

4 GLOBAL MARKET OVERVIEW

Voluntary sustainability standards have grown and evolved rapidly over the last decade in terms of production and geographic scope. A variety of new global, national and local initiatives have emerged to offer consumers a broader range of sustainable consumption options. Although this is a positive phenomenon, effectively navigating the sustainability standards and initiatives landscape to determine the reliability of sustainability claims and the supply of standard-compliant commodities has become a significant challenge for consumers.

Tracking the market performance of standard-compliant commodities is imperative to determine the portion of overall commodity markets that can be considered to be in accordance with sustainable development objectives. An understanding of trends in sustainable markets can provide strategic information for a range of public and private entities looking to promote the greening of their own supply chains, or the greening of supply chains more generally across the market.¹ Reliable data on standard-compliant markets effectively represent one essential key to the efficient and strategic use of such markets in meeting broader public objectives of implementing sustainable development through sustainable consumption and production.

The data collected for this report are capable of telling a multitude of stories depending on the specific commodity or audience. Hidden behind production volumes and growth rates are a wide array of commodity and context-specific conditions ranging from smallholder cocoa producers in Côte d'Ivoire, to vast fields of soy in Brazil, to tea plantations in Kenya. There can be no doubt

that the most relevant and granular analysis of market trends is best performed at the commodity-specific level. In the ensuing sections of this report we attempt to provide the beginnings of such an analysis through our commodity-specific overview of the development and current state of play of sustainability standards.

Notwithstanding the diversity and distinctiveness across individual commodity markets revealed in the individual commodity sections, a number of cross-cutting trends can be observed. These trends, as potential signposts of the “structural” trends associated with the adoption of sustainable production practices, provide an invaluable perspective for strategic planning in sustainable supply chains more generally.

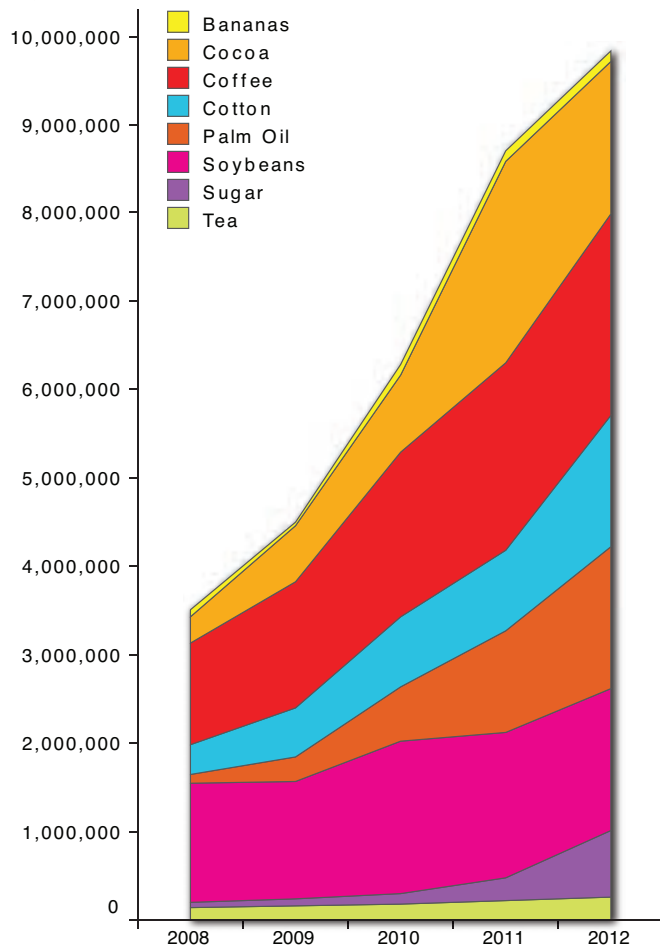
One of the most obvious trends emerging from our analysis of the different commodities is continued and persistent growth in the adoption of standard-compliant practices at production (see Figure 4.1). With global commodity production growth rates averaging on the order of 0 to 3 per cent per annum, the markets for standard-compliant products are substantially outpacing growth in production more generally.² Average annual growth of production across eight sectors with corresponding data between 2008 and 2012 was 11 per cent.³ These growth rates, however, clearly symbolize young markets undergoing early, rapid growth and, as such, can be expected to have a limited lifespan. Nevertheless, given the size of commodity markets more generally, and the overall room for growth, one can expect above-average growth rates for at least the next decade in most of the commodity sectors reviewed in this report. The forestry sector, for example, which represents one of the most mature markets for standard-compliant production (with certification available since the mid-1990s), displays a relatively low CAGR of 6 per cent but is still well above the growth rate of conventional forest production (0 per cent for 2012).

¹ For instance, the availability and distribution of sustainable supply will be an essential feature of any procurement officer seeking to secure long-term sustainable supply for a given supply chain. In a similar manner, commodity producers will have a deep interest in understanding demand trends across different initiatives as well as current distribution of supply to determine what market potential might exist for their standard-compliant production. Policy makers and initiative developers, on the other hand, will want to know where markets are most developed and where opportunities for further expansion are most likely to deliver long-term sustainability impacts. More generally, consumers wanting to understand which voluntary sustainability standard they would like to support may wish to include overall performance in the international market as part of their decision-making process.

² Palm oil and soybeans are the exception to this general rule, where conventional commodity production is also undergoing rapid growth due to changing consumer demographics across Brazil, Russia, India and China.

³ Data for biofuels production levels were not available and are not included in this figure.

FIGURE 4.1 GROWTH OF STANDARD-COMPLIANT PRODUCTION (2008–2012, HECTARES COMPLIANT).



Standard-compliant production is growing rapidly across all sectors. A notable trend over the last several years has been the adoption of select voluntary standards systems by major mainstream players, giving rise to dramatic growth across several markets.

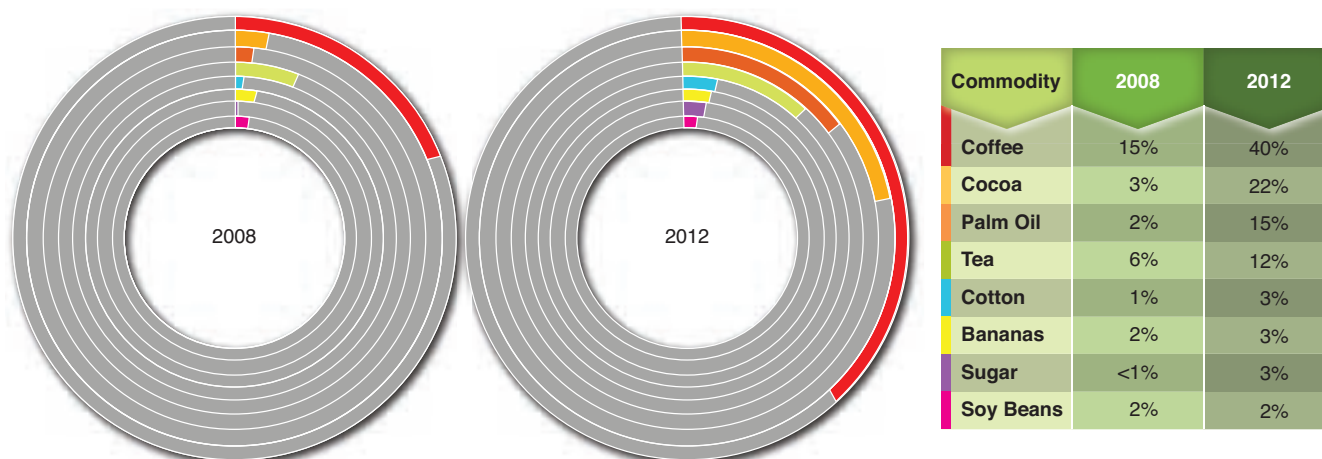
While markets for sustainable products have been defined by rapid growth since their emergence over two decades ago, growth over the last five years has expanded far beyond the niche markets of the early 1980s, 1990s and early 2000s. While previous growth in sustainable markets could be said to have been led by “pioneering” or “leading” consumers and companies, current growth is being led by a more pervasive adoption of standard-compliant production across mainstream channels.⁴ As such, we have seen growth over the last several years being driven by one or more initiatives explicitly targeting mainstream supply chains, with these mainstream-oriented initiatives typically reporting CAGR of 50 per cent or higher.⁵ Moreover, as noted in Section 2.3.4, there has been a trend toward the development of sector-specific, mainstream-oriented initiatives in order to enable this rapid transition toward sustainable supply. The rapid deployment of these mainstream-oriented initiatives has played a major role in driving widespread integration of standard-compliant supply within mainstream channels (see Figure 2.6).

The market share of standard-compliant production as a percentage of global production has been growing consistently and significantly over the past half-decade. In 2008 standard-compliant production accounted for no more than 9 per cent of global production in any given commodity market. By 2012, at least

4 An increasing number of mainstream food manufacturers, for example, have made public commitments to source either all or significant portions of their supply from verified sustainable sources. This has in turn driven a rapid adoption of standard-compliant production across many sectors.

5 For example, UTZ has a reported CAGR of 363 per cent (cocoa), Better Cotton Initiative (BCI) has a CAGR of 343 per cent (cotton), Roundtable on Sustainable Palm Oil has a reported CAGR of 90 per cent (palm oil), and Rainforest Alliance has a reported CAGR of 61 per cent (Tea).

FIGURE 4.2 SUSTAINABLE MARKETS: COMPLIANT PRODUCTION AS A PERCENTAGE OF GLOBAL PRODUCTION FOR 2008 AND 2012.



four commodities had surpassed the 10 per cent mark, with coffee and cocoa leading the way with 40 and 22 per cent of global supply reported compliant with one or another voluntary sustainability standard, respectively.

The trend toward mainstream adoption is, in turn, giving rise to unprecedented market shares for standard-compliant production. As noted in Figure 4.2, the palm oil, cocoa and coffee markets stand out with 15, 22 and 40 per cent of global production as standard compliant in 2012, respectively. The average market share for standard-compliant production across the nine reporting commodity sectors was an unprecedented 12 per cent in 2012. Based on these statistics alone, one could easily conclude that compliance with an internationally recognized sustainability standard is increasingly becoming the “price of entry” on international markets. While this may largely be true, a definite lag between supply and demand exists across all of the sectors reviewed. Typically, only a portion of overall standard-compliant product is actually “sold as” standard compliant—with the remainder instead entering the market as conventional production. In fact, on average, we found that the two most important sectors in terms of standard-compliant production market share (coffee and cocoa) had only 35 per cent and 33 per cent of total production actually sold as compliant, respectively. Across all commodities an average 44 per cent of standard-compliant production was sold as standard compliant on the market. Moreover, in addition to representing a recurrent theme across commodities, oversupply also appears to be a consistent condition in sustainable markets over time, with similar data being reported over the last decade.⁶

Although standard-compliant production represents a significant portion of global production, sales represent a considerably smaller portion of the global market, pointing toward significant growth

opportunities for the demand of standard-compliant products (see Figure 4.3).

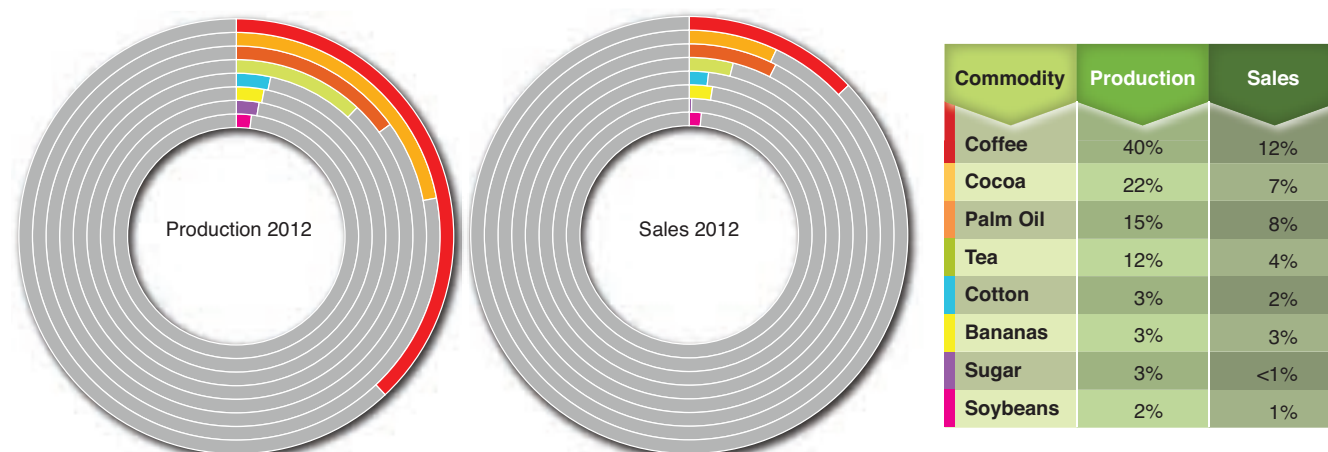
There are several possible explanations for this trend. The first, and certainly the most important, relates to logistics. Typically, any given unit of production will supply multiple markets. Faced with an explicit demand for standard-compliant production from only one of those buyers, a producer may decide to convert its entire production to be in compliance with a given sustainability standard. In such cases, the supply of standard-compliant product will clearly outpace the demand. Similarly, many of the sustainability standards and affiliated supporting institutions often face a hurdle in moving to mainstream markets whereby proven supply is a prerequisite to the generation of demand. With this in mind, most initiatives will engage in building the supply base as a strategy for enabling further market growth.

With these explanations in mind, the relatively persistent condition of oversupply can be regarded as an artefact of specific characteristics of commodity markets undergoing a transformation toward compliance with voluntary sustainability standards. Moreover, the current state of supply suggests, at a minimum, that the voluntary sustainability standard sector is well positioned for continued rapid growth into mainstream markets for the foreseeable future.

Nevertheless, persistent oversupply can have pernicious effects as well. Indeed, oversupply on conventional markets has been one of the most persistent and challenging “sustainability” issues facing commodity markets more generally over the past century, giving rise to a host of international commodity agreements and corresponding supply management schemes. Mismatches between supply and demand are largely associated with boom and bust price cycles that, particularly in the context of rural producers living in poverty, can have significant impacts on livelihoods and efforts to promote poverty reduction. Within the context of standard-compliant markets, a general lack of systematic data on standard-compliant pricing, combined with the still minority share of standard-compliant

⁶ Where initiatives have existed for a decade or more, they have shown a generally consistent trend toward oversupply. Fairtrade coffee, as one example, has typically sold between 25 and 35 per cent of compliant production as Fairtrade (see Potts et al., 2010).

FIGURE 4.3 SUSTAINABLE MARKETS: STANDARD-COMPLIANT PRODUCTION VERSUS STANDARD-COMPLIANT SALES FOR 2012.



production within broader commodity markets, makes it difficult to ascertain the potential impacts, if any, of current oversupply on prices and premiums for standard-compliant products. Nevertheless, it is clear that as standard-compliant markets stabilize over time, the relationship between supply and demand can be expected to play an important role in determining prices and will, as a result, become an increasingly important element of the strategic management of sustainable markets as they grow.

As a general rule, sustainability standards applicable to commodities have focused on developing and implementing sustainable practices at production. While some initiatives, such as UTZ and Fairtrade, have also sought to address specific issues related to the “trading” of commodities, even these efforts have typically remained focused on requirements or systems development at the “micro” or supply chain level. This focus, of course, speaks to some of the most prominent challenges facing sustainability within commodity sectors. Nevertheless, as the number and use of sustainability standards has grown in importance, there has been a corresponding fear that such instruments, although technically voluntary, might operate as barriers to trade or tools for protectionist interests.⁷ One of the deep sustainability questions underlying the development of standard-compliant markets, then, relates to the potential impact the transition to sustainable markets might be having on trade patterns. Although our data are still only partial in this regard, given considerable gaps on the consumption side of the supply chain, data on the distribution of supply do indicate a strong and recurrent trend toward a concentration of supply across more developed supply regions.

⁷ This fear has taken its most evident form within the SPS Committee of the World Trade Organization. In 2007 the SPS Committee began consultations with members to better understand different positions and experiences with respect to private voluntary standards. The consultation process resulted in a number of soft commitments by members to facilitate better information exchange on private standards (see World Trade Organization, 2011).

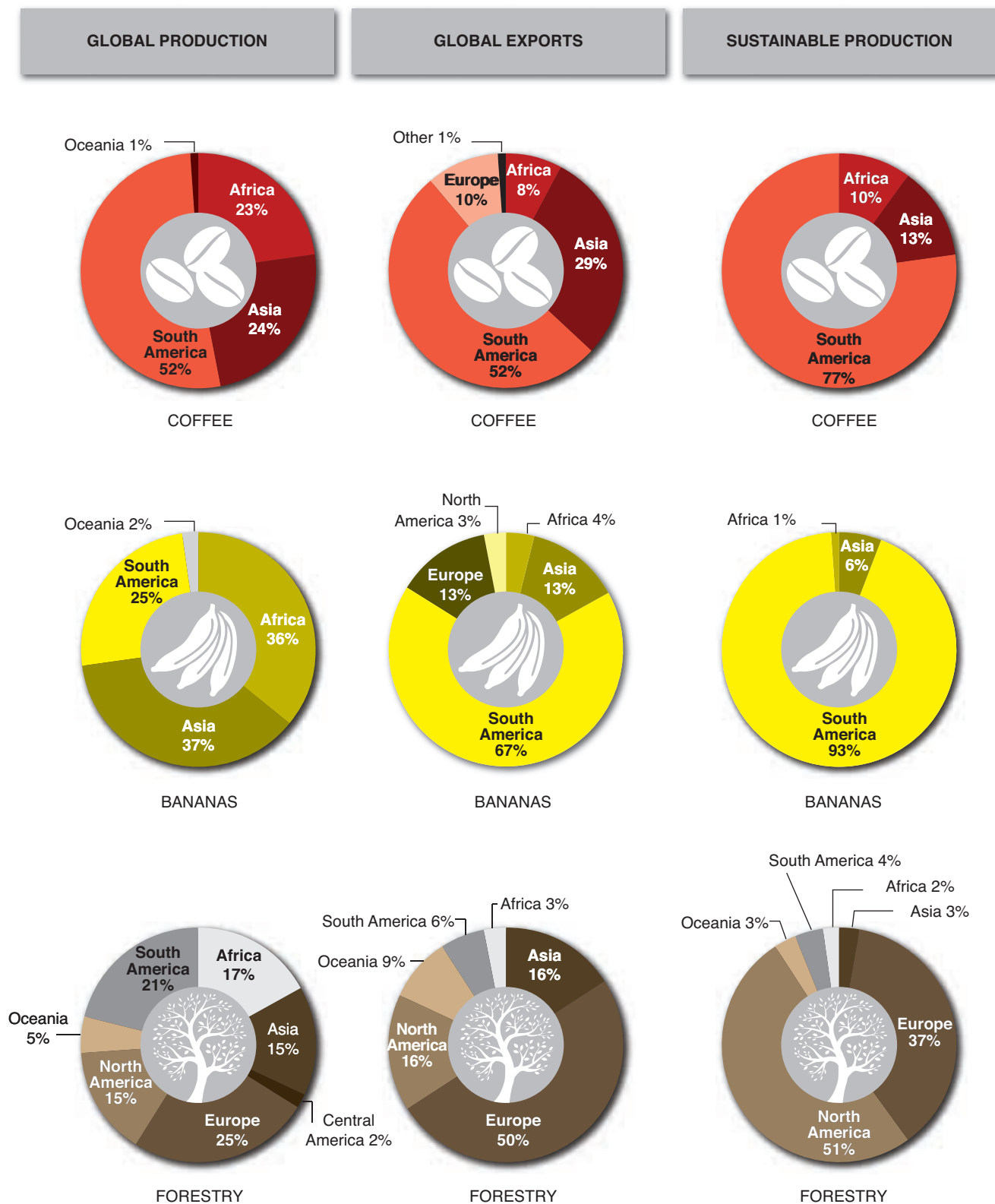
Figure 4.4 provides a visual representation of how supply distribution transitions as one moves from conventional production to production for export markets and finally to production for sustainable markets across three representative commodity sectors (coffee, bananas and forestry). In each case we see a clear trend as one moves toward production for sustainable markets to an increasing concentration of supply across regions with more developed trade and economic capacity. Although it is not possible to determine any specific relationships of causality based on our data, it is clear that more developed regions are disproportionately building access to sustainable markets. This may be more about initiatives and markets selecting for the “lowest hanging fruit,” or the least costly products. To the extent that this indeed offers an explanation for current distributional trends, it points toward a deep and significant challenge facing voluntary sustainability standards more generally (see Box 4.1). At the very least, it is clear that all voluntary sustainability standards need to pay attention not only to the distribution of their supply base, but also to the intentional management of supply in a manner that corresponds to the priorities of sustainable development, which will likely require significant investment in terms of technical assistance and capacity building.

This touches on a recurrent theme throughout this report, namely, the limitations of market forces alone in resolving the sustainability challenges facing global supply chains, and the need for corresponding investment by public institutions and/or regulations to help ensure that voluntary actions bring about the desired sustainability outcomes.



FIGURE 4.4 GLOBAL VERSUS SUSTAINABLE DISTRIBUTION OF SUPPLY (SELECT COMMODITIES, HECTARES AND METRIC TONS, 2011/2012).

Global production of commodities is relatively evenly distributed among producing regions across the three sectors pictured below. A concentration of supply from more developed regions is observed for export markets. The concentration of supply across more developed regions is accentuated for sustainable markets.



Building from the generally accepted Brundtland “needs-based” definition of sustainable development,⁸ there is an inherent imperative for sustainability systems, whether voluntary or otherwise, to ensure that the needs of those “most in need” (i.e., the poor) are given a certain primacy within the process. Markets themselves, however, tend not to care much about the equitable distribution of benefits, much less about whether the poorest segments of the economy receive any particular benefits from economic activity. The reliance of voluntary sustainability standards on market forces for the delivery of such benefits therefore places such initiatives in a difficult position with respect to promoting poverty reduction among those most in need since those are likely to be the most difficult (i.e., costly) to bring into

compliance with a given standard. The absorption of additional costs within any given voluntary sustainability standard supply base can be expected to result in higher cost supply and correspondingly reduced market share. As market-based initiatives, some may even interpret the resulting reductions in market share as signalling “reduced impact” or “reduced success” of a given initiative.

Using an economist’s terminology, one could say that the poor lack “factor endowments” for entering into sustainable supply chains, and so it is that voluntary sustainability standards run into a paradox. On the one hand, the objective of such systems is to provide assurances that those most in need have access to new markets. On the other hand, the reliance of such initiatives on market forces leaves the distribution of supply (and benefits) to those that can provide compliant goods at the lowest cost, which is to say, those who, being more well-off, have already absorbed the substantial portion of the cost of transitioning to sustainable practices and livelihoods. The resulting outcome is that voluntary sustainability standards are more likely to gain traction in regions and markets where they are needed least.

8 The complete Brundtland definition reads: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two concepts: 1. the concept of ‘needs,’ in particular the essential need of the world’s poor, to which overriding priority should be given; and 2. the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs”(World Commission on Environment & Development, 1987).



4.1 MARKET DATA PRESENTATION READER ROADMAP

Despite the importance of various stakeholders having access to market information on voluntary sustainability initiatives, providing a clear picture of market performance and trends remains a formidable task, since market data on sustainability standards remains largely incomplete and anecdotal. There are many reasons for this, ranging from the relatively novel use of voluntary sustainability standards as market differentiators, to the wide number of voluntary initiatives currently in place, to the lack of clarity on the relationship between product characteristics and production practices.⁹ Structurally, the absence of harmonized system codes for differentiating between the import and export of sustainable versus conventional products based on compliance with recognized voluntary sustainability standards renders it nearly

impossible to gather trade data through more traditional data channels and with any consistency across national contexts.¹⁰

The SSI is working toward remedying the situation by providing coherent market data to inform a wide range of audiences as to the current condition and evolution of sustainable markets for selected commodities. Underpinning this effort is the need for reliable and timely market data that can be used to analyze key market trends. To this end, the SSI team has worked closely with standard setters to collect and report on their market data along consistent and comparable formats. As a starting point for this process, the SSI, working with ISEAL Alliance, the ITC and the Research Institute of Organic Agriculture/Forschungsinstitut für biologischen Landbau, has distilled a set of 39 market data indicators for measuring and monitoring market performance cross voluntary standards (see Appendix II: Market Indicators). Working with the ITC, the SSI team has contributed to developing a market data entry tool that will enable voluntary sustainability standards to enter market data into a central database. With time, this process will lead to more efficient market data collection on standard-compliant commodities, enabling better analysis.

9 One of the long-standing challenges facing “sustainable products” more generally on the marketplace is the inability of consumers or other supply chain actors to clearly link sustainable practices to products through an observation of the physical characteristics of a given product. The advent of increasingly sophisticated monitoring and auditing systems (by voluntary standards systems) has improved the situation considerably, but the market (and public authorities) have still demonstrated a degree of reluctance in accepting non-product production and processing methods, such as sustainable practices, as a basis for classifying or distinguishing between products (see Potts, 2008).

10 The Organic sector, which represents the one exception to this rule by having its own harmonized coding system, has yet to receive widespread acceptance across trade data reporting systems and therefore also remains reliant on piecemeal data gathered from private sources. If real data (production and exports) were not available for Organic, the production and sales were estimated on the basis of the area data, using assumptions on yields and on production sold on Organics.

TABLE 4.1 INDICATORS USED FOR THE MARKET DATA COLLECTION AND CONSISTENTLY COLLECTED ACROSS ALL VOLUNTARY SUSTAINABILITY STANDARDS.

MARKET DATA INDICATORS	INDICATOR DESCRIPTION
Production volume (“production”)	Production volume that is VSS-compliant, even if not sold as compliant at the first point of sale.
Production volume sold (“sales”)	Volume of VSS-compliant product that is sold as compliant at the first point of sale (e.g. from cooperative to trader).
Production market share - volume	VSS-compliant production volume as a percentage of country and global production volume.
Area fully converted (“area harvested”)	Total hectareage of land on which VSS-compliant product is produced; this refers to area actually being cultivated, not total farm area.
Multiple Certification - Production	Percentage of VSS-compliant production that is compliant under more than one VSS; if an actual measurement is not available, an estimate will be accepted so long as it is specified as an estimate.
Reported Premiums	Estimated additional dollar value per volume paid for VSS-compliant product at farm gate and strictly on account of certification (i.e. not for physical quality differences).
Private sector commitment to sustainable sourcing	Percentage of purchases that companies commit to source as VSS-compliant, and date by which commitment will be fulfilled.

Due to constraints on the collection of data across its various data partners, this 2014 *SSI Review* reports on eight market indicators relatively consistently across all the voluntary sustainability initiatives covered in the 10 commodity sectors studied. Table 4.1 lists a suite of seven indicators that were used to guide the collection of the market data and highlights the indicators for which information was successfully and consistently collected.

All the market data on standard-compliant commodities presented in this report were obtained either directly from voluntary sustainability standards themselves or indirectly through existing published reports and other secondary literature.

The market data are presented in each commodity section as maps, charts and tables. The process and assumptions made to present the market data are presented below. The following general assumptions were made throughout the commodity market data sections.

Data collected and reported as a crop year as opposed to a calendar year was relabelled as the latter year. For instance, data reported at 2011/2012 was labelled as 2012¹¹ in the report to allow for data handling consistency. Since there are inconsistencies across the voluntary sustainability standards in terms of how they report on their market data, this assumption was necessary to allow for comparisons between the initiatives.

Standard-compliant commodities are often compliant across multiple standards. To minimize the potential for double counting production volumes and sales, multiple certification must be taken into account. The aggregated market data presented in the report for all commodity sectors assumes a 50 per cent overlap between the absolute minimum and maximum plausible compliant production for each commodity examined based on available data. The largest producing voluntary sustainability standard in each country aggregated across all producing countries in the commodity sector represents the absolute minimum production, while the aggregate production of all standards operating in the sector across all producing countries represents the absolute maximum production. In this way, we assume that the actual production lies at the midpoint between 0 to 100 per cent of plausible overlapping

compliant production within the sector based on available country data. This approach is considered to provide a generally consistent estimate of sustainable production, as UTZ multi-certification data reports a 43 per cent overlap with Fairtrade and/or Rainforest Alliance for coffee and a 44 per cent overlap with Fairtrade and/or Rainforest Alliance for cocoa.

Consider this following example for standard-compliant cotton, assuming it is produced in two countries under Fairtrade, Organic, Better Cotton Initiative (BCI) and Cotton made in Africa (CmiA). In India, 10 metric tons are BCI compliant, 20 metric tons are CmiA compliant, 30 metric tons are Organic compliant, and none are Fairtrade compliant. In Pakistan, 50 metric tons are BCI compliant, 20 metric tons are CmiA compliant, 5 metric tons are Organic compliant, and 5 metric tons are Fairtrade compliant. The maximum plausible compliant production in India is 60 metric tons, while the maximum plausible compliant production in Pakistan is 80 metric tons, for a maximum total plausible compliant production of 140 metric tons. The minimum amount of compliant production in India is 30 metric tons (assuming both BCI and CmiA production are all multiple-certified with Organic), and the minimum amount of compliant production in Pakistan is 50 metric tons (assuming CmiA, Organic and Fairtrade compliant production are all multiple-certified with BCI), assuming that all production is multiple-certified. The total plausible minimum aggregate production is therefore 80 metric tons. The average of the minimum and maximum plausible compliant production is 110 metric tons.

The majority of the sustainable market data originated directly from the voluntary sustainability initiatives, with the exception of Fairtrade, ProTerra and Bonsucro, whose data came from existing publications (see citations in text). Due to the use of secondary data for Fairtrade, “area fully converted” is reported as total area certified as opposed to area cultivated. Area certified is larger than cultivated area but generally serves as a good proxy for the indicator. Data were also collected from commodity body sources such as the International Coffee Organization, the International Cocoa Organization and the World Agricultural Supply and Demand reports.

¹¹ The only exception is UTZ Certified 2012 production data, which is from the 2012/13 crop year, as it ends in March (Q1) 2013.

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