

INFLUENCING SUSTAINABLE SOURCING DECISIONS IN AGRI-FOOD SUPPLY CHAINS



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This paper presents research findings on influencing sustainable sourcing decisions in agri-food supply chains, providing insight into the role of intermediaries. Based on a literature review, interviews, and case studies from different trading entities, chapter 1 expounds on the different ways in which corporations attempt to incorporate sustainability into their business practices. Chapter 2 discusses how sustainability standards can influence governance and traceability systems and impact supply chain relationships. Chapter 3 examines the role for intermediaries in supply chains to promote sustainability standards and practices and provides multiple case studies. It ends by giving recommendations on how a focus on intermediary actors could benefit sustainability standard setting schemes.

Descriptors: **Supply Management, Supply Chains, Standards, Sustainable Development, Corporate Social Responsibility, Food Products, Case Studies**

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Contents

Acknowledgements	iii
Acronyms	vi
Executive summary	vii
Introduction	1
Chapter 1 Corporate approaches to sustainable sourcing	5
1. Supply chain management	5
2. Certified sourcing	7
Chapter 2 How sustainability standards influence supply chains	9
1. Governance	9
2. Traceability	10
3. Relationships	14
Chapter 3 Working with intermediaries in supply chains	17
1. The role of intermediaries	17
2. Success factors	18
2.1 Returns for direct suppliers	19
Case study: Armajaro Trading Ltd	19
2.2 Benefitting sub-suppliers	20
Case study: Fruits of the Nile Ltd	21
2.3 Supplying directly to lead firms	21
Case study: Cafédirect	22
2.4 Building the capacity of suppliers	23
Case study: Kamphaeng-Saen Commercial	23
2.5 A business case for intermediaries	24
Case study: Van Rees	24
3. Case study learnings	25
Chapter 4 Conclusions	27
References	28

Figures and boxes

Figure 1: Sustainable supply chain management model	7
Figure 2: Chain of Custody indicators	12
Figure 3: Two different supply chains for bananas	15
Box 1. Unilever and the Rainforest Alliance: Supporting supplier certification	2
Box 2. UTZ Certified traceability system	13
Box 3. WFTO international guarantee system	16
Box 4. The fair trade model	22

Acronyms

ATL	Armajaro Trading Ltd
CSR	Corporate social responsibility
FoN	Fruits of the Nile Ltd
FSC	Forest Stewardship Council
ITC	International Trade Centre
KACE	Kangulumira Area Cooperative Enterprise
KC Fresh	Kamphaeng-Saen Commercial
NGO	Non-governmental organization
SSCM	Sustainable supply chain management
UN	United Nations
WFTO	World Fair Trade Organization
WTO	World Trade Organization

Executive summary

Sustainability standards and initiatives can achieve greater impact by fully engaging those involved at each stage of agri-food production.

This is a challenging process as globally traded agri-food products go through many different phases of production and it is the middle tiers which are the most difficult to track. However, intermediate suppliers offer a great opportunity for sustainable standard organizations and businesses to efficiently reach sustainability goals. This paper sheds light on the largely unrecognized role of intermediaries and discusses various strategy options for corporations to make sustainable sourcing decisions.

As global supply chains continue to make trade relationships more complex, companies are increasingly held accountable for implementing social and environmental good practices. In the agri-food sector especially, use of sustainability standards is growing and moving sustainability beyond its economic aspects to address social and environmental issues. Implementing sustainability standards and initiatives impacts every segment of supply chains; it requires changes in governance structures, creates a need for increased transparency and changes the roles and relationships of many supply chain actors.

Intermediaries in supply chains are those negotiating the vast expanse between these producers, final buyers and retailers of agri-food products. Often referred to as “middle-men,” their role generally gets less attention in the creation and implementation of sustainability standard schemes. However, these intermediaries act as gatekeepers (to markets and market information) and have close business relationships with producers. This puts them in a key position to influence the use and implementation of sustainability standards.

To improve strategies for sustainable production, buyers and sustainable standard organizations should make efforts to interact with intermediate suppliers and view them as sustainable supply chain managers who can use sustainability standards to promote ethical, social and environmental values. This report provides insight into how this can be implemented successfully, and offers examples of companies that have involved intermediaries at various stages.

This paper – based on a review of existing literature and public documents, websites and interviews with traders and companies that have practised sustainable sourcing strategies – is intended as a contribution to ongoing discussions. It proposes that, in order to increase the impact of sustainability initiatives, standards must be complemented by a change in procurement practices. Specifically, firms and sustainable standards organizations can look to incentivize social and environmental sustainability at the intermediate level to enhance sustainability goals. A greater focus on the role of intermediaries in future research could play a large part in successful innovative approaches to sustainability and responsibility in agri-food supply chains.

Introduction

With trade liberalization allowing for freer trade across international borders, many companies and governments are focusing on export-led growth strategies. This has led to the involvement of a large number of producers who are no longer producing for domestic consumption but instead becoming involved and part of complex global value chains. Consequently, the nature of specific value chains largely determines business practices for producers and the risks and opportunities they face.

Corporate responsibility in global supply chains has many aspects, including environmental responsibilities, such as water use, greenhouse gas emissions and energy use, as well as biodiversity conservation. It also includes social aspects, such as human rights, labour rights and fair pay. Corporate responsibility further encompasses ethical aspects, such as corruption and good governance. Increasingly, maintaining sustainable operations is an essential precondition for producers and exporters to remain competitive.

Promoting social and environmental responsibility for supply chains is an ambitious and challenging task for firms and their suppliers. In this paper, the term 'supply chain' refers to the system of actors, information, resources and transactions involved in transferring a product or service from supplier to customer. The term 'value chain' refers to the decision-support tool used to analyse and describe the creation of value in supply chain systems.¹

Most value chains are complex and comprise a network of geographically dispersed actors responsible for compliance with numerous standards. In the agri-food sector, for example, exporters need to ensure legal compliance of their products with food safety and sanitary and phytosanitary standards and regulations. Exporters often must comply with additional industry, private and/or regional standards, such as GLOBALG.A.P.² and those imposed by the British Retail Consortium. Such national and regional regulations and safety standards already require stringent adherence to a number of rules. Adding voluntary sustainability standards to the mix creates more challenges for entering global markets.

Compliance with social and environmental standards has become increasingly necessary. Social and environmental standards can be defined as a set of 'voluntary predefined rules, procedures, and methods to systematically assess, measure, audit and/or communicate the social and environmental behaviour and/or performance of firms' (Gilbert, Rasche and Waddock, 2011). Although such standards typically do not cover entire supply chains, they are an important tool to help firms implement and control responsible practices at different levels of the chain. In this way, social and environmental standards provide a mechanism to address some of these aspects in an effective and manageable way.

Generally, standards are instruments to codify information and rules, reducing the need for coordination and communication among actors in supply chains and thereby facilitating 'hands-off' governance or governance 'from a distance' (Miller and Rose, 1990). Demand for certified products often comes from the buyer towards the end of the supply chain, however the actual implementation of sustainability practices that is required occurs at the producer level. There are many tiers in the supply chain whereby intermediaries control the interim actions, and the increasing demand gives them a stronger role in the uptake of sustainability standards.

Intermediaries, as referenced throughout this paper, refers to those actors which play critical and decision-making roles at the various tiers in a supply chain between the producer and 'supply chain captains,' those who are controlling the demand product orders. In a supply 'chain,' they can be seen as the various 'links'. The type and number of intermediaries, sometimes called "middle-men", in a typical agri-food supply chain can vary widely.

¹ See: Michael Porter (1985). *Competitive Advantage, Creating and Sustaining Superior Performance*. New York: The Free Press.

² GLOBALG.A.P. is a global organization that sets voluntary standards for certifying agricultural products. www.globalgap.org.

For buyer-driven chains, the key intermediaries are the traders (importers and exporters), however in producer-driven chains, they are typically processors.³ Processors tend to be larger firms, which have greater control over the terms of purchase with producers, whereas the role of traders/exporters is more varied depending on their location and ownership. Since they have a certain level of control in managing relations between different steps within a supply chain, intermediaries also play a part in determining the demand for meeting sustainability standards.

Although the volume of products that comply with social and environmental standards remains relatively small for most commodities, there is a strong trend towards bringing sustainability into the mainstream and increasing the use of social and environmental standards (Potts and others, 2014). This is bolstered by public and private commitments which are increasingly seen in multinational companies.

For example, Unilever has committed to sustainable sourcing of 100% of its agricultural raw materials by 2020. Mars Inc. announced that 100% of its cocoa supplies would come from sustainable sources by 2020. IKEA has partnered with the World Wildlife Foundation to implement projects to grow the cotton it uses in its products in eco-friendly ways.

These commitments are ambitious and require a significant increase in the number of certified producers. This is a major challenge for buyers. Collaborative, pre-competitive sustainability initiatives are also being formed,⁴ which enable competitors to use more harmonized sustainability systems during the early stages of product development.

Many buyers have begun to invest in benefit-sharing practices and to provide support to suppliers (box 1). New models of benefit-sharing are emerging, similar to the concept of creating shared value, popularized by Michael Porter and Mark Kramer in the *Harvard Business Review*.⁵

One example is Ecoflora, a Colombian company and a member of the Union for Ethical BioTrade. Ecoflora works in developing inputs and services derived from biodiversity. The Ethical BioTrade Standard requires equitable benefit-sharing, both in the sourcing activities and in biodiversity-based research and development. Ecoflora has created a supply chain committee, which brings actors together with the aim to foster improved communication. Committee members focus on understanding the supply chain and the roles of different actors in product transformation.⁶ These approaches enable intermediaries to take ownership of their roles in sustainable sourcing, which strengthen the entire system.

Box 1. Unilever and the Rainforest Alliance: Supporting supplier certification

Given the risks related to changing suppliers which can affect product characteristics, Unilever decided to work with its current suppliers and support them to become certified by the Rainforest Alliance. This initiative included countries with a more fragmented supplier base. In these countries, Unilever teamed up with local partners to train small farmers and developed a plan for gradually bringing all their tea suppliers into certification by 2020. Although Unilever was a first mover in tea production on such a scale, the competitive advantage generated was not expected to be long-lasting. Competitors such as Tetley and Twinings started selling certified tea soon thereafter. Unilever's aim was to stop the trend towards the commoditization of tea by creating enough leverage to move the entire industry towards certified tea.

Source: www.idhsustainabletrade.com

³ For a discussion on the key intermediaries in the different types of chains, see <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3411970/>

⁴ Some examples are the Sustainable Agriculture Initiative, the Sustainability Food Laboratory and the World Business Council for Sustainable Development.

⁵ Porter, M. (2011). Creating Shared Value. *Harvard Business Review*; Jan./Feb. ,Vol. 89, Issue 1/2, pp. 62–77.

⁶ <http://ethicalbiotrade.org/news/wp-content/uploads/ecoflora-case-study-ENGLISH.pdf>, accessed 11/04/2014

Methodology

From a large collection of publications (3,639), the paper drew on a relevant selection of 79 empirical and theoretical papers that provided a means to examine how sustainable sourcing is conceptualized and to identify the challenges and opportunities for supply chain intermediaries. Papers were collected through a keyword search in the ScienceDirect and Google Scholar databases.⁷ The reference lists of seminal articles and recent literature reviews conducted by the International Trade Centre and the Food and Agriculture Organization of the United Nations (FAO) were used as well.

This paper focused primarily on resources that discuss firms that have exhibited movements into sustainable sourcing, work in global supply chains and have a strong emphasis on the agri-food sector. This brought about some preliminary considerations and findings:

- First, while the paper focuses on companies that want to act responsibly and have implemented a corporate social responsibility (CSR) programme or strategy, the capacity to implement a formal CSR programme is often a luxury allowed only to large, resource-rich companies (Griffin and Prakash, 2013). Much of the win-win discourse around CSR's potential for delivering social, economic and environmental benefits (also called the triple bottom line or shared value) (Norman and MacDonald, 2004; Porter and Kramer, 2011) fails to address the structural and organizational nature of how value chains are organized and managed in the global economy (Fleming, Roberts and Garsten, 2013).
- Second, most sources looked at trade as it is organized into global supply chains. The paper focuses on export production, trade and the distinct roles of different actors in adding value along the supply chain. As a result, trade in products sold on spot markets or those targeted for local consumption are excluded.
- Third, the paper looks to standards that cover a wide range of issues. However, no single standard can cover all aspects. The paper focuses on sustainability challenges in agri-food supply chains and specific standards that address these challenges. The majority of research and some of the most innovative approaches in this area concern agri-food commodities, and the paper accordingly draws on examples from this field. However, many of the questions and strategic thinking highlighted here can also apply to other sectors, such as textiles or manufacturing.

Structure

Sustainable sourcing constitutes a way for firms to act responsibly. Sustainable production is critical for long-lasting food security, reducing inequalities, promoting worker health and safety, developing necessary infrastructure, and decreasing the incidence of poverty.⁸ The paper promotes the role of using social and environmental standards as one means, among others, to source sustainably produced products.

Chapter 1 focuses on the use of sustainable supply chain management tools by companies. It explains the distinctions that are made between sustainable or green supply chains and certified sustainable sourcing. It explains how voluntary standards work to enable supply chain actors to behave responsibly. The role of voluntary standards is showcased because of their increasing importance in strategies to create sustainable global supply chains. For standards to contribute efficiently to more responsible supply chains, their use needs to be complemented by a change in business procurement practices and support to suppliers, especially small producers and processors.

Chapter 2 presents recent thinking about how the use of sustainability standards can influence different aspects of global supply chain management and development. Certification schemes affect a firm's control over production and, through various methods, they act as a traceability tool for firms to build trust in their

⁷ The following combinations of keywords were used to find relevant articles: Sustainable sourcing, Sustainable supply chain management, Intermediar* AND value chain, Exporter AND value chain, Export* AND corporate responsibility, Export* AND CSR, Export* AND standard, certification AND CSR, standard AND CSR, Trader AND Sustainability, Intermediar* AND Sustainability, Intermediar* AND CSR. The paper also drew on the reference lists of Maloni and Brown 2006, the ITC literature review on global value chains and the Food and Agriculture Organization of the United Nations literature review on smallholders' access to markets.

⁸ The issues listed are part of the UN Sustainable Development Goals. For more details on the UN Sustainable Development Goals, see <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

supply chains and address sustainability hotspots. As well, as sustainability standards are adopted, the roles and relationships of supply chain actors often shift due to the increased incentives to collectively organize, streamline buying activities, or engage in capacity building exercises.

Chapter 3 delves into the notion of intermediaries as supply chain connectors and the various types of roles that they may have in directing value chains. As well, it brings to light some of the mechanisms that are in creating more sustainable value chains. Case studies are used here to demonstrate examples of firms that have recognized intermediaries' role in coordinating key trade relationships.

As a result, buyer-driven supply chain analyses should consider the rising importance of intermediaries, particularly if sustainable sourcing strategies are to be an effective means for supply chain actors to act responsibly.

Chapter 1 Corporate approaches to sustainable sourcing

In today's integrated economy, complex supply networks span the globe. To address this complexity, firms are using supply chain management systems to organize the logistics of their product and service supply, to manage the relationships between suppliers and customers, and more recently as a means to hold their suppliers responsible for a range of activities (Busch, 2007; Cooper, Lambert and Pagh, 1997; Seuring and Mueller, 2008). Taking responsibility in supply chains often involves minimizing the negative environmental impact (or better yet, ensuring a positive environmental impact) while also improving the social impact of production (Özçağlar-Toulouse, Béji-Bécheur and Murphy, 2009).

Corporate social responsibility (CSR) is a concept that has been around for decades, and that has now become a mainstay for industry leaders. CSR can be seen as attempts by firms to implement projects that have social, societal, or environmental benefits but are tied to core business activities in varying degrees. The evolution of CSR strategies can be seen by the inclusion of strategic philanthropy, innovation, environmental sustainability and transparency systems into business policies.⁹

Within agri-food supply chains, corporate social responsibility is concerned primarily with eight categories of issues that pose challenges to firms: animal welfare, biotechnology, community, environment, financial practices, health and safety, labour, and procurement (Maloni and Brown, 2006). But adequately integrating these CSR concerns is sometimes made more difficult by the use of contradictory procurement practices that aim to maximize profits and minimize costs along the supply chain. Changing procurement practices by integrating CSR priorities is an essential part of developing more responsible supply chains (Boström and others, 2011).

Incentive structures in procurement need to be designed to reward social and environmental performance. Given the quantity of raw materials and semi-processed goods purchased and the number of firms that supply multinational companies, changes in their procurement practices have a considerable impact.

CSR 2.0 is a 'transformative concept based on the five principles of creativity, scalability, responsiveness, glocality¹⁰ and circularity¹¹ (Visser and Tolhurst, 2010); it is meant to address some of the shortcomings of traditional CSR programs, where the changes can be too slow or gradual, peripheral to core business operations, or done in a way which do not provide economic benefits to firms (Friedman, 2014).

This approach proposes a holistic, embedded, scalable model of CSR, which encompasses many of the ideas in the examples noted above. (Visser, 2010).

This leads to a need for sustainable sourcing, but the concept may be interpreted in various ways. Most studies focus on two concepts: sustainable or green supply chain management and certified sustainable supply chains. This chapter explores the two concepts.

1. Supply chain management

Sustainable supply chain management (SSCM) has emerged as a way to implement CSR in a more systematic and strategic manner (Seuring and Mueller, 2008). It was first practised by integrating environmental, social and economic criteria into logistics management, which allows an organization to achieve long-term economic viability (Carter and Rogers, 2008). It is also referred to as green supply chain management or closed-loop supply chain management. While these terms are sometimes used synonymously, there are subtle differences in their meaning.

⁹ For a greater discussion on the history and definitions of CSR, see: Smith, Richard E. (2011) *Defining Corporate Social Responsibility: A Systems Approach for Socially Responsible Capitalism*. Philadelphia, Pennsylvania. Program of Organizational Dynamics, University of Pennsylvania.

¹⁰ Glocalization (a portmanteau of globalization and localization) is the adaptation of a product or service specifically to each locality or culture in which it is sold.

¹¹ CSR 2.0 is meant to be an acronym of the five principles, where glocality is the "2", as it combines local and global needs, and circularity is represented by the "0". For more information about the five principles, see: <http://www.managementexchange.com/hack/csr-20-reinventing-corporate-social-responsibility-21st-century>.

Green supply chain management involves managing the environmental aspects of the production of products and has emerged in response to concerns about environmental degradation, overflowing waste sites and high levels of pollution (Srivastava, 2007). It has been defined as 'integrating environmental thinking into supply-chain management, including product design, material sourcing and selection, manufacturing processes, delivery of the final product to the consumers as well as end-of-life management of the product after its useful life' (Srivastava, 2007).

Green supply chain management could be seen to encompass the idea of closed-loop supply chains, a term more commonly referred to in materials manufacturing and electronics; closed-loop supply chains consists of two chains, a forward chain and a reverse chain. In the forward chain, raw materials are transformed into new products and represent the classic vision of a supply chain. In the reverse chain, used products are recycled, reused, repaired or remanufactured (Liu, Kasturiratne and Moizer, 2012). In a closed-loop supply chain, firms conduct life-cycle assessments, a "cradle to grave" analysis for products, which looks at the overall environmental impact of production. Closed-loop supply chains are driven largely by increased environmental regulation.

Common concepts within this field are green design and operations, which include green manufacturing, reverse logistics¹² and waste management. Environmental footprint standards and life cycle assessment are often used in green supply chains as a way to assess and communicate about how environmental concerns are taken up throughout the closed-loop supply chain. Evidence suggests that green supply chain management can reduce the ecological impact of industrial activities without affecting the quality of the product or the profit of the firm (Srivastava, 2007).

Scholars argue that SSCM goes beyond green supply chain management because it incorporates holistic CSR through strategic planning, and that it is sustainable financially because the supply chains are realistically funded and valued (Carter and Easton, 2011). SSCM links green logistics with the 'triple bottom line' of economic prosperity, environmental quality and social justice (Norman and MacDonald, 2004; Webb, 2002). Companies use this approach to minimize risk and avoid liability by acting or being perceived as acting ethically and responsibly throughout their supply chains.

The triple bottom line also promotes the concept that addressing environmental and social concerns ensures economic prosperity for companies (Engardio and others, 2007). This concept became popular in management, consulting, investing and non-governmental organization (NGO) circles as a way of measuring a company's health and ultimate success (Bowden, Lane and Martin, 2001; Pava, 2007). More recently, the business world has recognized that maintaining the triple bottom line reflects what economist Milton Friedman advocates as the primary purpose of business: the pursuit of profit (Engardio and others, 2007).

As suggested by figure 1, a company needs four facilitators to implement the triple bottom line effectively within its supply chain:

- strategy
- risk management
- an organizational culture that supports SSCM
- and transparency (Carter and Rogers, 2008).

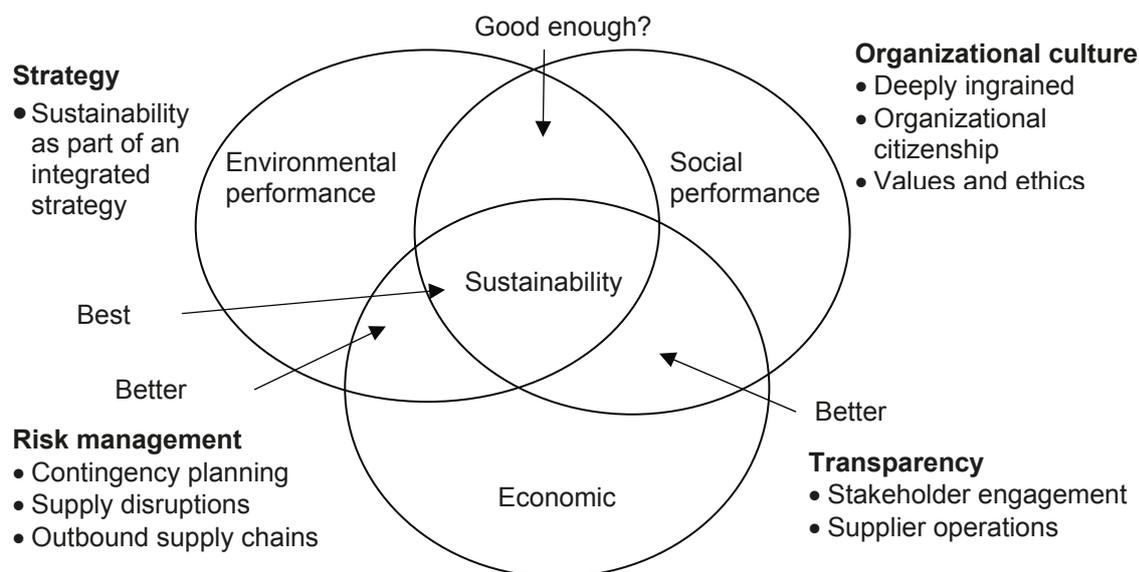
This approach reflects the influence of CSR on how companies are rethinking the organization of their supply chains. For example, Carter and Rogers emphasize the importance of risk management and transparency as ways in which increased social and environmental performance can lead to increased economic benefits.

Examples of activities that are part of SSCM include cost savings from reduced use of packaging, developing sustainable packaging, and initiatives that reduce the amount of waste produced along the supply chain. Improvements in warehousing, transport and working conditions can reduce health and safety costs. Improvements in working conditions can boost morale and reduce labour costs that result

¹² Reverse logistics is the flow of surplus or unwanted material, goods or equipment back to a firm through its logistics chain for reuse, recycling or disposal; see www.businessdictionary.com.

from low productivity and absenteeism (Oxenburgh, Marlow and Oxenburgh, 2004). Many companies implement private environmental and social standards that systematize management systems and enhance their sustainability reputation (Carter and Rogers, 2008). One of the practical ways companies are enhancing their reputation is by sourcing third-party certified products – often referred to as sustainable sourcing.

Figure 1: Sustainable supply chain management model



Source: Carter and Rogers, 2008.

2. Certified sourcing

Sustainable sourcing refers to a strategy that is used by companies practising SSCM. Certified sustainable supply chains rely on the procurement of raw materials or primary products that have been certified to meet social and environmental standards.

Firms have begun to make commitments to source their raw materials only from certified producers. Over the last decade, the number of general and industry codes and principles has proliferated in the form of multistakeholder initiatives. Among these are the Forest Stewardship Council (1993), ISO 14000 (1996), the Marine Stewardship Council (1996), the Fair Trade Labelling Organization (1997), Social Accountability International (1999), the UN Global Compact (2000) and ISO 26000 (2010). Some standards have been taken up so readily by specific industries, that they are becoming necessary for doing business and remaining competitive.

Numerous sustainability standards have emerged, oftentimes with similar overarching goals that have resulted in overlapping requirements and additional compliance costs for the producers. Standards Map, an online tool run by the International Trade Centre, enables its users to identify voluntary sustainability standards, generate comparisons between standards' content requirements and assess their business' sustainability roadmap to sustainable trade. Standards Map contains comprehensive information on over 200 standards or codes of conduct¹³ on the specific requirements and processes needed to comply. Many

¹³ As of publishing, for more information on Standards Map, please see www.standardsmap.org.

multinational corporations incorporate standards as part of their CSR programmes (Blowfield, 2000; Webb, 2002) and increasingly use them as ways to implement SSCM (Friedrich, Heyder and Theuvsen, 2012).

Relying on social and environmental standards assures buyers that their raw materials are being produced sustainably, that they are recognized by the NGOs that develop the standards, and that a firm's suppliers are acting responsibly and sustainably in their supply chains (Islam, 2008). Whether adopting social and environmental standards can actually deliver on both CSR and sustainability claims often depends on how industries are structured through supply chains (Lee, Gereffi and Beauvais, 2012).

Chapter 2 explores the relationship between the governance of supply chains and sustainable sourcing. For sustainable sourcing to be an effective SSCM strategy, the effect of standards on supply chains and the increasingly important role of intermediaries within the supply chain needs be considered.

Chapter 2 How sustainability standards influence supply chains

Social and environmental standards are increasingly used by firms in the agri-food sector as a means to act responsibly, manage risks and ensure the sustainability of their businesses (Jenkins, 2001; Preuss, 2010). Evidence from impact studies of standards demonstrates that the use of standards and codes of conduct pushes the notion of sustainability beyond economic sustainability to address the social and environmental sustainability of the entire supply chain (ITC, 2011).

How firms are able to act responsibly can depend on their geographic location, the size of their business, their business partners, and the tools and strategies that help them to behave responsibly. All of these factors contribute to the ability of firms to ensure the sustainability of the supply and demand of their products.

As noted earlier in Chapter 1, Carter and Rogers (2008) highlighted the four facilitators or criteria that drive SSCM: strategy, risk management, an organizational culture that supports SSCM, and transparency. This chapter explores how using sustainability standards in supply chains can help to meet these criteria.

1. Governance

Within the agri-food sector, value chain analysis has been used to understand how sustainable supply chains and social and environmental standards function. Value chains are 'the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use' (Kaplinsky and Morris, 2002). This conceptualization of the supply chain as a value chain means that the chain is a logistical structure as well as a chain of relationships where different actors are adding value as the product moves from one firm to the next.

'A supply chain is only as responsible as its least responsible member' notes Heikkurinen and Forsman-Hugg (2011). This means that coordinated effort is necessary among supply chain actors (Gibbon, Bair and Ponte, 2008). Such collective responsibility implies that actors are able to control the activities of other actors.

This concept links directly to governance (Benz and Papadopoulos, 2006; Braun, 2006; Kuhlmann, 2001), which is:

'the dynamic interrelation of involved (mostly organized) actors within and between organizations, their resources, interests and power, fora for debate and arenas for negotiation between actors, rules of the game, and policy instruments applied' (Walhout and Kuhlmann, 2013).

This definition is a basis for analysing how actors coordinate their networks and how standards and conventions are used strategically to 'responsibilize' other actors within value chains (Alvarez, Pilbeam and Wilding, 2010; Jessop, 2002; Ponte, 2009).

The majority of published studies on the impacts of standards in agri-food supply chains focus on buyer-driven supply chains (Bair, 2009; Gereffi, Humphrey and Sturgeon, 2005); in these cases standards are requested by the lead buyer (or supply chain captain) downstream, and this buyer requires its suppliers upstream, particularly producers, to demonstrate compliance.

Yet by focusing solely on the buyers, opportunities are missed to consider what other actors are doing and where there may be limitations on how standards can ensure sustainability and responsibility in supply chains. For example, when analysts simplify value chains for the purpose of highlighting the influence of buyers, the complexity of relationships and the role of important intermediary actors are lost.

Challenges relating to responsible supply chains can be sector-specific. As a result, standards and codes of conduct are typically implemented as part of a strategic approach that enables supply chain actors to take into account the following:

- (i) What is the role of the different actors in a chain when it comes to promoting, obstructing or enforcing standard adoption?
- (ii) What are the mechanisms for promoting, obstructing or enforcing the adoption of a standard in a chain?
- (iii) How does the supply chain structure affect the adoption of standards?

A World Bank report (Tallontire and Greenhalgh, 2005) investigates how different supply chains might affect buyers' capacity to implement labour codes in production sites and supply chains. The authors identify six factors facilitating compliance with standards in supply chains:

- Length of the chain: short chains with few actors;
- Degree of integration: highly integrated chains;
- Type of product: products with significant requirements regarding traceability, quality and safety (e.g. food) and for which information on the product origin is important;
- Market conditions: high level of market concentration among actors purchasing supplies, such as retailers, manufacturers and brands;
- Nature of relations among actors: long-term relations and a high degree of trust;
- Commodity identification: commodities identifiable in end products (e.g. cocoa, coffee or sugar).

These factors reflect the debates around the governance of supply chains, as originally explained by Gary Gereffi and colleagues (Gereffi, 2013; Gereffi, Humphrey and Sturgeon, 2005; Gereffi and Korzeniewicz, 1994; Gereffi and Lee, 2009). Governance concerns a firm's control over production parameters, product attributes, verification of performance and price-setting power. Governance mechanisms are numerous and include formal instruments (e.g. contracts) and informal instruments (e.g. trust); control processes (enterprise resource planning, inventory management); and information systems, structures and networks.

Firms aim to govern supply chains for two main reasons. First, product differentiation, innovation and reliability of supply require close coordination and communication with suppliers. Second, retailers and traders are under increasing pressure to meet labour, environmental and product safety and quality standards. Because retailers sell a wide range of products, they are more concerned with protecting brand reputations than with promoting one specific product as being safer or more sustainable.

These forms of pressure do not necessarily require stronger supply chain governance as long as suppliers are in a position to meet specific demands. However, many suppliers lack the capacity and know-how to meet such demands. Standards thus have an important risk-mitigating function for final buyers (Lee, Gereffi and Beauvais, 2012).

2. Traceability

Generally, standards are instruments to codify information and rules, reducing the need for coordination and communication among actors in supply chains and thereby facilitating 'hands-off' governance or governance 'from a distance' (Miller and Rose, 1990). To a large extent, this also applies to social and environmental standards. Whether standards actually lead to this kind of governance, which does not necessarily benefit producers and exporters in developing countries, depends on the way standards are understood and used by the most powerful actor in the supply chain. There is sector-specific evidence (Raynolds, 2009; Riisgaard, 2009), that standards can enhance dialogue between trading partners, leading to stronger coordination and increased exchange of information on quality consistency, reliability of supply and managerial skills.

Often, the use of standards at the producer level has been requested without any support going to the producer, which impedes the standard organization's objectives. Positive impacts have been found where dominant chain actors share the same values encapsulated by standards, for example, through an organizational culture that supports sustainability values and producers in meeting standards' requirements, which indicates that buyer attitude is a key determinant of impact. For example, a high degree of buyer involvement in a coordinating role between actors in the fair trade supply chain increases the degree of change required at the production level in order to reach the standard's objectives (Raynolds and Ngcwangu, 2010).

This type of organizational culture could be promoted in sustainable sourcing by adopting more commitment-oriented approaches (Anner, 2012). One study (Locke, Amengual and Mangla, 2009) investigated the implementation of a private labour standard in a multinational apparel company and its supply chain.

The widely applied model for implementing standards based on compliance audits is inefficient because it rests on mistaken assumptions about the power of firms in supply chains, the role played by information derived from audits, and the incentives required to change behaviour and promote better labour standards. A commitment-oriented model based on joint problem-solving, information exchange and the diffusion of best practices among the buyer and its suppliers leads to more efficient improvements in factory working conditions and labour rights (Locke, Amengual and Mangla, 2009).

Although the responsibility of using certified inputs has become the responsibility of the lead buyer, most standards requirements focus on the production end of the supply chain. The content of the standards concentrates mostly on production, preliminary processing and first-tier marketing of the product; there must be some means to ensure that the practices which produced a crop in a sustainable manner are maintained as the product moves from one intermediary to the next. Most importantly, there must be some assurance that the product sold on the market is actually the product that was produced sustainably.

This is where Chain of Custody standards and traceability systems come into SSCM. Chain of Custody standards require firms to prove that they have implemented effective traceability, storage and record-keeping systems that can monitor the volumes of certified and non-certified products, such as, in some cases, preserving the identity or segregating the certified products from non-certified products. A 2014 review of sustainability initiatives found that 62.5% of the initiatives managed a separate Chain of Custody standard and that a majority of all initiatives maintained some form of segregation of compliant products to allow for traceability (figure 2) (Potts and others, 2014).

Many companies have adopted traceability systems for supply chain optimization. This mechanism has proved to be very important for maintaining food safety and quality control (Trienekens and Zuurbier, 2008). Traceability systems enable companies to make credible claims about their sustainability practices by linking certified producers and buyers together through information about the volumes of certified product being traded and the amount of premiums being paid.

Such information is crucial for building trust among supply chain actors and for transparently communicating a firm's responsible practices. It can also be used to identify weak links or bottlenecks in the chain and to work with intermediaries on improvements. Traceability is key to ensuring that products marked as certified were produced under sustainable conditions and to identifying the key stages of supply chains.

Figure 2: Chain of Custody indicators¹⁴

	1972 IFOAM	1987 SAN/RA	1993 FSC	1997 GLOBALG.A.P.	1997 Fairtrade	1999 PEFC	2004 RSPO	2005 BCI	2005 CmiA	2006 RTRS	2006 4C Association	2007 RSB	2008 Bonsucro	1997 ETP	2012 ProTerra
Separate Chain of Custody Standard		✓	✓	✓		✓	✓	✓		✓		✓	✓		
Identity preservation	✓	✓		✓	✓	✓	✓		✓		✓	✓			✓
Segregation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Mass balance		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Book and claim								✓		✓			✓		

Source: Potts and others, 2014

There are different ways to implement chain of custody systems, as measures need to be in place to ensure that marketing claims are matched with sustainability practices. Identity preservation is when individual products are tracked at each stage of the supply chain, whereas the segregation system groups compliant products together and they are sold as certified products (Potts and others, 2014). Mass balance keeps track of the amount of compliant product sold, but not where it is sold, and the book and claim system looks to the volume of compliant products, though certification is transferable. The type used varies due to such factors as whether the product will be sold in mainstream markets, if there are already direct trade linkages, or the product type.

Older standards tend to use all three models of identity preservation, segregation and mass balance. Mass balance and book and claim, however, may be considered “lower-cost bulk traceability systems” and are increasingly used as standards enter the mainstream (Potts and others, 2014).

¹⁴ IFOAM refers to the International Federation of Organic Agriculture Movements and is an umbrella organization for Organics Worldwide. www.ifoam.org.

SAN/RA refers to Sustainable Agriculture Network/Rainforest Alliance. Rainforest Alliance Certified farms meet both social and environmental standards that are set by the Sustainable Agriculture Network. www.rainforest-alliance.org and www.sanstandards.org.

FSC, the Forest Stewardship Council, is a widely used forest certification system. <https://ic.fsc.org/>.

G.A.P. refers to good agricultural practice. GLOBALG.A.P. is a global organization that sets voluntary standards for certifying agricultural products. www.globalgap.org.

Fairtrade refers to Fairtrade International, a global organization that coordinates certification using standards centred on labour, development and environmental issues. www.fairtrade.net.

PEFC is the Programme for the Endorsement of Forest Certification, an international organization that promotes ecological, social and ethical standards in forestry. www.pefc.org.

RSPO refers to the Roundtable on Sustainable Palm Oil, an international organization and certification scheme for sustainable palm oil. www.rspo.org.

BCI refers to the Better Cotton Initiative, a not-for-profit organization that sets standards for cotton production. www.bettercotton.org.

CmiA refers to Cotton Made in Africa, an initiative run by the Aid by Trade Foundation. www.cotton-made-in-africa.com.

RTRS refers to the Round Table for Responsible Soy, an organization that promotes responsible production, processing, and trading of soy on a global level. www.responsiblesoy.org.

4C Association refers to an organization that sets standards for the coffee sector. 4C stands for the Common Code for the Coffee Community. www.4c-coffeeassociation.org.

RSB refers to the Roundtable on Sustainable Biomaterials. It is a global standard and certification scheme for sustainable production of biomaterials and biofuels. www.rsb.org.

Bonsucro is a not-for-profit organization that encourages sustainability in the sugarcane sector through a metric-based certification scheme. www.bonsucro.com.

ETP refers to the Ethical Tea Partnership, a not-for-profit organization that works to increase sustainability in the tea industry. www.ethicalteapartnership.org

Proterra refers to the ProTerra Foundation, which supports organizations along the agricultural supply chain in advancing their sustainability performance. www.proterrafoundation.org.

Ensuring compliance with standards in supply chains is thus a demanding task for producers and for all actors, including exporters, traders, buyers and retailers. This is demonstrated in a study on the Forest Stewardship Council (FSC) standard, which considers its implementation throughout the furniture and timber supply chain in South Africa (Morris and Dunne, 2004). The researchers for this paper conducted interviews with FSC- and non-FSC-certified manufacturers and sawmill companies in South Africa, a major United Kingdom-based retailer, and the FSC-accredited certifier.

Although the buyer required supplying firms to comply with FSC certification, it delegated the management and coordination of its implementation to its agents. The retailer and its agents initiated and drove the process (Bass and others, 2001). There was a snowball effect up the supply chain that played a major role in pushing the actors towards certification. This effect occurred as the actors in the chain depended on the next respective actor upstream also to become certified; otherwise, a Chain of Custody certification would not have been possible. This led to manufacturers pushing sawmills and sawmills pushing forest and plantation owners. Governance was split between the retailers and the few large sawmills in South Africa, as the retailer depended on the acceptance of certification by the former to secure its supply of certified timber.

Box 2. UTZ Certified traceability system

UTZ Certified is a label and programme for sustainable farming of agricultural products launched in 2002 for coffee, tea, cocoa and other products. UTZ Certified uses two elements to create traceability:

The UTZ Certified web-based traceability system

When an UTZ Certified coffee producer sells coffee to a registered UTZ Certified buyer, the coffee is announced in the UTZ Certified web-based system. UTZ Certified assigns a unique tracking number to this lot of coffee. This number travels with the coffee across the whole coffee chain. At the end of the coffee chain, the roaster uses the tracking number to learn where the coffee was grown. Some brands use this unique tracking system to make the coffee traceable for consumers. UTZ Certified also provides traceability services to the Roundtable on Sustainable Palm Oil certified sustainable palm oil and Better Cotton Initiative cotton.

Chain of Custody requirements

To guarantee that coffee with a UTZ Certified logo comes from an UTZ Certified producer, the UTZ Certified programme maintains Chain of Custody requirements. This is a set of chain-wide administrative and technical requirements for traceability. The requirements include criteria for separating UTZ Certified coffee from non-UTZ Certified coffee, and keeping records of direct suppliers and buyers.

Source: Frequently Asked Questions about UTZ Certified, www.utzcertified.org, October 2008.

3. Relationships

The case of UTZ Certified described in box 2 above exemplifies recent advances in global supply chain analysis, which hypothesize about how supply chain structure and agri-food standards systems are related (Lee, Gereffi and Beauvais, 2012). The most consistent evidence from impact studies and projects on voluntary standards shows that supply chain actors, particularly small-scale producers and exporters, must be collectively organized to successfully participate in these voluntary sustainability standard systems (FAO, 2014). For example, standards tailored to smallholders require either the creation of groups of farms, cooperatives or some sort of adapted certification mechanism that can maintain an internal control system (e.g. Fairtrade, GLOBALG.A.P. and organic).

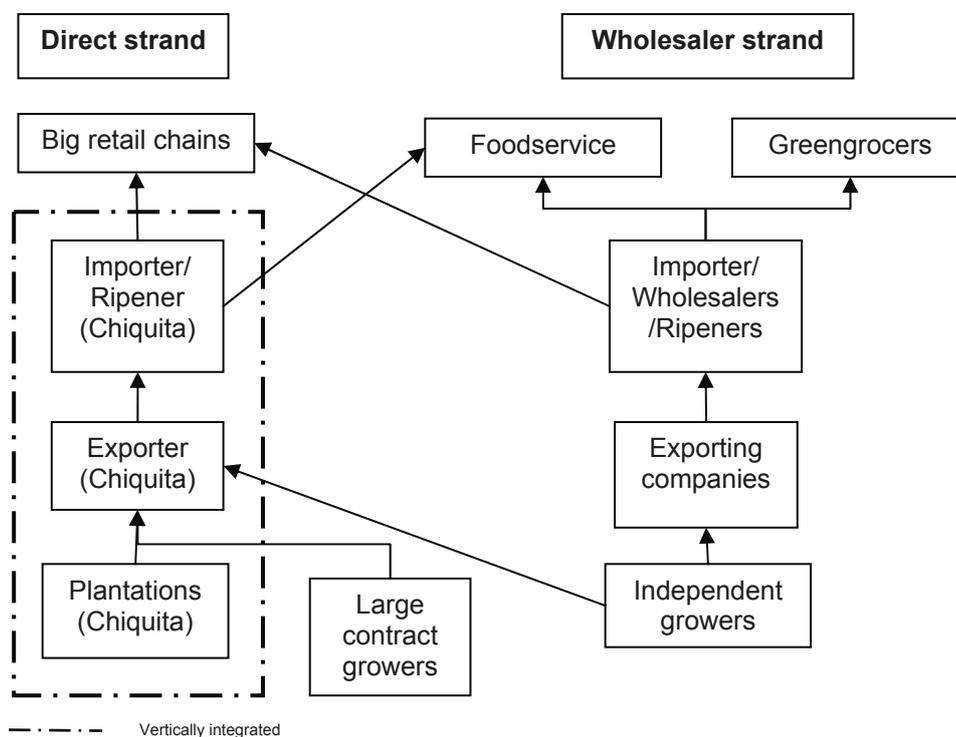
However, a range of intermediary actors function within and on the margins of certified supply chains. They include producers, exporters, transporters, and small and medium-sized enterprises that are hired by larger, more organized producers and exporters. This poses two types of challenges for the incentives and capacities of supply chain actors to coordinate sustainable supply chains.

First, many small-scale and unorganized intermediaries, as well as suppliers and producers at the upper end of the chain, are not officially recognized as part of standards schemes, and thus do not receive the benefits of the schemes. In the case of Brazil nuts in Peru, one study (Nelson and others, 2002) found that the shellers and porters who work for Brazil nut collectors were not fully participating in the ethical scheme, as many of the provisions and benefits of the standards did not apply to them. Trickle-down benefits were assumed, but were not seen in practice. A study of smallholder tea farmers found that despite their small size they employ day labourers who do not receive any of the benefits of the Fairtrade certification that their employers received (Loconto, 2013).

Second, when producers and exporters are not well organized some of the challenges they face – such as an increasing amount of standards to comply with – are exacerbated. Technical measures (e.g. food safety and sanitary and phytosanitary standards) and industry standards (e.g. product characteristics) feature most prominently, but social and environmental standards are becoming increasingly important. Depending on the standard, these additional technical measures are meant to benefit different actors in the supply chain; however, they might also create more hurdles in getting products to market. Generally, the obligations for producers and exporters depend on their respective resources, production systems, geographic location, and access to information, business services and level of infrastructure.

These challenges are reflected in how supply chains are increasingly being structured by lead firms. Lead firms have different incentives and capacities to develop and adopt standards in their supply chains. For example, figure 3 below shows two supply chains for bananas in which a number of these factors differ: a direct strand supply chain, and a wholesaler supply chain. A high level of vertical integration characterizes the direct strand.

The wholesaler strand is less integrated and consists of independent growers with comparatively loose trading relations. Within the vertically integrated strand one common CSR strategy, such as third-party certification, could be employed to coordinate activities among importers, exporters and plantations. This could be more readily communicated to retailers as part of a marketing strategy. In the wholesaler strand, each individual actor will likely have smaller and more locally contextualized responsibilities for which the claims are usually communicated only to those in their community and to their direct trading partners.

Figure 3: Two different value chains for bananas


Source: Riisgaard and Hammer. 'Organised Labour and the Social Regulation of Global Value Chains'. DIIS Working Paper 2008:09.

Standards are used in both types of supply chains or strands, but some literature reviews found that vertical integration or coordination is common in companies that use social and environmental standards (FAO, 2014; ITC, 2011). The direct strand facilitates the enforcement of standards by buyers and fosters the adoption of standards by actors along the chain. However, vertically integrated supply chains can also pose risks for achieving other relevant policy objectives because vertical integration can impede free market access for competitors, particularly small producers, processors and traders, and decrease supplier competition (Williamson, 1971).

This framework suggests that in those chains where a small group of retailers are working with a concentrated group of producers in tightly coordinated supply chains, the most comprehensive private standards exist. In the direct strand, there are key intermediaries, such as exporters and importers, which are important actors in the chain. Intermediaries must also have different incentives and capacities to negotiate their involvement with standards (Lee and others, 2012).

Standards can provide a means for implementing the four key factors or criteria of strategy, risk management, organizational culture and transparency in supply chains. Two variables have an impact on the efficacy of standards in sustainable sourcing strategies. First, not all standards have requirements that cover the entire supply chain.

Second and more importantly, supply chains are complex, with different types of governance and coordination at work; they differ by product, often involve a number of actors and often consist of parallel strands. Since these differences affect companies' capacity to implement good labour and environmental practices in their supply chains, it is important to provide support to producers and exporters for implementing standards. This means that a number of intermediaries must act responsibly and responsively across the supply chain.

This paper proposes that ‘buyer-drivenness’ descriptions of supply chain governance must consider the growing importance of intermediaries, particularly if sustainable sourcing strategies are to be effective. The next chapter examines the role of intermediaries and critical success factors for sustainable supply chain management.

Box 3. WFTO international guarantee system

The World Fair Trade Organization (WFTO) is a global network of organizations representing those who work within fair trade supply chains, which uses a membership structure and also offers its own label.

WFTO as the home of “fair traders”

The WFTO model incorporates members from all stages of fair trade supply chains, as well as organizations that support fair trade. All members must be fully compliant with the WFTO 10 Principles of Fair Trade. Producers, marketers, exporters, importers, wholesalers and retailers are all eligible to be a part of the WFTO thus offering a space for intermediaries within their certification scheme. This enables intermediaries within fair trade supply chains to be part of decision making processes (they are invited to annual general meetings to elect WFTO presidents and directors), access to five regional offices and their networks, and gain global recognition for their certification on sustainability practices and concerns.

Source: About Us and Standards & Guarantee System for WFTO, December, 2015.

Chapter 3 Working with intermediaries in supply chains

Based on examples found in the agri-food sector, supply chain intermediaries are becoming increasingly important in a gatekeeping role as they take on new responsibilities for information and knowledge transfer, codification through standards, and increasing supplier capacity (Hassler and Franz, 2013). This recognition of their role is a recent advance in the literature and comes from a greater understanding of how standards interact with the SSCM strategies of a greater number of actors, which was examined in chapter 2.

The governance framework, also discussed in chapter 2, focuses on the 'complexity of information and knowledge transfer', the 'extent to which this can be codified' in standards and the 'capabilities of suppliers to sustain' their commercial relationships (Gereffi and others, 2005). This chapter explores the role of intermediaries in sustainable sourcing and provides examples of intermediaries that are taking increasing responsibility for sustainable sourcing practices.

1. The role of intermediaries

Within the context of voluntary standards systems, the term intermediaries can often refer to third-party certifiers, accreditation agencies, accounting firms, ranking agencies and credit agencies (Levi Faur and Starobin, 2014). They can be considered as those actors in the supply chain that play an intermediary role between primary producers and 'supply chain captains'; some intermediaries are suppliers that provide goods or services to another supplier and are simply referred to as 'sub-suppliers.' This section draws on the literature describing the role of intermediaries in innovation systems (Howells, 2006; Manning and von Hagen, 2010; Moss, 2009).

The classic notion of intermediaries in innovation studies depicts these individuals or organizations in a transactional light and describes them as service go-betweens, diffusers of technology and general knowledge brokers (Howells, 2006; Kirkels and Duysters, 2010). When the activities of intermediaries are examined in terms of function, process and relationship, intermediaries are seen to act differently in supply chains. For example, within supply chains intermediaries are moving upstream or downstream, diversifying into new industries or technologies and shifting into new markets. This is because intermediaries and their clients have seen a need for intermediary roles, particularly in relationships where the supply chains are complex and require longer-term market relationships (Howells, 2006).

There is evidence of this in supply chains for certified products. For example, traders are becoming crucial to organizing the participation of a variety of actors both upstream and downstream. Traders were very important in the development of the fresh fruit and vegetable sector in East Africa (Dolan and Humphrey, 2004; Gibbon, 2001). They play a direct role in linking United Kingdom retailers to African producers. European supermarkets influence production in Kenya and other sub-Saharan African countries, through intermediaries who ensure that standards of quality and presentation are met.

Importers play a key role in facilitating this trade, acting as vital links between farmers and exporters in Kenya and supermarkets in the European Union (Barno, Ondanje and Ngwiri, 2011). As part of the effort to create an organic agriculture sector in East Africa, traders have played a major role by paying for the certification and training of farmers (Mbiha and Ashimogo, 2010; Van Elzakker and Leijdens, 2000). The primary role of intermediaries in these supply chains is to ensure quality, traceability, ethical agricultural practices and environmental sustainability.

Rural employment (such as farming) is positively correlated to voluntary standards; much of this employment is being generated by traders as they expand their influence upstream (FAO, 2014). Olam Ghana, for example, which is the subsidiary and West African office of Olam traders, employs more than 500 people in its supply chain and manufacturing operations (Olam International Ltd and Rainforest Alliance, 2011). This is a result of a diversification of its portfolio beyond exporting cocoa and cashews to include upstream investment in a wheat flour mill and downstream in importing a variety of food products.

The relationship between the observed vertical integration and rural employment may be illustrated by an example from Senegal. Consolidation during the restructuring of the Senegalese green bean export sector, due to increased backward vertical integration of the larger exporters, created employment opportunities

for poorer households. The seven largest fruit and vegetable exporters in Senegal founded the organization Organisation Nationale des Producteurs Exportateurs de Fruits et Légumes du Sénégal (ONAPES) in 1999. One of its objectives was to become GLOBALG.A.P. certified. The organization set a standard that each member should process at least 200 tons of green beans each season, of which at least 50% should originate in the companies' own estates. This resulted in reduced sourcing from smallholder farmers and increased employment of hired farm workers to expand estate production. This shift benefited the poorest households, which were integrated into the rural economy via labour markets rather than product markets (Maertens and Swinnen, 2009).

Intermediaries are also key gatekeepers because of their ability to facilitate or block communication between different actors in the supply chain. This is fundamental to successful implementation of sustainable sourcing strategies (Hassler and Franz, 2013). Efficient information flows and communication between suppliers and buyers promotes joint decision-making, commitment and loyalty. This affects the quality of relationships in terms of trust, commitment, satisfaction and opportunism.

The quality of relationships, in turn, affects value creation. For example, intermediaries play an important role in the Indian spice sector by communicating backwards and forwards along the chain when working with the Indian family-owned tourism firm Clean Green Hotels Earth. Certification and good organic practices are communicated upstream, while marketing messages related to geographic knowledge are communicated downstream (Hassler and Franz, 2013).

Findings from Sri Lankan tea exporters and United Kingdom importers indicate that this information-sharing approach leads to strategic advantages for supply chain players because it is difficult for competitors to duplicate such relationships (Kasturiratne and Poole, 2006). Intermediaries are 'mediators of cultural knowledge and information'. In this sense, traders act as intermediaries who reduce the complexity and increase the transparency of information exchange, mobilize standards to codify the information and create long-term relationships.

Evidence suggests that intermediaries, particularly traders, are taking responsibility for sustainable sourcing because of their role in brokering information and coordinating the capacity of suppliers to engage in certified supply chains. Research has identified specific factors that, when present, help intermediaries to effectively promote the adoption of sustainability practices downstream and exert control over the activities of their suppliers in order to implement sustainable sourcing strategies.

2. Success factors

Critical success factors refer to the willingness and ability of an intermediary to take on a management role of other suppliers' activities in the supply chain. These factors can be classified as focal firm-related. Focal firms¹⁵ are initiators of international business transactions. Critical success factors can be internal (e.g. related to the focal firm's supply know-how); relationship-related (e.g. trust among supply chain partners); supply chain partner-related (e.g. the sub-supplier's current sustainability standard compliance); and context-related (e.g. bridging cultural distances between supply chain actors) (Grimm, Hofstetter and Sarkis, 2014).

In looking at how focal firms can ensure compliance from sub-suppliers, there are four critical success factors that go beyond the necessary relationships of trust, interdependence and commitment in supply chain relations, and beyond the requirements of consumer insight, management support, personnel commitment and financial resources (Grimm and others, 2014):

- Perceived value for the direct supplier;
- Perceived value for the sub-supplier;
- Low risk of disintermediation;
- The sub-supplier's capacity to comply with standards.

¹⁵ Focal firms initiate international business transactions. They conceive, design and produce the goods or services intended for consumption.

These four critical success factors indicate why and how intermediaries, and traders in particular, are becoming more important in sustainable sourcing strategies and in governing global supply chains. The factors are explained below through examples of traders who have become sustainable supply chain managers.

2.1 Returns for direct suppliers

Perceived value for direct suppliers refers to the supplier's relationship with downstream clients who request certified products from the supplier's upstream producers. Perceived value also refers to the 'trade-off between benefits and sacrifices and includes both monetary and non-monetary elements' (Grimm, Hofstetter and Sarkis, 2014). The direct supplier must determine whether a case can be made for investing in sustainable sourcing and investing in support for other suppliers to adopt sustainability standards.

A big challenge is the high costs of standard compliance, with typically no guaranteed price premium. Compliance costs borne by producers and exporters include additional operational costs (e.g. upgrading of production), certification costs, auditing costs and membership costs (Santacoloma, 2007). Prices are subject to negotiation among producers, exporters and buyers. Given their often-weak negotiating position, producers do not always manage to negotiate a price that compensates for compliance costs.

Recovery of compliance costs on the producer side also depends on whether the standard being applied specifies which actor in a supply chain pays for compliance costs and whether technical and financial support are provided to the producer. The volumes requested by the buyer appear to be an important determinant of whether a trader is willing to invest in sustainable sourcing.

Long-term relationships are a precondition for engaging in supplier support, as spot buying strategies provide few incentives to engage in capacity building work with suppliers.¹⁶ While it may be difficult for a company to engage more closely with all its suppliers, a balanced portfolio could include some closer relationships with direct suppliers and second- or even third-tier suppliers – not least for risk management reasons. As an increasing number of companies now seek to create responsible supply chains, a consulting industry has developed to provide related support. Consulting companies offer strategic advice and guidance on how to implement standards or, more often, how to set up traceability and management systems.¹⁷ All of these factors enabled Armajaro Trading Ltd to become a sustainable supply chain manager.

Case study: Armajaro Trading Ltd

Armajaro Trading Ltd. (ATL),¹⁸ founded in 1998 and based in London, is a commodity trading house, hedge-fund manager and supply chain manager. It is a direct supplier of cocoa, coffee and sugar with locations in Brazil, Côte d'Ivoire, Ecuador, Ghana, Kenya, Indonesia, Malaysia, Nigeria, Singapore, the United Republic of Tanzania, Uganda, United States and Viet Nam. Its clients include global chocolate manufacturers, coffee manufacturers and roasters. It offers financial instruments, such as forward price cover and value added services, along the supply chains it manages.

ATL defines its responsibilities as 'being a responsible employer, a responsible supply chain manager and a responsible member of the international community'.¹⁹ To that end, it has invested in protecting the environment, enhancing traceability programmes and expanding the development of sustainable production programmes. ATL is a large supplier of cocoa beans and products and controlled about 7% of

¹⁶ For a discussion of long-term business relations, see: Loconto, A., & Simbua, E. (2012). Making room for smallholder cooperatives in Tanzanian tea production: Can fairtrade do that? *Journal of Business Ethics*, vol. 108, No. 4, pp. 451–465.

¹⁷ For example, <http://www.sustainabilityprofessionals.org/system/files/ISSP-Article3-final.pdf>.

¹⁸ This information is based on a presentation at the Cracking the Nut 2013 Conference in Dresden, Germany, and on documents found on the Armajaro Trading website: www.armajarotradng.com, accessed 11/04/2014.

¹⁹ ATL Sustainability Policy, http://www.armajarotrading.com/pdf/ATL_SustainabilityPolicy.pdf, accessed 11/04/2014.

annual cocoa production.²⁰ It has invested both upstream and downstream through its wholly owned sourcing/procurement operations in Ghana, Côte d'Ivoire, Nigeria, Brazil, Indonesia, Malaysia and Viet Nam, as well as in a European cocoa-processing joint venture.

Through its foundation, Source Trust, ATL funds projects that build farmer capacity and relate to community development. Source Trust is financed by voluntary premiums paid on traceable cocoa beans by their chocolate maker partners and supplemented by donor funds from such organizations as the Ford Foundation, IDH The Sustainable Trade Initiative, and the World Cocoa Foundation. In Ghana and the United Republic of Tanzania, the company has agreements with the governments to support smallholder farmers through the New Alliance for Food and Nutrition Security. ATL received investment funds from the International Finance Corporation to carry out this work.

Through these investment commitments, the company planned to work directly with more than 51,800 smallholder coffee and cocoa farmers and their families.²¹ A main thrust of this investment is to help farmers obtain certification for sustainability standards, such as Rainforest Alliance, UTZ Certified and Fairtrade.

ATL has incorporated sustainability into its supply chain management policy.²² It has accordingly invested in meteorology monitoring to improve its ability to predict weather patterns and yields, which helps its supply chain management and commodity futures trading. The company argues that as a sustainability supply chain manager, it has learned that 'if you are unable to manage the supply chain between the farmer and the final end customer, then you wouldn't be successful in this field'.²³

Traceability is the core element that enables ATL to address sustainability concerns on farms and to manage the supply chain. The company collaborates with GeoTraceability on implementing a traceability system that collects data and allows ATL to respond to the challenges faced by farmers. For example, through the International Finance Corporation funded Biodiversity and Agricultural Commodities Program, GeoTraceability, ATL and Biodiversity International have developed a methodology for collecting, processing and analysing data on key biodiversity indicators for cocoa-producing fields in Ghana.²⁴

ATL takes part in commodity roundtables and industry-led initiatives, such as the 4C Association for coffee, where sustainability standards are being developed and supported in a pre-competitive manner.

2.2 Benefitting sub-suppliers

The perceived value for a sub-supplier is mostly dependant on the direct or indirect benefits that it perceives or actually accrues. However, the direct supplier mediates these benefits, and the benefits that a sub-supplier realizes are dependent on how it maintains a marketing channel through the direct buyer. Supply chains with sub-suppliers are longer and more closely resemble the wholesale strand. This means that direct suppliers in these supply chains often request certified products, but have not completely vertically integrated the supply network. Sub-suppliers must then make their own investments in certification.

According to Grimm and others (2014), a price premium and the volumes purchased by the direct supplier are influential in a sub-supplier's decision to invest in sustainability standards. Such investment can provide additional marketing channels for the sub-supplier who may have other clients with similar compliance requirements. These points are illustrated in the example of the Fruits of the Nile growers' association that has invested upstream in processing and farmer cooperative support.

²⁰ This information is based on a presentation at the Cracking the Nut 2013 Conference in Dresden, Germany, and on documents found on the Armajaro Trading website: www.armajarotradng.com, accessed 11/04/2014.

²¹ http://www.armajarotrading.com/pdf/ATL_SummaryandLettersofIntent.pdf, accessed 11/04/2014.

²² <http://www.youtube.com/watch?v=FIKcjMPVIQ>, accessed 11/04/2014.

²³ <http://www.youtube.com/watch?v=pZWuBrlcnDE>, accessed 11/04/2014.

²⁴ https://www.geotraceability.com/Geotraceability/en/news_Biodiversity.php, accessed 11/04/2014.

Case study: Fruits of the Nile Ltd

Fruits of the Nile Ltd (FoN),²⁵ a Ugandan trading company set up in 1992, is an exporter of dried pineapples and bananas with a network of more than 120 producer groups that are solar dryer processors. The producer groups source from more than 900 farmers. About half of these farmers were organic and Fairtrade certified, but the whole supply chain was in the process of conversion. The dried fruit is exported to Tropical Wholefoods Limited (TW), a sister company in the United Kingdom for distribution to small retail outlets, supermarkets and Oxfam Trading Limited. FoN partners with international donors, such as the United Kingdom Department for International Development, and national NGOs, such as ABI Trust.

Through access to financing, their suppliers have been able to invest in appropriate technologies, such as solar dryers, juice extractors, and health and safety equipment. The company also provides training for its suppliers on documentation, quality management systems and organic production techniques. FoN promotes solar drying and organic production techniques as sustainable technologies. It has developed a source-to-sale drying process and provides a year-round market, which aims to reduce waste in times of surplus. The goal is to have the value added processing at the farm rather than at a central factory.²⁶

This is important because it provides value for the sub-suppliers, which are farmer cooperatives, and encourages them to make their own investments in certification and standards. For example, Kangulumira Area Cooperative Enterprise (KACE), a Fairtrade Africa producer, is one of the producer groups that supply the FoN growers association. KACE has bulking, storage and other services that add value for producers. It produces dried pineapple for FoN but has diversified into producing pineapple juice and pineapple wine for the local market.

KACE has also explored ways to mobilize its organic certification to reach a greater number of exporters looking for fresh organic pineapples and value added products. Through increased prices received from the organic market and the social premiums received from the Fairtrade certification, KACE has been able to convince more of its members to join the cooperative and to begin the conversion to sustainable production practices.

2.3 Supplying directly to lead firms

As many sustainability standards promote focusing on direct sales and shorter supply chains, there is a risk that a buyer will terminate a business relationship with a direct supplier and turn instead to sourcing directly from a sub-supplier. This is referred to as disintermediation. Studies have found that intermediaries are often unwilling to engage in SSCM if providing support to a sub-supplier would directly threaten their businesses (Grimm, Hofstetter and Sarkis, 2014).

When this risk is high, there is evidence that suppliers are less willing to share information about their supplier base, which creates barriers to supply chain governance. The extent to which this risk may be high depends on the ability of the buyers and producers to deal with sustainability standards independently and to engage in direct sourcing arrangements. The risk may increase if sub-suppliers and lead buyers are not committed to a business relationship with the direct supplier. Traders have responded to the risk in two ways. The first is through the fair trade model, and the second is by establishing their relevancy as an intermediary.

²⁵ This information is based on interviews conducted with the grower associations in Uganda in March 2014 and on documents found on the Fruits of the Nile website: <http://www.fullwellmill.co.uk/partners/fon.htm>, accessed 11/04/2014.

²⁶ <http://www.tropicalwholefoods.com/fruits-of-the-nile/4565003426>, accessed 25/03/2014.

Box 4. The fair trade model

In the fair trade model, the idea is that there should be as few intermediaries as possible in the supply chain between producer and consumer; by eliminating the “middle-men,” a higher percentage of the retail price paid by consumers is available to support producers and sustainability initiatives.

The case for fewer intermediaries

Proponents claim that this model allows for higher prices for producers and lower costs for consumers, thus making it a fairer trading relationship. Fair trade standards have emerged specifically to establish rules to control the types of relationships between suppliers and the minimum prices that must be paid. The fair trade model is essentially a free-standing ‘organizational architecture’ that centralizes the intermediary roles into one or a few ‘trading partners’ (Macdonald, 2007).

The limits of disintermediation

Despite attempts to disintermediate actors in conventional supply chains by creating new, shorter strands, it is clear that some form of intermediation between producers and suppliers is necessary. Such intermediation is occurring as a number of ‘fair traders’ have been created in recent years with the explicit purpose of consolidating intermediary activities within a single trading company.

Case study: Cafédirect

In 1991, following the 1989 coffee crisis, Cafédirect²⁷ was created by Oxfam, Traidcraft, Equal Exchange and Twin Trading. These four not-for-profit organizations had experience as retailers, promoters and supply chain managers of Fairtrade coffee, but wanted an organization that could directly source their products (Davies, Doherty and Knox, 2010). Cafédirect was the first coffee brand in the United Kingdom to carry the Fairtrade® mark in 1992 and helped pioneer fair trade sourcing practices. The company trades in coffee, cocoa and tea under its own label and has developed a unique business model that enables it to play an intermediary role in fair trade supply chains.

The organization claims that its business model goes beyond the Fairtrade minimum and by developing an internal Gold Standard for product quality, it has created ‘a specific Cafédirect value chain and understanding of what a responsible and ethical business should do nowadays’.²⁸ Cafédirect addresses the threat of disintermediation by making a claim that defends its position in the chain precisely because it is disintermediating other actors and they state that they only buy from smallholders, and not middlemen. They further claim that ‘This is rare, even for Fairtrade brands.’²⁹

The business model is focused on a system of profit-sharing and reinvestment. Profits are reinvested back into growers – more than 50% – through the Cafédirect Producers’ Foundation.³⁰ It has integrated suppliers into its governance structure. Cafédirect’s website states: ‘Two growers sit on our Board and 75% of our grower partners own shares in our business.’³¹ This business model integrates producer support services into the commercial exchanges in the supply chain with the aim to facilitate the integration of social and environmental impact strategies along the chain. For example, Cafédirect has invested in traceability systems, sustainable packaging, product life cycle assessments and collaboration with producers to develop climate change adaptation strategies. In this way Cafédirect, in its position as a trader, has integrated both downstream and upstream activities into its supply chain.

²⁷ This information is based on interviews conducted in Nairobi, Kenya, and London, United Kingdom, in 2009–10, and on public documents found on the Cafédirect website: www.cafedirect.co.uk/, accessed 11/04/2014.

²⁸ Interview with Cafédirect in 2010.

²⁹ www.cafedirect.co.uk/discover-our-difference/, accessed 25/06/2014.

³⁰ www.cafedirect.co.uk/discover-our-difference/, accessed 25/06/2014.

³¹ www.cafedirect.co.uk/discover-our-difference/, accessed 25/06/2014.

2.4 Building the capacity of suppliers

Sustainability standards require specific knowledge about sustainable production practices and how to implement standards in credible and responsible ways. As a result, systems are emerging to support their implementation. This is tied to the need for external guarantees and is what makes sustainability standards different from industry or company codes of conduct or supplier contracts, which are enforceable only by companies themselves. The capacity of sub-suppliers to comply with standards is perhaps the most discussed critical success factor in agri-food systems.

Integrating small-scale farmers – key producers in many sectors – into social and environmental initiatives poses an additional challenge for exporters or intermediate buyers, for example in contract farming arrangements. This critical success factor is important for two reasons. First, if sub-suppliers' capabilities are too low, lead buyers will be hesitant to engage in SSCM practices that can bring sub-suppliers into certified supply chains. Second, a low sub-supplier capacity can also be an incentive for intermediaries or lead buyers to make investments upstream.

Opportunities for intermediaries to be fully integrated into sustainable sourcing strategies rely primarily on building their capacity to implement their own strategic objectives and to build the capacity of the farmers they organize. Training for producers should enable them to understand the key elements of social and environmental standards. Ideally, producers should have the tools to assess whether one or more of these certifications represent an opportunity to provide market access, increase income and improve well-being. Information and simplified decision-making tools are an important element of improving the ability of producers, cooperatives and exporters to self-select the most appropriate option for their particular circumstances.

Responsible production is contingent on general good management and infrastructure to compete effectively. Producer support needs to include training on good production practices, efficient and productive farm management, quality improvement, and general business skills, such as financial risk management (Carrera and others, 2004). It is also important that producers and exporters gain easier access to credit, national extension services, testing equipment and laboratory facilities (United Nations Industrial Development Organization, 2010). The example of Kamphaeng-Saen Commercial illustrates how sub-supplier capacity has been built in Thailand.

Case study: Kamphaeng-Saen Commercial

Kamphaeng-Saen Commercial (KC Fresh),³² established in Thailand in 1993, is now the country's top exporter of 'safe and clean' fresh fruits and vegetables. Its export volume is approximately 180 tons per month to the United Kingdom, the Netherlands, Switzerland, Austria, the Russian Federation, Hong Kong (China) and Japan. It also sources to national supermarkets and gourmet markets, international hotels and airline caterers. Management states: '[KC Fresh has] seen the hazard of unsafe foods, which are from both bacteria contamination and chemical residue causing dangerous diseases. It affects trade and tourism, which leads to a loss of income, unemployment and lawsuits.' For this reason KC Fresh implemented projects aimed at improving their farmers' capacity to implement good agricultural and manufacturing practices based on GLOBALG.A.P., Hazard Analysis and Critical Control Point, British Retail Consortium and Institute of Packaging standards.

The firm has tried to integrate production links by investing in farms, agronomy, food production factories, packing and logistics. One investment has been in farms where it created an outgrower scheme in which farmers have committed to farming their land collectively as one large plot rather than numerous small plots. This helped to create an economy of scale in the production process. It has also allowed them to create timed production so that they were able to provide a more constant harvest of fresh fruits and vegetables all year. These agronomic changes have been complemented by packaging and cold chain logistics that facilitate market access for their products.

³² This information is based on a presentation at the Cracking the Nut 2013 Conference in Dresden, Germany, and on documents found on the KC Fresh website: www.kcfresh.com/en/index.html, accessed 11/04/2014.

KC Fresh has implemented a quality control system with specialists who work to ensure the producers are complying with the standards. It employs 450 locally recruited workers and provides them with social welfare, training and career development.³³ The company has worked to move dispersed smallholder farmers into a streamlined production, processing, packaging and export operation.

2.5 A business case for intermediaries

With increasing focus on the importance of sustainability standards for many key export commodities, some traders have been able to maintain and thrive in their roles as intermediaries in conventional supply chains. Two facts are particularly challenging for traders in maintaining their roles: sustainability attributes are difficult to price-in, and sustainable practices involve very different issues for different commodities. Ecom Agroindustrial Corp., a commodity trader, characterizes these challenges as follows: 'Borne out of an urgency to ensure the sustainability of its own business, Ecom developed a strategy to support coffee farmers that includes training, certification, and services that add to the profitability of the farmer's business.'³⁴

Sustainability is a means to 'de-commodify' the commodity, serving the needs of both manufacturing and farmer clients (Rosenberg, Eckstein and Brett, 2010). However, not all traders are investing upstream or downstream. Van Rees is an example of how the existing commodity trading system might influence the risks of disintermediation.

Case study: Van Rees

Van Rees³⁵ has been trading in tea since 1819 and is now part of Amsterdam Commodities N.V. (Acom), a Dutch trading house specialized in spices, nuts and food ingredients. It is an international broker with the capacity to source tea from all producing countries worldwide. This global reach is possibly due to the dominance of auctions in the global tea trade. Brokers run weekly auctions in the main tea-exporting countries, such as India, Kenya and Sri Lanka.

Brokers sell tea for their producer clients and purchase tea for their blender clients. This provides brokers with a clear intermediary role in the industry. While the tea is traceable through the transparent auction system, there is very little direct contact between the majority of blenders and producers that market their tea via the auction system. With the initiative announced in 2007 by Unilever to require Rainforest Alliance certification for its Lipton brands, a number of tea blenders that have vertically integrated production systems began to source certified tea outside of the auction system. This poses a threat of disintermediation for brokers such as Van Rees.

However, the transparency of the auction system and a number of concessions has enabled brokers to keep their intermediary role and add certified tea to their portfolios. For example, Fairtrade International authorizes retro-certification, whereby a buyer can purchase certified tea through the normal auction mechanism, and at current market prices, and then retroactively declare it a certified sale and pay the additional monetary premium. The increased demand for certified tea by such blenders as Tata Tetley, Sara Lee, Twinings and Unilever enables these organizations to rely even more on their existing suppliers and the auction system to meet their demand. This has in turn allowed brokers to begin to provide support for sustainable standards.

Van Rees explains its involvement in these schemes as follows: 'We further believe that programmes which bring social and economic improvement in origin countries are the pathway to a strong and enduring future for tea. To this end, we ascribe to Rainforest Alliance, UTZ Certified, Fairtrade and organic

³³ See: <http://www.kcfresh.com/en/index.html>

³⁴ See: www.idhsustainabletrade.com/site/getfile.php?id=14

³⁵ This information is based on interviews conducted in Mombasa, Kenya, in 2009–10 and on documents found on the Van Rees website: www.vanrees.com/, accessed 11/04/2014.

practices. With our leading position in global tea supply, we back sustainable practices, traceability and economic progress in the developing world.³⁶

3. Case study learnings

Looking at critical success factors leads to a better understanding of why there is increased investment by traders and other intermediaries in sustainable sourcing systems. The emerging trend involves the transformation from traders into sustainable supply chain managers. These intermediaries are playing the fundamental role of gatekeepers, as they occupy geographic, knowledge and information positions that bridge the production and consumption ends of a supply chain. In order to attempt to implement supply chains that promote ethical, social and environmental values which go beyond purely economic considerations of the value of price for a product, there is a need for actors to play these intermediary roles.

As more companies prefer to keep sourcing through their existing trusted supply chains, and not shift to working directly with producers, the conversion of traders into sustainable supply chain managers will continue. These intermediaries are demonstrating that they can handle the sustainability requirements in addition to typical supply chain requirements of price, quality, timing and volumes.

A challenge remains for both future research and policy, however, because there are few external controls on these intermediaries to ensure that they remain 'responsible' in their new roles. Unlike lead buyers who have brand reputations to protect, intermediaries often do not, and are therefore not as susceptible to external pressures.

³⁶ www.vanrees.com/van-rees-group/sustainability, accessed 11/04/2014.

Chapter 4 Conclusions

This paper explores the relationship between corporate social responsibility (CSR), sustainable sourcing and supply chain intermediaries to showcase the systems within which sustainability standards operate and present strategies to promote sustainable practices in agri-food production. Chapter 1 examined how CSR and sustainable sourcing strategies are linked. This provided a foundation for the argument in chapter 2 that implementing social and environmental standards along supply chains is a sustainable sourcing strategy that needs to be managed in specific ways to ensure its effectiveness. However, the predominant focus on buyers and producers in supply chains indicates that the role of intermediaries is not yet fully captured in current sustainability strategies. Chapter 3 demonstrated that intermediaries are repositioning themselves within supply chains to take on more responsibility for sustainability.

While supply chain intermediaries are increasingly active in sustainable sourcing strategies and are taking on bigger roles in organizing producers and supply chain interactions, to reach their full potential intermediaries need to more consistently assume this responsibility. Intermediaries will continue to exist in supply chains and they need to be “part of the conversation” and directly linked to sustainable supply chain management, with more distinct roles in sustainability standard schemes. As is the case with Armajaro Trading Ltd, traders are becoming involved in the new commodity roundtables, which is indicative of their commitment to sustainable supply chain management. However, because initiatives that recognize and involve intermediaries in sustainable sourcing strategies are only now emerging, there exists much room for growth and innovation in these areas.

Some intermediaries, particularly exporters and traders, are fundamental to mediating knowledge and information backwards and forwards along the supply chain. Traceability systems are important to this process. The role of intermediaries as providers of structural support means that they can potentially assume more responsibility for sustainable sourcing. This recognition could refocus standards strategies on engaging partners along the chain who are interested in promoting similar sustainability goals, thereby creating shared value (Porter and Kramer, 2011).

If sustainability standards remain a priority of only a few lead buyers, however, the potential benefits will remain marginal. Rather, recognizing the importance of intermediaries in supply chains is a necessity for making sustainability standards work more effectively. This calls for:

- Identifying supply chain intermediaries;
- Understanding how intermediaries are organized within the supply chain;
- Understanding their role in promoting, obstructing or enforcing standard adoption;
- Identifying what mechanisms can be used to influence the adoption of standards.

These tasks could be followed up with more fully integrating intermediaries into standards adoption systems, creating more incentives to comply, produce and trade in certified products, and merging the values and culture of organizations at different steps in supply chains, which would in turn alter the focus of the traditionally buyer-driven standards. The role of intermediaries and their potential to foster sustainability and create shared value should be key topics of future research to ensure that new, effective, and innovative approaches to sustainability are successful in promoting greater responsibility in agri-food chains.

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