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## Voluntary environmental and social labels in the food sector

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**Abstract:** Since the late 1990s environmental and social labels have become widespread in developed countries. The most common environmental and social certification labels in the food sector are organic agriculture, fair-trade and the Rainforest Alliance. Sales of labelled products have risen rapidly over the past ten years and the outlook is for continued market growth, albeit at a lower rate. Producers may benefit from better market access and, in many cases, a price premium. Additional benefits can include higher profitability as well as non-economic benefits such as enhanced self-esteem, social image and relationships with business partners. However, a substantial investment in time and money is often needed for certification and compliance with standards. The cases of organic bananas and fair-trade coffee illustrate the potential benefits and costs of these labelling systems for farmers in developing countries.

**Key words:** certification, labels, markets, fair trade, organic.

### 8.1 Introduction

Since the early 1990s, a variety of voluntary certification labels have become available to the agricultural industry. These include the labels associated with voluntary environmental and social standards. Such standards have been developed by a wide array of organizations, from both the public and private sectors, at local, national or international level (FAO 2007). Private sector labels include labels developed by businesses (e.g. food manufacturers and retailers) and those created by not for profit NGOs. The latter type of labels covers a wide range of

issues such as environmental protection, labour rights, safety and health at work, social equity and the welfare of local communities. A growing number of agricultural producers and traders have sought to obtain certification against one or more of these standards for a variety of reasons. Some of the labelling schemes may generate a price premium. Other possible benefits lie in improved market access and stability. Some schemes help rationalize production, reduce costs, improve labour management and enhance the morale and participation of workers. Others help preserve productive natural resources. Sometimes the main reason for adoption is the need to improve the company's image and show its commitment to social responsibility. Among the environmental and social labels, the most common in the agriculture sector are the Rainforest Alliance, organic agriculture and fair trade labels.

This chapter only deals with labels that are associated with voluntary environmental and social certification programmes,<sup>1</sup> which producers are free to adopt or not. Labels related to mandatory governmental standards (officially named 'technical regulations') are outside its scope.

## **8.2 Background: environmental and social issues in agriculture**

The rise of certification and labelling schemes aiming at sustainable agriculture results to a large extent from growing consumer awareness of the adverse environmental and social effects of large-scale commercial farming. In particular, the expansion and intensification of production in large plantations in the 1980s and early 1990s gave rise to a series of environmental problems. The expansion was sometimes done at the expense of forest or other natural vegetation. More importantly, agricultural production for export is generally intensive, with high levels of external inputs, and often takes place in monoculture plantations organized along agro industrial lines. Most plantations rely on the frequent use of agrochemicals to maintain fertility and limit losses caused by pests. Inappropriate production practices have often led to pollution of land, watercourses and aquifers, and a reduction in biological diversity.

As consumers have become increasingly sensitive to environmental issues, intensive agricultural production has attracted growing attention. Some industries (e.g. bananas, palm oil) have come under close scrutiny. Strong pressure from non-governmental organizations (NGO), negative media coverage and a shift in consumer preference towards 'ecofriendly' products have led some companies to take measures to reduce the adverse impacts on the environment. Solutions have been sought to the most pressing problems. The management of input and output flows has been rationalized in many farms. Waste disposal has improved considerably since the late 1990s. Collection of plastics, composting of organic rejects and filtering of wastewater have become common practices on many plantations.

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<sup>1</sup>In certification, compliance with the standard is verified by an independent third party.

However, the pollution caused by the intensive use of agrochemicals in monoculture production remains a challenge, as changes in input use may directly affect productivity. Monoculture attracts a wide range of pests and diseases, notably fungal diseases, which are difficult to combat in tropical climates.

Beside its negative environmental impact, the use of pesticides may also have adverse effects on the health of plantation workers and neighbouring communities. Further, the long-term toxicity of an authorized pesticide may be discovered only many years after its approval was granted. Various cases of soil contamination by the indiscriminate use of pesticides that were legal for long periods have been reported in a number of countries.

The agriculture sector has faced social problems related to the non-respect of labour rights. In several instances, the conventions of the International Labour Organization (ILO) and even national labour laws were not enforced, leading to abuses such as child work, excessive working hours, discrimination, sexual harassment, non-respect of health and safety regulations and absence of provision of medical assurance. Another frequently debated social issue in agriculture is the right to freedom of association and collective bargaining, as formulated in ILO conventions No. 87 (1948) and No. 98 (1949). These problems have coincided with growing consumer awareness of the 'ethics' of food production and trade due in part to the sensitization campaigns launched by various NGOs working in areas such as human rights, social development and 'fair trade'. Issues such as conditions of work, wages of farm labour or the price paid to small producers in developing countries attracted public attention in developed countries. Consumer associations and other groups now want guarantees that workers' health is not put at risk by the lack of adequate safety measures on the farm or the use of pesticides known to be hazardous. They are increasingly interested in labour rights issues such as freedom of association or the right to join an independent trade union, as well as in 'fair' remuneration of farm workers and small producers.

Under pressure from NGO campaigns, retailer demands and increased consumer awareness of ethical trade in the importing countries, companies have taken steps to improve the situation of their work force. This tendency was first apparent in the marketing of imported handicraft products, as exemplified by shops guaranteeing their customers that their rugs were not produced using child or forced labour. In the 1990s, the movement reached larger manufacturers of consumer goods (e.g. garments and sport shoes), demanding that they exert a closer monitoring of the working conditions in their subsidiaries worldwide. Social concerns have also reached the agricultural sector and some progress has been observed in recent years.

### **8.3 Main environmental and social labelling schemes in agriculture**

#### **8.3.1 Basic principles of certification and labelling schemes**

Certification is a written guarantee by an independent certification body that a

production process or a product meets the criteria or requirements contained in a certain standard. The certification body is a third party that has no interest in the economic relationship between the supplier and buyer. The basic elements of a certification system (also called certification 'programme' or 'scheme') are the standard and the system to control the compliance of the certified entity with the standard. The object of certification can be a product or a process. Environmental and social labels are generally aimed at the production process (and sometimes also the trading process, as in fair trade standards). These standards may focus on environmental issues such as soil conservation, water protection, pesticide use or waste management; on social issues such as worker rights, occupational health and safety; or on other issues such as food safety. The improvements can result in the protection of local resources, healthier workers and other benefits for producers, consumers and local communities. The certification is voluntary when producers freely decide whether or not they want to certify their production process and facility.

Certification is used to demonstrate that the product has been produced in accordance with a certain process or has certain characteristics. It can differentiate the product from other products, which can be helpful to promote the product in different markets, improve its market access and, in some cases, fetch a better price. Certification is mainly used when the producer and the consumer are not in direct contact, as in the international market. In those cases where there are doubts on the effectiveness of the regulatory system of the exporting country, certification may help exporters create trust (Cuffaro and Liu, 2007).

Producers can choose among many different types of certification. The decisions on whether or not to seek certification and what type of certification to choose are important choices that influence farm management, investments and marketing strategies. Each certification programme has different objectives and thus different requirements that the producer must comply with in order to be certified. The cost of complying with the standard and of certification depends on the types of changes the producer will have to make and on the type of certification programme chosen. In general, the cost of certification is based on the time spent by the inspector(s) doing the farm inspection (farm audit) and on their travel expenses.

### **8.3.2 Certification labels frequently used in the agricultural export industry**

There are a number of certification and labelling programmes that apply to agricultural exports. This chapter covers those environmental and/or social labels which are the most significant to agricultural trade in terms of certified quantities, namely organic agriculture, fair-trade and Rainforest Alliance. The selected labelling schemes are all voluntary, i.e. producers and traders are free to choose whether to seek certification or not. However, these schemes differ widely in terms of ownership, objectives, scope, requirements, criteria, indicators and monitoring procedures. All are privately owned standards, except for organic agriculture. The Rainforest Alliance standard is a single standard, owned by a non-governmental

**Table 8.1** Main characteristics of selected labelling schemes

	Organic	Fair trade	Rainforest Alliance
Number of standards:	> 10	> 4	1
Ownership:	Governments, NGOs	NGOs, Certification bodies	RA-SAN (NGO)*
Focus of standard:	Environmental	Social equity	Environmental
Countries where it applies:	All	Developing countries	Developing countries
Certification by:	Accredited certification bodies (CB)	FLO-Cert for FLO** standard.CB for their own standards	Sustainable Farm Certification, Intl
Main beneficiaries:	All types of farms	Small farmers	Large farms

\*Rainforest Alliance-Sustainable Agriculture Network

\*\*Fairtrade Labelling Organizations International

organization, while there are several fair trade standards. Similarly, there is a wide array of organic agriculture standards, some privately owned, some governmental, some intergovernmental (Table 8.1).

*Organic agriculture* is a production method which manages the farm and its environment as a single system. It utilizes both traditional and scientific knowledge to enhance the health of the agro-ecosystem in which the farm operates. Organic farms rely on the use of local natural resources and the management of the ecosystem rather than external agricultural inputs such as mineral fertilizers and agrochemicals. Organic agriculture therefore rejects synthetic chemicals and genetically modified inputs. It promotes sustainable traditional farming practices that maintain soil fertility such as fallow and nutrient recycling (e.g. compost and crop litter).

There is a variety of organic agriculture standards (see Chapter 6). Historically, the first standards were developed by non-governmental organizations (e.g. organic farmer associations, trade associations, certification bodies). Then, as the market for organics grew, governments started to regulate organic labelling and develop national standards. France was among the first governments to adopt a regulation on organic farming. Now, most developed countries have a public standard and regulations governing the production, marketing and labelling of organic products. Finally, some intergovernmental entities have adopted laws and standards. The European Union adopted it in 1991 (Regulation EEC 2092/91). In 1999, the Committee on Food Labelling of the Codex Alimentarius Commission adopted Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods. According to the Codex definition:

*organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking*

*into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system. (CAC, 1999)*

Organic agriculture is one of several approaches to sustainable agriculture, and many of the techniques used (e.g. inter-cropping, rotation of crops, double-digging, mulching, integration of crops and livestock) are practised under various agricultural systems. What makes organic agriculture unique, as regulated under various laws and certification programmes, is that: (i) almost all synthetic inputs are prohibited, and (ii) ‘soil building’ crop rotations are mandated.

The basic rules of organic production are that natural inputs are approved and synthetic inputs are prohibited, but there are exceptions in both cases. Certain natural inputs determined by the various certification programmes to be harmful to human health or the environment are prohibited (e.g. arsenic). As well, certain synthetic inputs determined to be essential and consistent with organic farming philosophy are allowed (e.g. insect pheromones). Lists of specific approved synthetic inputs and prohibited natural inputs are maintained by all certification programmes. Many certification programmes require additional environmental protection measures in addition to these two requirements. While many farmers in the developing world do not use synthetic inputs, this alone is not sufficient to classify their operations as organic.

## 8.4 Fair trade

According to the major four international NGOs involved in fair-trade,<sup>2</sup> fair trade is a trading partnership, based on dialogue, transparency and respect, which seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South. Fair trade organizations are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.

There is a variety of fair trade standards developed by a number of NGOs. In the agricultural sector, the most widespread system is that of the Fairtrade Labelling Organizations International (FLO), an international NGO based in Germany. FLO comprises 20 national fair trade labelling NGOs, mostly from developed countries in Europe, North America, Asia and Oceania. FLO’s member organizations work with small producers and farm workers to increase their security and economic self-sufficiency, and empower them in their own organizations. The FLO system relies on certification, i.e. compliance with the FLO standard is verified by a third party that does not have an interest in the business transaction. FLO is responsible

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<sup>2</sup>The International Fair Trade Association (IFAT), FLO (Fair trade Labelling Organizations International), NEWS! (Network of European Worldshops) and EFTA (European Free Trade Association).

developing the standard and supporting producers, but the fair trade certification is carried out by a separate organization, FLO Cert, a not for profit NGO. The FLO fair trade system guarantees agricultural producers a minimum price and a price premium on product sales.

FLO has developed and regularly updates detailed standards for crops. To obtain certification, producer associations must function in a democratic manner. There are also rules on how the fair trade premium has to be spent and requirements for the protection of the environment. For plantations, there are a number of requirements related to labour rights: treatment of workers, freedom of association and collective bargaining, workers' housing and sanitation; workers' health and safety; and no child or forced labour. In addition, the producer must comply with the environmental and social laws in the producing country and demonstrate continual improvement in annual inspections (audits).

Other fair trade certification systems have emerged recently. They have been developed by private certification bodies, notably Ecocert (France) and IMO (Switzerland). The International Organization for Standardization has debated the relevance of developing a standard for fair-trade, but no decision has been taken so far. To date, no government (except France) has undertaken to regulate fair-trade. This means that the term 'fair trade' is not legally protected and can be used by anyone under any trading conditions. However, the labels used by fair trade NGOs such as those listed above are private trade marks protected by law.

It should be noted that a number of *alternative trading organizations* (ATOs) import foods under fair trade principles although they do not belong to the FLO system. They usually do not use certification, but instead themselves monitor the compliance of their suppliers with their standard (second party verification). Some of these organizations have existed for several decades, well before the creation of FLO, and import significant quantities of foods. Examples include GEPA (in Germany), Oxfam VW (in Belgium) and the Alter Trade Group (in Japan). This chapter uses the term 'Fairtrade' created by FLO to designate those fair trade products which are certified under the FLO system.

#### **8.4.1 Rainforest Alliance**

The Rainforest Alliance is a not-for-profit NGO based in the United States and Costa Rica dedicated to environmental conservation. It is a founding member of the Sustainable Agriculture Network (SAN), a group of non-governmental organizations working for environmental conservation and development. The Rainforest Alliance certification aims to promote good farm management practices for natural resource conservation and to improve worker conditions and community relations and environmental management. In collaboration with the producers, SAN has developed standards for fruits, coffee, tea, cocoa, fern and cut flower production.

The environmental requirements of the standard include: conservation of forests, streams and wildlife; soil and water management; storage, transport and application of agrochemicals; integrated pest management; criteria for waste management; and a farm management plan that integrates the environmental and

social standards. Some of the criteria, particularly on the social aspects, require compliance with national legislation and internationally recognized conventions.

The Rainforest Alliance certification for farms is carried out by an international certification company, Sustainable Farm Certification International. After the initial audit, there is an inspection every year. All farms must achieve a minimal level of compliance with SAN standards and demonstrate continual performance improvements to maintain certification. The producer pays the cost of farm inspections and an additional annual fee to SAN that depends on the area of land to be certified. The certification mark is mostly used in promotional activities, but is increasingly being used directly on products as well.

The Rainforest Alliance certification generally requires higher environmental and social standards in relation to conventional production methods. An important characteristic is the use of a point system that allows for certain flexibility. Also the certification allows for the use of agrochemicals under certain guidelines. These characteristics may be important for producers in particular farming situations. The Rainforest Alliance does not guarantee a price premium but claims that most certified producers can negotiate a price premium ranging between 0 and 30 per cent because of increased quality and widespread recognition for its label (Liu, 2009). Information on premiums is difficult to obtain. Whether certification will give a financial benefit to the producer may depend on market recognition, and the negotiations between buyers and sellers.

In February 2009, the Rainforest Alliance's website reported that it had certified 31 158 farms in 19 countries for a total area of 527 090 hectares. The Alliance estimates that 1 250 000 farmers, farmer workers and their family members directly benefit from the programme (see [www.rainforest-alliance.org](http://www.rainforest-alliance.org)).

## 8.5 Main markets for labelled foods

There is ample evidence that sales of foods with environmental and social labels have expanded rapidly since the late 1990s. However, there is a lack of official data on the volumes and values of sales, as national agricultural census data and official trade statistics usually do not distinguish between certified and non-certified products. In the case of organic products, a few market research firms and NGOs have started publishing data. In the case of the Fairtrade standard, FLO and its member organizations monitor the marketed volumes and (sometimes) values. Data on total Rainforest Alliance product sales are not available, but this organization provides some estimates for the volumes of particular commodities (e.g. coffee, bananas). In order to guide decision-making and policy formulation, it will be necessary to establish systems for collecting data on the markets for certified products in a more systematic manner.

Developed countries are the main markets for certified products with more than 95 per cent of sales, but there is a rapid increase in some other countries such as Brazil, Argentina and China (Liu *et al.*, 2004). In Europe, Western European



countries account for the bulk of the market (more than 90 per cent), but increases have occurred in Central Europe (Czech Republic, Slovenia, Slovakia and Hungary). Switzerland has a very high per capita consumption (*idem*). There is a large variation in consumption per capita across the different EU countries, with Germany, United Kingdom and France leading by volume as the most important markets (*idem*).

There is a wide range of environmental and social labels available in the stores of developed countries. This is a positive development, as it gives consumers information and the possibility to choose the products that address their concerns about sustainability. However, the proliferation of labels may also create confusion among consumers, who do not always know what a label guarantees, and there is the risk of deception.

The remainder of this section describes the markets for organic and Fairtrade certified products, which are those for which more complete sales data are available.

### 8.5.1 Organic-labelled foods

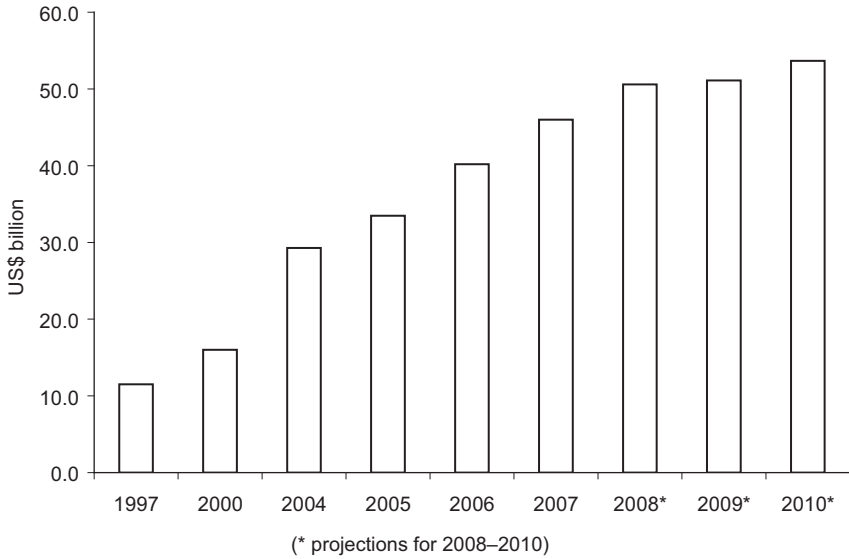
Based on estimates collected from various studies and industry sources,<sup>3</sup> global retail sales of organic-labelled foods were estimated at some US\$40 billion in 2006. Few final figures are available for 2007 yet, but Organic Monitor (2009) estimates that sales reached US\$46 billion. They have increased four-fold over a decade, growing from approximately US\$11 billion in 1997 (Fig. 8.1). Double-digit growth was common for many years, but it has slowed since the second half of 2008 due to the economic crisis.

It is estimated that 98 per cent of the sales of certified organic products take place in developed countries. North America and Europe account for the bulk of retail sales as illustrated in Fig. 8.2. Other sizeable markets are Japan, Australia and New Zealand. Although developing countries presently account for only a fraction of sales, consumption is rising steadily in some of them, in particular in the emerging economies of East Asia (Singapore, Malaysia, China, Republic of Korea) and Latin America (Argentina, Brazil, Chile). In these countries, organic sales are overwhelmingly concentrated in the large cities and purchasers originate from the upper classes.

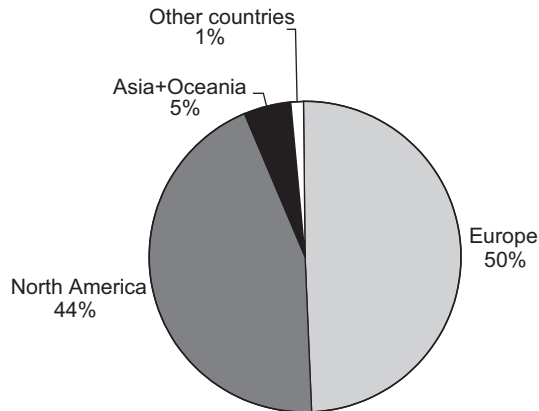
In terms of market share, private organic labels have become somehow marginalized by the development of governmental standards. In most developed countries, governments have regulated the production, marketing and labelling of organic foods since the 1990s (EU) or early 2000s (USA, Japan). However, private organic standards continue to exist alongside public standards due to consumer preferences. In these cases, the food product is certified to two standards (the public and private ones). The percentage of products bearing a private organic label is unknown.

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<sup>3</sup>ITC, Eurofood, SÖL, Organic Monitor and other sources.



**Fig. 8.1** World retail sales of certified organic products (past and projected). Source: Liu (2009).



**Fig. 8.2** Main markets for organic foods (in percentage of world retail sales in 2006). Source: Liu (2009).

### 8.5.2 Fairtrade-labelled foods

Global sales of Fairtrade certified foods reached nearly €2.4 billion (US\$3.5 billion) in 2007 according to the Fairtrade Labelling Organizations International (FLO, 2008).<sup>4</sup> Sales increased by 47 per cent (in euro terms) over their level of

<sup>4</sup>Since this figure only reflects sales of FLO certified foods and does not include sales by alternative trading organizations, the total market value of fair trade food is slightly higher.

2006, and further growth was recorded in 2008. Tropical products such as tea, cocoa, coffee and bananas enjoyed the fastest growth rates. On average, sales expanded by 40 per cent annually over the period 1997–2007. FLO certified products are available in more than 60 countries. The main markets for fair trade products are the United States, the United Kingdom, France, Switzerland and Germany, accounting for nearly US\$2 billion in 2007 (82 per cent of global sales of FLO labelled foods).

By the end of 2007, 632 producer organizations in 58 developing countries in Africa, Asia, the Caribbean and Latin America were certified by FLO (FLO, 2008). FLO estimates that these organizations represent 1.5 million farmers and farm workers and, when counting their families and dependants, overall 7.5 million people benefit directly from fair trade (*idem*). The number of certified producer organizations has trebled since FLO was created in 1997. Some NGOs that do not belong to the FLO system also sell fair trade labelled foods, but the quantities are very small compared to those of FLO labelled foods.

## 8.6 Benefits and costs for producers

The main incentive that spurs producers to seek certification is the expectation of a price premium. Indeed, some environmental and social labels may have a direct value adding impact by enabling producers to obtain higher sale prices. In developed countries, a substantial share of consumers is willing to pay a price premium for products that can offer guarantees that their environmental, health and social concerns with regard to food production are addressed. Under the pressure of declining commodity prices at the end of the 1990s, many agricultural producers have sought to differentiate their products from those of their competitors by targeting premium market segments. Traditionally, product differentiation has been pursued through improving the physical attributes of the goods, be they visible (e.g. grade, shape, colour, physical integrity, variety, packaging) or not (e.g. taste, acidity, sugar content). More recently, however, farmers and processors have started to differentiate their products on the basis of the production process. Environmental and social standards offer an avenue for such differentiation.

These labels are of particular interest to developing economies where they may help to generate employment, raise export earnings, support small producers, improve food security and resilience to climate change, preserve environmental quality and diversify the local economy. Certification is a strategy for producers and exporters to add value to their products and increase the economic viability of small-scale agriculture. Rising demand for certified products creates new market segments where producers may be able to demand price premiums and secure buyers for their products.

Beside the direct price effect, engaging in the certification process may yield other advantages for food producers. The required traceability and record keeping systems may improve the management of the farm or company. They may help

them rationalize production and cut input costs (for example through a more efficient use of agrochemicals). Complying with standards may improve market access through enhanced product quality and improvement in the image of the farm or company. Labour standards may reduce worker turnover, absenteeism and accident and sickness rates, thereby reducing costs and raising productivity. They may lead to better health conditions for farmers and farm workers. Compliance with environmental standards may improve the management of natural resources on which farmer livelihoods depend. They may enhance the farmer's relations with the local community, including its suppliers and lenders. Although they are difficult to quantify in financial terms, these benefits may be significant.<sup>5</sup>

On the other hand, complying with new standards usually entails additional costs for suppliers. Investments are often necessary to upgrade production. Obtaining and maintaining certification is costly, as suppliers have to pay registration and inspection fees. This problem is compounded when farmers produce for different clients requiring different standards. They have to go through several certification processes, which is costly and time consuming. This is one of the negative consequences of the proliferation of certification schemes.

## 8.7 Case study: organic bananas

### 8.7.1 Labelling in the banana industry

Environmental and social labels are becoming more widespread in the banana industry (Liu, 2009). Table 8.2 displays estimates of the export quantities of bananas bearing the fair trade, Rainforest Alliance or organic agriculture label. Exports of bananas bearing those labels were estimated at over 2 million metric tonnes in 2007, accounting for close to 15 per cent of global banana exports. The exact value of retail sales is unknown due to the lack of price data, but the global value was likely to approach US\$3 billion in 2007.

**Table 8.2** Estimated exports and sales of bananas bearing selected sustainable agriculture labels

Standard	Estimated global exports (MT in 2007)	Estimated share of world banana exports (% in 2007)	Estimated sales in 2007 (US\$ million)
Organic agriculture	310 000–330 000	2.2	800
Fair-trade	250 000–260 000	1.7	450
Rainforest Alliance	1 500 000–1 700 000	11	1 800
Total(*)	2 000 000–2 200 000	14.5	2 900–3 000

(\*) the total is less than the sum of the rows due to multiple certification  
Source: Liu (2009).

<sup>5</sup>For a literature review of the impacts of certification in agriculture see Dankers (2003) and Cuffaro and Liu (2007).

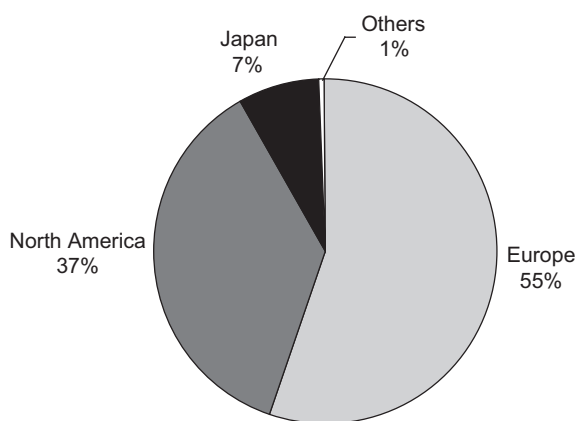
The bulk of certified bananas are exported from developing countries (in particular Latin America and the Caribbean) to developed countries. Among the latter, Europe and North America predominate, accounting for some 90 per cent of imports. Japan follows at a distance, with the Philippines and South America as its primary suppliers. Europe imports organic and fair trade bananas from Latin America, the Caribbean and West Africa. North America imports organic bananas from Latin America.

### 8.7.2 Trade and markets

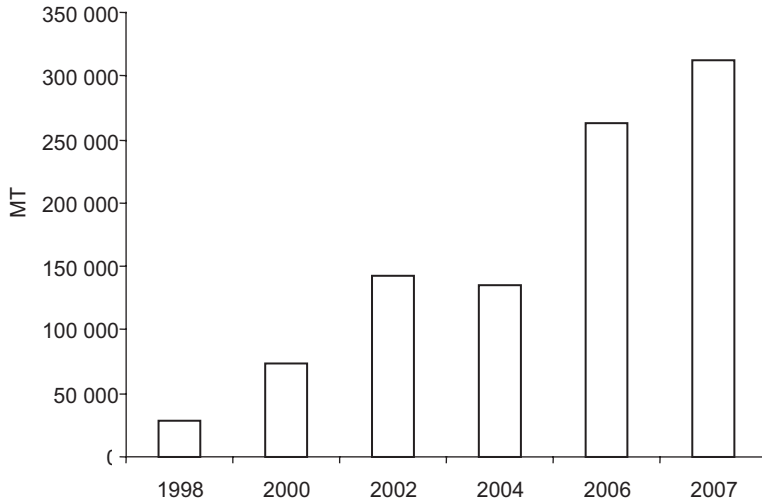
Developed countries account for the bulk of imports of certified organic bananas. Europe, North America and Japan together represent 99 per cent of imports (Liu, 2009). Europe alone accounted for over half of world imports in 2006 (Fig. 8.3). The retail value of organic banana sales worldwide was estimated at US\$800 million in 2007 (Liu, 2009).

World exports of certified fresh organic bananas were estimated to exceed 300 000 metric tonnes in 2007, accounting for over 2 per cent of global sweet banana exports. As can be observed in Fig. 8.4, exports have risen nine-fold since 1998. The rise was particularly strong between 2004 and 2007 for two reasons. First, in 2005 and 2006 production in the Dominican Republic recovered from the damage caused by bad weather in 2004. Second, Ecuador and Peru raised their shipments markedly over these years.

The production of organic bananas shows a strong concentration in the Latin American and Caribbean region. Although no recent figures for production are available, it can be estimated based on the export quantities and certified areas that close to half a million tonnes were produced in 2007. The world's largest exporters of organic bananas are Ecuador, the Dominican Republic, Peru and Colombia.



**Fig. 8.3** Geographical breakdown of global organic banana imports in 2006. Source: Liu (2009).



**Fig. 8.4** World exports of fresh certified organic bananas 1998–2007 (metric tonnes).  
Source: Liu (2009).

Ecuador's share has soared in the past three years, and in 2007 it accounted for over 40 per cent of global supply.

### 8.7.3 Benefits and costs for producing countries

Recent analyses (Liu, 2009; Roquigny *et al.*, 2008) suggest that there is a price premium at exporter level for developing countries shipping certified bananas. The price premium results from consumer preference for organic foods. The size of the premium varies substantially across producing countries, over time and depending on the chosen standard.

However, the higher FOB prices for organic bananas do not necessarily translate into net gains for exporting countries, as they also reflect higher costs. The strict technical requirements of organic agriculture standards may decrease yields and raise production costs, especially during the transition period. The effects on yields and costs depend on how intensive production was before conversion. Traditional low input farmers may expect yield gains from conversion to organic agriculture methods (Dankers, 2003). However, higher yields are usually accompanied by higher production costs, mainly in the form of increased labour demand. In the cases of conversion from high-input production systems, initial yield declines are often observed, usually recovering to levels slightly below the original conventional yields. Effects on production costs per hectare depend on the agro-ecological context, farm structure and size and farmer skills. Organic cultivation of bananas requires technical skills and investment in time. Some tropical diseases, in particular Black Sigatoka, are difficult to combat with organic methods. They require constant monitoring and labour.

Compliance with the strict environmental requirements of organic standards may improve the management of natural resources on which farmer livelihoods depend. They may enhance the farmer's relations with the local community, including its suppliers and lenders. Although they are difficult to quantify in financial terms, these benefits may be significant. More broadly, organic farming generates a wide range of public goods including the preservation of natural resources (water, air, soil, biodiversity), maintaining amenities and reducing health problems caused by agrochemicals.

It has often been observed that the quality requirements of the new organic market are higher than for the former conventional market. In a case study of the Dominican Republic (Damiani, 2002), price premiums were apparently not sufficient to justify the necessary investments to significantly improve the quality of organic bananas grown by small scale producers, and it was difficult for them to compete in the increasingly demanding international organic market.

Certification costs are a key determinant of the profitability of organic banana cultivation. For small growers, the use of group certification involving an internal control system is important to reduce these costs. Developing internal control systems requires institutional changes in farmer organizations. Group certification can be achieved in two distinct ways. First, through associations, with farmers participating actively in decision making and monitoring, in which cases the certificate is owned by the association. In the second system, the exporter organizes and pays for the certification.

Case studies suggest that a relatively small share of the price premium paid by consumers accrues to the exporting country (Roquigny *et al.*, 2008; Liu, 2009). Most of it is captured by downstream operators in the import market. While the premiums found generally exceeded one dollar per kg at retail level, they only ranged between 5 and 20 US cents per kg at exporter level (accounting for between 5 and 18 per cent of the premium at retail level) depending on the exporting and importing countries examined (Liu, 2009). In percentage terms, the premium varied along the supply chain and was at its maximum at the wholesaler/distributor level. Analysing the evolution of prices along the supply chain, it was found that retailers capture the largest share of the retail price. In the above-mentioned cases, this share ranged between 40 and 48 per cent. This situation highlights the strong bargaining power of large-scale retailers.

In sum, organic labelling enables banana exporters to obtain a higher price, but market distortions prevent them from reaping the full benefits. This reduces the returns to investment in organic production and the incentives for growers to adopt this standard. Also, by generating high retail prices the distortions impede the expansion of the markets for certified bananas. In order to limit market distortions and reap the full benefits of organic labelling, grower organizations should strive to establish short marketing chains on which they can have a sufficient degree of oversight and control. Banana growers should organize in sufficiently large enterprises so that they can reach a critical mass of supply and invest in the necessary facilities to perform the functions of collecting, transporting, packaging and exporting. They must increase the efficiency of management, rationalize

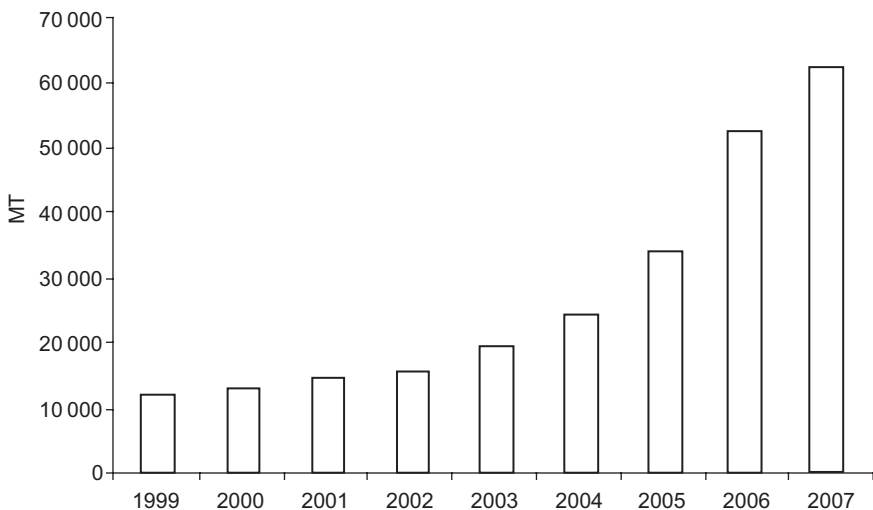
production and achieve scale economies. Where possible, they should try to obtain a stake in import companies in order to have a greater say on the distribution of profit although, in practice, the lack of capital makes it difficult. A more realistic solution in the short run is to market through the fair trade distribution channels. Empirical evidence suggests that the double labelling organic and fair trade ensures better prices for growers.

## 8.8 Case study: fairtrade-labelled coffee

### 8.8.1 Trade and markets

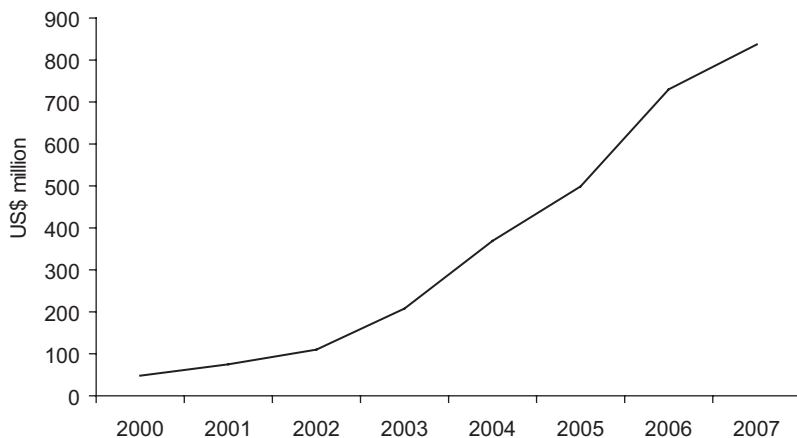
Coffee is by far the most important fairtrade-labelled product and sales of fair trade certified coffee have grown considerably in the last decade (on average +20 per cent per year since 2002). FLO, (2008) indicates that sales of Fairtrade coffee worldwide reached 62 200 metric tonnes in 2007, up 19 per cent from 52 000 metric tonnes in 2006 (Fig. 8.5). North America has become a leading market, accounting for nearly half of this volume. The fair trade coffee market in the United States has grown considerably in recent years, although growth has slowed since 2007.

Fairtrade coffee accounts for some 2 per cent of the total US green coffee imports. TransFair USA estimates that the retail sales of Fairtrade coffee in the United States reached US\$837 million in 2007 (Fig. 8.6), up from US\$730 million in the previous year (+15 per cent). It calculates that Fairtrade coffee represents nearly 4 per cent of the US retail market value. The number of firms (roasters and



**Fig. 8.5** Quantities of FLO-certified coffee sold worldwide 1999–2007 (in metric tonnes). Source: FLO (2008).





**Fig. 8.6** Estimated retail sales value of Fairtrade coffee in the United States. Source: TransFair USA (2008).

importers) licensed by TransFair in the United States has risen steadily since 1999 to 487 firms in 2007.

There is considerable overlap of the organic and fair trade coffee markets. In 2006, approximately 78 per cent of the fair trade coffee sold in the United States was also certified organic while in Canada and the world this reached near 50 per cent on average. This reflects a tendency toward double and even triple certifications; a trend with challenging implications for producers.

Fair trade coffee was exported by 28 countries in 2007 (TransFair USA, 2008). The largest fair trade suppliers were Peru, Mexico, Nicaragua, Indonesia, Ethiopia, Guatemala, Colombia, Uganda and Brazil.

## 8.8.2 Benefits and costs for producers

### *Benefits*

According to FLO (2008), an estimated 700 000 small coffee farmers directly benefit from fair-trade coffee sales. Most belong to one of the 270 organizations of coffee producers that were certified by FLO in 2007.

The FLO system guarantees a Fairtrade Minimum or floor price that is based on the estimated cost of sustainable production. The minimum price ranges from US\$1.01 to US\$1.21 per pound depending on the type of coffee and the country of origin (Table 8.3). When market prices rise above the minimum, i.e. US\$1.21 for many washed arabicas, a small additional premium is paid.<sup>6</sup> For many years that additional premium was US\$0.05 per pound, but in June 2007 it was raised to US\$0.10 per pound. The premium is intended for use by cooperatives for social and economic investments at the community and cooperative level.

<sup>6</sup>For arabica coffees (representing the majority of fair trade certification) the market price is determined by the price of the second position 'C' futures contract at the InterContinental Exchange (ICE).

**Table 8.3** FLO minimum prices for coffee in 2007 (US cents per pound FOB)

Type of coffee	Central America, Africa, Asia	South America and Caribbean
Washed Arabica	121	119
Non-washed Arabica	115	115
Washed Robusta	105	105
Non-washed Robusta	101	101

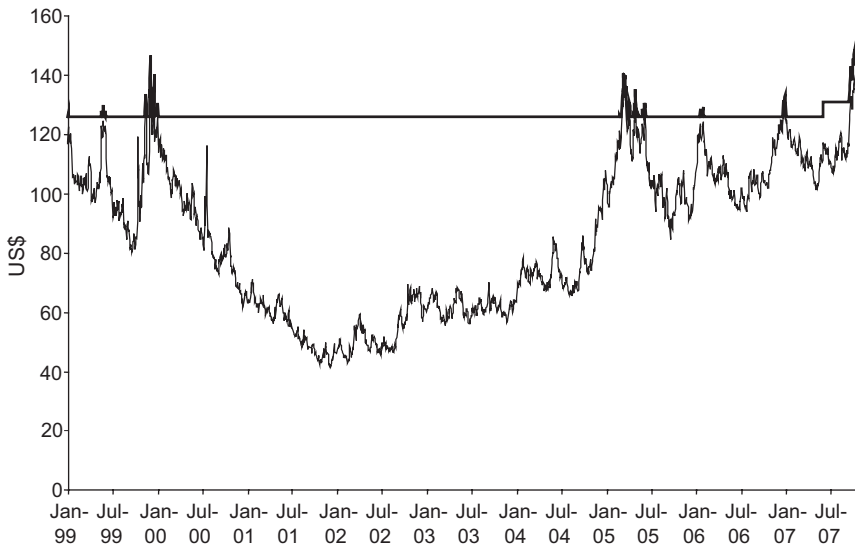
Source: FLO, 2008.

When the coffee is also certified organic, an extra premium applies. FLO raised this extra premium by US\$0.05 per pound to US\$0.20 in 2007. The increase reflects the higher costs of organic production and compliance and also serves as an incentive for greater environmental sustainability.

FLO estimates that the fair-trade system earned farmers an extra income of some €41 million (US\$57.4 million) in 2006. This sum represents an average of more than US\$200 per farmer above what they would have earned selling on the conventional market. TransFair USA (2008) estimates that the quantities sold in the United States alone generated an additional income of nearly US\$19 million for 122 farmer cooperatives in 23 countries.

The first Fairtrade minimum prices for coffee were established by Max Havelaar, a not-for-profit NGO based in the Netherlands, in 1988. Max Havelaar is a founding member of FLO. This system proved very beneficial during the price crisis of the early 2000s. Although the fall in conventional coffee prices caused considerable hardship for small coffee growers across the developing world, the price obtained by Fairtrade growers was often above the international market price (Fig. 8.7). In October 2001, when the market price fell to a record low of US\$0.45 per pound, the price of Fairtrade coffee was 180 per cent higher. Recently, as market prices have stayed above the US\$1.00 range, the relative premiums for Fairtrade coffee have been more modest (Giovannucci *et al.*, 2008). As such, there are questions about the extent to which producers want to continue with the certification when the price differential is small. For many that do continue there are likely to be two reasons: (i) having a longer-term vision of the cyclical nature of commodity pricing, and (ii) recognizing the other benefits of fair trade.

Indeed, although farmer cooperatives often decide to seek fair trade certification because of the guaranteed price premium, case studies (Dankers, 2003) show that other benefits derived from the fair trade system may be more significant in the long run. The success in self-organization seems to be far more important, resulting in better bargaining positions, better credit worthiness and economies of scale. The fair trade system contributes to these organizational successes through capacity building, an initial guaranteed market, linkages with the international market and learning by doing in exporting. In addition, fair trade contributes to quality improvements. The labour criteria of fair trade standards may reduce worker turnover, absenteeism and accident and sickness rates, thereby reducing costs and raising productivity. They may lead to better health conditions for farmers and farm workers.



**Fig. 8.7** Fairtrade price compared to NYBOT/ICE 'C' coffee price. Source: Giovannucci *et al.* (2008) quoting M. Quinlan Transfair USA based on NYBOT/ICE 'C' market prices.

### Costs

The main costs entailed by fair trade derive from the need for farmer groups to modify their internal organization and workings. Similarly as in organic agriculture, Fairtrade certification requires institutional changes in farmer organizations to develop internal control systems. Some organizational changes such as the need for holding general assemblies more frequently, record keeping and hiring independent accountants are likely to raise overhead costs. Yet, there are reasons to believe that growers selling their coffee under the FLO system obtain benefits that more than offset these costs. First, FOB prices tend to be higher and there is a relatively good price transmission from the exporter to the grower, as many Fairtrade groups export directly. When this is not the case, the FLO system aims to ensure that the exporter's margin is not excessive. Second, FLO has a special fund that may partly subsidize the cost of certification at least in the first years.

## 8.9 Conclusions

The number of environmental and social labels used in the food markets of developed countries has increased markedly over the past 15 years. There is a wide range of labelling schemes, each with its own objectives, scope and approach. Although this development gives producers and exporters more choice, it may also create some confusion among consumers, who do not always know what a label guarantees and to what extent its claim to sustainability can be trusted. From the producing country's perspective, the most interesting labels are those that generate

a price premium at producer level and public goods. There is evidence that organic agriculture and fair-trade lead to higher prices for producers and exporters, although a large share of the extra price paid by consumers remains with downstream market operators, in particular retailers.

The market for products labelled as fair-trade and organic has expanded considerably since the mid-1990s and these products are now commonly found in the supermarket chains of developed countries. Growth has slowed since 2008 due to the economic crisis, but sales are expected to continue rising as an increasing number of consumers adopts sustainable modes of consumption. In order to guide decision-making and policy formulation, it will be necessary to establish systems for collecting data on the markets for certified products in a more systematic manner.

Consumers increasingly expect that the foods they purchase address all the dimension of sustainability. Consequently, products bearing multiple certification labels (e.g. organic and fair-trade) have the best market prospects. However, small-scale farmers will need more public support to adapt to the technical challenges and meet the extra costs of some of the standards. In particular, governments and development agencies should support farmer organizations so that they can establish effective systems for quality control and marketing, and provide technical support to their members. Also, more collaboration and coordination among labelling organizations is desirable to limit the burden that multiple certification puts onto suppliers.

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