

# Transforming International Product Chains into Channels of Sustainable Production

The Imperative of Sustainable Chain Management

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## Introduction

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### 1 Background

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#### 1.1 Sustainable development

Although command-and-control measures have had a significant beneficial impact on the environment, it is now generally recognised that ecological sustainability requires further integration of environmental concerns into the strategies that basically define corporate identity. Moreover, it is increasingly considered that sustainable development involves three main aspects of productive activity: the economic, social and environmental.

#### 1.2 Corporate responsibility

The relevance of this triad is particularly manifest in the international trade relationships involving large international trading and manufacturing companies that obtain their major inputs from low-income regions in the world. Many of these large international companies—based mostly in advanced economies in the European Union, Australasia and North America—are now facing growing

demands for corporate responsibility and accountability. The mixed blessing that globalisation is thought to be is also leading to further pressure on companies operating in developing countries on issues such as labour rights and environmental management, especially when the countervailing powers of good government and civil society are weak and poverty prevails.

#### 1.3 War against poverty

Parallel to these developments, in a world of development aid and international cooperation, it is increasingly being realised that the war against poverty is primarily to be waged by becoming competitive actors in the world economy. Even though in the past business and non-governmental organisations (NGOs) represented two different, antagonistic, worlds, nowadays there is a growing realisation that the provision of schools and clinics cannot bring

sustainable well-being if the population remains impoverished and without a means to generate wealth. In this respect, NGOs cannot afford to ignore the international business community, which is beginning to broaden its scope in terms of social and environmental concerns.

#### 1.4 Mainstreaming

The above considerations underline the relevance of sustainable chain management. This means working towards enhancing the social and environmental performance as well as the economic performance (quality) of the processes that are necessary to grow, process, transport and sell a product. This makes it possible for organisations in the different links of a product chain to work together to create a sustainable product and bring it to market. There are now cases where NGOs have actively helped to create separate market niches for social and environmental products or, in a broader sense, sustainable products. These projects benefit small farmers and manufacturers and at the same time prove that different, more sustainable, modes of doing business are possible.

In terms of volume, these initiatives have only a modest effect. Therefore, calls are increasingly being made for mainstreaming—that is, for the adoption of sustainability standards by the large manufacturers and sellers of those products whose ingredients originate in developing countries. This means not only increasing the standards that overseas small producers have to meet but also actively enabling them to achieve such standards.

Achievement of direct contact with large purchasing companies requires considerable commercial skills from the upstream producers. In sustainable chain management, rather than selling their products to intermediaries that pool the wares of a great number of producers, the upstream producers make direct contact

with the final purchasing company. Product quality is a key issue in such a relationship. How to cope with all these new requirements is a great challenge for actors at both ends of the international product chain. There is a pressing need for inspiring stories of good practice, good management instruments and adequate government and NGO policies in this field.

## 2 Supply chain management

### 2.1 Supply chain history<sup>1</sup>

To grasp the nature of the rather complex concept of sustainable chain management it is useful first to discuss the ‘chain management’ element, referring to supply chain management (SCM), which has acquired an established position in the management literature. The term ‘supply chain’ was originally associated with classical (multinational) enterprises that traditionally were vertically integrated: key suppliers were acquired and, often, distribution channels were owned or controlled. For a long time, this model was predominant in consumer product industries such as the food industry and the consumer electronics industry. Often, a single logistics organisation or business unit would manage this type of supply chain. The classical solutions for supply chain optimisation typically were developed for application to the supply of standard products.

Over the course of time, changes have occurred along two dimensions: in the role of prominent enterprises in the chain and in the nature of the product. Supply chain management has also become relevant in situations in which there is more than one autonomous player. However, in such cases there is often a dominant enterprise that uses its power to organise and plan the chain by involving customers and suppliers. Where power is limited, collaborative roles may develop, in which case

<sup>1</sup> The following two paragraphs are based on Wortmann 2000.

the focus shifts to (real-time) communication and convergence of plans rather than on optimisation of one plan. The products involved in such cases are not necessarily restricted to standard products, with the supply chains increasingly involving customised products or customised sets of services around a product.

## 2.2 Research

SCM and the research focusing on it involve different aspects (economic, social, legal) and pay explicit attention to logistics and information systems. Trienekens *et al.* (2000) mention three major perspectives on SCM that seem to be helpful in understanding its nature and scope:

- ▶ An organisational or institutional perspective, involving collaboration, business environment, power and trust
- ▶ A performance perspective, involving performance measurement and consumer behaviour
- ▶ A process perspective, involving process management issues such as costing, supply chain organisation, targets, throughput time and decision-making

Basically, SCM is demand-led; that is, the overriding criterion is the satisfaction of the client. Special factors that drive SCM are food safety, product quality, product innovation, product differentiation and the lowering or containment of system costs, in particular of logistical costs (i.e. for shipping and warehousing).

## 3 Sustainable chain management

### 3.1 Corporate responsibility

Attention to the sustainability aspects of a business in relation to product supply chains has inspired the term 'sustainable chain management'. Sustainable chain

management, relating to the (wide) area of managing international product chains, involves issues of sustainable development insofar as companies can be held responsible for the social and environmental impacts arising along the supply chain. It demands that companies integrate ecological and social aspects into their decisions and actions, not only internally but also along those supply chains that determine the economic value of their business. For most companies, this a new idea, particularly if it entails taking responsibility for the well-being and performance of small, upstream producers in developing countries. Moreover, even where international companies seem to have developed some sensitivity towards sustainability issues, they appear to find it difficult to go beyond the limits of conventional SCM focused on the paying client and/or final consumer. In particular, food safety and product quality issues may call for a more intensive relationship with primary producers than was previously required.

### 3.2 Deregulation

Whether and how this can be done is also dependent on how the producing countries have organised their commodity sectors. In general, deregulation and privatisation tend to increase over time, which leaves a vacuum that calls for new institutional arrangements that private organisations can develop. As this can work out either for good or for ill, a plea for sustainable chain management is all the more relevant.

### 3.3 Subsidies

To enable the producers (peasants and agricultural workers in most cases) to do a better job, international companies may not be unwilling to invest money in some basic capacity-building and equipment for the producers. Where subsidies are available, some companies appear to be willing to devote time to projects that aim at developing the capacities of the upstream

producers, but in such a case the financing is dependent on government agents. In a country such as the Netherlands, corporate officers with special assignments in fields such as environment, social affairs, corporate citizenship and sustainability may spend a considerable part of their time on lobbying and developing project proposals with a view to obtaining government subsidies. As a stepping stone towards the creation of a real sustainable enterprise, this may be regarded in a positive light. Nonetheless, in a way it is amusing to see large enterprises (frequently with billion-euro turnovers) hunt for 'a few grand' to demonstrate their wider social concerns.

### 3.4 A broader view

The limitation of the conventional, demanded type of chain management, however, may be overcome by the fact that international companies are broadening their view. They are not only focusing on their direct clients and final consumers but are also taking a wider set of stakeholders into account, such as governments, NGOs and the citizenry—stakeholders that respond to the worldwide issues of ecological and social sustainability. Therefore, international supply chain management is no longer just a matter of managing processes but is equally a matter of corporate identity and responsibility. The large international companies have come to realise that they not only have to operate legally (by complying with legislation) but also must comply with a sociopsychological licence to produce and sell. Moreover, because of the worldwide presence of such companies, the leadership of the largest international companies are increasingly realising that the sustainability of their very organisations depends on the sustainability of the human world at large. Ecological disaster and human deprivation limit their (potential) resources and their (potential) markets. However, these modest signs of enlightenment will lead to concrete action only if the various stakeholder groups increase their pressure on

these international companies, inducing them to evolve SCM into sustainable chain management.

Consumers seem to be interested in sustainable products but their willingness to pay for them has so far been limited. NGOs play an extremely important role in creating awareness and exposing wrongs, but as one-issue organisations they cannot be expected to set the societal agenda. Governments and parliaments have to play a decisive role and have done so at different levels. However, the economic setbacks and budgetary problems that governments have to deal with easily put the international issues of sustainability, including poverty, at a lower priority than they deserve to receive. Therefore, both at the corporate level and the government level, international sustainability, including sustainable chain management, is in need of leadership that is strong and carried out with conviction to 'keep the ball rolling'.

### 3.5 Pioneers and early innovators

However, besides leadership, sustainable development, including sustainable management, cannot 'come true' without pioneers and early innovators. This special issue of *Greener Management International* testifies such initiatives and discusses what they can achieve in a context of continuous improvement.

## 4 The papers in this issue

### 4.1 Overview

This issue consists, first, of two overview papers, by Mick Blowfield and by Claude Auroi, that critically discuss issues that are important to the understanding of sustainable chain management. These are followed by six papers that provide concrete cases of sustainable chain management: Myrtille Danse and Teun Wolters look at a coffee consortium; Maria Goldbach *et al.* describe OTTO's initiative to

establish a sustainable cotton chain; Beatrice Kogg also provides a study of cotton supply; Titus Fossgard-Moser provides a case study of sustainable development in the Shell Group; and Sasha Courville discusses the use of sustainability indicators as a means to compare and evaluate international product chains, with a focus on coffee. Last, but not least, Dena Freeman looks into the issue of homeworkers as attached to global supply chains. In the following sections I present a fuller review of each of these papers.

#### 4.2 Ethical sourcing

Mick Blowfield introduces the concept of ethical sourcing (or trading). In ethical sourcing, a company at one part of the supply chain (typically a brand owner, retailer or other Western company with a public profile) takes responsibility for the social and/or environmental performance at other stages of the chain, especially those involving primary producers. This is a significant change to common practice as it implies that the company is taking responsibility for the behaviour of others even if it has no formal liability.

Blowfield refers to initiatives in mainstream markets such as the Ethical Trading Initiative (ETI), with special reference to the cocoa, coffee and tea industries. Although sympathetic to the cause of ethical trading, Blowfield shows that in different ways ethical sourcing radiates the business interests of the large companies. For instance, he gives examples to show that there is a disparity between the standards used in ethical sourcing and the norms, values and priorities of producers in the supply chain. There is a danger that certain issues will be overlooked in future standards, partly because they cannot be codified or measured and partly because the big companies do not wish to see certain discretionary powers challenged.

#### 4.3 Codes of conduct

Claude Auroi discusses the possibility of improving sustainable chain manage-

ment through fair trade. He endorses the principles of fair trade but believes that, as a separate system, fair trade cannot significantly expand sustainable chain management. He does not think that the international companies will develop a strong interest in the social needs of the producers but, because of increasing rules in the European Union (EU) and a wish on the part of international companies to further control the upstream part of the chain, the differences between fair trade and mainstream will tend to diminish. To benefit from this tendency, he believes, the fair-trade movement must develop a strategy that gives it a strong influence on the codes of conducts that will be developed for international companies in the years to come.

#### 4.5 Sustainable coffee

Myrtille Danse and Teun Wolters discuss a major project—the SUSCOF project— involving six Costa Rican co-operatives that have decided to work together in developing a sustainable coffee supply for the Dutch and wider EU market. An important encouragement was the interest shown by AHOLD Coffee as the first major client, based on its own corporate strategy to take environmental and social requirements into account. The co-operatives, which take care of the processing and sales of the coffee cherries supplied by their members, implemented an environmental management system in compliance with ISO 14001 and also adopted a system of sustainability indicators that was strongly inspired by ISO 14031. For the farmers, the good agricultural practices (GAP) have already been partly implemented. The longer-term success of the project will depend on a return to prices that at least cover the production cost and on a growing interest by international companies in sustainable products.

The project emanated from a sustainable development agreement between Costa Rica and the Netherlands which emphasised the need for change not only in the developing world but also in the

(one-sidedly) developed world. Moreover, it took the entrepreneurial potential of the Costa Rican coffee sector as a basis for collaborative action by partners at both ends of the product chain.

#### 4.6 Organic cotton

The production of cotton and cotton clothes has serious ecological and social impacts. Maria Goldbach, Stefan Seuring and Simone Back stress that the major challenge in transforming conventional cotton chains into channels of sustainable production does not lie in overcoming technical problems; instead, it is a matter of having the actors involved work together and managing the co-ordination process. According to transaction cost theory, supply chain management is a hybrid arrangement (between market and hierarchy) which is appropriate under conditions of moderate transactional uncertainty, asset specificity and frequency of transaction. The authors work this out by discussing how the German mail-order company OTTO introduced sustainability into its collection of cotton clothes. First, the company optimised from an ecological point of view its conventional cotton chain and paid attention to the social issues involved. Later, it also introduced organic cotton. This led to complicated methods of interaction, whereby command-and-control, negotiations and market-based transactions came into play.

Beatrice Kogg provides a glimpse behind the scenes of the development of organic cotton production by a small Swedish firm in Peru. Although the Swedish firm had very limited power in the chain, its proposition to 'go organic' appealed to the different players in the chain. It had to take a number of risks: it paid a premium price at all stages of the chain, it had to accept higher costs for the administration of sourcing, purchasing and control, and some of its bargaining power was lost as it became more dependent on a smaller number of suppliers. To be successful, it had to go outside its traditional pattern of supply chain inter-

action. Both a firm strategic decision to enter the organic product market and the promise of higher returns provided the resolve to continue.

#### 4.7 Energy sector

Although food sectors are prominent in international chains, other sectors can be equally relevant in this respect. Titus Fossgard-Moser illustrates this by focusing on the energy sector. Using the Shell Group as a case, he considers the different ways in which energy companies can contribute to sustainable economic development in the developing countries where they are present. He particularly refers to enhancing local employment and promoting the use of local products and services.

In the case study examined, employment opportunities were created not only by offering jobs to local candidates but also particularly by setting up special training centres. It appears that after some time former trainees also are able to find employment in other companies. From the case study, it appears that for the local population the greatest employment and supply chain opportunities associated with energy company activities typically occur during the construction phase of projects. If correctly managed, the potential exists for contractors trained during this phase to participate in the operational phase of the project. Fossgard-Moser goes on to discuss various supportive projects in these (and other) areas and mentions the key lessons learned from them.

#### 4.8 Comparison of chains

In her paper, Sasha Courville posits that sustainable chain management requires information about the social, environmental and economic performance that flows between all actors, from the producer to the end-consumer. Performance indicators are an important mechanism for obtaining and communicating this information. However, one should be careful when using performance indica-

tors to compare different chains. Courville asks: 'If the same standards and relevant indicators are used to evaluate different supply chains, does this process lead to a fair interpretation of the social and environmental conditions on which production and consumption are based?' She addresses this and other related questions by comparing the application of indicators to the evaluation of the very different social conditions of production within two supply chains of coffee, one originating in Mexico and one in Costa Rica. The Costa Rican case refers to the SUSCOF project, discussed in this journal by Myrtille Danse and Teun Wolters (see Section 4.5).

#### 4.9 Homeworkers

In her paper, Dena Freeman makes it clear that globalisation causes social problems to 'pop up' in all regions of the world, whether rich or poor. This is particularly evident when looking at the phenomenon of homeworkers. Homeworkers can now be found working in Europe as well as in North and South America. They are involved in many different sectors, from clothing, through accessories, to metalware, and constitute a significant proportion of the labour force. Many of the products they work on enter global supply chains and are eventually sold in the shops and catalogues of North American and European retailers. Because they are part of the 'informal economy', homeworkers are particularly difficult to locate and monitor. They thus pose a challenge for companies trying to ensure that sustainable social practices are present throughout their supply chains. Freeman describes the types of issues that surround the problem and considers some of the ways that leading companies have tried to address the presence of homeworkers in their supply chains and how the Ethical Trading Initiative (which is also referred to in the paper of Mick Blowfield; see Section 3.1) is working to take this further.

## 5 In conclusion

### 5.1 The imperative of sustainable chain management

The papers that this special issue of *GMI* present show the relevance of sustainable chain management, but also the difficulties associated with it. There is a strong case for international companies—which have reasons to further develop their supply chains anyway—to take sustainability on board. For these companies, internal co-ordination and training in this area can be important. For instance, one can imagine that 'headquarters' embraces a wider stakeholder approach and recognises the importance of building up good relations with co-operatives of farmers in developing countries. Those working in business units that actually organise the supplies from overseas may be doing this from the point of view of traditional process management, focusing on low costs only. A search for greater food safety and higher product quality, for instance, may serve to bring the different angles together. Where farmers are properly organised, the control of critical processes can be arranged much more effectively than in situations where they are not organised. From this point of view, investment in sustainable chain management can make sense as a full business case.

Can all commodity trade be organised by means of sustainable chain management? The answer is no. However, it would be highly beneficial if all international companies were to apply sustainable chain management to a considerable part of their business. This would provide the learning experience from which good standards and regulations can be derived so that in the longer run the world will be a much better place for millions of people in the developing world. Therefore, for years to come, sustainable chain management is a must.

## 5.2 The assumption of worldwide development

Of course, the eventual macro-economic effects of sustainability measures in international trade can only be judged positively if there is an assumption of continuous economic improvement on a wide scale. In a sense, supply chain management cannot be separated from selection processes; improved product quality requires improved 'human quality'; containment of costs requires efficiency and therefore reduced labour intensity. One may claim that sustainability will influence this selection process for the better, but at the sectoral level it cannot prevent hardship for those who cannot cope. In the long term, sustainable chain management will make sense only if it is developed in concert with a worldwide policy for sustainable economic development. Then sustainable chain management will be able to create major learning processes that spill over to the whole of society.



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