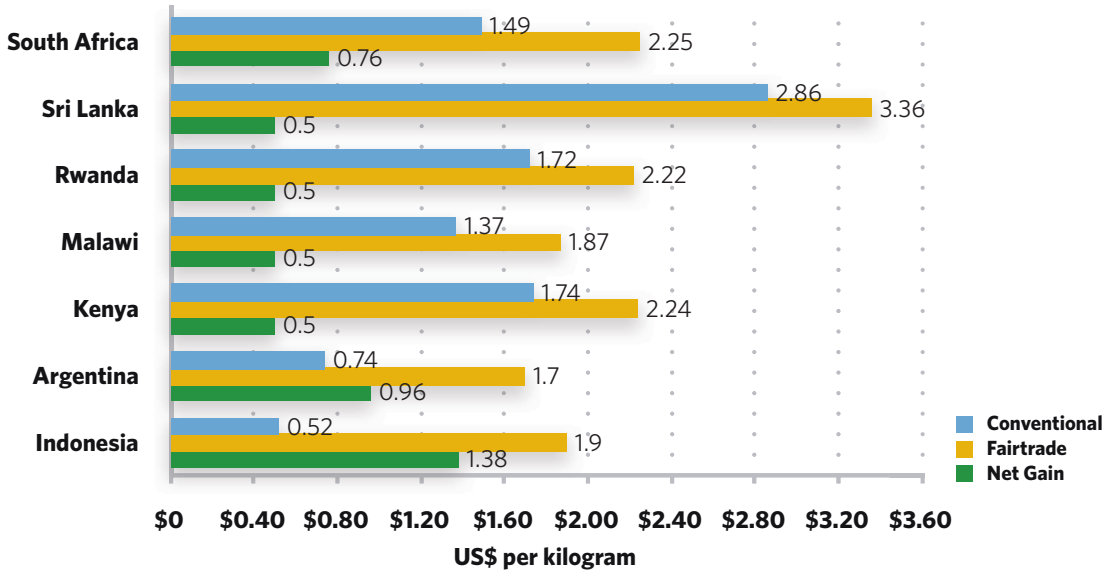
[140] The social premium differs from price premiums in that the social premium must be reinvested in a project that benefits the producers. It is not merely a premium paid over a conventional price.

[141] There is no minimum price on the Orthodox grades because the range of qualities and prices is very diverse. Generally, these teas achieve high prices in the market because each estate/tea garden has unique characteristics depending on the soil, climate, method of cultivation, leaf processing and grading methods, and so forth.

Sri Lankan and North Indian tea receives the highest minimum price under Fairtrade (US$2.20 per kilogram), while Malawi receives the lowest minimum price (US$1.45 per kilogram). Both organic Fairtrade teas and Fairtrade herbal teas have their minimum Fairtrade price set at the commercial price, limiting their total premium to the Fairtrade social premium of US$0.50 per kilogram.

Figure 3.49 provides a graphic comparison of pricing for conventional and Fairtrade teas,[142] showing the difference or "total premium" per volume for 2008.[143] Although Sri Lankan tea received the highest Fairtrade minimum price (US$3.36 per kilogram),[144] Indonesian tea received the largest total premium with US$1.38.[145]

Figure 3.49: Conventional tea prices, Fairtrade tea prices (minimum price plus social premium) and total premium per volume, 2008 (US$ per kilogram).



Source: FAOstat, 2010; FLO, 2007; RA/SAN, 2008; UTZ Certified Annual Report, 2009.

Rainforest Alliance, GLOBALGAP and Organic (IFOAM) have no pricing requirements. UTZ Certified formally requires payment of at least US$0.01 per pound while also reporting on average premiums paid in order for the tea to be marketed as UTZ Certified.[146] Although information on price premiums for non-Fairtrade Organic tea have been reported to be between 30 per cent and 70 per cent, information on current premiums remains extremely scarce and unreliable.[147]

[142] FAO data on reported producer prices for conventional tea has a lag. The most recently reported available prices (from 2007) have been used.
[143] We use the term "total premium" to distinguish from FLO's "social premium," which only represents a portion of the overall market premium received for producers supply Fairtrade markets. The total premium consists of the difference between the Fairtrade floor price and the conventional price added to the specified social premium.
[144] FLO, 2009; FLO is looking to revisit the minimum premium, as the volumes of Argentinean tea sales have been quite small. It is essential to note that although Argentina was receiving high premiums, they sold very small volumes of tea at such prices.
[145] FLO, 2009.
[146] In addition to publication, UTZ Certified also requires an additional payment of €0.225 per kilogram (this is not considered a premium, as it does not go to the producer) and a US$0.012 administration fee. UTZ website, www.utzcertified.org.
[147] Sustainet, 2005.

3.4 | Cocoa Initiatives Market Data

SUMMARY POINTS

- **Over the past five years, sustainable cocoa sales have grown by 248 per cent and, at 46,896 metric tons, accounted for 1.2 per cent of global sales by 2009.**
- **Latin America and Africa are the predominant suppliers of certified cocoa, accounting for approximately 48 per cent and 51 per cent of total production, respectively**
- **Currently, four countries—Ghana, Ivory Coast, the Dominican Republic and Peru—account for 3 per cent of sustainable cocoa, while these same four countries account for 53 per cent of conventional cocoa production for export.**
- **Premiums reported for sustainable cocoa in 2009 ranged from US$67–292 per metric ton.**

Cocoa, or *Theobroma cacao*, is a tree crop that thrives along the equatorial belt. Originally an Aztec beverage introduced to Europe by the Spanish conquistador Hernando Cortes, cocoa is now predominantly produced in Africa and Asia and provides a source of livelihood of five million farmers located across the developing world. The cocoa supply chain—like many other tropical commodities—is characterized by a well-defined North-South divide; growers and exporters are generally found in the South, while importing, manufacturing and retailing takes place predominantly in the North. The International Cocoa Organization (ICCO) estimates that 90 per cent of global cocoa production comes from three million smallholders, with the typical size of a smallholder plot being below three hectares.[148]

The cocoa supply chain consists of a number of distinct steps, from initial production to primary and secondary processing and eventual manufacture into a wide variety of food and non-food products. Initial processing—fermentation and drying—starts on the farm after harvest and is carried out by the producer or a cooperative. Beans are then sold to traders, or directly to processors, for export to roasting and grinding plants, the majority of which are in located in consumer countries. Ninety percent of cocoa is used for chocolate, while ten percent is used for flavourings, beverages and cosmetics. The main by-products of cocoa beans are husks and shells that are used as organic mulch, soil conditioner and poultry feed.

BOX 3.8

Smallholder farmers and cocoa production

An estimated five million smallholder farmers across the developing world depend on cocoa for their livelihoods. In Africa, home to two of the world's largest producers—Côte d'Ivoire and Ghana—smallholder farmers are particularly dominant, with a minority of larger farms making up the rest of production (five percent of total farms in Côte d'Ivoire are five hectares and above; one percent of cocoa farms in Ghana are above five hectares). This contrasts with Brazil and Ecuador, where 10 per cent and 13 per cent of cocoa farms, respectively, are above five hectares in size (ICCO Annual Report, 2006-2007).

[148] ICCO, 2009.

The main sustainability issues facing the cocoa supply chain are found at the site of production and early processing, where poverty and market volatility come together to generate unpredictable, and often unsustainable, living and environmental conditions.[149]

A significant majority of cocoa smallholders live on US$2.00 per day.[150] At the same time, cocoa has higher than average price volatility on international markets. When prices decline poverty can be extreme, leading to food shortages and increased child labour.[151] In 2001 high rates of child labour and even some examples of forced labour were reported in Côte D'Ivoire.[152] Some reports have also linked the cocoa trade to armed conflict in Côte D'Ivoire.[153]

In addition to poor living conditions, poverty among cocoa producers leads to systemic under-investment in production itself, giving rise to low productivity, as well as chronic pest and plant disease problems—provoking a self-reinforcing cycle of suboptimal productivity and continued poverty. Lack of access to market information and a severe shortage of access to credit are also widespread throughout the sector and exacerbate vulnerability to market shocks.[154]

Similarly, the close nexus between cocoa production and forested locations means that cocoa production can play a significant role in determining the status of tropical forests and biodiversity preservation. Estimates indicate that 8 million hectares of tropical forest a year are lost as a result of cocoa production. In Ghana, an estimated 1.3 per cent of the country's remaining forests are lost each year to unsustainably grown cocoa.[155]

In response to the sustainability challenges present in the cocoa sector, both government and the private sector have launched several technical assistance-oriented initiatives to promote a more sustainable cocoa economy. At the global level, three such initiatives stand out:

- The Harkin Engel Protocol: An initiative of US Congress, the Harkin Engel Protocol called for the establishment of a foundation committed to ending abusive labour practices in the cocoa sector and from which the International Cocoa Initiative (ICI) was formed. The ICI is a partnership between NGOs, trade unions and the chocolate industry, funded by the industry. Since its establishment in 2002, the ICI has worked with a broad range of stakeholders—from farmers to consumers groups—to identify the most efficient and effective methods to end abusive labour practices in cocoa growing.[156]
- World Cocoa Foundation: The World Cocoa Foundation was established in 2000 by industry groups ranging in size from small locally based businesses to multinational corporations. The World Cocoa Foundation promotes a sustainable cocoa economy through economic and social development projects and environmental stewardship in cocoa-growing communities. The foundation builds partnerships with cocoa farmers, origin governments and agricultural, development, and environmental organizations; works with international donors to support effective programs; supports demand-led research designed to improve crop yield and quality; and supports training and education to improves the health, safety and well-being of cocoa farming families.[157]
- The Roundtable on a Sustainable Cocoa Economy (RSCE): Following on the 2001 International Cocoa Agreement's mandate to achieve a "sustainable world cocoa economy," the ICCO launched the RSCE as a multi-stakeholder roundtable in 2007. The Roundtable's objectives are (1) to develop clarity of vision with regard to the critical

[149] The FAO notes 18 per cent deviation from annual average price trends for cocoa (Potts, 2007, p. 4).
[150] GTZ, 2009.
[151] COSA data found food insufficiencies on cocoa plantations in Ivory Coast. Of plantations asked, an average of 57 per cent stated they had enough food to eat during the week. In addition, the COSA study found that, on average, 49 per cent of children regularly attended school (COSA survey data, 2009).
[152] A 2001-2002 study by the International Institute of Tropical Agriculture (IITA), directly involving over 4,500 producers, gave an estimate of 284,000 children working on cocoa farms (IITA, 2002).
[153] Global Witness (2007) reports that "revenues from the cocoa trade have contributed to funding of the armed conflict in Côte d'Ivoire. Government and rebel group Forces Nouvelles used money from levies paid by cocoa exporters…[which was] facilitated by the lack of transparency and absence of checks and balances in the cocoa sector."
[154] TCC Cocoa Barometer, 2009.
[155] Conservation International, 2008.
[156] The Cocoa Initiative was launched in 2002. For further information, see http://www.cocoainitiative.org/a.html.
[157] The World Cocoa Foundation was established in 2000. For further information, see http://www.worldcocoafoundation.org.

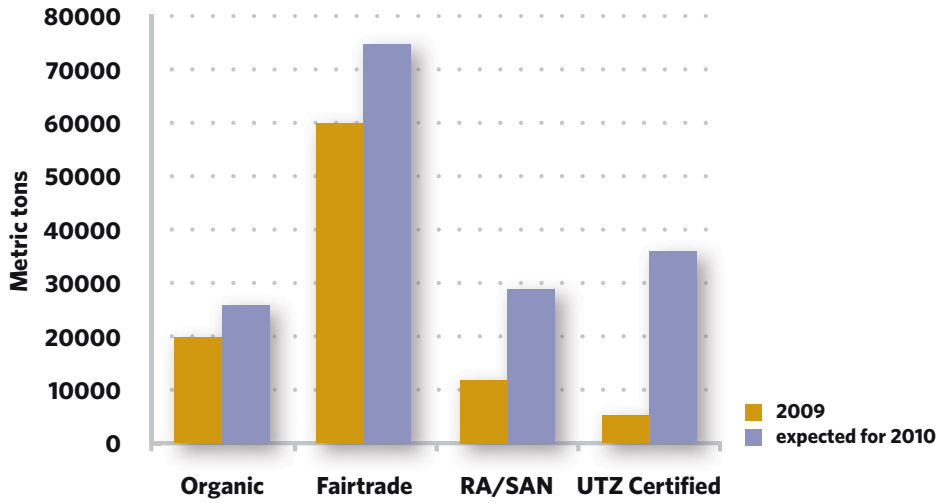
activities required for the world cocoa economy to be considered as sustainable; (2) to agree on the concept, processes, type of activities and indicators required for a more sustainable world cocoa economy; (3) to develop appropriate means for validating indicators and procedures for reporting on progress; (4) to stimulate the implementation of projects on sustainability; (5) to propose funding sources for projects to achieve sustainability; and (6) to create awareness and publicize the work of the Roundtable.[158]

At present, these initiatives do not apply enforceable criteria and, as a result, do not have specific markets associated with them. Several criteria-based initiatives do exist, however, the most important of which are Organic (IFOAM), Fairtrade, UTZ Certified and Rainforest Alliance. Below we provide an overview of the current market status of these four initiatives.

3.4.1 | Sustainable Cocoa Market Growth and Coverage

Actual market development for sustainable cocoa is relatively small to date.[159] As of 2009, four VSIs were providing sustainable cocoa to the market: Fairtrade, Organic (IFOAM), Rainforest Alliance and UTZ Certified. Both Fairtrade and Organic cocoa have been available since 2000, while Rainforest Alliance did not begin certifying cocoa until 2007. UTZ Certified, which initially only focused on coffee certification, finalized its cocoa standard in 2009 and reported a small amount of certified cocoa volumes produced and sold for that year. As a result of the recent new entries into the sustainable cocoa sector, as well as the small market share to date, the sector as a whole is extremely dynamic and undergoing rapid change. Figure 3.50 provides an indication of expected volumes of certified cocoa by each sustainability initiative for 2009 and 2010, including UTZ Certified as it enters the market.

Figure 3.50: Production and estimated production of certified cocoa, 2009–2010.

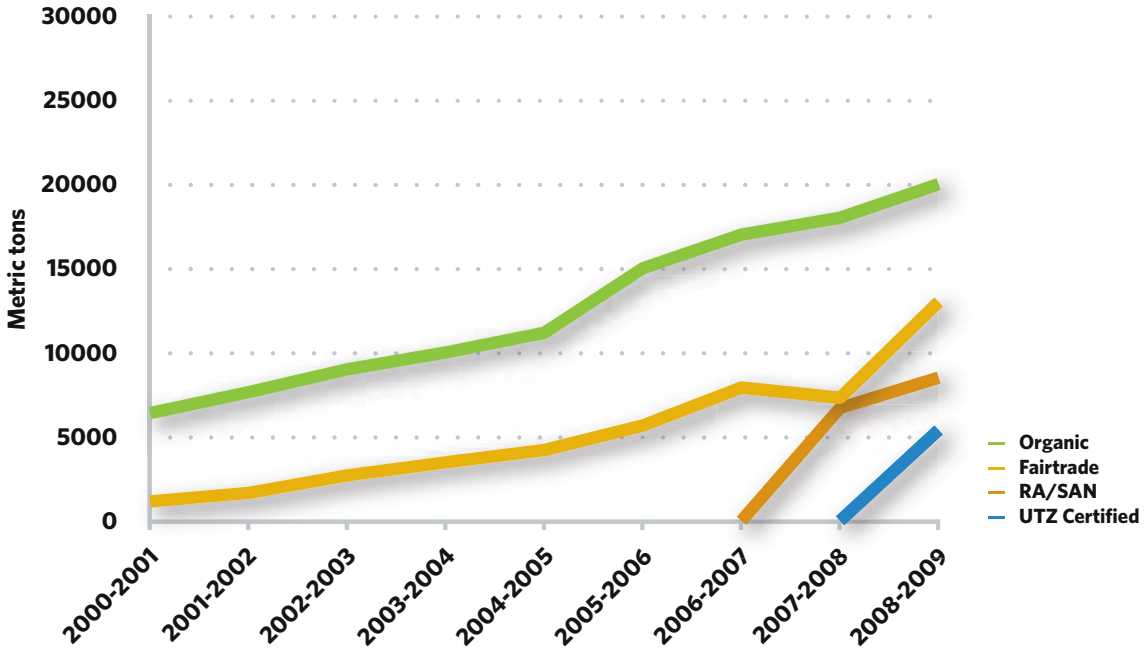


Source: Personal communication with Rob van Hout, FLO, 2010; UTZ Certified Annual Report, 2009; TCC Cocoa Barometer, 2009.

[158] The first meeting of the Roundtable was held in 2007. For further information, see http://www.roundtablecocoa.org.
[159] Three of the four criteria-based cocoa initiatives (Fairtrade, UTZ Certified and Rainforest Alliance) developed their cocoa standards as follow-up to the successful implementation of standards in the coffee sector. As a result, the markets for these initiatives are far newer and less developed than in the coffee sector.

Figure 3.51 presents historical retail sales statistics for Fairtrade, Organic and Rainforest Alliance certified cocoa. Over the past five years, sustainable cocoa sales have grown by 248 per cent and, at 46,896 metric tons, accounted for 1.2 per cent of global sales by the end of 2008. Organic cocoa sales, at 20,000 metric tons in 2009, have the largest market share among sustainability initiatives in the cocoa sector. Volumes for 2009 are up 14 per cent from 17,500 metric tons in 2008.[160] Fairtrade, the second largest supplier of sustainable cocoa, has grown by 1,000 per cent since 2001. Between 2008 and 2009, Fairtrade sales grew from 7,306 metric tons to 13,000, or 78 per cent. Rainforest Alliance has also experienced rapid growth since its entry into the market in 2007, selling an estimated 8,500 metric tons of certified cocoa in 2009, up 27 per cent from 6,700 metric tons in 2008; growth in Rainforest's certified producers for those years is shown in Figure 3.52 (and see Table 3.11 for examples of corresponding increases in number of hectares certified for cocoa production). UTZ Certified reported selling 5,396 metric tons in 2009.[161]

Figure 3.51: Time series of cocoa exports by sustainability initiative, 2000–2009 (metric tons).



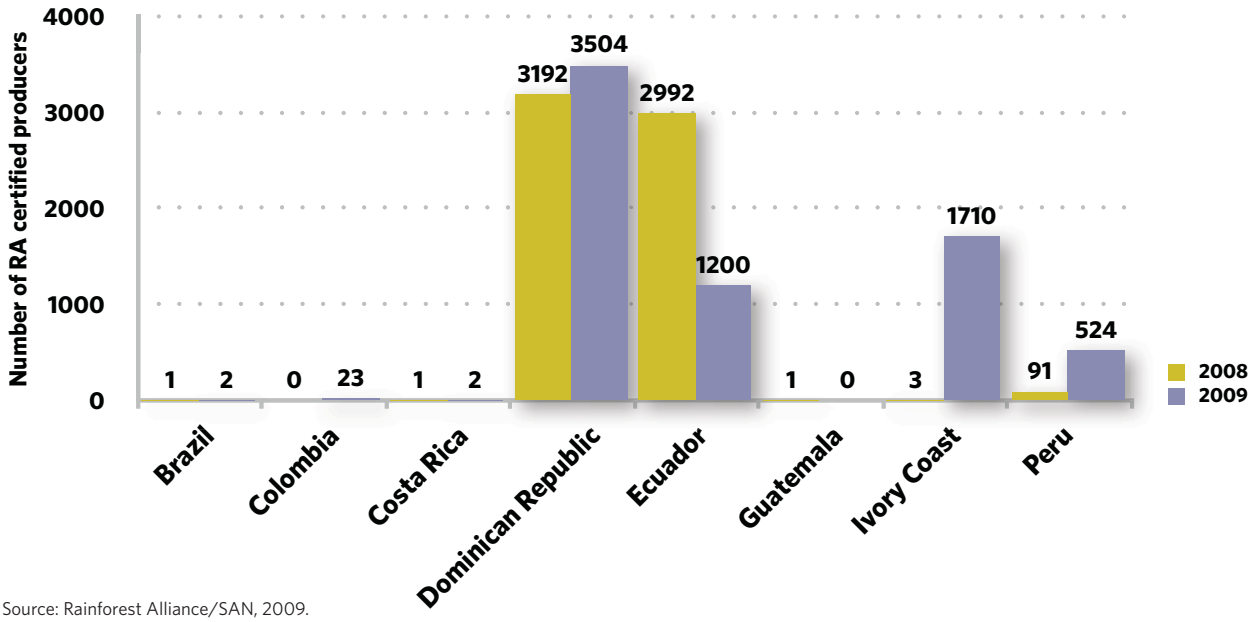
Source: FLO Annual Reports 2000-2009; ICCO, 2006; Liu, 2008; CBI Monitor, 2009; TCC Cocoa Barometer, 2009.

"As a result of the recent new entries into the sustainable cocoa sector, as well as the small market share to date, the sector as a whole is extremely dynamic and undergoing rapid change."

[160] Trade data regarding certified organic cocoa are extremely difficult to find. Liu cites three factors compounding the absence of official statistics: the extremely limited volumes produced and marketed; the various forms cocoa products take (beans, liquor, powder, cake, butter, paste, chocolate); and the disparity between quantities produced and traded due to stocks. Data are not only incomplete and fragmented; even their reliability may be questioned (Liu, 2008 in Pay, 2009).

[161] UTZ Certified Annual Report, 2009.

Figure 3.52: Growth in number of Rainforest Alliance certified producers, 2008–2009.



Source: Rainforest Alliance/SAN, 2009.

Table 3.11: Number of hectares certified by Rainforest Alliance for cocoa production, 2008 and 2009. Totals are indicated on the first line and include all participating countries; six representative countries are shown.

Country	2008	2009
TOTAL	28,808	36,701
Brazil	435	1,180
Colombia	n/a	122
Costa Rica	3	112
Dominican Republic	17,300	22,595
Ivory Coast	271	10,914
Peru	386	1,780

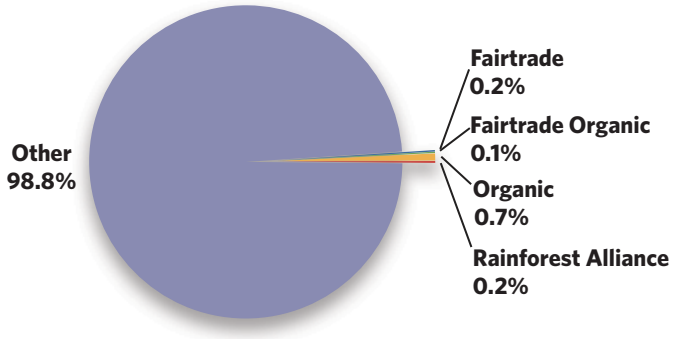
Source: RA/SAN, 2009.

Despite the growth of Fairtrade, Rainforest Alliance and Organic cocoa over the past several years, overall market share remains small, with total certified cocoa at approximately 1.2 per cent of global sales by 2008 (Figure 3.53)—Organic accounts for 0.8 per cent (0.7 per cent if accounting for double certification with Fairtrade); Fairtrade, 0.3 per cent; and Rainforest Alliance, 0.2 per cent of global market share.[162]

[162] FLO Annual Report, 2008-2009.

The distribution of sustainable cocoa production varies considerably depending on the initiative and provides a bird's eye view of where different initiatives are most active (Table 3.12; see also Figure 3.54, which includes conventional cocoa). Africa is the majority producer of sustainable cocoa, accounting for 51 per cent, or 76,450 metric tons. Latin America accounts for 48 per cent of sustainable cocoa sales, producing 72,521 metric tons. Asia and Oceania account for 0.5 per cent, producing 762 metric tons. Currently, four countries—Ghana, Ivory Coast, Dominican Republic and Peru—account for 3 per cent of sustainable cocoa, while these four countries account for 53 per cent of conventional cocoa production for export. The figures of sustainable production stand in stark contrast to the overall supply of conventional cocoa on the global market, of which 70 per cent is produced in Africa. Both Rainforest Alliance and Organic cocoa have driven this trend with 76.2 per cent and 75.7 per cent, respectively, of their total supply provided by Latin America. Fairtrade represents the exception to this rule, being predominantly supplied by African producers. The trend for sourcing is likely to change, not only as the field for certified cocoa is fairly new, but also as Western African producers start to certify their production. Organic cocoa is the only sustainable cocoa with sourcing (4.9 per cent) from Asia.

Figure 3.53: Sustainable cocoa portion of global market sales (unadjusted for multiple certification), 2008.



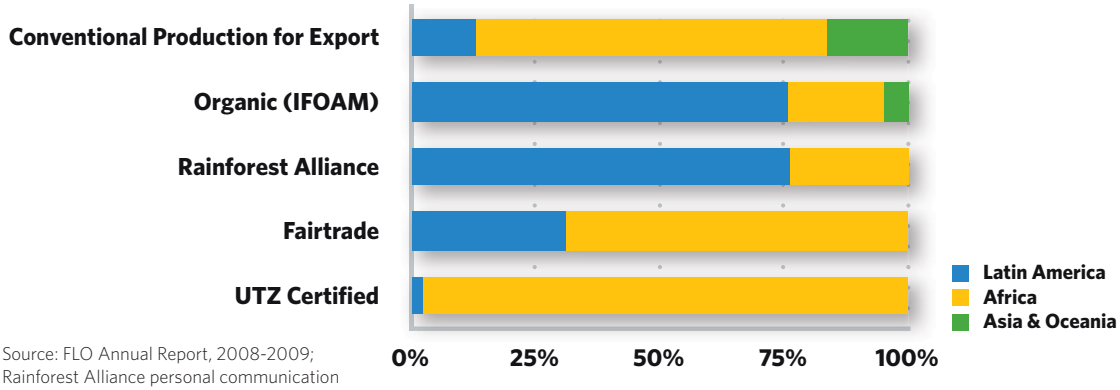
Source: FLO Annual Report, 2008; CBI Monitor, 2010; Liu, 2008; Rainforest Alliance personal communication with Petra Tanos, 6 April 2010; ICCO, 2009.

Table 3.12: Regional distribution of production, by initiative, 2008-2009.

	UTZ Certified	Fairtrade	Rainforest Alliance	Organic	Conventional
Latin America	2.40%	31.0%	76.2%	75.7%	13.0%
Africa	97.60%	69.0%	23.8%	19.4%	70.1%
Asia and Oceania	0%	0%	0%	4.9%	16.3%

Source: FLO Annual Report 2008-2009; Rainforest Alliance personal communication with Petra Tanos, 6 April 2010; ICCO 2006; Liu, 2008; FAOStat, 2010; UTZ Certified Annual Report, 2009.

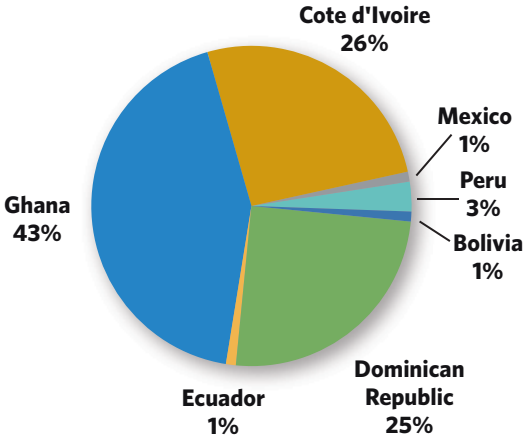
Figure 3.54: Regional distribution of cocoa production, by production system, 2008-2009.



Source: FLO Annual Report, 2008-2009; Rainforest Alliance personal communication with Petra Tanos, 6 April 2010; ICCO, 2006; Liu, 2008; FAO, 2010; UTZ Certified Annual Report, 2009.

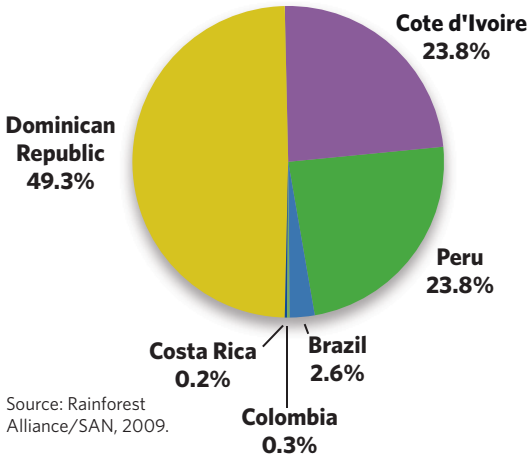
Figures 3.55, 3.56, 3.57 and 3.58 show the distribution of production for Fairtrade certified cocoa, Rainforest Alliance certified cocoa (using production area in hectares as a proxy), Organic certified cocoa and UTZ Certified cocoa.

Figure 3.55: Fairtrade certified distribution of cocoa production, 2008.



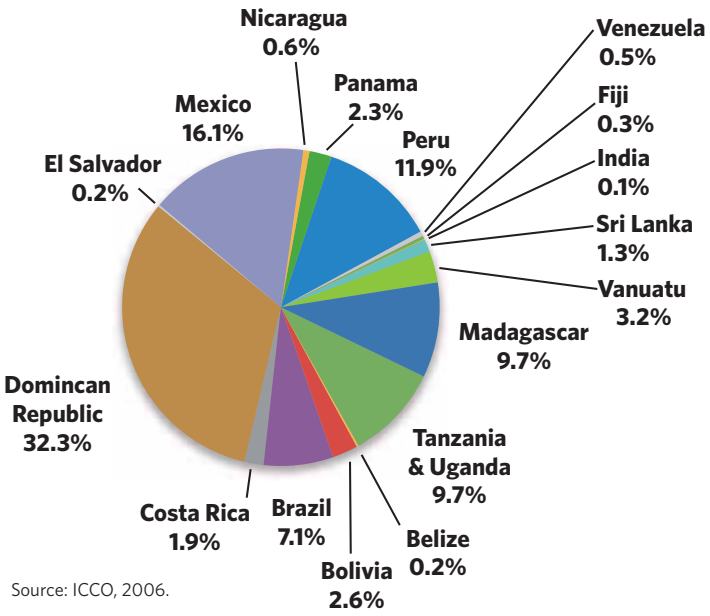
Source: FLO International, personal communication with Rob van Hout, 12 July 2010.

Figure 3.56: Rainforest Alliance certified distribution of cocoa production, 2009.



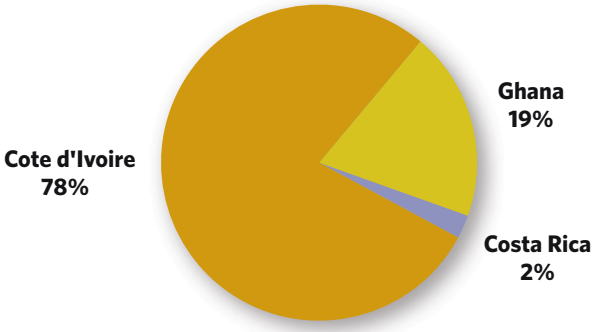
Source: Rainforest Alliance/SAN, 2009.

Figure 3.57: Organic certified distribution of cocoa production, 2006.



Source: ICCO, 2006.

Figure 3.58: UTZ Certified distribution of cocoa production, 2009.



Source: UTZ Certified Annual Report, 2009.

3.4.2 | Sustainable Cocoa Premiums

Both world market prices and specialty market prices vary globally based on the physical quality of the cocoa bean. Production from any given country is typically price adjusted based on internationally recognized quality differentials. Cocoa prices have been steadily rising since 2005 due to tightening production, with prices peaking in 2009 at over US$3,400 per metric ton.[163] Within this context, the pressures against premiums for sustainable cocoa are stronger than in other sectors facing declining terms of trade.

Fairtrade is the only certification system among the cocoa systems surveyed that specifies price premiums as part of its standard. Fairtrade requires a minimum price of US$1,600 per ton of cocoa, plus a US$150 per metric ton social premium,[164] also known as a Fairtrade premium (see Table 3.13). As with other Fairtrade products, when world market prices are above the minimum price, buyers are only obliged to pay the social premium amount above the world market price. Over the past several years, world cocoa prices have been well above the Fairtrade minimum, giving rise to a situation where the total premium received by Fairtrade producers is simply the amount of the social premium, or $150 per metric ton.

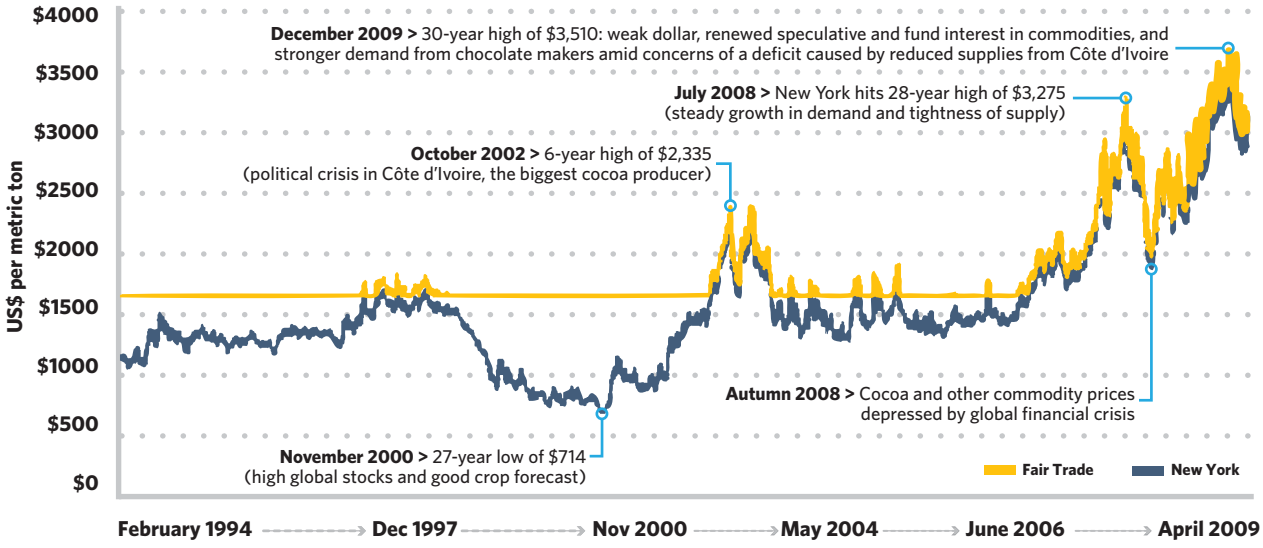
Table 3.13: Worldwide minimum Fairtrade cocoa prices (US$ per metric ton).

	US$/ton	Fairtrade social premium (US$)
Cocoa, conventional Fairtrade	1,600	150
Cocoa, organic Fairtrade	1,800	150

Source: FLO, 2009, Fairtrade Minimum Price and Fairtrade Premium Table.

Figure 3.59 presents a time series graph for Fairtrade minimum prices and conventional prices from 1994 to 2009.

Figure 3.59: Historical cocoa price data, conventional versus Fairtrade, 1994–2010 (US$ per metric ton).



Source: FLO International, 2010.

[163] http://www.indexmundi.com/commodities/?commodity=cocoa-beans&months=120.

[164] The Fairtrade premium/social premium is an additional sum of money that goes into a communal fund of workers and farmers to improve social, economic and environmental conditions. The use of this additional income is decided upon democratically by producers in the farmers' organization or by workers in a joint body.

Organic price premiums for cocoa were only available on a sporadic basis. Case studies from the Dominican Republic, Peru and Uganda indicate that while organic premiums can be significant, they are also highly variable from region to region. As Tables 3.14 and 3.15 indicate, organic premiums from these three regions range from between 14 per cent to 141 per cent, depending on the country and the year.

Table 3.14: Unit value of conventional and organic cocoa beans in US markets, 2006 (US$ per metric ton).

Country	Conventional cocoa beans (US$/ton)	Organic cocoa beans (US$/ton)
Peru	2,354	5,684
Dominican Republic	1,394	1,590

Source: Liu, 2008.

Table 3.15: Unit value of conventional and organic cocoa beans for worldwide markets, 2009 (US$ per metric ton).

Country	Conventional cocoa beans (US$/ton)	Organic cocoa beans (US$/ton)
Uganda	585-1,350	1,350-1,575

Source: Nyapendi, 2009; Musoke, 2009.

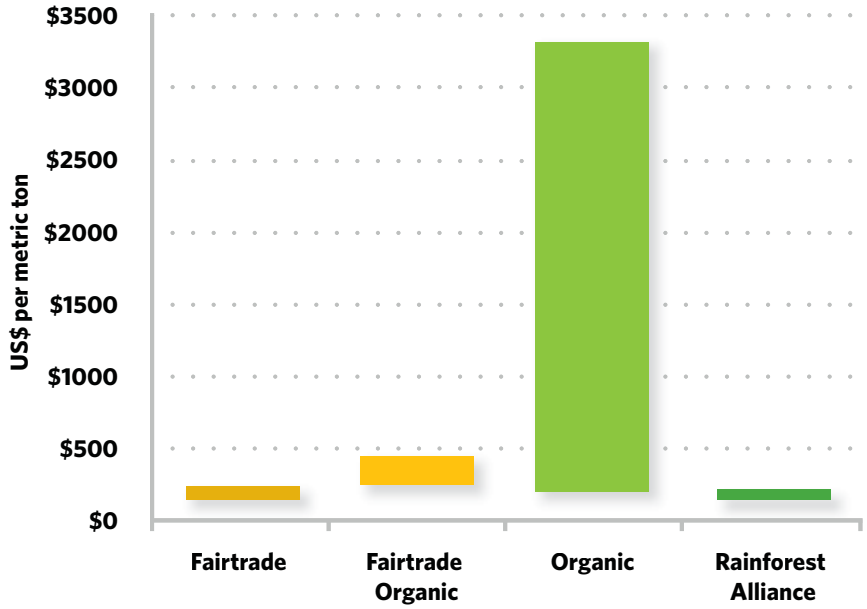
Although Rainforest Alliance does not require a premium as part of its system, premiums for single certified Rainforest Alliance cocoa[165] of between 20 and 25 per cent have been reported.[166] In addition, specific case studies from the from Côte d'Ivoire claim that Ivoirian cocoa cooperatives have received premiums of around US$200 per metric ton for Rainforest Alliance certified cocoa.[167] UTZ Certified requires buyers to pay a premium but allows the amount to be determined through a negotiation process between buyer and seller. UTZ Certified provides its certified producers with aggregated market information on the average premiums paid and volumes sold per country as a means for ensuring fair pricing of its products.[168]

"Despite the growth of Fairtrade, Rainforest Alliance and Organic cocoa over the past several years, overall market share remains small, with total certified cocoa at approximately 1.2 per cent of global sales by 2008."

[165] Rainforest Alliance reports that from 2007-2008, the premium for certified cocoa generated an additional US$280,000 for 2,039 Rainforest Alliance certified farmers.
[166] Liu, 2008:54.
[167] UCOOPEXCI, 2009; Sangaré, 2009
[168] Personal communication with Angela, UTZ Certified, 18 June 2010; also see UTZ Certified Annual Report, 2009: 10.

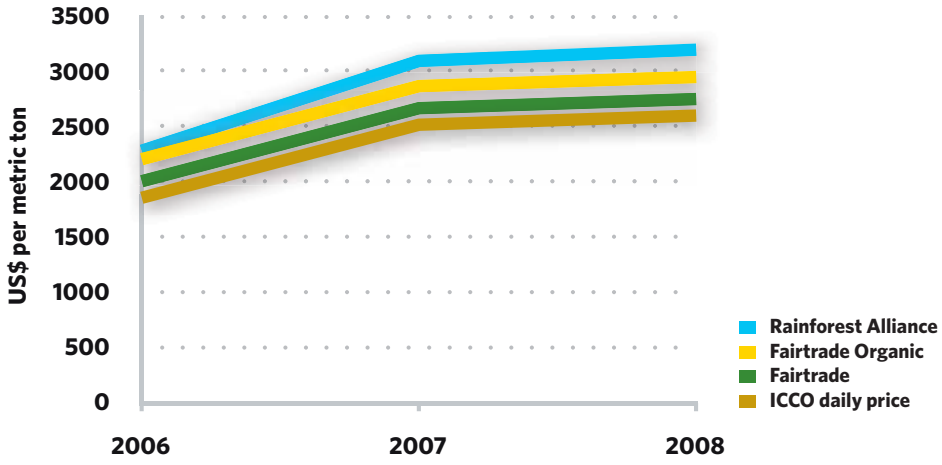
Figure 3.60 shows premium ranges for certified cocoa across the three initiatives with data from 2006;[169] Figure 3.61 shows a time series graph of prices paid for cocoa by initiative from 2006 to 2008.

Figure 3.60: Premium ranges for certified cocoa, 2006 (US$ per metric ton). Fairtrade price premiums include the Fairtrade social premium of US$150 (also known as the Fairtrade premium).



Source: ICCO, 2010; FLO, 2009, Fairtrade Minimum Price and Fairtrade Premium Table; UCOOPEXCI, 2009; Sangaré, 2009.

Figure 3.61: Estimated prices paid for cocoa by initiative, based on reported premiums, 2006–2008 (US$ per metric ton).



Source: FLO, 2009, Fairtrade Minimum Price and Fairtrade Premium Table, 7 March 2009; Liu, 2008; ICCO, 2010.

[169] 2006 was the only year for which robust organic data were available. This graph also exemplifies the price difference for Fairtrade when the world market price for cocoa is below the Fairtrade minimum; 2006 was the last year in which cocoa prices were below the Fairtrade minimum price.

3.5 | Banana Initiatives Market Data

SUMMARY POINTS

- **From 2007 to 2009, sustainable banana sales have grown by 63 per cent and, at 3,480,565 metric tons, accounted for approximately 20 per cent of world exports by 2009.**
- **Latin America accounts for 72 per cent of conventional bananas for export but accounts for 97 per cent of sustainable banana production.**
- **Four countries—Ecuador, Peru, Colombia and the Dominican Republic—account for 83 per cent of global sustainable banana production, while these same four countries account for 40 per cent of conventional banana production for export.**
- **Premiums reported in 2007 ranged from US$1.00–9.47 per box.**

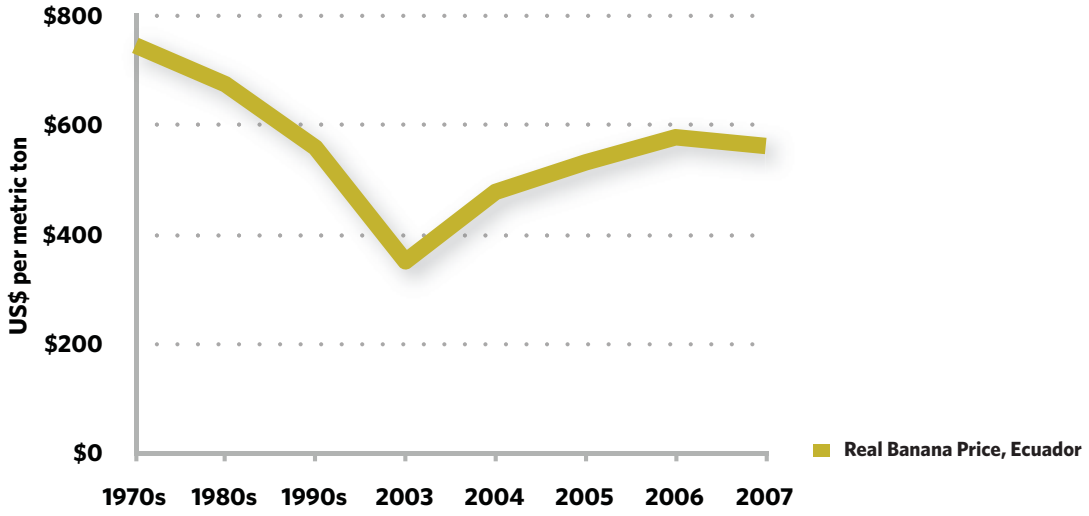
Bananas are the world's most important fresh fruit, both in terms of volume and exported value.[170] World exports of fresh bananas exceeded 17.6 million metric tons—worth approximately US$ 7.2 billion—in 2007.[171] A highly perishable product, bananas require careful control of the growing, packaging, transport, handling, ripening and distribution processes. This has favoured the evolution of a highly vertically integrated supply chain, where large transnational companies tend to own or control all of the stages of production, through ownership of specialized refrigerated shipping and ripening facilities, to distribution networks in importing countries.[172]

Around 98 per cent of world production is grown in tropical developing countries.[173] Export bananas may be grown by small independent growers (most importantly, in the Caribbean and Ecuador), national banana companies (mainly in Ecuador and Colombia) or large transnational companies[174] (the presence of multinationals is greater in Central America and increasing in Africa and Asia). After cleaning, packaging and quality control in producing countries, green bananas are transported by independent refrigerated carriers to consuming markets in the North. Arriving in the importing country, they may pass through importers or wholesalers and on to ripening facilities before entering retail outlets. Three transnational companies, Dole, Chiquita and Del Monte account for 66 per cent of the global market, while the top five (top three companies plus Fyffes and Noboa) account for nearly 87 per cent of the global market.[175]

[170] Bananas also have the highest export ratio of any major fresh fruit, with approximately one quarter of global banana production being exported. By contrast, apples export 11 per cent of production and mangoes three percent (Liu, 2009; FAO, 2009).
[171] FAO, 2010.
[172] UNCTAD, 2003.
[173] FAO, 2009.
[174] The substantial presence of US banana multinationals in Latin America gave rise to the term "dollar bananas" for bananas produced in this area (UNCTAD, 2003; Liu, 2009).
[175] The World Banana Economy, 1985-2002, FAO (data from 1966 to 1999), BananaLink, 2007, "Big but not Beautiful: The Banana Companies," accessed at http://www.bananalink.org.uk/images/stories/documents/2008/July/big%20but%20not%20beautiful%20march%202007.pdf (for 2007 data).

Despite the magnitude of the banana trade, those reliant on bananas for their income face similar sustainability challenges as those in other commodity sectors, including pervasive poverty exacerbated by price volatility (see Figure 3.65).[176] The poorest stakeholders in the banana supply chain are plantation workers. Some reports suggest that even when paid legal minimum wages, plantation workers may not earn a decent living wage.[177]

Figure 3.62: Evolution of real banana prices (in 2000 US$ per metric ton).



Source: International Monetary Fund; Commodity Price System; Eastern Caribbean Central Bank.

The use of intensified production methods, particularly in the 1980s and 1990s, has given rise to a series of environmental and social challenges within the sector.[178] On the one hand, intensification has been linked to the depletion of natural resources and adverse impacts on the health of farm worker and family health[179] and local communities.[180] On the other hand, the expansion of banana cultivation has been linked to forest conversion and reduced biodiversity.[181]

The banana sector has also been the subject of a number of studies reporting systemic violations of ILO conventions.[182] Abuses reported include child labour, excessive working hours, discrimination, sexual harassment, non-respect of health and safety regulations and absence of provision of medical assurance.[183] Conflicts between plantation managers and workers seeking to organize have also been reported.[184]

[176] Mlachila, Cashin and Haines, 2010.
[177] Harari, 2009, points out that in the case of Ecuadorian banana plantation workers, "Even if the minimum wage has risen to $218 per month and represents real buying power as it paid in cash, it should be compared to the cost of a basic household basket for a family of five that is in the region of $500, meaning that the minimum wage is insufficient to meet a family's basic needs."
[178] Liu, 2009.
[179] A study by the Health Research Institute at the National University of Costa Rica found that women in the country's banana packing plants suffered double the average rate of leukaemia and birth defects (Ramírez and Cuenca, 2002, "Daño del ADN en trabajadoras bananeras expuestas a plaguicidas en Limón, Costa Rica," Instituto de Investigaciones en Salud (INISA), Universidad de Costa Rica).
[180] The intensive use of pesticides has led to litigation against the transnational banana companies for adverse health effects on workers and their families. One successful lawsuit in the United States presented evidence that Dole continued to use the pesticide DBCP on banana plantations in Nicaragua after the agent was found by the manufacturer to cause health problems and was banned in California in 1977. See *Tellez et al. v. Dole Food Co. et al* (Cal. Super. Ct., L.A. County 7 March, 2008); Spano, 2007.
[181] In Costa Rica the area under cultivation increased from 20,000 hectares to 50,000 hectares in just five years (Bendell, 2001).
[182] The regional coordinating body of banana workers' unions, COLSIBA, estimates that only about 10 per cent of Latin American workers are union members. An ILO study of banana plantations in Costa Rica concluded that "trade union organisations are persecuted and repressed. Dismissed for their trade union activities, workers are placed on blacklists that circulate among the plantation owners. They will never find work again." (Preparatory documents for IBC II, 2005; Report of ILO Mission to Costa Rica, 2007.)
[183] Liu, 2008; www.bananalink.org.uk.
[184] ILO conventions No. 87 (1948) and No. 98 (1949). Exemplified by the killing of a trade unionist at the Yuma plantation belonging to Fresh Del Monte's Guatemalan subsidiary Bandegua in 2007, the SITRABI trade union reported that at least five banana workers were killed between February and April 2008 (BananaLink, 2008: www.bananalink.org.uk).

In response to these and other challenges, a wide range of stakeholders from the banana sector have established the World Banana Forum. The forum is facilitated by the FAO Trade and Markets Division, which acts as its secretariat.[185] The World Banana Forum provides a space in which farmer organizations, exporter groups, trading companies, trade unions, retailers, governments, research institutions and civil society organizations can discuss the various problems facing the banana sector and jointly seek solutions through collaboration. Specifically, the Forum serves for:

- exchanging information on best practices and sustainable development projects (e.g., techniques and systems for sustainable banana production);
- jointly designing and implementing field research projects to produce best practices in banana production (these projects will be based on collaboration in the field among all relevant actors, including governments and their technical agencies);
- assessing workplace issues and encouraging the adoption of practices that are consistent with the ILO's core conventions and recommendations and guarantee gender equity, and suggesting strategies that correct inefficiencies in the banana value chain while guaranteeing fair prices and earnings for all relevant actors.

The sustainability challenges facing the banana sector have also driven the development and adoption of certification schemes by Fairtrade, Rainforest Alliance, SA8000 and Organic standards bodies.

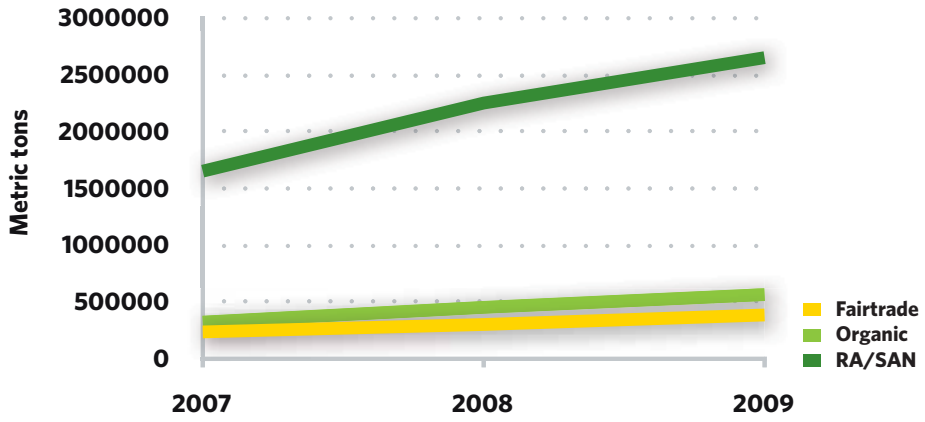
3.5.1 | Sustainable Banana Market Growth and Coverage

Due in part to the NGO awareness-raising campaigns in the banana sector over the 1990s, the banana sector has been a leader in adopting voluntary certification across the fresh fruit sector. At the same time, high concentration and vertical integration, not to mention a dose of enlightened corporate management, within the banana sector have made the large-scale adoption of certification more feasible than it might otherwise be in other fresh fruit and commodity sectors. Chiquita and Dole, in particular, have led the way in transitioning the sector toward sustainable practice by certifying all or part of their products to Fairtrade, Rainforest Alliance, GLOBALGAP, SA8000 (SAI) and/or Organic standards.[186]

Fairtrade and Organic certifications are the longest standing sustainability initiatives in the banana sector. Alternative trade organizations (ATOs) first imported Fairtrade bananas in the mid-1980s, followed by Max Havelaar Netherlands, which began importing Fairtrade bananas certified under an independent certification system to the European market in 1996. In 2009, FLO-certified bananas accounted for 382,982 metric tons (30 per cent of which were double certified as Organic).[187] This represents a 28 per cent increase in retail sales over 2008 (299,205 metric tons). The most recent Organic banana sales data available dates from 2008. Total organic banana exports (including those double certified with Fairtrade) accounted for approximately 450,000 metric tons in 2008, which marked a 41 per cent growth in sales from 2007 (320,000 metric tons). A conservative estimate for 2009 puts organic sales at approximately 560,000 Mt. Rainforest Alliance certification stands out as a success story in terms of growth—moving from no market coverage in 1997 when it first entered into collaboration with Chiquita, to 2.64 million metric tons in 2009. Based on sales figures from 2007 to 2009, total sustainable banana sales (Rainforest Alliance, Organic and Fairtrade) have grown by 63 per cent, accounting for nearly 20 per cent of global sales (3,480,565 metric tons (adjusted for double certification)) at the end of 2009. Figure 3.63 shows market growth for Fairtrade, Organic and Rainforest Alliance initiatives between 2007 and 2009.

[185] The Secretariat of the World Banana Forum working for sustainable banana production and trade: http://www.fao.org/economic/worldbananaforum.
[186] Liu, 2009.
[187] FLO Annual Report, 2008.

Figure 3.63: Fairtrade, Organic and Rainforest Alliance certified banana sales, 2007–2009 (metric tons).

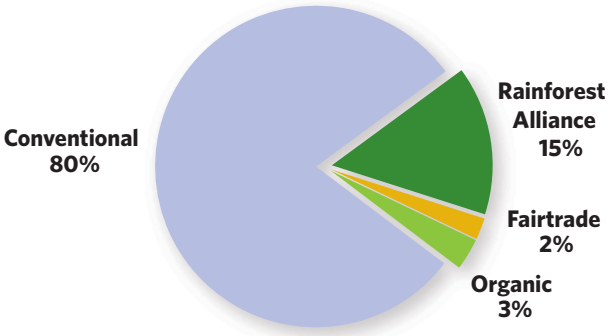


Source: FLO Annual Reports 2007–2009; Liu, 2009; Personal communication with Petra Tanos at Rainforest Alliance (6 April 2010).

By 2009, Rainforest Alliance accounted for 75 per cent of total sustainable bananas on the market and 15 per cent of global banana exports in 2009 (Figure 3.64). Fairtrade and Organic bananas accounted for two and three percent of global exports, respectively, in 2009. Rainforest Alliance's market share is due in part to its longstanding collaboration with Chiquita and other transnational banana companies.[188] All Chiquita's owned banana plantations in Latin America are Rainforest Alliance certified and SA8000 certified. In addition, 84 percent of the bananas that Chiquita purchases from independent producers in Latin America are Rainforest Alliance certified. The plantations of the Favorita Fruit Company (REYBANPAC), the third largest banana exporter in Ecuador and a key Chiquita supplier, are also Rainforest Alliance certified.[189]

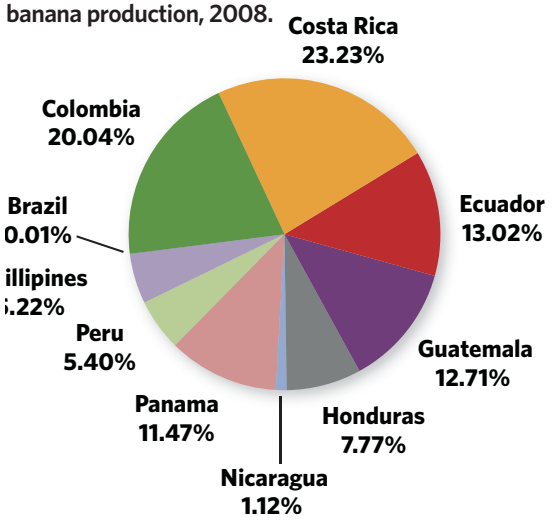
Figure 3.65 describes the country-by-country distribution of Rainforest Alliance certified banana supply—using certified hectares per country as a proxy for production—and shows a heavy reliance on Latin American production. The only non-Latin American country supplying Rainforest Alliance bananas is the Philippines (5 per cent).

Figure 3.64: Global market share of sustainable bananas (as a portion of export market; adjusted for double certification), 2009.



Source: FLO Annual Reports 2007–2009; Liu, 2009; Personal communication with Petra Tanos at Rainforest Alliance (6 April 2010).

Figure 3.65: Rainforest Alliance regional distribution of banana production, 2008.



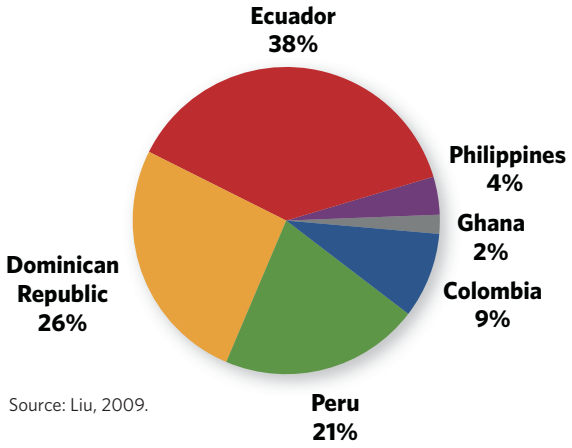
Source: Rainforest Alliance/SAN, 2010.

[188] Chiquita began certifying their banana plantations with the Rainforest Alliance standard in 1990.
[189] Liu, 2009.

The regional distribution of Organic banana production is shown in Figure 3.66.[190] Organic, like Rainforest Alliance, relies primarily on Latin America and Carribean producers, who account for 94 per cent of supply. The Philippines and Ghana combined account for the remaining 6 per cent of Organic banana supply.

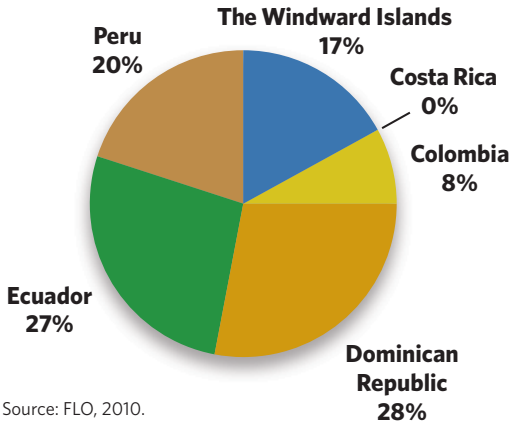
Fairtrade banana supply produced by small producer organizations are exclusively from the Latin American and Caribbean region (100 per cent) (Figure 3.67), whereas Fairtrade bananas produced by hired labour is almost exclusively from Latin America and the Caribbean (97 per cent), with 3 per cent being produced in Ghana (Figure 3.68).[191]

Figure 3.66: Distribution of Organic certified banana supply, 2006–2007.



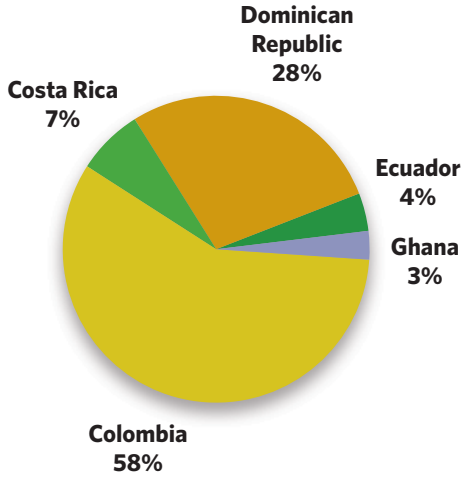
Source: Liu, 2009.

Figure 3.67: Distribution of Fairtrade banana supply produced by small producer organizations, 2008.



Source: FLO, 2010.

Figure 3.68: Distribution of Fairtrade banana supply produced by hired labour, 2008.



Source: FLO, 2010.

[190] Data calculated using country's export volume.
[191] Data calculated using Fairtrade production capacity figures.

GLOBALGAP reports its distribution of supply—using number of producers—in Table 3.16. There is a strong concentration of GLOBALGAP producers in South America (2,331 producers), with over 900 of those producers located in Peru (for total distribution by continent, see Figure 3.69). Social Accountability International (SAI), which developed and now provides capacity building services for the implementation of its SA8000 standard, reported six certified agricultural production facilities operating in the banana sector each employing more than 1,000 workers, with geographical representation in Colombia, Costa Rica, Guatemala, Honduras and the Philippines.[192] These six certified facilities combined employ 33,311 workers.[193]

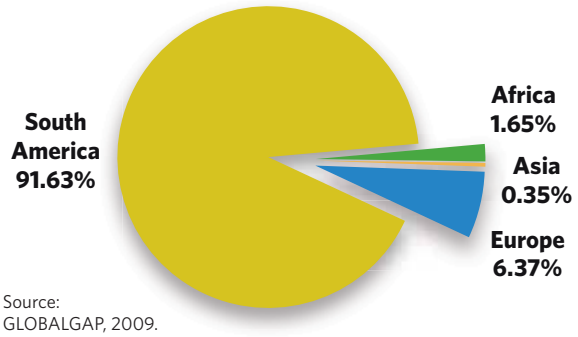
Table 3.16: GLOBALGAP regional distribution of banana supply, represented by number of producers, 2009.

South America	# producers per country	Africa	# producers per country	Asia	# producers per country	Europe	# producers per country
Belize	17	South Africa	15	China	1	Spain	123
Brazil	3	Senegal	1	India	3	France	38
Chile	1	Swaziland	1	Philippines	1	Greece	1
Colombia	356	Ghana	2	Thailand	4		
Dominican Republic	294	Cameroon	13				
Costa Rica	43	Ivory Coast	10				
Peru	962						
Ecuador	563						
Martinique	46						
Guadeloupe	31						
Honduras	6						
Panama	6						
Guatemala	2						
Suriname	1						
TOTAL	2,331		42		9		162

Source: GLOBALGAP, 2009.

All in all, the sustainable banana sector, like other commodities, shows a pointed concentration of supply in Latin American regions, 97 per cent, particularly with respect to four countries—Peru, Ecuador, Colombia and the Dominican Republic, which together account for 83 per cent of sustainable banana production for export and only 40 per cent of conventional banana production for export (Figure 3.70).[194] As the most important source of bananas for export, the concentration of sustainable exports from Latin America is largely in line with overall market trends; however, as with other sustainable commodities, the concentration of sustainable production in Latin America is higher than the concentration of production for conventional production. Whereas 72 per cent of conventional banana production for export comes from Latin America, the region accounts for 97 per cent of sustainable banana production for export.

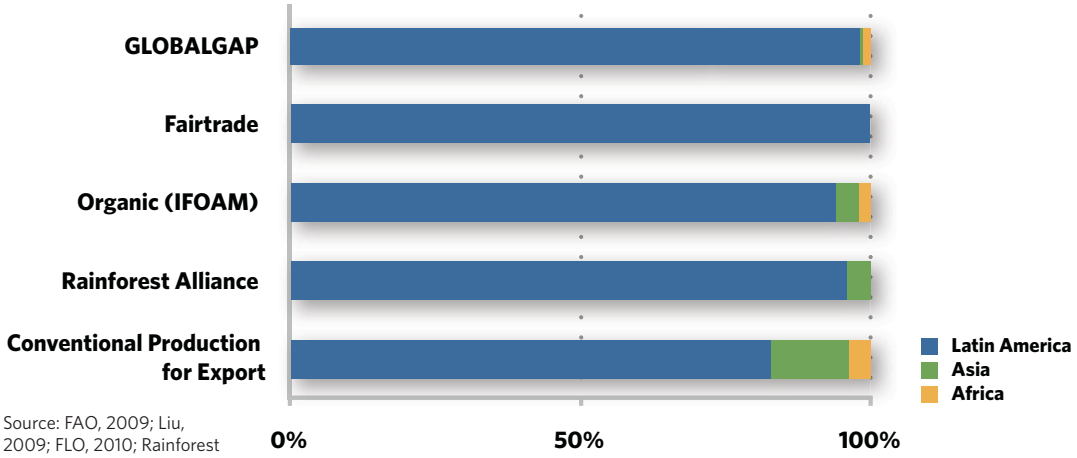
Figure 3.69: GLOBALGAP distribution of supply by continent, 2009.



Source: GLOBALGAP, 2009.

[192] Personal communication with Amy Finnegan, SAAS, 18 May 2010.
[193] Personal communication with Amy Finnegan, SAAS, 18 May 2010.
[194] Re-exports from North America (2.6 per cent) and Europe (13.1 per cent) are not included in the conventional production for export data (FAO, 2009).

Figure 3.70: Regional distribution of banana supply for export by production system, 2007–2009.

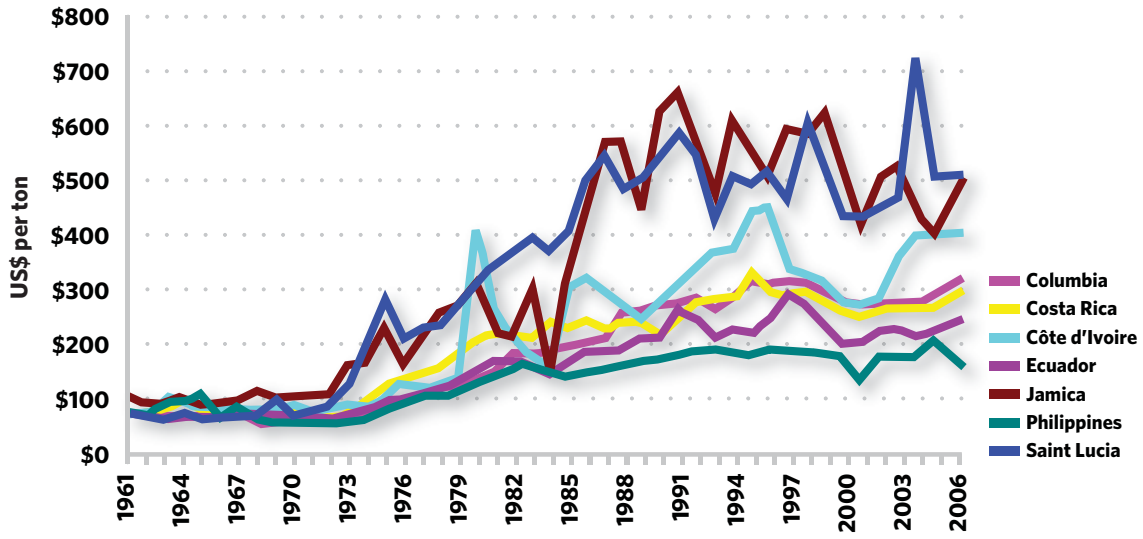


Source: FAO, 2009; Liu, 2009; FLO, 2010; Rainforest Alliance/SAN, 2010.

3.5.2 | Sustainable Banana Premiums

The banana market is largely structured by regulatory controls and high levels of vertical and horizontal integration. This context has led to a highly structured and diversified pricing system that fails to produce any single "global reference price" for bananas. Instead, banana prices are determined by policy constraints including tariff levels, the cost of production and quotas. Although trade liberalization is leading to a rationalization of supply, the major transnationals continue to maintain production across diverse regions as part of their efforts to ensure constant supply while reducing risk, notwithstanding significant differences in production costs across regions. Figure 3.71 illustrates banana pricing for Colombia, Jamaica, Costa Rica, the Philippines, Côte d'Ivoire, Saint Lucia and Ecuador over a recent 45-year span.

Figure 3.71: Regional banana pricing, 1961–2006 (US$ per metric ton).



Source: UNCTAD Secretariat, from FAO Statistics.

Fairtrade sets minimum prices for Fairtrade and Fairtrade Organic bananas based on the country of production (Table 3.17). Fairtrade also requires a fixed "social premium"[195]—known as the "Fairtrade premium" in Fairtrade literature—of US$1.00 per 18.14-kg box when conventional prices are above the Fairtrade minimum. As with the market more generally, Fairtrade prices vary based on the production costs in the region (see Table 3.18); as a general rule, Fairtrade banana prices are higher across the Caribbean producers than across Latin American producers. When compared to (non-certified) conventional pricing (Figure 3.72), Ecuadorian Fairtrade organic bananas received the highest total premium per volume in 2007 (US$9.57 per box). Saint Lucian and Costa Rican Fairtrade bananas, on the other hand, received the lowest total premium per volume (Figure 3.73), receiving effectively the FLO stipulated social premium without any additional gains from the FLO minimum pricing (e.g., US$1.00 per box in 2007).

Table 3.17: Fairtrade banana minimum price and Fairtrade social premium (US$ per 18.14-kg box) by country, 2010.

Country	Free On Board price	EXW* price	Fairtrade social premium
Colombia			
Conventional	8.50	6.40	1.00
Organic	10.70	8.60	1.00
Costa Rica			
Conventional	8.50	5.75	1.00
Dominican Republic			
Conventional	10.10	6.55	1.00
Organic	12.30	8.75	1.00
Ecuador			
Conventional	8.20	5.90	1.00
Organic	10.40	8.10	1.00
Ghana			
Conventional	9.25	6.65	1.00
Organic	11.25	8.65	1.00
Panama			
Conventional	8.50	5.30	1.00
Peru			
Organic	10.10	7.00	1.00
South Africa			
Conventional	8.50	6.40	1.00
Organic	10.75	8.50	1.00
Windward Islands			
Conventional		9.00	1.00

*EXW = Ex Works, meaning the seller makes the goods available at his premises and the buyer is responsible for all charges.
Source: FLO Pricing Database, 2010.

[195] The social premium differs from price premiums in that the social premium must be reinvested in a project that benefits the producers and/or the environment. It is not merely a premium paid over a conventional price.

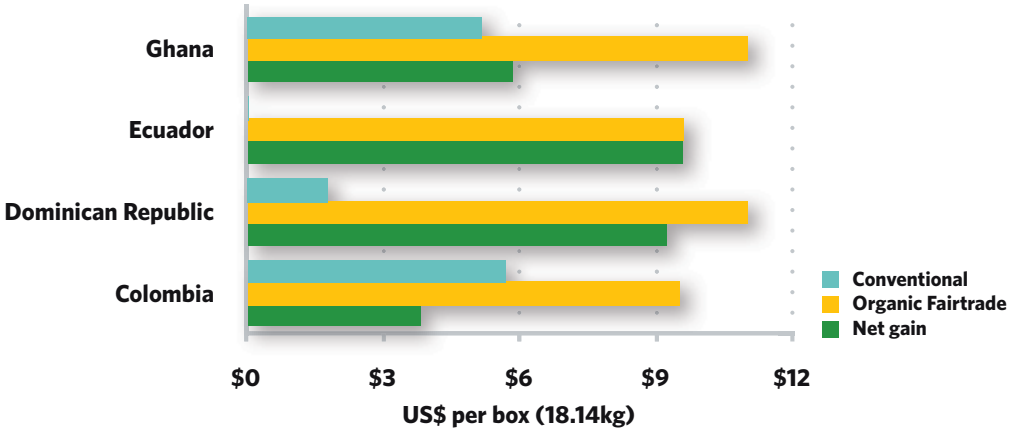
Table 3.18: Fairtrade banana minimum price and Fairtrade social premium (US$ per 18.14-kg box) by region, 2010.

Region	Free On Board price	EXW* price	Fairtrade social premium
Caribbean (except Dominican Republic and Windward Islands)			
Conventional	10.25	8.65	1.00
Organic	12.25	10.65	1.00
Central America			
Conventional	8.25	5.90	1.00
Organic	10.25	7.80	1.00
East and Middle Africa			
Conventional	8.80	7.55	1.00
Organic	11.00	9.50	1.00
North Africa			
Conventional	9.25	6.95	1.00
Organic	11.00	9.00	1.00
South America (except Colombia, Ecuador and Peru)			1.00
Conventional	8.25	6.30	1.00
Organic	10.25	8.35	1.00
Oceania			
Conventional	8.90	7.10	1.00
Organic	11.20	9.45	1.00
South Asia			
Conventional	7.35	6.05	1.00
Organic	9.35	8.05	1.00
Southeast Asia			
Conventional	8.90	7.10	1.00
Organic	11.20	9.45	1.00
Western Africa			
Conventional	9.00	6.40	1.00
Organic	11.00	8.50	1.00

*EXW = Ex Works, meaning the seller makes the goods available at his premises and the buyer is responsible for all charges.
Source: FLO Pricing Database, 2010.

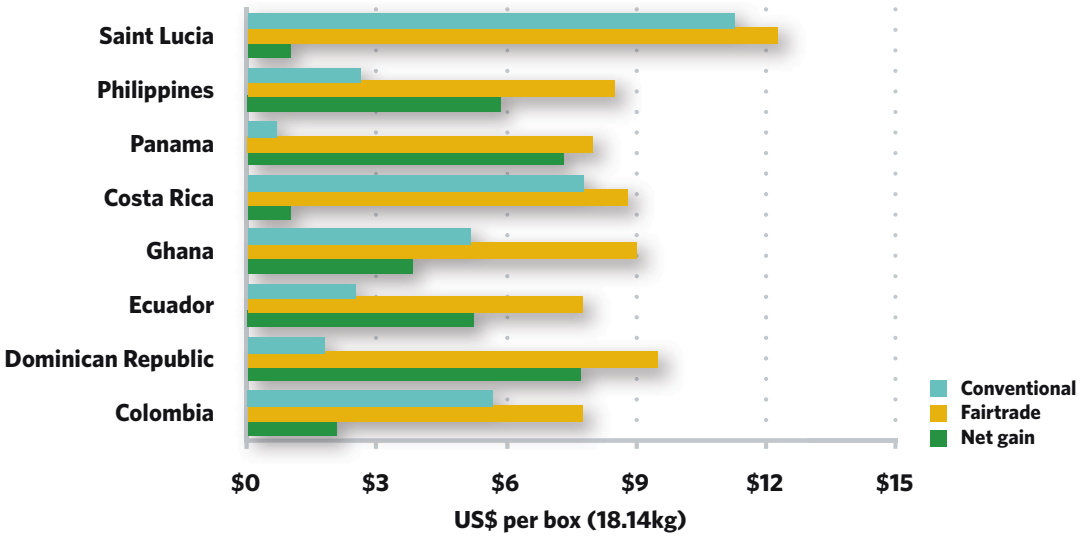
"Whereas 72 per cent of conventional banana production for export comes from Latin America, the region accounts for 97 per cent of sustainable banana production for export."

Figure 3.72: Conventional and Fairtrade organic minimum prices plus social premium and total premium per volume for bananas, 2007 (US$ per 18.14-kg box).



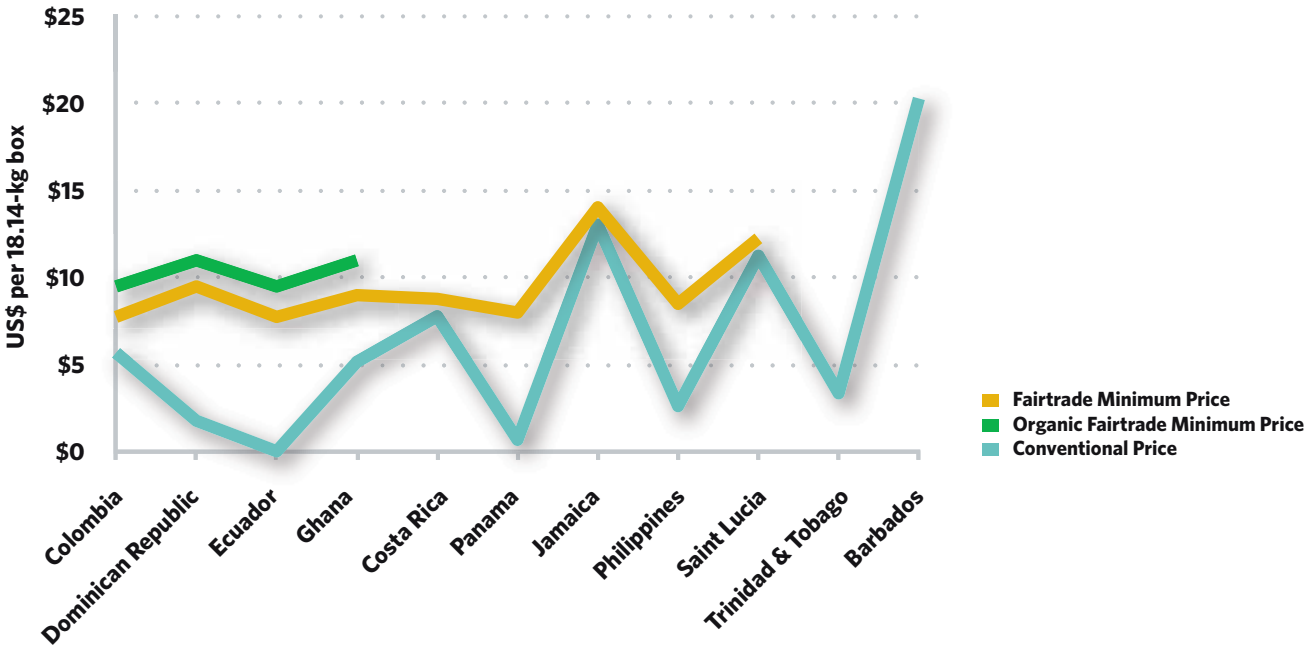
Source: FLO Pricing Database, 2010 (using data valid from 2006–2008); FAO, 2009 (using 2007 data).

Figure 3.73: Conventional and Fairtrade minimum prices plus social premium and total premium per volume for conventional bananas, 2007 (US$ per 18.14-kg box).



Source: FLO Pricing Database, 2010 (using data valid from 2006–2008); FAO, 2009 (using 2007 data).

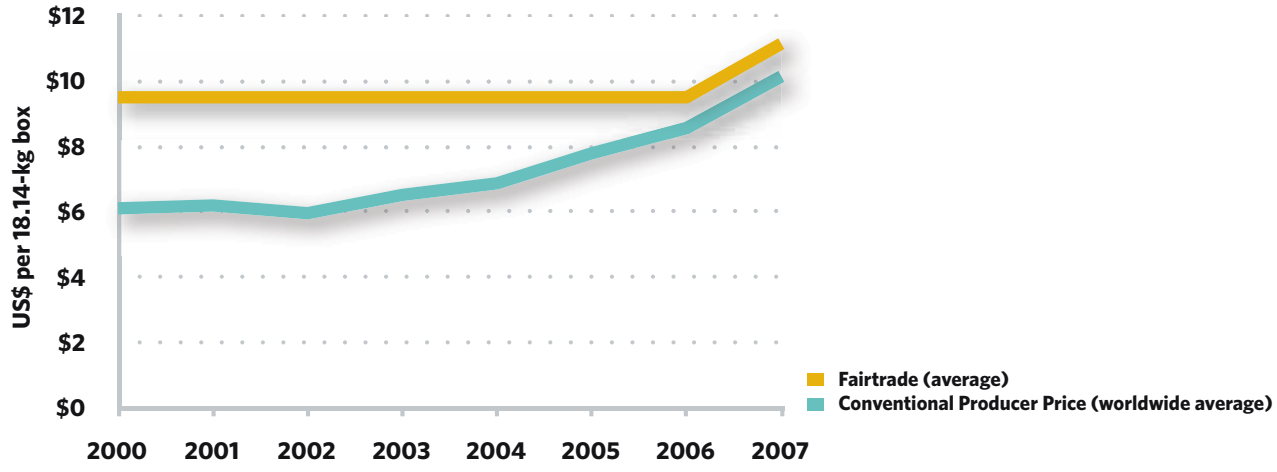
Figure 3.74: Banana price comparison of Fairtrade, Fairtrade organic, and conventional, 2006–2007 (US$ per 18.14-kg box).



Source: FLO, 2009; FAO, 2010.

Finally, Figure 3.75 shows the average Fairtrade minimum prices reported and conventional producer prices received from 2000–2007.

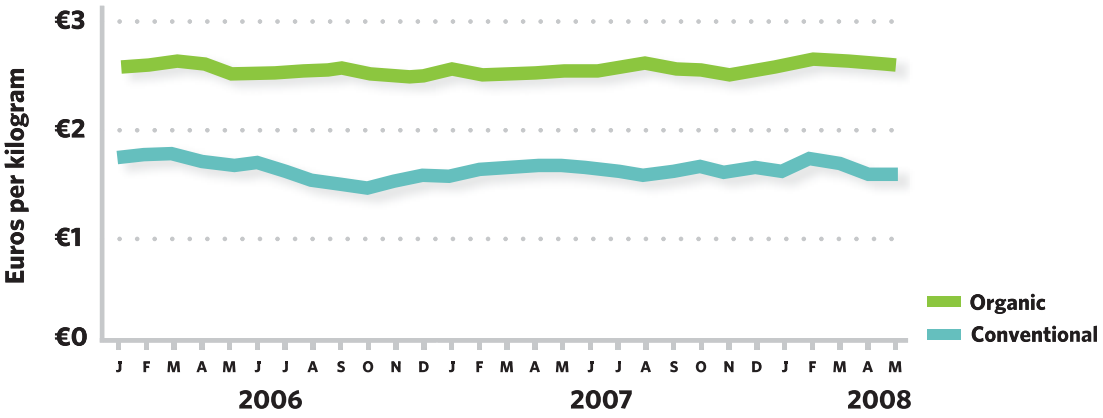
Figure 3.75: Average Fairtrade minimum price plus social premium received and worldwide average conventional price paid to producer, 2000–2007 (US$ per 18.14-kg box).



Source: FLO, 2009; FAO, 2010.

Data for organic pricing comes primarily from secondary sources. Shown here is a comparison of monthly retail prices for organic and conventional bananas in the French market (Figure 3.76) and annual prices for organic versus conventional bananas in the German market (Table 3.19); one noteworthy trend is apparent in the German market, where conventional bananas have slowly gained in pricing, reducing the price premium for organic bananas—although the organic price premium was still at 45 per cent in 2008.

Figure 3.76: Monthly retail prices for organic and conventional bananas in France (origin: Americas).



Source: Liu, 2009: 32 (Figure 17).

Table 3.19: Annual retail prices and organic price premiums for bananas in Germany, 2006–2008.

Year	Average organic price (euro per kilogram)	Average conventional price (euro per kilogram)	Organic price premium (%)
2006	1.88	1.15	63.3
2007	1.87	1.15	62.6
2008 (January-June)	1.87	1.29	45.5

Source: Liu, 2009: 31 (Table 5).

Rainforest Alliance, like Organic certified, does not require a fixed price or establish a premium, nor does it require the reporting of prices paid for bananas. No data were found on the pricing and any associated premiums related to Rainforest Alliance bananas although, in light of the close integration of the Rainforest Alliance certification process into the production process of Chiquita, and the integrated nature of its supply chain, it is likely that the costs of Rainforest certification are absorbed within the overall production model, rather than generating any recognizable premium.

3.6 | Agricultural Sector Certification Costs

SUMMARY POINTS

Information on certification costs is notoriously difficult to ascertain due to fluctuations based on the size of the production unit and the complexity of diverse sustainability schemes. Virtually no reliable information on the total indirect and direct certification costs was available across the agricultural sectors reviewed at present. Based on estimated fee schedules and production unit sizes, estimates of direct certification costs (certification fees and audit expenses) could be made for the following initiatives:

- **Fairtrade direct certification costs were found to range between €0.33 and €0.65 per metric ton for initial certification and between €0.21 and €0.43 per metric ton for subsequent years.**
- **GLOBALGAP certification fees range from €3 to €55 per year. Case studies from Kenya and India estimate average recurrent costs associated with GLOBALGAP certification, including audits, to be between US$177 and US$277 per annum for medium to large farms. Per hectare costs for smaller farms were found to be as high as US$1,875 per hectare in Kenya.**
- **Organic direct certification costs have been reported in a Mexican case study to range from US$1,300 to US$1,550 per annum per producer organization.**
- **Rainforest Alliance charges a certification fee of between US$5.00 (group certification) and US$7.50 per hectare (individual firm certification). Meanwhile, audit costs for Rainforest alliance have been reported to range between US$0.50 and US$3.61 per hectare in an El Salvador case study.**
- **4C Association direct certification costs consist only of membership fees ranging from €7.50 (for producers of 250 bags of coffee or less) to €28,000 (for producers of 4 million bags of coffee or more). All audit costs in the 4C Association are paid by the 4C Secretariat.**
- **UTZ Certified direct certification costs only consist of audit costs (no certification or membership fee is charged) and vary based on the size of the production unit.**

BOX 3.9

The variable nature of certification costs

The cost of certification can fluctuate based on a number of factors:

- Level of pre-existing compliance with the standard;
- Number of certification bodies available in the producer's area (a higher number leads to more competition and therefore lowers prices);
- Speed with which an auditor works;
- Size of the operation being audited;
- Number of workers or members of the operation being audited;
- Number of products being audited;
- Distance to travel to the audit location (further, the types of roads for travel and the rural location of an audit will also affect the certification cost); and
- Existence of processing or production facilities on the property.

A study by USAID found that audit costs for Rainforest Alliance certified green coffee in El Salvador ranged from US$0.50 to $3.61 per hectare, a broad margin that can serve as an indication of variability of costs for all initiatives (Romanoff, 2010; USAID, 2008).

3.6.1 | General Overview of Direct Certification Costs in Agricultural Sector

As noted in the Forestry section, costs associated with certification can take the form of direct or indirect costs. **Indirect costs associated with training, infrastructural investment and potential yield reductions are often the most important costs associated with certification—but also the most challenging to quantify on a global, multi-sectoral level.**[196] As a result, for the purposes of this report we focus on direct fees and costs associated with the actual certification process (such as certification and auditing fees). Even at this more selective level, data on costs associated with participation in sustainability initiatives in the various sectors are difficult to report because information on compliance fees is currently limited.[197] Furthermore, the great variability of certification costs renders reporting on even direct fees complex (see Box 3.9 on the previous page).

Table 3.20: Comparison of certification and verification processes by sustainability initiative: a step-by-step comparison.

Standards	Sector	Initial contact
4C Association	Coffee	Producer applies for membership (pays fees) and joins or establishes a 4C unit
UTZ Certified	Coffee, cocoa, tea	Producer registers and completes self-assessment
FLO	Coffee, cocoa, tea, bananas	Producer fills out application form and pays application fee. FLO CERT will then ask for completion of a questionnaire
Rainforest Alliance (SAN)	Coffee, cocoa, tea, bananas	Producers contact the certification body which places them into contact with local SAN-accredited certification body
Organics: IFOAM accredited export	Coffee, cocoa, tea, bananas	Producer applies for conversion to organic (duration 36 months). Follows by sending registration documentation and fee to certification body
GLOBALGAP	Tea, bananas	Producers applies for GLOBALGAP certification with an accredited certification body and pays fee
SAI (SA8000)	Bananas	Facility must seek certification audit through application to a SAAS-accredited auditing firm or certification body

Sources: 4C Association Step by Step: The Road to Joining the 4C Association System; Personal communication with Vera Espindola Rafael at UTZ Certified (12 February 2010); FLO-CERT Production Certification Fees, 2009; Sustainable Farm Certification International, 2010; IFOAM, 2009; GLOBALGAP, 2010; Social Accountability Accreditation Services, 2010.

[196] The Committee on Sustainability Assessment (COSA) project, which entails sector-by-sector, country-by-country field visits, seeks to provide a more robust understanding of the direct and indirect costs associated with certification. See www.sustainablecommodities.org.
[197] Such as compliance fees per volume of product sold.

Typically, producers will be charged for an annual certification fee or an annual audit, or both. Under some circumstances, such as in the case of Fairtrade, a special application fee is also charged at the outset of the certification process. Table 3.20 provides an overview of the certification process for the sustainability initiatives reported on in this report.

Compliance	Actions to maintain compliance	Years before renewal is required
Producer completes self-assessment annually	Verification visit (every three years), with random control visits interspersed	3
Inspection by certification body will allow for a certification decision to be made. UTZ reviews the conclusions of the audit and checks it for accuracy	A certification body conducts audits on an annual basis	1
FLO CERT will issue a certification fee and a physical audit will take place. Pending the audit's results and the cooperative's proposed plan to address non-conformities detected in the audit, FLO CERT will issue a certification	Once certified, annual audits commence until re-certification at the end of three years	3
Diagnostic visit is conducted by a local certification body to determine how close the producer is to being ready for an audit and, once ready, an audit takes place. Upon certification approval, a certification agreement is signed and an annual fee must be paid	Annual audits are conducted in years 1 and 2. In year 3, a certification audit is conducted. In addition to scheduled audits, other types of audits can be conducted in order to verify fulfillment of the standards throughout the certification cycle	3
Initial conversion audit takes place to verify registration to "conversion" status. If no impediment to conversion is found, producer will remain in "conversion" for 24 additional months, with two further audits taking place	After satisfactory completion of the conversion period, the producer will be granted full organic certification status, subject to annual scheduled audits and occasional random audits to maintain this status	1
Application is reviewed by the certification body. Audit is conducted and, if no impediments are found, certification is granted	Annual audits and random audits are conducted	1
Audit takes place, and once an organization has implemented any necessary improvements to meet the requirements in the standard, it can earn a certificate attesting to its compliance with SA8000	Surveillance audits are conducted every six months during a three year cycle; some are unannounced audits	3

3.6.2 | Certification Costs along the Agricultural Chain

Each initiative has a different process of certifying producers and other players along the supply chain. The breakdown of the various fees associated with the certification procedures—certification fees, membership fees (where necessary) and audit fees, along with a list of who pays those fees along the chain—is shown in Table 3.21; all amount to additional supply chain costs which, ultimately, must be included in the price of the final product.

The 4C Association differs from the other VSIs in this report in that it coordinates an external third-party verification that is covered by membership fees. Producers, however, do pay a membership fee to join the 4C Association, which ranges from 7.50 euros (for producer producing less than 250 bags of coffee) to 28,000 euros if they produce 4 million bags of coffee, a goal that has not yet been reached.[198] UTZ Certified, GLOBALGAP, and Rainforest Alliance have comparable charges for audits, commonly reported to range between US$150 and US$250 per person-day. This is due to the fact that many of the larger external certification bodies (e.g., BioLatina, IMO) are accredited or approved by multiple standards.[199] Producers seeking certification for a specific standard are able to—where more than one certification body exists—effectively shop around for audit quotes from the certification bodies, leading to comparable audit prices for each standard. The number of person-days varies based on the size of the production unit, but commonly consists of several days per annum.

Table 3.21: Certification costs along the supply chain.

	Who is certified	Producer costs	Buyer/Trader/ Processor costs	Retail costs
4C Association	• 4C Association Unit, established at any level of the supply chain, e.g., cooperatives, producer associations, mills, exporters, local roasters	**Direct costs:** Annual membership fee paid to 4C Association. This fee is dependent on how many bags of coffee the producer produced in the last harvest year. For example, if 100–250 bags were produced annually, the producer would pay a "once-only" joining fee of €7.50. Coffee growers producing more than 250 bags annually pay an annual fee based on a sliding scale of the amount of coffee produced.	• External third-party verification is covered by 4C Association's membership fees. • **Chain of Custody certification:** 4C Association Trade & Industry Members can be part of the CoC on a 4C Association unit-level in a producing country.	
UTZ Certified	• Individual certification (plantations and estates can be treated as individual producers) • Multi-site certification • Group certification • Multiple group certification	**Direct costs:** Producers pay no fee directly to UTZ. Audit costs are controlled by the certification bodies; producers pay the audit costs, which vary by size and travel required. **Indirect costs:** Implementation costs occur through implementation of the UTZ Certified criteria. UTZ has attempted to address this through a stepwise certification approach, whereby producers are certified based on an annually increasing number of requirements. This attempts to ensure an achievable entry level against a lower, up-front investment.	• **Chain of Custody certification** allows roasters, traders and grinders to buy and sell UTZ Certified coffee, tea and cocoa. CoC is not mandatory for all members of the supply chain. • In addition to these certification and audit costs, the first buyer on the UTZ Certified supply chain is also required to pay an administrative fee of US$0.012 per pound for green coffee, €0.025 per kg for tea, to cover administrative costs.	The legal owner of a product (one who also handles that product) must have Chain of Custody certification.
FLO	• Cooperatives • Plantations • Multi-estates	**Direct costs:** Fairtrade charges an annual fee based on the size of a cooperative/plantation/ estate and its processing installations that is designed to include the organization's audit costs. For a breakdown of the FLO fee, see Table 3.21.	National licensees (roasters/buyers/traders) must pay a license fee of US$0.10 per pound to cover administrative costs.	

Continued next page

[198] 4C Association Membership Categories and Fees, V.2.0. Additionally, because no 4C Association-verified producer has yet to produce 4 million bags of coffee, this maximum fee has not yet been empirically implemented.

[199] Charges for audits depend on many different factors; even if the audit is conducted by the same Certification Body, the cost is likely never to be the same per audit.

Table 3.21: Certification costs along the supply chain (continued).

	Who is certified	Producer costs	Buyer/Trader/ Processor costs	Retail costs
Rainforest Alliance/SAN	• Cooperatives • Estates • Producer groups • Chain of custody	**Direct costs:** • Rainforest Alliance requires annual audits to be paid by the producer. Audit costs, determined by the independent inspection bodies, vary depending on the size and distance that an auditor must travel. • In addition, producers must pay an annual fee of US$5 per hectare for group certification and US$7.50 per hectare for individual farm certification.	Rainforest Alliance/SAN is working on implementing a Participation Fee beginning in 2011. The fee will be levied on volumes of Rainforest Alliance certified crops purchased and will be charged only once in the supply chain. The proposed coffee participation fee is US$0.015 per pound of green coffee sold to the first buyer; the participation fee for other commodities is still being determined. With the implementation of the participation fee, the annual fee to producers will be eliminated.	Rainforest Alliance charges no licensing fees.
GLOBALGAP	• Cooperatives • Plantations • Multi-estates • Chain of custody	**Direct costs:** **Paid to GLOBALGAP** • Membership Fee—not mandatory; this fee is only paid if the organization wishes to have the right to vote at GLOBALGAP annual general meetings. • Producer Registration Fee—this fee can go toward the membership fee if a producer decides to become a member. **Paid to certification bodies** • Annual audit—audit costs are controlled by the certification bodies; producers pay the audit costs, which vary by size and travel required. Producers can also qualify for GLOBALGAP certification with other standards that meet GLOBALGAP's benchmark (e.g., fully approved national GAP standards like CHINAGAP).	GLOBALGAP charges membership fees: Importers/exporters without production pay €1,550 per year; Associate Members pay €1,550-3,600 per year.	Retailer members pay €3,600 per year.
SA8000 (SAI)	• Plantations • Multi-estates	**Direct costs:** • Cost of an independent audit by a SAAS-accredited certification body. **Indirect costs:** • Cost associated with taking corrective and preventive action in order to qualify for compliance. After this, an organization would seek verification of its compliance. • Cost of preparing for the audit. • Cost associated with taking corrective actions to resolve problems (if non-conformances have been identified).		

BOX 3.10 Fee and requirement flexibilities offered by VSIs to facilitate small producer access

In light of the special challenges faced by smallholder producers in becoming compliant, most initiatives have, or are associated with, special initiatives designed to facilitate smallholder access and compliance. FLO-CERT offers a deduction of the certification fee to Fairtrade certified organizations (not applicants) entirely organic certified by an accredited organic certifier. The deduction is 20 per cent of the time the auditor spends onsite (FLO, 2009: Producer Certification Fees). GLOBALGAP allows producer groups and producer organizations to apply for a discount (GLOBALGAP, 2009: GLOBALGAP Fee Table). Rainforest Alliance has reported that initial certification costs and the annual fee for Rainforest Alliance certification have, in many cases, been underwritten by foundations, exporters and buyers (personal communication with Ana Garzon at Rainforest Alliance/SAN, 11 December 2009). Finally, although UTZ Certified producers must pay for audit costs, UTZ does not charge a certification fee and attempts to reduce up-front costs to certification through its stepwise certification approach, whereby producers are certified based on compliance with an increasing number of requirements annually.

3.6.3 | Select Case Studies of Certification Costs

Fairtrade Certification Costs

Fairtrade Labelling Organizations International (FLO) certifies small farmer organizations, organized as cooperatives (common in the coffee and cocoa sector); plantations (common in the banana and tea sectors); and multi-estates (common in the tea sector).[200] To certify, a producer must pay an application fee and an initial certification fee in the first year of certification (to achieve certification) and then an annual certification fee. The amount of the annual certification fee depends on the number of workers, the number of products to be sold under the Fairtrade mark and the number of processing installations owned by the organization.[201] Fairtrade certification requires re-certification every three years.

Table 3.22 shows estimated certification fees for a small second-grade coffee producer organization (SPO), a banana plantation and multi-estate certification based on the published FLO fee charts.[202] Figure 3.77 shows the estimated cost of FLO certification by production system.

Table 3.22: Hypothetical annual costs of certification fees for FLO-certified small producer organization (SPO), plantation and multi-estate production systems.

Types of fees	SPO costs (euros)	Plantation costs (euros)	Multi-estate costs (euros)
Initial certification fee (first year)			
Application for a Fairtrade certification (first year)	500.00	500.00	500.00
Initial basic fee/ initial central structure fee (multi-estates)	1,500.00	2,600.00	1,500.00
Initial basic fee for sampled member organizations	1,200.00	0	1,500.00
Initial additional product fee	0	0	0
Initial processing Installation fee	600.00	600.00	600.00
Initial certification fee (first year), Subtotal	**3,800.00**	**3,700.00**	**4,100.00**
Annual certification fee			
Annual basic fee/Annual central structure fee (multi-estates)	1,137.50	2100.00	1137.50
Annual basic fee for sampled estates	875.00	0	1137.50
Annual additional product fee	0	0	0.00
Annual processing Installation fee	350.00	350.00	350.00
Annual certification fee, Subtotal	**2,362.50**	**2,450.00**	**2,625.00**

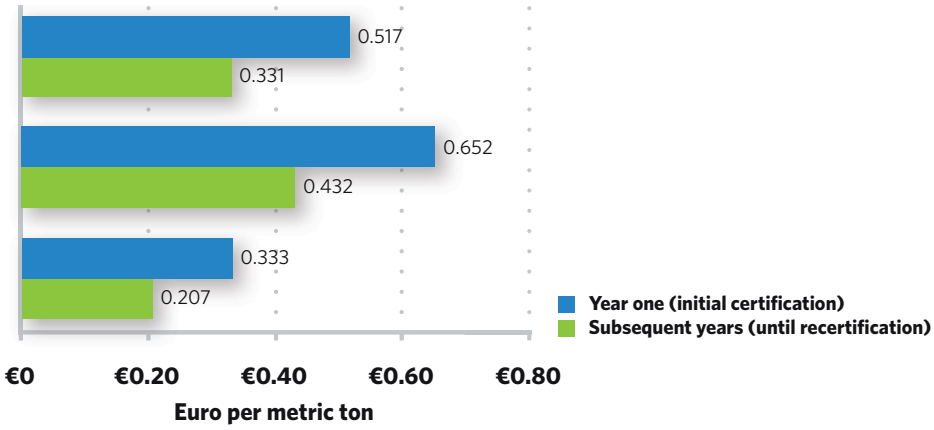
Source: FLO, 2009, "Producer Certification Costs" and "Guidance Document, FLO-CERT Producer Certification Fee System for Hired Labour."

[200] FLO initially only certified smallholders organized in cooperatives but expanded to include hired labour standards, recognizing that plantations and multi-estates were the most common forms of organization for banana and tea production.

[201] FLO, 2009, "Producer Certification Costs."

[202] Our calculations in completing the table were drawn from published FLO certification fee schedules (Source: FLO, 2009, "FLO-CERT Producer Certification Fees") and based on average production levels according to the following assumptions (1) *Small Producer Organization:* The assumptions in this specific case study are that it is a second or third grade organization, producing only coffee; average size of the coffee farm is 3.13 hectares; average of 465 members per member organization; average coffee production (2007) as reported by FLO, 2009. (2) *Plantation:* This is a case study of an Ecuadorian FLO certified banana plantation. Assumptions are that it only produces bananas and has 346 workers; banana production (5,676 metric tons in 2007) as reported by FLO, 2009. (3) *Multi-estate:* This is a case study of a Ghanaian FLO certified banana estate. Assumptions are that it only produces bananas and has 645 workers (we do not know how many estates there are); banana production (7,931 metric tons in 2007) as reported by FLO, 2009.

Figure 3.77: Estimated cost of FLO certification, per metric ton, by production system (estimated production capacity as proxy for volume).



Source: FLO, 2009 "Producer Certification Costs" and "Guidance Document, FLO-CERT Producer Certification Fee System for Hired Labour."

GLOBALGAP Certification Costs

GLOBALGAP certification can be attained through two means: GLOBALGAP certification or, alternatively, certification through another standard that has met GLOBALGAP's benchmarking standard. For GLOBALGAP certification, a series of fees are required from producers (see Table 3.23) including registration,[203] certification (not included in this chart as these vary by producer operation and are determined by independent certification bodies) and membership fees.[204] Chain of Custody certification is an additional certificate.

Research suggests that the costs associated with GLOBALGAP certification can be significant—particularly with respect to infrastructure and other investments required for attaining initial compliance.[205] High up-front costs can be particularly acute for smaller farmers. The direct costs associated with GLOBALGAP certification are generally considered to be comparatively less than the indirect investment costs. One study reports costs averaging US$277 per hectare to cover direct certification costs among Indian grape farmers. Expenses related to additional inputs associated with certification (and production for export markets) were estimated at US$1,457 per hectare.[206] A study of Kenyan vegetable farmers, on the other hand, reports costs ranging from US$37 to US$2,650 per farm for attaining GLOBALGAP certification across a group of 1,978 smallholder farmers (defined as one hectare or less). The same study reports recurring costs (including but not limited to direct certification and auditing fees) ranging from US$12 to US$1,875 per farm. Costs across larger farms (approximately 10 hectares) were found to have average establishment costs of US$573 per hectare and average recurrent costs of US$177 per hectare.[207]

[203] The Producer Registration Fee can count toward the GLOBALGAP membership fee if a producer wishes to become a member.

[204] Membership fees are not mandatory. If an organization wishes to have the right to vote at GLOBALGAP Annual General Meetings, they will be required to pay the membership fee. It is not required in order to obtain GLOBALGAP certification.

[205] One researcher estimates that to acquire and fully develop a 100-hectare horticultural farm would cost US$1.0–1.35 million, including the cost of the land, irrigation facilities, field equipment buildings, cold stores, and necessary fencing and road improvements. Several of the larger exporters have developed two or more such farms. A medium-scale exporter (perhaps handling 500 to 1,000 metric tons a year) might undertake to develop a 50-hectare farm that, with all necessary infrastructure, would require an investment of some US$750,000 (Jaffee, 2003: 39; see also Graffham et al., 2007; Mithofer et al., 2007; Asfaw et al., 2007). Note that a significant portion of these costs may be due to ensuring compliance with local laws as required by GLOBALGAP. Personal communication, Kristian Moeller, GLOBALGAP Secretariat 3 November 2010.

[206] See M. Punjabi, 2008, "Grape Exports with GLOBALGAP Certification: Case Study of Mahindra and Mahindra Initiative in India," accessed 10 October 2010 at http://www.google.ca/url?sa=t&source=web&cd=3&sqi=2&ved=0CCcQFjAC&url=http%3A%2F%2Fwww.fao.org%2Fworld%2Fregional%2Frap%2Fagro-industries%2FMahindra%2520GLOBALGAP%2520Grape%2520Export.pdf&ei=w_D3TIKzDcbrOcnSqLUI&usg=AFQjCNE8snYexnAnjJysaWj4dnZwffHpBg&sig2=S8at0jNZRvE_LkywYj4Xjw.

[207] A. Graffham, E. Karehu, and J. MacGregor. 2007, "Impact of EurepGAP on Small-scale Vegetable Growers in Kenya," *Fresh Insights 6*, International Institute for Environment and Development, London. It is worth noting that several studies indicate that investment in GLOBALGAP certification, although considerable, can yield substantive gains in revenues through increased access to export markets, higher prices and higher yields (Hensen et al., 2009; Chen et al., 2006; Jaffee and Masakure, 2005; Punjabi, 2008); however, technical assistance and facilitating information exchange with importing countries and technical regulations are reported as being key to ensuring the participation of small farmers. Note also that GLOBALGAP's "option 2" certification is designed to allow for reduced costs to small farmers, though no data were available on the average direct and indirect costs associated with this option.

Table 3.23: GLOBALGAP certification fees.

Types of fees		euros per year	
Producer registration fee	< 2 hectares	3	Note: Maximum aggregate fee is 30 €.
	>2-15 hectares	10	
	> 15 hectares	30	
Chain of Custody fee		100	
Membership fee (not mandatory)	Producer group or Producer organization	2,550	per product
	Individual producers	1,550	per product
	Additional product	500	per product

Source: GLOBALGAP, 2009: General GLOBALGAP Fee Table.

IFOAM (Organic) Certification Costs

Organic certification costs are presented in Table 3.24, using a Mexican case study;[208] Table 3.25 shows per-producer organic certification costs in Central America.

Table 3.24: Mexican case study of organic certification costs (US$ per year).

Type of cost	Group of producers (> 100 producers)	Firm (>2-99 producers)	Single producer
Inspection costs*	600	400	400
Travel expenses of auditor	200	200	200
Membership fee	450	450	450
Accompanying costs (technician required for certain operations and plants)	200	200	200
Administrative fee	100	50	50
Total	1,550	1,300	1,300

*Assuming an auditor will inspect 20 per cent of production and visit five producers a day, with a daily rate of US$200.
Source: Bustamante, 2009.

Table 3.25. Per-producer certification costs of organic cocoa in Central America; does not include indirect costs associated with infrastructure development, training and management time.

Cooperative	Number of producers	Annual organic certification fees($)	Annual certification fee per producer ($)
COCABO	1,500	8,000	5
APPTA	937	7,346	8
ACOMUITA	74	425	6
CACAONICA	530	13,700	26
APROCACAHO	215	7,600	35
TCGA	800	10,500	13

Source: Personal communication with Gabriela Soto at CATIE, 2010.

[208] Bustamante, 2009.

4 Transparency as a Window for Sustainable Development

All the VSIs covered in this report are committed, at one level or another, to providing information related to the sustainability of the practices found within corporations, supply chains and markets more generally. This single defining aspect gives these initiatives a special relationship to building transparency in the marketplace. And while the term "transparency" is commonly used in conjunction with the objectives and activities of VSIs, there is little analysis on what the relationship between transparency and VSIs is, or should be.

As the number of VSIs continues to grow, it is ever more important to have accurate information about how they work, what they are trying to achieve, and their actual impacts on the ground—in order to facilitate effective implementation of the different systems. At the same time, standards systems, investors, donors and consumers are increasingly demanding more specific information regarding the different options available to them. Understanding the way in which transparency intersects with VSIs in the past and present offers a useful backdrop for the data collected within the SSI Review.

4.1 | The Meaning of Transparency

The Miriam-Webster Dictionary defines transparency as "free from pretence or deceit," "easily detected or seen through," "readily understood," and "characterized by visibility or accessibility of information, especially concerning business practices."[209] At the highest level, we tend to think of transparency as referring to the act or state of "making information available to external stakeholders." Academics commonly distinguish between three types of transparency based not only on the volume of information made available but also on the quality of information made available:[210]

- Information Transparency: the act of making accurate, useable and substantial information available to stakeholders.
- Participatory Transparency: the act of selecting the information to be made available based on user needs and input (i.e., "participation").
- Accountability Transparency: the act of presenting information that is neutral, objective and balanced, allowing stakeholders to reach their own conclusions regarding performance or evaluation.

With respect to VSIs, the most pertinent observation may simply be that a key part of ensuring transparency is to ensure that the information being provided is both useful and meaningful to external stakeholders in a way that is important to them and that allows them to hold organizations accountable.

[209] Miriam-Webster Dictionary, 2007 edition.
[210] J. M. Balkin, 1999, "How Mass Media Simulate Political Transparency," *Cultural Values*, 3(4), 393-413.

BOX 4.1 The relationship between transparency and sustainability

Transparency improves what we know about markets and the institutions that drive them. Improved access to information helps everyone in the market better understand the implications of their investments and dealings within the market.

By enhancing information flow, transparency can promote market efficiency, social welfare and cost internalization, all core principles of sustainable development.[211] Improved information also allows stakeholders to participate more knowledgably in the governance processes—thereby promoting participatory governance, also a core principle of sustainable development. Finally, even where market failure persists, as is often the case with sustainable development related public goods, increased information on the characteristics and performance of market actors better enables policy-makers to design and employ effective corrective policy.

As transparency requirements on the sustainable development impacts of companies and other market actors grow, so too does the potential of transparency to forward the objectives of sustainable development.

4.2 | Transparency and VSIs

Voluntary sustainability standards and initiatives have grown in response to increasing concerns about the impacts of market activity on global sustainable development. The growth of sustainability initiatives has been driven by a thirst for more accurate and relevant information to market players—in this sense, the history of VSIs is deeply connected to efforts aimed at improving transparency within national and international markets. The motivation for most VSIs comes from an interest in improving the ability of companies and other market actors to have, and provide, information related to their own market activities.

Although the early growth of VSIs was predominantly driven by NGO campaigns and related corporate marketing and reputational risk management concerns, over the past few years, the more traditional drivers of corporate transparency, namely the investment community, have begun to make formal links between supply chain sustainability and materiality. The launch of the UNEP Finance Initiative in 1991,[212] the Equatorial Principles in 2003[213] and the IFC Performance Guidelines in 2007[214] all provide high profile examples of the growing and increasingly systemic interest by the financial sector in corporate sustainability performance—or, in the language of the investment community, Environmental, Social and Corporate Governance (ESG) concerns.

Since the launch of the Principles for Responsible Investment (PRI) in 2005, the international investment community has had a common framework to commit and act on the integration of ESG concerns within their decision-making processes. With more than 700 institutional investors and service providers as signatories, the growth of the PRI demonstrates the growing pressures for ESG reporting. These pressures have lead to the development and application of common reporting methodologies for not only the financial and business communities, but also for public agencies and the third sector, such as those managed under the Global Reporting Initiative (GRI)[215] and reported through the use of CSR and Sustainable Development Reports.

These interests have now begun a process of integration into public reporting requirements as well. In February 2010, the SEC released its "Guidance Regarding Disclosure Related to Climate Change," which explicitly outlines the manner in which climate change impacts can be deemed material to corporate activity (and therefore required as part of existing SEC disclosure requirements)—thus demonstrating the depth

[211] The hypothetical perfect market is one in which everything is known by everybody. Under the perfect market there are no externalities and no market failure, which is to say all social costs are incorporated within the pricing mechanism. The perfect market optimizes social welfare and, as such, provides a foundation for sustainable development.
[212] http://www.unepfi.org.
[213] http://www.equator-principles.com/index.shtml.
[214] http://www.ifc.org/ifcext/sustainability.nsf/Content/EHSGuidelines.
[215] GRI is currently developing a CSO/NGO sector supplement to promote reporting in this specific sector; see http://www.globalreporting.org/WhoAreYou/CSONGO.

to which ESG concerns have found their way into more traditional transparency obligations related to reporting on financial information.[216]

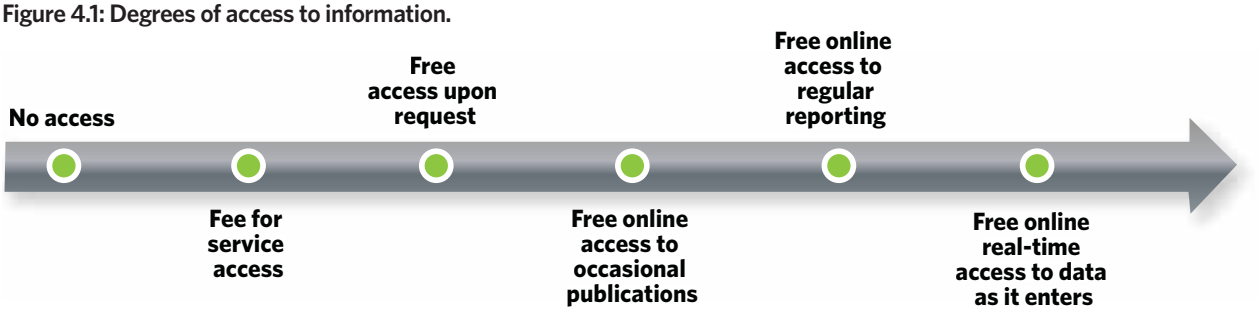
Gathering information and reporting on supply chain sustainability is, however, a costly and complex affair. As the growth of ESG reporting continues, the value of VSIs, as a systemic approach for measuring and monitoring key ESG impacts along the supply chain, is becoming increasingly recognized. The number of mainstream commitments to different VSI initiatives over the past half decade is a clear testament to the role of VSIs in meeting the needs, not only of consumer demands for ESG reporting, but of that of institutional investors as well.[217]

And while VSIs have played an active role in building the capacity of companies and international markets to meet growing ESG transparency requirements, they have not, as of yet, been directly subject to such requirements themselves. The mandate of VSIs has, for historical reasons, been focused more on improving transparency within corporations and along supply chains than on ensuring transparency of their own operations and impacts. In a certain respect, this is very much in line with the role auditors have traditionally played within the corporate context. Whereas auditors have played the role of gatekeepers ensuring the honesty and integrity of information related to financial matters, VSIs increasingly play a related role in ensuring the honesty and integrity of information related to ESG matters.[218]

The past decade of financial scandals related to fraudulent accounting practices has given rise to a host of new regulations and disclosure requirements related to auditing firms and their relationships with the companies they audit. As the world of institutional investment has come to understand the importance of transparency with respect to not only corporate practices, but also the verifiers of the information related to those practices, one can expect a similar trend toward demands for increased transparency and disclosure among other information verifiers, such as VSIs.

VSIs will restrict access to some types of information to protect the confidentiality of their organizations or clients. Beyond that, all information may be described as "publicly available"; however, information that is technically publicly available can still be difficult to obtain, depending on the manner in which information is actually gathered and made available. The figure below outlines a spectrum of availability, from no access to free online real-time access to data.

Figure 4.1: Degrees of access to information.



"The most challenging portion of the data collection process, and therefore efforts to promote enhanced transparency within the VSI sector, revolved around the collection of market and other impacts data."

[216] "SEC uses Disclosure Requirements to Promote Climate Change," Global Governance Watch, 17 February 2010, accessed at http://www.globalgovernancewatch.org/spotlight_on_sovereignty/sec-uses-disclosure-requirements-to-promote-climate-change-agenda.

[217] VSIs have played roles in promoting transparency along international supply chains. As already noted, VSIs are usually designed to provide new and additional information on the ESG practices of compliant members to the marketplace (informational transparency). VSIs can, and often do, also promote transparency by including a wider group of stakeholders in the identification of key ESG issues for measurement and implementation (participatory transparency). VSIs, through their verification and enforcement mechanisms, also have the potential for ensuring transparency by providing objective and verifiable information on compliance (accountability transparency).

[218] Clearly, corporate auditors also have a primary function to play in reporting on ESG matters—VSIs provide a proxy system for reducing the burden on individual corporate auditors by providing their own complementary systems of monitoring, enforcement and information dissemination.

BOX 4.2

Drivers for transparency among VSIs

A growing demand for information on the governance, criteria, verification systems and impacts of VSIs is being driven by multiple factors, including (1) VSI market growth, (2) proliferation of competing initiatives, (3) demands from stakeholders to be able to participate actively in the development and governance of VSIs, (4) developments in information technology, and (5) high profile accounting and greenwashing scandals.

But the demands upon VSIs for enhancing institutional transparency are being driven by a number other factors as well. On the one hand, the mere growth in the market authority and presence that VSIs command is raising the importance of questions related to impacts on markets and industry. As VSIs establish the rules of trade for mainstream supply chains, the impact of the initiatives on international markets will also grow, increasing the incentives for disclosure requirements among different economic actors. On the other hand, the growing proliferation of initiatives, is forcing external stakeholders to ask more sophisticated questions about the characteristics and impacts of such initiatives. At the same time, developments in information technology are making it increasingly feasible (e.g., necessary) to meet these growing demands. Finally, and perhaps most relevantly to the VSIs themselves, the commitment to sustainable development includes a commitment to promoting participatory governance. Increased organizational transparency among VSIs provides a vehicle for facilitating participatory governance across the initiatives themselves and the markets they operate within. To the extent that VSIs have relied on participatory governance to build trust with different stakeholder groups in the market, transparency represents an important instrument for maintaining trust and market buy-in.

The process of gathering the information for this Review required significant effort, with different initiatives displaying a wide array of preparedness to provide information relevant to the SSI indicators. The most challenging portion of the data collection process, and therefore efforts to promote enhanced transparency within the VSI sector, revolved around the collection of market and other impacts data. As a general rule, the market data available through the different initiatives were extremely sparse and largely incomplete. Where data existed, definitions and methodologies related to the collection and calculation processes were often difficult to ascertain. Although the initiatives displayed a high level of interest and willingness to work toward more standardized and regular reporting throughout the data collection process, the current state of internal reporting on market data, in particular, would appear to be an area where both internal and external investment is highly warranted.

In recognition of the above, VSIs have, of course, already made considerable strides in ensuring their own organizational transparency. At present, however, and in the absence of any common framework regarding what VSI transparency should look like, the efforts have been largely uncoordinated and piecemeal in nature—giving rise to a patchwork of information that is of variable use to markets and stakeholders.

This report offers one starting point for the development of such a common framework. The SSI indicators, which form the basis of the Review, are the result of a year-long international, multi-stakeholder consultation process aimed explicitly at identifying "what matters" to stakeholders working with VSIs. As such, the SSI indicators offer an important input into building the transparency, and overall sustainability, of the VSI sector.

At the same time, the organizations that agreed to proactively participate in the SSI Review (and affiliated T4SD project under the International Trade Centre) should be recognized for their efforts in promoting this objective. The majority of the information contained in the market and general characteristics sections of this report has been provided and/or verified by the VSIs themselves—a demonstration of their commitment to promoting the transparency of their organizations and, more generally, the sector. Without the active input and support of these organizations, this report would have been impossible to prepare.

5 Drawing Conclusions

The purpose of this report has been to provide a preliminary overview of the status of major VSIs operating in the forestry, coffee, tea, banana and cocoa sectors. Although one of the undeniable conclusions emanating from our initial overview is the potential and need for heightened systematization and access to information within the VSI sector, several broader observations on the state of play across VSIs can be made based on the data collected.

Our review of market trends across the three sectors reveals that markets across all sectors and initiatives are growing significantly faster than conventional markets for similarly situated products. The entry of new players explicitly targeting mainstream markets has, in the case of the forestry and coffee sectors, led to skyrocketing growth over a very short period over the past few years. The strength of this growth signals several opportunities for stakeholders participating in sustainable supply chains.

First, as sustainability enters mainstream markets, the ability to attract mainstream consumers and investment dollars represents a new and important influx of revenue and capital into sustainable production. Second, as the reach of different sustainability programs grows, the supply chains serving the respective sectors can be expected to benefit from the management infrastructure that VSIs bring with them—ranging from improved monitoring and enforcement, to improved access to technical assistance. Finally, at the highest level, the continued growth of sustainability initiatives shows that real demand does exist for sustainable products and services. The mere existence of criteria-based VSIs does appear to be playing a major role in facilitating market recognition and valuation of sustainable practices.

The full scope of market impacts at the firm and farm levels however, remains an unanswered and, to a large degree, unanswerable question, based on current data available from both the sustainability initiatives themselves and from third-party sources. Clearly, the sector and global stakeholders would benefit from more regular, transparent and harmonized reporting on basic market trends associated with production and consumption. A better understanding of the firm and field level costs of compliance will also be critical in determining how and where sustainability initiatives are fulfilling their promise of improved livelihoods for poorer suppliers.

Regardless of the specific answers to these questions, one thing is clear—more developed and organized regions are gaining privileged access to sustainable markets. In every sector, sustainable production was found to be dominated by more developed markets or markets with

an established history in supplying sustainable markets. The starkness of this trend will be disquieting to the initiatives and to investors behind such initiatives who seek to target those most in need through VSIs. If the promise of improving the lives of those most in need is to be fulfilled, it would appear that proactive and explicit efforts to ensure this will be necessary in the near future.

Turning to our review of the content of the different initiatives, system criteria of the initiatives surveyed are dominated by social and environmental, rather than economic, requirements. On the social side of the spectrum, health and safety requirements, as well as compliance with core ILO conventions, were covered by most of the initiatives reviewed. Living wage and gender related criteria were, by contrast, largely absent from the initiatives reviewed. On the environmental side of the spectrum, strong criteria coverage was observed across water, soil, synthetic inputs and GMO categories. Only two of the reviewed initiatives contained criteria related to carbon and these were only recommendations. On the economic frontier, only two initiatives stipulated a premium as a part of their criteria, although several others stipulated good commercial practices within their criteria. Those areas where criteria are relatively undeveloped (carbon, gender, living wages and so forth) may represent important opportunities for initiatives seeking to expand their impacts and/or distinguish themselves from other initiatives.

Our review of the verification and implementation systems being applied by different initiatives suggests a relative degree of consolidation around annual audit practices and, in particular, the application of ISO 62 methodologies for determining sampling sizes. Although there is relative consistency in the general methodology, two observations are worth noting. First, although the basic rules are quite similar across initiatives, there also appears to be a high degree of flexibility in the way the rules are applied, with many examples of audits or audit types being left to the discretion of management. Second, as the number of firms or farms within a certification unit increase, the integrity of the ISO 62 square root method for selecting sampling sizes for audits may be challenged as the actual percentage of additional audits decreases rapidly as overall size increases. Finally, although there are clear indications that many of the initiatives reviewed in this report have made explicit attempts to facilitate subsidiarity through more localized participation, the relative concentration of supply in Latin America (agriculture) and OECD countries (forestry) suggests that special efforts need to be made to ensure more equitable access among lesser developed regions.

Our review of the governance systems across the ten initiatives revealed a high degree of variety in governance mechanisms and organizational structures. Stakeholders upstream on the supply chain and, in particular, from the developing world, are participating actively in management of the majority of the initiatives. At the same time, in almost every initiative developing country representation on the Board of Directors was in the minority. The specific area of dispute resolution (judicial governance), was found to be relatively underdeveloped across most initiatives. Only a small minority of the initiatives refer to an independent dispute resolution body while the mechanisms for registering complaints from the field were found to be scarce at best. Perhaps not surprisingly, public access to the outcomes of disputes and other decisions were found to be more or less non-existent across initiatives.

All in all, the potential of sustainability initiatives to enable important impacts on the ground appears to be vindicated by the data collected for this report; however, no credible answer to this question is possible given the current state of data collection and reporting. If anything, this initial review has been an exercise in understanding the current state of information regarding sustainability initiatives and the need for enhance coordination and harmonization of reporting. Furthermore, although this Review has not attempted to report on field level impacts, stakeholders throughout the process have repeatedly, and emphatically, underlined the need for such information as part of a larger transparency building process. Access to accurate and meaningful information, as has already been noted frequently throughout the report, is necessarily a fundamental starting point for building sustainability through market-based initiatives.

Although, more robust and coordinated reporting on markets and other impacts may seem a simple enough request, the experience in gathering data for this report suggests otherwise. Where the main order of business is the development, management and implementation of a select set of sustainability criteria, and where those implementing sustainability criteria are competing with conventional products, the resources available for additional data collection and research on impacts are often simply unavailable.

Given this context, there is a clear role for policy-makers and other investors to stimulate the continued improvement and impact of VSIs by investing in a harmonized and comparable system of reporting and impacts measurement. As the SSI project moves forward in the publication of further Reviews and other reporting services, the SSI management team is committed to generating the resources necessary to facilitate the adoption of common reporting and measurement systems across VSIs. We will not, however, be able to achieve this objective on our own. We look forward to your input, guidance and support in bringing enhanced transparency to international markets.

6 References

Note: The following is a partial list of the references used in creation of the SSI Review. This list should be read in conjunction with Appendix IV, which lists the specific documents used to assess performance of VSIs against the SSI indicator list.

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Appendix I:

The SSI Indicators

The following table lists the core indicators—characteristics and vital statistics of voluntary sustainability initiatives—that the State of Sustainability Initiatives project seeks to monitor on a regular basis. The definitions below provide high level descriptions of each indicator. The non-market indicators in the list are also found within the International Trade Centre's T4SD (Trade for Sustainable Development) database.

The data corresponding to this table's general information and standards content indicators are listed in Appendix II, with the exception of the indicators highlighted with a grey box, for which data were either unavailable or of questionable integrity. Systems information indicators can be found within the text and tables of Sections 1.0 and 2.0 of this report, while market indicator data can be found in the commodity-specific market subsections of Section 3.0.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
GENERAL INFORMATION	
Organization type	The type of the sustainability initiative is private or public. A public organization is an organization that has been established and has a mandate set out in law as a government or intergovernmental body. A private organization is any organization that does not fall into one of those categories.
Legal form of organization	Either profit or not-for-profit. In a for-profit organization, the profits that are not re-invested in the organization are distributed to the owners/shareholders of the corporation as cash. In the case of a non-profit organization, the profits are used to provide goods or services to the group or groups the non-profit was formed to help. A for-profit is legally owned and controlled by the investors, where a not-for-profit has no legal owners.
Primary objective	Defines the main activities of the organization in the following subcategories: **Standard setting:** The initiative develops a standard that sets requirements to be followed by program participants (e.g., FLO). **Framework:** The initiative provides guidance for decision-making or action to achieve an objective (e.g., GRI, ISEAL). **Certification:** The organization acts as a third party and gives written assurance that a product, process or service is in conformity with certain standards (e.g., SGS). **Accreditation:** The organization acts as an authoritative body that evaluates and formally recognizes a certification program (e.g., IFOAM). **Independent project:** A group working with metrics that might influence or lead to the development of a voluntary standard (e.g., Keystone Field to Market). **Marketing and labelling:** The primary business of the organization is marketing and/or labelling (e.g., Rainforest Alliance).

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
GENERAL INFORMATION (continued)	
Total annual income	The organization's annual budget. The total annual income is calculated by adding the annual income brought in by grants, membership fees, services and other income sources (before tax deductions).
Distribution of income sources	The percentage of total income from: • Grants/donations • Membership fees • Services • Other sources
Total annual expenditures	The total amount of money that the initiative spends during one fiscal year.
Percentage of expenditures for administration	The percentage of total annual expenditures used for administrative purposes, as reported on legal tax documents.
Geographic restriction	The geographic scope of the initiative. If the organization operates on a global level, the geographic restriction is classified as "unrestricted." If the organization operates only within one region or country, the geographic region is identified.
Industry restriction	Identification of the industries to which the initiative pertains. If the organization operates across a range of industries, it is classified as "unrestricted." If the organization specifically operates only within one industry, such as forestry, it is classified as "restricted." This category also refers to potential industries, not only the current industry for which a standard has been developed.
Standard system type	Identification of the coverage of an organization into one of the following categories: **Generic system:** The initiative is not limited to any particular product or process. The criteria/indicators remain the same for all products/processes. **Integrated system:** The initiative can certify an entire enterprise as a system. There are different criteria/indicators for each product/process. **Product/process-specific:** The initiative pertains to one or more products or processes.
Target constituent focus	The constituent focus provides an indication of the target of the initiative (individual, group or cooperative).
Target constituent size	Identification of whether the initiative's target constituents are micro-enterprises/businesses, small and medium sized enterprises, or large multinational enterprises/businesses. Categories were defined through local thresholds based on various factors, including sales and number of employees.
Activities monitored	The activities that the organization oversees in one of the following categories: **Production/extraction:** Standard system coverage is limited to the first stage of the supply chain and primary products: changing or extraction of natural resources into primary products including agriculture, forestry, mining, petroleum, hunting and fishing.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
GENERAL INFORMATION (continued)	
Activities monitored	**Conversion:** The standard system focuses on the next stage of the supply chain, taking raw materials and natural resources as inputs for conversion or processing into a higher value product. **Trade and retailing:** The standard system focuses on the purchase and sale of the product to an end consumer. **Chain of Custody:** The standard system focuses on Chain of Custody: documentation of product control, transfer and processing throughout the supply chain. **Communication claims/labelling:** The standard system coverage focuses on verifying claims and labelling.
MARKET INDICATORS	
Total compliant production volume	Volume of compliant product that is produced in each country, even if not sold as certified.
Total area compliant	Total hectarage of land on which compliant product is produced in each country.
Total number of certificates	Sum of all certificates issued, per product and per country.
Number of compliant producers	Total number of producers, including those organized under group, resource manager, community or cooperative certificates.
Total volume of exports (per product/per country)	Volume exported to be sold labelled as compliant product upon departure from exporting country.
Total volume of imports (per product/per country)	Volume imported to be sold labelled as compliant product upon arrival in importing country.
Total volume of retail sales (per product/country)	Volume of product sold as compliant at the point of sale.
Premiums	The average range of price premiums per product in product volume unit, e.g., coffee US$0.04–0.10 per kg. A price premium is the difference between the price of a similar conventional (non-certified) product and a product that is compliant with a given initiative.
Certification costs	The cost of certification of a compliant product, per product unit (i.e., total certification fees + estimated auditing costs) paid by the producer or business owner.
Chain of Custody (CoC) costs	The costs (fees and audit costs) for CoC certification for all supply chain actors.
Type of CoC costs	The manner in which CoC costs are calculated, such as actual audit costs, as a percentage of sales or other criteria.
Retention rates	Returning certificate holders as a percentage of total certificate holders from the previous year.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
STANDARDS CONTENT INDICATORS	
Performance standard	Performance standards focus on social and environmental requirements related to the characteristics of the product itself. This stands in contrast to process and production based standards.
Continual improvement requirement	A defined continual improvement requirement is explicitly written into organizational documents.
STANDARDS CONTENT INDICATORS – *Environmental*	
Greenhouse gas (GHG) index	Explicit inclusion of carbon related requirements, including **carbon accounting criteria** (requirement to measure carbon emissions), **GHG emissions reduction criteria** (requirement to manage GHG emissions), and **soil carbon sequestration criteria**.
Energy index	Explicit inclusion of on-site **energy reduction** criteria, as well as criteria pertaining to **energy use and management**.
Waste index	Explicit inclusion of indicators pertaining to **waste management, waste disposal,** and **pollution** (minimizing the introduction of contaminants into an environment that would cause instability, disorder, harm or discomfort to the ecosystem in the form of chemical substances, or energy, such as noise, heat, or light).
Water index	Explicit inclusion of water management and sustainability of water availability criteria: **Dependencies (areas of shortage):** Requirement to address water use in areas of scarcity or high risk. **Water use/management:** Requirement of a plan that includes planning, developing, distributing and optimal use of water resources under defined management strategies. **Water reduction criteria:** Water conservation management plan to reduce water use. **Waste water disposal:** Requirement of appropriate wastewater disposal.
Soil index	Explicit inclusion of soil quality, stability and long-term viability criteria: **Conservation:** Management plan and practices to conserve soil and avoid soil loss through erosion, such as contour ploughing and reforestation. **Quality:** Soil quality reflects how well a soil performs the functions of maintaining biodiversity and productivity, partitioning water and solute flow, filtering and buffering, nutrient cycling, and providing support for plants and other structures.
Biodiversity index	Explicit inclusion of criteria related to protection of natural habitat, biodiversity and ecosystem function: **Habitat set-asides:** Standard document requires areas not to be used for production/extraction in order to conserve, protect and restore habitat areas for wild plants and animals. **Flora density/diversity:** Standard document addresses plant genetic density (space) and diversity.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
STANDARDS CONTENT INDICATORS – *Environmental* (continued)	
Biodiversity index (continued)	**Land conversion:** Standard document prohibits conversion of High Conservation Value land.
GMO prohibition	Explicitly written statement about GMO prohibition in standard documents.
Synthetic input criteria	The degree of regulation for pesticide usage, chemical waste and energy use, categorized by the following. **Unregulated:** There is no regulation placed on the levels of synthetic inputs. **IPM:** Synthetic inputs may be used but within defined limits under an IPM system. **Prohibited list:** Synthetic inputs are allowed but only those that do not appear on a list of prohibited materials. **Prohibition** of synthetic inputs means that no synthetic inputs may be used.
STANDARDS CONTENT INDICATORS – *Social*	
ILO Core 8 convention compliance requirements	ILO Core 8 convention requirements are explicitly written into organizational documents: #29-Forced Labour (1930), #87-Freedom of Association and Protection of the Right to Organize (1948), #98-Right to Organize and Collective Bargaining (1949), #105-Abolition of Forced Labour (1959), #138-Minimum Age (1973), #182-Worst Forms of Child Labour (1999), #100-Equal Remuneration (1951), #111-Discrimination (1958).
UN Declaration of Human Rights compliance requirements	The initiative incorporates the UN Declaration of Human Rights into a standard of living adequate for the health and well-being of individual and family, specifically, access to **education, medical care, housing and sanitary facilities**.
Health and safety index	Identification of safety requirements (e.g., safety and emergency kits) and healthy working conditions for employees covered by the initiative, including sanitary facilities, potable water, access to medical assistance/insurance, and training.
Gender index	Although gender issues are cross-cutting, the index contains the following requirements, which especially highlight specific issues for women: **Governance:** Initiative promotes and monitors women in Board and management positions. **Women's labour rights:** The initiative includes explicit criteria to protect women employees' rights (e.g., pregnancy testing). **Women's health and safety:** The initiative includes explicit criteria for women employee health and safety issues.
Employment benefits index	Standard document includes requirements for pensions/social security benefits and leave days (e.g., vacation days, maternity/paternity leave).
Employment conditions index	Standard document includes employment security criteria: • written contracts (rather than verbal agreements), • transparency of employment practices (meaning policies and practices are written, accessible and understandable to all workers); and indicators of employment conditions: • timely payment of wages, • treatment of contract workers, • no physical violence/intimidation, and • maximum number of working hours

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
STANDARDS CONTENT INDICATORS – *Social* (continued)	
Community benefits	Identification of whether the standard document includes a policy for preference for local suppliers and hiring.
Community consultation	The degree to which a standard document explicitly requires business to consult with local communities: **Input:** Community is included in standard development and implementation processes. **Planning:** Standard document requires businesses to consult with communities during the planning stage. **Enforcement:** Does the community have a role in ensuring enforcement of compliance? Are there mechanisms to allow community members to report problems?
Animal welfare	Criteria specifying the humane treatment of animals.
STANDARDS CONTENT INDICATORS – *Economic*	
Living wage criterion	No universal definition, based on comparative local wages and local cost of living. The living wage allows the employee to pay minimal living expenses (housing, food, utilities and education), including health insurance.
Minimum wage criterion	Minimum wage—as defined by local, regional or national law—must be paid to workers in certified operations.
Product quality requirement	Specifications for minimum physical product quality are explicit within standard document (e.g., Nespresso AAA "grand cru" coffee standards).
Premium requirement	As part of the standard, a premium over the conventional price of the product is required for the producer.
Separate Chain of Custody (CoC) standard	Adherence to separate standard that defines the principles, criteria and indicators fo CoC.
CoC model	CoC model based on: **Identity preservation:** The identity preservation model requires physical separation, tracking and documentation at every stage of the supply chain. **Segregation:** The segregation model ensures that compliant products are kept segregated from non-compliant products during all stages of the supply chain. **Mass balance:** The amount of certified product sourced and sold by each supply chain actor is tracked. However, the certified product and "sustainable" certificates do not need to be sold together (for example, FSC mixed sources). **Book and claim:** "Sustainable" certificate granted based on the application of sustainable practices, but certificate is completely decoupled from the product and transferable on the market.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
STANDARDS CONTENT INDICATORS – *Economic* (continued)	
Percentage of content requirements for labelling	Percentage of compliant product to be included in finished packaged product—necessary for the product to be labelled compliant—is specifically set out in the standard.
Scope of CoC requirements	Scope of CoC requirements based on: **Traceability:** CoC requirements ONLY address traceability of product within supply chain. **Environmental:** CoC standard contains environmental criteria for supply chain actors, such as energy use, water use and carbon emissions. **Social:** CoC standard contains social criteria for supply chain actors, such as labour rights, human rights, and local community issues.
SYSTEM INDICATORS	
Board representation by type	Percentage of total board members who represent producers, who are part of the industry (e.g., traders), who represent workers' associations or unions, or who belong to a civil society organization.
Board representation by region	Percentage of total board members who are from developed countries or developing countries.
Board member selection	Board members selected by stakeholders/individuals and institutions interested and involved in the initiative, recognized members of the initiative, established board members, or other stakeholders.
Stakeholder participation in standard development	Level of participation in standard development. **Consultation:** Stakeholders are asked their opinions pertaining to standard development. **Decision-making:** Stakeholders have the power to reject/accept/influence the decisions made during the standard development process.
Stakeholder participation in dispute resolution	Level of participation in dispute resolution. **Consultation:** Stakeholders are asked their opinions pertaining to dispute resolution. **Decision-making:** Stakeholders have the power to reject/accept/influence the decisions made during the dispute resolution process.
Independent dispute settlement body	A dispute settlement body that is not made up of the organization's board members has been established and formally recognized in writing.
Public disclosure indicators	Public access to lists of decision-makers including Board members and Committee members, lists of certified enterprises, and complaints/appeals/resolutions/certification decisions. Additional components include minutes of Board and committee meetings available online or upon request, and public access to important documents such as financial statements and annual reports.
Complaints-related indicators	Public access to policy and procedures for complaints on certification decisions, complaint procedures made available in a local language, acceptance of complaints launched by informal means, and ability to launch complaints at local level.

INDICATOR NAME	DEFINITIONS/DESCRIPTIONS
SYSTEM INDICATORS (continued)	
Formal monitoring and evaluation system	The initiative adheres to an accredited standard's M&E systems, such as those defined by ISO or ISEAL.
Relationship to ISEAL	The initiative is a full or associate ISEAL member (in future SSI reports, this indicator will specify compliance with the ISEAL Impacts Code).
ISO compliant (61, 65, or 17011/17021)	Organization's standards are verified externally or peer reviewed as compliant with ISO/IEC Guide (61, 65, 17011/ 17021).
Type of conformity assessment used	**Certification:** A procedure by which a third party gives written assurance that a product, process or service is in conformity with certain standards (ISO Guide 2, 1996) (e.g., SGS). **Accreditation:** The evaluation and formal recognition of a certification program by an authoritative body (e.g., IFOAM). **Verification:** A systemic and functionally independent examination to determine whether production processes and/or products comply with standards (e.g., 4C Association).
Frequency of audits	Frequency of full assessment as required by standard.
Percentage of audit sample	Percentage or formula for calculating the number of sites, producers or businesses within a group that must be physically audited in any given assessment.
Regional standard development	Initiative allows for adaption of standards to regional contexts.
Localized indicators	Initiative allows for adaption of indicators to local contexts.
Separate standards and/or processes for smallholders	Standards and/or processes have been written specifically for smallholders and differ from the standards/processes for large producers.

Appendix II:

SSI Indicators—Complete List

The SSI core indicator overview table provides the raw data as gathered against the SSI non-market indicator sets. The SSI indicators represent vital statistics for the VSI sector and are intended as one input into the strategic development and growth of the VSI sector. Some of the VSIs covered in this report prescribe customized criteria depending on the region or location. ***It is critical to note that this appendix only documents the specific requirements presented at the global level. Actual criteria at the national or regional level may, in certain cases, actually be higher than those specified below.*** The green symbols in the appendix below highlight indicators sets that have been identified as having more detailed and stringent criteria at the regional or national level and therefore represent indicator sets that must be taken with particular caution. Documents surveyed in the preparation of this text are listed in the reference list Appendix IV. All data listed is derived from the T4SD database and, wherever possible, has been verified by the VSIs themselves. For the most up-to-date data, please visit the T4SD website at www.intracen.org.

DEGREE OF REQUIREMENT

○ No requirement ⊕ Recommended ◒ Required as a long-term objective ◐ Required in less than 3 years ◔ Threshold ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
ENVIRONMENTAL										
Soil										
Conservation/erosion	●	●	●	◒	◐	●	●	⊕	○	⊕
Quality	●	○	●	○	◐	●	●	⊕	○	⊕
Synthetic Inputs										
Complete prohibition	⊕	○	○	○	○	○	●	○	○	○
Prohibited List	●	○	○	●	●	●	●	●	○	●
IPM/ICN	●	●	●	⊕	◐	⊕	●	●	○	●
Biodiversity										
Flora density/diversity	●	●	●	◒	○	⊕	○	⊕	○	○
Habitat set asides	●	●	●	○	○	○	⊕	⊕	○	◔
Land conversion	●	●	○	○	○	○	●	⊕	○	●
GMO Prohibition	●	●	○	⊕	○	◐	●	○	○	●
Waste										
Use/management	●	●	●	◒	○	●	●	⊕	○	⊕
Disposal	●	●	○	◒	○	●	○	⊕	○	⊕
Pollution	⊕	○	○	○	●	●	●	●	○	⊕
Water										
Dependencies	○	○	○	○	●	⊕	⊕	◐	○	○
Use/management	●	○	●	◒	◐	⊕	●	⊕	○	◐
Reduce	○	○	●	◒	◐	⊕	⊕	◐	○	◐
Disposal	○	○	○	◒	●	●	○	○	○	●

● Symbols in green indicate that a higher degree of requirement is applied by regional/national standards.

○ Symbols with a yellow border denote indicators that are included in local and state laws in the US. Because the SFI standard requires compliance with local and state laws, SSI estimates the actual "on-the-ground" degree of requirement to be "required" for this indicator.

DEGREE OF REQUIREMENT

○ No requirement | ⊕ Recommended | ◒ Required as a long-term objective | ◐ Required in less than 3 years | ◔ Threshold | ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Energy use/management	○	○	○	◒	◐	⊕	○	⊕	○	○
Reduce	○	○	○	◒	○	⊕	○	○	○	◐
Greenhouse gas										
Emissions measured	○	○	○	○	○	○	○	○	○	○
GHGs	○	○	○	○	○	○	○	○	○	○
Soil	○	○	○	○	○	⊕	○	○	○	⊕
SOCIAL										
UN Declaration Requirements										
Education	●	●	○	◒	⊕	⊕	⊕	○	●	⊕
Medical care	●	●	○	○	●	⊕	⊕	⊕	●	⊕
Housing and sanitary facilities	●	●	○	●	◐	⊕	⊕	◐	●	⊕
ILO Core 8 Conventions										
Equal Remuneration	●	●	●	◒	●	●	⊕	●	●	●
Freedom of Association	●	●	●	●	●	●	●	●	●	⊕
Collective Bargaining at Work	●	●	●	◒	●	●	●	●	●	⊕
No discrimination at work	●	●	●	◒	●	●	●	●	●	●
No forced labour	●	●	●	●	●	●	●	●	●	●
Worst forms of child labour	●	●	●	●	●	●	●	●	●	●
Minimum Age	●	●	●	●	●	●	○	●	●	●
Gender										
Gender governance	○	○	○	○	○	⊕	○	○	○	○
Women's labour rights	●	○	○	◒	○	●	⊕	○	●	○
Women's health & safety	●	○	○	○	●	⊕	○	○	●	○
Health and safety										
Safety at work	●	●	●	◒	◐	●	○	●	●	◐
Healthy work conditions	●	●	○	◒	●	●	○	●	●	◐
Workers' access to safe drinking water	●	●	○	●	◐	●	⊕	●	●	◔
Workers' access to sanitary facilities at work	●	●	○	◒	◐	●	○	●	●	◐
Workers' access to medical assistance/insurance	●	●	○	○	●	●	○	○	●	◐
Training on site	●	●	●	◒	●	●	○	●	●	◐

● Symbols in green indicate that a higher degree of requirement is applied by regional/national standards.

○ Symbols with a yellow border denote indicators that are included in local and state laws in the US. Because the SFI standard requires compliance with local and state laws, SSI estimates the actual "on-the-ground" degree of requirement to be "required" for this indicator.

● Symbols in orange indicate that the indicator is part of the GLOBALGAP Risk Assessment on Social Practices (GRASP) Module, which is an optional assessment that can be done at the same time as a GLOBALGAP audit but is not required for GLOBALGAP certification.

DEGREE OF REQUIREMENT

○ No requirement | ⊕ Recommended | ◒ Required as a long-term objective | ◐ Required in less than 3 years | ◔ Threshold | ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Employment conditions										
Contract labour	○	○	○	○	◒	●	○	●	●	⊕
Transparency of employment practices	○	○	○	◒	◐	●	○	●	●	⊕
Written contracts	○	○	○	◒	◐	●	⊕	●	○	⊕
Timely payment of wages	○	○	○	○	◐	●	○	●	○	◔
Maximum # of working hours	○	○	○	◒	●	●	○	●	◐	◔
No use of physical violence, intimidation	○	○	●	●	●	●	○	●	◐	◐
Employment benefits										
Leave days (incl. maternity/ paternity leave)	○	○	○	○	◐	●	⊕	●	◐	◔
Pensions and security benefits	○	○	○	○	○	◒	⊕	○	◐	○
Community involvement										
Community consultation	●	●	●	○	○	○	○	○	⊕	⊕
Local Hiring and Purchasing	⊕	○	○	○	○	○	○	○	○	⊕
Humane treatment of animals	○	○	○	○	○	⊕	●	○	○	○
ECONOMIC										
Minimum Wage	●	○	●	◒	●	●	○	●	●	◐
Living Wage	○	○	○	○	○	●	○	○	●	○
Price premium	○	○	○	○	◐	●	○	○	○	○
Written contracts between buyers and sellers	○	○	○	⊕	○	●	○	○	○	○
Product quality requirements	○	○	○	◒	●	●	●	●	○	○
CHAIN OF CUSTODY										
Separate CoC Standard	yes	yes	yes	no	yes	yes	no	yes	no	yes
CoC model										
Identity Preservation	yes	yes	yes	yes	yes	no	no	yes	no	yes
Segregation	yes	yes	yes	yes	yes	yes	yes	yes	no	yes
Mass Balance	yes	yes	yes	no	yes	no	no	yes	no	no
Book and Claim	yes	no	no	no	no	no	no	no	no	no

○ Symbols with a yellow border denote indicators that are included in local and state laws in the US. Because the SFI standard requires compliance with local and state laws, SSI estimates the actual "on-the-ground" degree of requirement to be "required" for this indicator.

○ Symbols in orange indicate that the indicator is part of the GLOBALGAP Risk Assessment on Social Practices (GRASP) Module, which is an optional assessment that can be done at the same time as a GLOBALGAP audit but is not required for GLOBALGAP certification.

DEGREE OF REQUIREMENT

○ No requirement | ⊕ Recommended | ◍ Required as a long-term objective | ◐ Required in less than 3 years | ◔ Threshold | ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Traceability verification process										
Internal	yes	yes	yes	yes	yes	yes	no	yes	no	yes
External	yes	yes	yes	no	yes	yes	yes	no	no	no
Independent	yes	yes	yes	yes	yes	no	no	yes	no	no
Procedures for CoC claims and labelling	yes	yes	yes	no	yes	no	yes	yes	no	yes
Scope of CoC requirements										
Traceability requirements	●	●	●	◍	◐	◍	●	●	○	◐
Environmental requirements										
Energy requirements	○	○	○	○	○	○	○	○	○	⊕
Water requirements	○	○	○	○	○	○	○	○	○	⊕
Carbon requirements	○	○	○	○	○	○	○	○	○	○
Other requirements	●	○	●	○	○	○	○	○	○	○
Social requirements										
Human rights	●	○	○	◍	○	○	○	○	○	⊕
Work/labour rights	●	○	●	◍	○	○	○	○	○	○
Local community	○	○	○	◍	○	○	○	○	○	○
Other requirements	●	●	●	⊕	○	○	○	○	○	⊕
Policies for labelling claims	yes	yes	yes	yes	yes	yes	yes	yes	no	yes
Policies for composite products	yes	yes	yes	no	yes	yes	yes	no	no	yes
ADHERENCE TO META-INITIATIVES										
ISEAL Alliance										
Full member	yes	no	no	no	yes	yes	yes	no	yes	yes
Associate member	no	no	no	yes	no	no	no	yes	no	no
Compliant to ISEAL Impact Code	yes	no	no	no	yes	no	no	no	yes	no
ISO 65	yes	yes	yes	no	yes	yes	no	yes	yes	no
ISO 17000/17011/17021	yes	yes	yes	no	no	no	no	no	yes	no

DEGREE OF REQUIREMENT

○ No requirement | ⊕ Recommended | ◍ Required as a long-term objective | ◐ Required in less than 3 years | ◔ Threshold | ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
TRANSPARENCY										
Public access to reports										
Summary of standard setting org's financial statements	yes[a]	yes[b]	no	yes	yes	yes	yes	yes	yes	yes
Independently audited *full* financial statements	no	no	yes	no	no	no	no	yes	yes	yes
Annual report	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Public information on certification decisions	yes	yes	yes	no	no	no	no	no	yes	no
Public information on certified operations	yes	yes	yes	no	yes	yes	no	yes	yes	yes
Public access to standards documents	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
On website	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Available in different languages	yes	no	no	yes	yes	yes	yes	yes	yes	yes
Stakeholder participation on boards and committees	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Distribution of voting rights on board (%)										
Producer	11	8.33	12.5	33	20	28.57	30	50	0	0
Industry/private sector	33	16.67	31.25	33	0	14.28	10	50	44.44	0
Workers' associations/unions	0	33.33	12.5	0	0	0	10	0	15.56	0
NGO & civil society	44	33.33	43.75	33	60	50	20	0	31.11	100
Board composition by continent (%)										
Asia	0	8.33	0	0	0	7.14	40	0	6.66	0
Africa	11	0	0	0	0	14.29	10	0	0	0
Australia & Oceania	0	8.33	0	0	0	14.29	10	0	0	0
Caribbean	0	0	0	0	0	0	0	0	0	0
Europe	33	50	0	60	60	42.86	20	75	53.33	0
Middle East	0	0	0	0	0	0	0	0	0	22
North America	11	33.33	100	0	0	7.14	10	17	33.33	78
South America	44	0	0	40	40	14.29	10	8	6.66	0

[a]Up until 2007

[b]Up until 2006

DEGREE OF REQUIREMENT

○ No requirement | ⊕ Recommended | ◍ Required as a long-term objective | ◐ Required in less than 3 years | ◔ Threshold | ● Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Selection of board members										
Based on membership	yes	no	no	no	no	no	yes	yes	no	yes
Based on stakeholder votes	yes	yes	no	no	no	yes	no	yes	no	no
Other	no	no	yes≈	yes	no	no	no	no	yes≈	No
Public access to list of Board members	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Public access to list of committee members	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Public access to meeting minutes and records	yes∞	no	yes∞	no	no	yes∞	no	no	no	no
Stakeholder consultation in standard setting process	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Stakeholder decision making in standard setting process	yes	yes	no	yes	yes	yes	no	no	yes	no
Standard setting and review procedures available										
On website	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Different languages	yes	no	no	yes	yes	yes	no	no	no	yes
Complaints and dispute resolution procedures available										
On website	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Different languages	yes	yes/noΔ	no	yes	no	yes	no	no	yes	yes
Complaints and dispute resolution processing										
At a local level	yes	yes	yes	no	no	yes	no	yes	yes	no
Formal	yes	yes	yes	yes	yes	no	yes	no	yes	no
Informal	yes	no	yes	yes	no	yes	no	yes	yes	no
Independent dispute settlement body	yes	yes	yes	yes	no	no	no	yes	yes	no

≈ Nominated and elected by other board members.

∞ While a variety of committee meeting minutes and records are publicly available for the indicated organizations, not all committee meeting minutes and records are posted online.

Δ PEFC does not handle certification complaints at a global level, but rather, handles complaints about endorsement decisions and these procedures are not available in other languages. Complaints about the decisions made by certification bodies or national schemes are handled at a local level and the procedures are available in the local language.

DEGREE OF REQUIREMENT

○	⊕	◒	◐	◔	●
No requirement	Recommended	Required as a long-term objective	Required in less than 3 years	Threshold	Critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Public access to										
Complaints	no	no	no	no	no	no	no	no	yes	no
Appeals	no	no	no	no	no	no	no	no	yes	no
Resolutions	no	no	no	no	no	no	no	no	yes	no
OTHER										
Subsidiarity										
Local auditors engaged in the verification process	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Regional standard development	yes	yes	no	no	yes	no	yes	yes	no	no
Localized indicator development	yes	yes	no	no	yes	yes	no	yes	no	yes
Separate standards for smallholders	yes	no	no	no	yes	yes	no	yes	no	yes
Formal M&E system	yes	no	yes	yes	yes	yes	no	yes	yes	yes
Compliance criteria for verification/certification										
Process based	yes	yes	no	yes	no	yes	yes	yes	yes	yes
Performance based	no	no	yes	yes	yes	no	no	no	no	yes

Note: PEFC is adopting a revised standard as of November 2010 (pending approval by the PEFC General Assembly). Updated indicator data can be found in the T4SD database.

Appendix III:

Calculations for Indexes Discussed in This Report

The following table lists individual calculations based on the degree of obligation and criteria coverage along the SSI indicators and serves as the source table for Figures 2.8 through 2.10. The analysis was applied only to globally applicable standards and therefore does not take into account national or regional variations. Given the many factors that determine outcomes on the ground, this scale *should not* be read as a proxy for actual impacts in any given area.

0 no requirement	**1** recommended	**2** required as a long-term objective	**2.5** required in less than 3 years	**3** threshold	**4** critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
ENVIRONMENTAL										
Soil Index	100%	50%	100%	25%	63%	100%	100%	25%	0%	25%
Conservation/erosion	4	4	4	2	2.5	4	4	1	0	1
Quality	4	0	4	0	2.5	4	4	1	0	1
Synthetic Inputs Index†	75%	0%	25%*	50%	50%	50%	100%	75%	0%	75%
Biodiversity Index	100%	67%	67%*	21%	0%	8%	42%	25%	0%	58%
Flora density/diversity	4	4	4	2.5	0	1	0	1	0	0
Habitat set asides	4	4	4	2	0	0	1	1	0	3
Land conversion	4	0	0	0	0	0	4	1	0	4
GMO Prohibition	100%	0%	0	0	0	63%	100%	0	0	100%
Waste Index	75%	33%	33%	33%	33%	100%	67%	50%	0%	25%
Use/management	4	0	4	2	0	4	4	1	0	1
Disposal	4	4	0	2	0	4	0	1	0	1
Pollution	1	0	0	0	4	4	4	4	0	1
Water Index	25%	0%	50%*	38%	78%	44%	38%	38%	0%	56%
Dependencies	0	0	0	0	4	1	1	2.5	0	0
Use/management	4	0	4	2	2.5	1	4	1	0	2.5
Reduce	0	0	4	2	2	1	1	2.5	0	2.5
Disposal	0	0	0	2	4	4	0	0	0	4
Energy Index	0%	0%	0%	50%	31%	25%	0%	13%	0%	31%
Energy use/management criteria	0	0	0	0	2.5	1	0	1	0	0
Reduce	0	0	0	0	0	1	0	0	0	2.5
Greenhouse Gas Index	0	0	0	0	0	6%	0	0	0	6%
Emissions measured	0	0	0	0	0	0	0	0	0	0
GHGs	0	0	0	0	0	0	0	0	0	0
Soil sequestration	0	0	0	0	0	1	0	0	0	1

† Different scoring for synthetic input index: 0 = no requirements; 25% = IPM; 50%= Prohibited List; 75% = IPM and prohibited list; 100% = complete prohibition

0 no requirement	**1** recommended	**2** required as a long-term objective	**2.5** required in less than 3 years	**3** threshold	**4** critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
SOCIAL										
Human Rights Index	0%	0%	0%	50%	63%	50%	25%	29%	100%	25%
Education	0	0	0	2	1	2	1	0	4	1
Medical care	0	0	0	0	4	2	1	1	4	1
Housing and sanitary facilities	0	0	0	4	2.5	2	1	2.5	4	1
Labour Standards Index	100%	100%	100%	79%	100%	100%	75%	0%	100%	79%
Equal Remuneration	4	4	4	2	4	4	1	0	4	4
Freedom of Association	4	4	4	4	4	4	4	0	4	1
Collective Bargaining at Work	4	4	4	2	4	4	4	0	4	1
No discrimination at work	4	4	4	2	4	4	4	0	4	4
No forced labour	4	4	4	4	4	4	4	0	4	4
Worst forms of child labour	4	4	4	4	4	4	4	0	4	4
Minimum Age	4	4	4	4	4	4	0	0	4	4
Gender Index	0%	0%	0%	17%	33%	67%	8%	0%	67%	0%
Gender governance	0	0	0	0	0	2	0	0	0	0
Women's labour rights	0	0	0	2	0	4	1	0	4	0
Women's health & safety	0	0	0	0	4	2	0	0	4	0
Health and safety index	33%	33%	33%*	50%	75%	100%	4%	83%	100%	65%
Safety at work	4	4	4	2	2	4	0	4	4	2.5
Healthy work conditions	0	0	0	2	4	4	0	4	4	2.5
Workers' access to safe drinking water	0	0	0	4	2	4	1	4	4	3
Workers' access to sanitary facilities at work	0	0	0	2	2	4	0	4	4	2.5
Workers' access to medical assistance/insurance	0	0	0	0	4	4	0	0	4	2.5
Training on site	4	4	4	2	4	4	0	4	4	2.5

0 no requirement	**1** recommended	**2** required as a long-term objective	**2.5** required in less than 3 years	**3** threshold	**4** critical

	FSC	PEFC	SFI	4C Association	UTZ	FLO	IFOAM	GLOBALGAP	SAI	Rainforest Alliance/ SAN
Employment conditions index	0%	0%	17%*	42%	73%	100%	4%	17%	54%	48%
Contract labour	0	0	0	0	2	4	0	0	4	1
Transparency of employment practices	0	0	0	2	2.5	4	0	4	4	1
Written contracts	0	0	0	2	2.5	4	1	0	0	1
Timely payment of wages	0	0	0	0	2.5	4	0	0	0	3
Maximum # of working hours	0	0	0	2	4	4	0	0	2.5	3
No use of physical violence, intimidation	0	0	4	4	4	4	0	0	2.5	2.5
Employment benefits index	0%	0%	0%	0%	31%	75%	25%	0%	63%	38%
Leave days (incl. maternity/ paternity leave)	0	0	0	0	2.5	4	1	0	2.5	3
Pensions and security benefits	0	0	0	0	0	2	1	0	2.5	0
Community involvement index	63%	50%	50%	0%	0%	0%	0%	0%	13%	25%
Community consultation	4	4	4	0	0	0	0	0	1	1
Local Hiring and Purchasing	1	0	0	0	0	0	0	0	0	1
Humane treatment of animals	0	0	0	0	0	50%	100%	0%	0	0
ECONOMIC										
Minimum Wage	100%	0	100%	50%	100%	100%	0	0	100%	63%
Living Wage	0	0	0	0	0	100%	0	0	100%	0
Price premium	0	0	0	0	63%	100%	0	0	0	0
Written contracts between buyers and sellers	0	0	0	25%	0	100%	0	0	0	0
Product quality requirements	0	0	0	50%	100%	100%	100%	100%	0	0

*If the requirements of US and Canadian law were to be considered in the index calculations, SFI's index scores would be:
Synthetic input index: 75%
Biodiversity index: 66%
Water index: 75%
Health and safety index: 100%
Employment conditions index: 100%

Appendix IV:

Sources of Information—SSI Indicator List

The following standards and Web pages comprise the sources of information used in compiling the indicators analysis for this report. The sources are grouped alphabetically by the ten sustainability initiatives reviewed in this report. See the Reference section for a complete listing of documents referenced in the report.

4C Association

4C Annual Report 2008

4C Unacceptable Practices Background, Criteria and Indicators, v 1.1

4C Verification Scheme, version of 19.04.2007

By-laws for the Executive Board of the 4C Association, version 28.05.2009

Common Code for the Coffee Community, updated version February 2008

Revised 4C Code of Conduct, version May 2009

Rules of Participation—The Business Code, confirmed version January 2006

Statutes of the 4C Association, version 2.0, 27.05.2009

Fairtrade Labelling Organizations International (FLO)

Annual Report 2008–09

Generic Fairtrade Trade Standards, version 15.08.2009

Generic Fairtrade Standards for Hired Labour, August 2009

Generic Fairtrade Standards for Small Producers' Organizations, 01 January 2009

http://www.flo-cert.net/flo-cert/main.php?id=10

http://www.fairtrade.net/773.html

http://www.fairtrade.net/how_we_are_run.html?&L=title%3DOpens&scale=0#c3453

http://www.flo-cert.net/flo-cert/main.php?id=14

Forest Stewardship Council (FSC)

FSC Bylaws 2009

FSC Dispute Protocol (2001)

FSC Interim Dispute Protocol (1998)

FSC Statutes Document 1.3 (2009)

FSC STD- 40-004 (Version 2-0) FSC Standard for Chain of Custody Certification, January 2008

FSC-POL-10-002 EN FSC Policy for Preliminary Accreditation of National/Regional Forest Stewardship Standards, March 2003

FSC-POL-30-401 EN FSC Certification and the ILO Conventions, March 2002

FSC-PRO-01-001 (Version 2-0) EN The Development and Approval of FSC Social and Environmental International Standards, March 2007

FSC-STD-01-001 (Version 4-0) EN FSC Principles and Criteria for Forest Stewardship, 2002

FSC-STD-01-003(Version 1-0) EN FSC Standard SLIMF Eligibility Criteria, FSC-STD-01-003a EN FSC Standard SLIMF Eligibility Criteria–Addendum, 15 September 2004

FSC-STD-20-001 (Version 2-0) EN FSC International Standard—General Requirements for FSC Accredited Certification Bodies: Application of ISO/IEC Guide 65:1996 (E), November 2004

FSC-STD-20-002 (Version 3-0) EN Structure, Content and Local Adaptation of Generic Forest Stewardship Standards, 31 August 2009

FSC-STD-20-003 (Version 2-1) EN FSC Standard—Local Adaptation of Certification Body Generic Forest Stewardship Standards , November 2004

FSC-STD-20-004 (Version 2-2) EN Qualifications for FSC Certification Body Auditor, November 2005

FSC-STD-20-006 (Version 3-0) EN Stakeholder Consultation for Forest Evaluations, 31 August 2009

FSC-STD-20-007 (Version 3-0) EN Forest Management Evaluations, 31 August 2009

FSC-STD-20-008 (Version 2-1) FSC Standard for Forest Certification Reports, 30 November 2004

FSC-STD-20-009 Forest Certification Public Summary Reports, 30 November 2004

FSC-STD-20-011 (Version 1-1) EN FSC Standard for Chain of Custody Evaluations, November 2007

FSC-STD-30-005 (Version 1-0, Draft 2-0) EN FSC Standard for Group Entities in Forest Management Groups, 5 May 2009

FSC-STD-30-010 (Version 1-0) EN FSC Standard for Forest Management Enterprises Supplying Non-FSC Certified Controlled Wood, September 2004

FSC-STD-40-003 (Version 1-0) EN Standard for Multi-site Certification of Chain of Custody Operations, June 2007

FSC-STD-40-006 (Version 1-0) EN FSC Chain of Custody Standard for Project Certification, June 2006

GLOBALGAP

Control Points and Compliance Criteria Integrated Farm Assurance ALL FARM BASE, V3.0-2_Sep07, 30 September 2007

Control Points and Compliance Criteria Integrated Farm Assurance ALL CROPS BASE, V3.0-3_Feb09, 16 February 2009

GRASP Module, V1.2 Jan 09

http://www.globalgap.org/cms/front_content.php?idcat=16

International Federation of Organic Agriculture Movements (IFOAM)

The IFOAM Norms for Organic Production and Processing, version 2005

Programme for the Endorsement of Forest Certification (PEFC)

PEFC Chain of Custody of Forest Based Products–Requirements Annex 4 (17 June 2005)

PEFC Council Guidelines GL2/2010, Minimum Requirements Checklist, 4 February 2010

PEFC Council Guidelines GL5/2006. Interpretation of the PEFC Council Requirements for Consensus in the Standard Setting Process, 26 October 2006.

PEFC Council Guidelines GL6/2006, PEFC Notification of Certification Bodies Operating Chain of Custody Certification in Countries without a PEFC National Governing Body

PEFC Council Guidelines GL7/2007, Procedures for the Investigation and Resolution of Complaints and Appeals, 28 June 2007

PEFC Council Guidelines GL8/2008. Involvement of the Panel of Experts in the Endorsement of National Forest Certification Schemes, 30 April 2008

PEFC Council Statutes (as adopted at the General Assembly 13 November 2009)

PEFC International Standards: PEFC ST 2001:2008—PEFC Logo Usage Rules—Requirements

PEFC Technical Document, 5 October 2007

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The State of Sustainability Initiatives (SSI) Review 2010 represents the most up-to-date and comprehensive overview of the market trends and system characteristics of major voluntary sustainability standards and initiatives in the forestry, coffee, cocoa, tea and banana sectors. The SSI Review 2010 provides information on the market performance, governance, criteria coverage and implementation practices of key initiatives such as Fairtrade Labelling Organizations International, Forest Stewardship Council, Programme for the Endorsement of Forest Certification schemes, Rainforest Alliance, UTZ Certified, International Federation of Organic Agriculture Movements, GLOBALGAP, Sustainable Forestry Initiative, Social Accountability International (SA8000), and 4C Association. The SSI Review 2010 is an essential tool for the strategic planning of businesses, policy-makers and other stakeholders seeking to build more sustainable supply chains.

SSI State of Sustainability Initiatives

iisd International Institute for Sustainable Development / Institut international du développement durable

iied

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"Internationally, business supply chains are having an ever-growing impact on global biodiversity. Voluntary sustainability standards offer one valuable tool for ensuring that economic activity promotes biodiversity and sustainable development. The SSI Review provides critical information to the private sector and policy-makers on the characteristics and current market trends across voluntary initiatives so that corporate and public investments can be aligned more effectively with sustainable development objectives."

Ahmed Djoghlaf, Executive Secretary, Convention on Biological Diversity

"The State of Sustainability Initiatives Review is an important milestone for helping practitioners and policy-makers understand the growing and complex universe of standards, standards that are key to advancing market mechanisms that recognize and direct capital to sustainable production."

Bruce Schlein, Vice President Corporate Sustainability, Citi

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

"What are the similarities and differences between sustainability initiatives available on the market? Where and how do they operate? What are the current market trends? These are some of the underlying questions of the State of Sustainability Initiatives Review. The SSI Review contains a wealth of information but also reveals that we need more market and impacts data to fully understand the effectiveness of these initiatives on biodiversity and society. Improving access to information on voluntary initiatives for sustainable development is key to ensuring their continued success and the SSI Review represents an important step in this direction."

Mireille Perrin Decorzent, Manager, Standards and Certification, WWF International

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