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Value-adding standards in the North American food market

Trade opportunities in certified products for developing countries

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Value-adding standards in the North American food market

Trade opportunities in certified products for developing countries

by

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Contents

Acronyms and abbreviations

BF	Bird Friendly
BRC	British Retail Consortium
C.A.F.E. Practices	Coffee and Farmer Equity Practices
CAFTA	Central America Free Trade Agreement
CIMS	Centro de Inteligencia sobre Mercados Sostenibles (Sustainable Markets Intelligence Center)
CTA	Technical Centre for Agricultural and Rural Cooperation ACP-EU
COSA	Committee on Sustainability Assessment
ERS	Economic Research Service (USDA)
EU	European Union
EurepGAP	See GlobalGAP
FAO	Food and Agriculture Organization of the United Nations
FAS	Foreign Agricultural Service (USDA)
FLO	Fairtrade Labelling Organizations International
FOB	free on board
GAP	good agricultural practice
GDP	gross domestic product
GlobalGAP	Global Partnership for Safe and Sustainable Agriculture (formerly EurepGAP)
ha	hectare
ICE	Intercontinental Exchange
ICCO	International Cocoa Organization
ICO	International Coffee Organization
IFOAM	International Federation of Organic Agriculture Movements
ILO	International Labour Organization
ISEAL	International Social and Environmental Accreditation and Labelling Alliance
ISO	International Organization for Standardization
ITC	International Trade Centre
JAS	Japanese Agricultural Standard
kg	kilogram
lb	pound
MFN	Most Favoured Nation
MT	metric tonne
NAFTA	North American Free Trade Agreement
NGO	Non-governmental Organization
NOP	National Organic Program
NYBT	New York Board of Trade
OACC	Organic Agriculture Centre of Canada
ORAC	Oxygen Radical Absorbency Capacity
OTA	Organic Trade Association
RA	Rainforest Alliance
SA-8000	Social Accountability Series 8000
SAI	Social Accountability International
SAN	Sustainable Agriculture Network
SIPPO	Swiss Import Promotion Programme
SMBC	Smithsonian Migratory Bird Center
SÖL	Stiftung Ökologie & Landbau (Foundation Ecology & Agriculture)

SQF	Safe Quality Food standard
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USDA	United States Department of Agriculture
WB	World Bank

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CHAPTER 1: PRIVATE STANDARDS IN THE VALUE CHAIN

1. INTRODUCTION

Private standards and certification in the value chain: adding value to exports

The rise of private standards

There has been a proliferation of private sector initiatives to set standards and certification programmes for foods since the early 1990s, especially in industrialized countries. A major driving force behind these initiatives has been changing consumer preferences. Rising purchasing power, education level, urbanization and evolving lifestyles combined with the decline of food prices relative to other goods have led to changes in consumption patterns. While in the past price and visual aspect were the main purchase criteria, the intrinsic quality of food has become a much more important parameter. In addition to the physical quality of foods, consumers are increasingly demanding on the ethical dimension of food quality. This relates to the process of production and trade and its broad impacts on society and the environment. It includes a wide range of social, environmental or cultural issues such as the treatment of workers, a fair return to producers, environmental impacts and animal welfare. These concerns have developed partly as a reaction to the industrialization of agriculture, the concentration of food production and trade in large companies and the resulting globalization of food trade. They have been fuelled by non-governmental organizations (NGOs) campaigning for social and environmental goals such as the preservation of rainforests, labour rights or fair-trade. Some of these NGOs have developed voluntary standards that firms may choose to adopt to meet these concerns.

Another cause for the multiplication of private standards has been the rise of food safety in public debates. A series of food crises in the late 1990s and early 2000s had considerable media coverage and raised the awareness of governments, the food industry and consumers on the need for improving the monitoring of food production and distribution. Governments have tended to respond by adopting stricter legislation placing the liability for food contamination on the industry and retailers (e.g. the 'due diligence' requirements in the United Kingdom). In turn, retailers and food manufacturers have sought to make their suppliers responsible for the safety of their products, notably through the development of standards for good agricultural practices and good manufacturing practices and the requirement that suppliers be certified. In some cases, firms have developed standards individually (e.g. Carrefour's "filière qualité"), while in others they have acted collectively (e.g. the Sustainable Agriculture Initiative was created by leading global agrifood firms such as Nestlé and Danone to pursue mutual sustainability interests and some European supermarket chains formed the Euro-retailer Produce Group to develop the EurepGAP standard).

Both the safety and the ethical dimension of food depend to a large extent on the production and trade processes. Since buyers cannot monitor directly these processes, private companies and NGOs have developed certification programmes to accompany their standards. Certification allows buyers to verify that the certified supplier complies with the

standard through its control by an independent third party[1]. Table 1 below presents key features of the two types of certification systems: corporate systems focusing on good production practices for food safety and NGO systems focusing on environmental and ethical issues.

Private standards in the value chain: costs and benefits

The number of new private standards and certification programmes has increased so much in the past decade that concerns have arisen, especially in developing countries, over the burden that they place on producers and exporters. In particular, food safety and good agricultural practice (GAP) standards have come under close scrutiny because they tend to be imposed by corporate buyers on their suppliers as a prerequisite for doing business. Although in theory they are voluntary in nature, they are increasingly viewed as de facto mandatory. Unlike governmental standards ('technical regulations'), there is no consensus yet on whether they fall under the disciplines of the World Trade Organization (WTO). Critics argue that their development process is neither participatory nor transparent, they tend to be costly and exclusionary, and that their requirements are not always based on sound science.

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. Although certification benefits the entire food chain, the costs of private food safety and GAP certification are almost always entirely borne by suppliers (farmers, processors and exporters). Small suppliers may not be able to afford such costs and run the risk of being excluded from value-added market segments.

It should be noted, though, that despite the above constraints, there are cases where private standards actually benefit food producers in several ways. Traceability and better record keeping may improve the management of the supply chain. 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

Table 1. Different types of voluntary standards and certification programmes

	Good production practices Food safety	**Environmental Ethical**
Examples	GlobalGAP, BRC, SQF	Organic agriculture, fair-trade, bird friendly, Rainforest Alliance
Type	Business to business	Business to consumer
Usually set by	Corporate buyers (retailers, processors)	NGOs (sometimes producer groups)
Freedom of choice	Limited (often demanded by client)	High
Benefits for producer	Helps maintain market access	May add value, raise sales
Price premium	Usually no	Usually yes
Cost borne by	Producer (sometimes with exporter)	Consumer (sometimes with producer)

[1] For a more detailed definition of certification see FAO (2003a)

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[2].

Value adding standards

In addition to the above benefits, some standards 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. However, consumers can seldom verify directly how their foods have been produced due to the large distances between them and the producers. In order to convey this information to the consumer, build trust and prevent possible frauds, some NGOs operating certification programmes have developed registered labels to be affixed onto the products. Some of these certification and labelling schemes lead to a price premium. Farmers and exporters increasingly view them as a tool to add value to their products.

This is an important strategy for developing country exporters of tropical products for which there is a situation or risk of oversupply. Over the past 20 years substantial investments have been made in the agricultural export sector in many developing countries, which have resulted in a considerable increase in supply at international level. This is particularly observed for tropical export products such as fruits and coffee. For example, exports of tropical fruits increased more than ten-fold in 20 years, exceeding 2 million metric tonnes in the early 2000. In 2007 the risk of oversupply seemed to have receded somewhat for many agricultural products. However, this reversal was partly due to conjonctural causes. Should these causes disappear and if global production of tropical and horticultural crops for export continues to rise faster than demand, the situation of oversupply would return. Similarly, coffee supply ballooned and prices plummeted in the late 1990s-early 2000s and have only somewhat recovered.

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 observable (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.

Sales of foods certified to these standards have expanded rapidly since the late 1990s. These programmes are of particular interest to developing economies where they may help to generate employment, boost export earnings, support small producers, improve food security and resilience to climate change, preserve environmental quality, and diversify the local economy. Perhaps most importantly, certification is a strategy for producers and exporters to add value to their products and increase the economic viability of smaller 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.

[2] For a literature review of the impacts of certification in agriculture see FAO (2003) and FAO (Liu and Cuffaro, 2007)

Despite the cost and complexity of certification, and notwithstanding the debate around the benefits and potential of the organic agriculture and fair-trade industries, the market for certified products is growing at roughly 2-10 times[3] the rate of conventional food markets. While social and environmental impacts vary across regions, products and certification programmes, the economic potential of certified products is reflected in current demand, production and trade trends.

New value chains for agricultural products

By adopting a standard and obtaining certification, agricultural producers have been able to participate in the new international value chains for agricultural products. These new chains tend to be shorter than conventional food chains. They usually include a group of farmers, an exporter, an importer/distributor and a specialized retailer. In some cases, the chain is even shorter when the group of producers exports directly to a retailer. This type of short chains is typical of the fair-trade sector, where the declared goal is to reduce the number of middlemen to increase the profit margin at farmgate level. This integration, which has been facilitated by rapid progress in information and communication technology, leads to increased profit margins at both ends of the chain. A number of new value chains for certified products have been identified. The organic food market has proved extremely fertile in this respect due to its rapid and steady growth.

Traditional and modern value chains

Traditional conventional supply chain:

Producers => Collectors => Exporter => Importer => Wholesaler => Distributor => Retailer

Modern conventional supply chain:

Producers => Exporter => Importer => Retailer

Fair-trade supply chain:

Producer group => Specialized importer => Retailer

Organic foods

Based on estimates collected from various studies and industry sources[4], global retail sales of organic foods were estimated at some US$34 billion in 2005. They have increased by over 200 percent in less than a decade, growing from approximately US$11 billion in 1997. Although growth slowed slightly in the early 2000s, it has remained robust (43 percent between 2002 and 2005)[5]. Between 2004 and 2005, the latest years for which reliable figures are available, the growth rate at world level was slightly over 15 percent. Assuming it remains constant at 15 percent over the coming years, global organic retail sales would approach US$70 billion in 2010. In a more conservative scenario where the rate is assumed to decline from 15 to 10 percent over the period 2006-2010, sales would reach some US$60 billion in 2010 (Figure 1). The North American market overall shows the fastest growth worldwide, with yearly growth rates of approximately 18-20 percent (market growth rates in Europe and Japan are closer to 10-15 percent)[6]. In 2005 it accounted for 44 percent of global revenues (Figure 2). According

[3] Growth rates are much higher for certain products than they are for others, and there is considerable variation across markets and over time

[4] ITC, Eurofood, SÖL, Organic Monitor and other sources

[5] IFOAM (2007)

[6] OTA (2006)

Figure 1. World retail sales of certified organic products (past and projected)

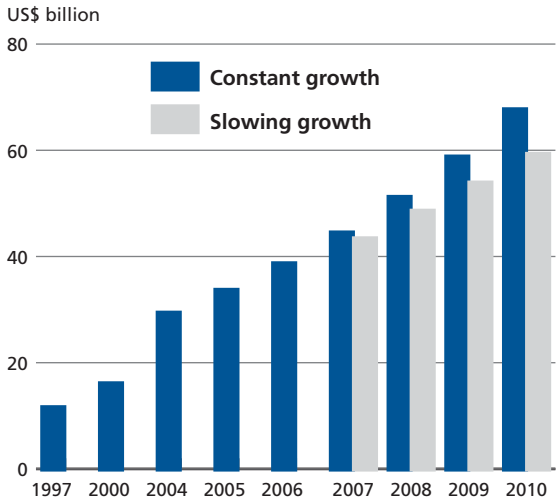
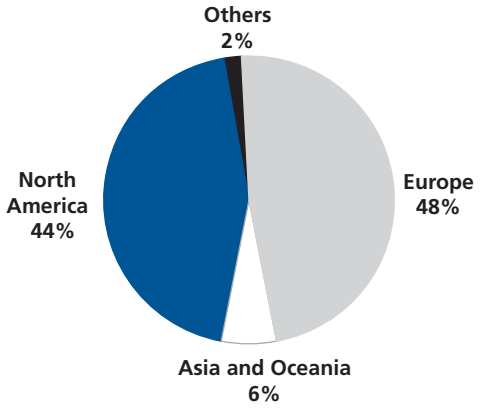


Figure 2. Main markets for organic foods (in percentage of world retail sales in 2005)



to the International Federation of Organic Agricultural Movements (IFOAM), in 2006 more than half of all certified products were sold in mainstream supermarkets.

Fair-trade foods

Global sales of fair-trade certified foods exceeded US$2.1 billion (€1.6 billion) in 2006 according to the Fairtrade Labelling Organizations International (FLO). Sales increased by 41 percent over their level of 2005 and further growth is forecast for 2007. Tropical products such as tea, cocoa, coffee and bananas enjoyed the fastest growth rates. On average, sales have expanded by 40 percent annually over the period 1997-2007. At the end of 2006, 569 producer organizations in 59 developing countries in Africa, Asia, the Caribbean and Latin America were certified by FLO. According to FLO, 1.4 million of farmers and farm workers benefit directly from fair-trade. Since FLO was created in 1997, the number of certified producer organizations has trebled. The main markets for fair-trade products are the United States, the United Kingdom, France, Switzerland and Germany, accounting for US$1.8 billion in 2006 (82 percent of global sales of FLO-labelled foods). 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.

Developing country farmers in the value chain

Between 80 and 90 percent of organic agricultural products consumed in the United States and Canada are produced domestically, but several factors make imported products an important part of the international marketplace. First, the sheer size and rapid expansion of the North American market represent trade opportunities for producers and exporters in Latin America, Asia and Africa. In addition to the size and rapid growth of the market, climate, labour costs and slower growth of domestic production mean that demand exceeds supply for most products more than anywhere else. The North American climate is not well suited to coffee or cocoa production, nor are most areas suited to tropical fruit cultivation. Seasonal weather means that even domestically produced temperate fruits and vegetables are only available at certain times of the year. Because labour costs are considerably higher in North America than they are in developing countries of origin,

the higher labour requirements of organic and fair-trade agricultural production methods give developing countries a competitive advantage. Finally, although domestic production continues to increase, supply in the United States and Canada does not meet demand even for domestically grown products. According to IFOAM, the gap between domestic supply and demand for certified products is so large that "many industry sectors are experiencing supply shortages [and] producers are importing organic products from across the globe due to insufficient production in North America[7]". As previously noted, this is not the case for all products and there are sometimes periods of oversupply of coffee, for example. Furthermore, supply and demand varies considerable from area to area in North America.

2. OBJECTIVE AND SCOPE OF THE STUDY

The purpose of this report is to assess the market opportunities for producers and exporters in developing countries who are interested in exporting certified foods to North America. For the development-related purposes of this report, North American will signify Canada and the United States and shall exclude Mexico. The US and Canadian economies have been closely tied for decades and cross-border trade in agricultural products is likely to continue growing. They share very similar market characteristics such as retail formats, regulations, standards and distribution channels and the flow of products between them is considerable. The North American Free Trade Agreement (NAFTA) has fostered greater economic integration. Population growth and sustained economic expansion have created greater demand and encouraged new economic arrangements in agricultural trade between these two countries.

The study focuses on a few environmental and social certification programmes that use a registered on-product label targeting consumers. Special emphasis is put on organic and fair-trade certified agricultural products due to their importance in the North American market relative to other forms of social or environmental certification, their potential for value adding and their strong and sustained growth. Other certification schemes have been included because of their importance for certain tropical products imported into North America. For example, a substantial portion of banana imports are Rainforest Alliance (RA) certified and a number of certification initiatives thrive in the American coffee industry.

A brief description of the private standards and certification systems covered in this report is provided below. Readers will find more complete descriptions in FAO (2003a) and FAO (Liu et al. 2007b).

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). Most developed countries have adopted mandatory standards and regulations governing the production, marketing and labelling of organic products.

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**

[7] IFOAM (2006) p.70

Organizations International (FLO), an international NGO based in Germany. FLO defines fair-trade as a trading partnership based on dialogue, transparency and respect that aims for greater equity in international trade by offering better trading conditions to producers and securing their rights, and improving trade rules and practices. Fair-trade organizations work with small producers and farm workers to increase their security and economic self-sufficiency, and empower them in their own organizations. Fair-trade certification is carried out by 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 gathers 20 national fair-trade labelling NGOs. For the United States and Canada, FLO's members are TransFair USA and TransFair Canada, respectively.

The certification programme of the **Rainforest Alliance** (RA) focuses on the protection of the environment, forest conservation and the sustainable management of natural resources. RA certification is based on ten criteria: a social and environmental management system, ecosystem conservation, wildlife protection, water conservation, fair treatment and good working conditions for workers, occupational health and safety, community relations, integrated crop management, soil management and conservation, and integrated waste management. The Rainforest Alliance is an NGO based in the United States with offices in Costa Rica and the Netherlands. It is the international secretariat for the Sustainable Agriculture Network (SAN), a network of conservation groups that uses the *Rainforest Alliance Certified* seal of approval.

Bird Friendly certification criteria were created by the Smithsonian Migratory Bird Center (SMBC), an NGO. Also called shade grown, products (mainly coffee, but also cocoa and perhaps other products in the future) are grown under a canopy of trees that provide habitat for birds, protect biodiversity and reduce the need for pesticides and fertilizers. Bird Friendly certified coffee can carry their Bird Friendly label, and is also certified as organic.

Organic agriculture and fair-trade are perhaps more recognized and widespread, notably because certified products carry a specific label. However, RA's strategic work with major producers mean that the volume of RA-certified products is significant. Fair-trade and RA standards only apply to products imported from developing countries, while organic certification applies to both imports and domestic production. For the purposes of this paper, "certified products" will hereafter mean products whose production and trade process has been certified against one of the above standards unless otherwise stated.

Organic agriculture and fair-trade increasingly overlap with one another. Organic agriculture certification programmes are beginning to incorporate social criteria, while fair-trade programmes are placing stronger emphasis on the environment. Moreover, a growing number of products are double-certified, carrying both organic and fair-trade labels. Some industry analysts expect that the two sectors will grow exponentially in the next decade and that there will be increasing levels of cooperation and coordination between them[8].

A global market study encompassing a wider range of products would undoubtedly be preferable, but time constraints and the challenges of data collection make it necessary to narrow the focus of this report to the North American market and a few key products that are important export crops for developing countries, namely tropical fruits, coffee and cocoa.

[8] The ISEAL Alliance, for example, is promoting harmonization and cooperation between various certification programmes. See www.isealalliance.org

Tropical fruits, coffee and cocoa were selected because of their relative importance in the North American market for certified foods, and because of their export potential in many developing countries. Their production is impractical in most of the United States and Canada, creating an almost exclusive import market. Similarly, the production of temperate fruits and vegetables is possible only part of the year and off-season products must be imported if retailers are to offer them year-round. The exception is citrus, which can be grown in the United States most of the year, but still has a healthy import market.

There is some debate around whether certified foods are becoming part of the mainstream food market or will remain niche products. While the certified sector continues to experience rapid growth in sales and consumer interest, overall it still represents only 2-3 percent of total food sales in developed countries and much less in developing countries. It is impossible to determine where the penetration of certified foods will level out; some analysts reckon it will level out at around 10 percent while others believe it will become a more substantial share of the overall food market[9]. In some product categories, such as coffee, baby foods, bananas, and soy beverages it has already exceeded 10 percent in some nations.

3. METHODOLOGY

The key constraint in this type of study is the lack of data on the volumes and values of certified products that are traded. National trade statistics do not distinguish between certified and conventional products. Although some organizations track sales and certification, the data are seldom complete and not always reliable. A complete overview of the market for certified foods is very difficult to achieve in the absence of customs, trade or sales statistics.

There is a marked lack of official trade data on organic and other certified products. Both the European Union and the United States are beginning to consider approaches to monitoring certified trade, but it is unlikely that a tracking system will be in place in the next decade. Analysts at state and federal offices are considering how the United States Department of Agriculture (USDA) can best track certified products, but proposals are in the very early stages of development. Since March 2007, harmonized system codes have been used for organic products in Canada, to track organic production, imports and sales in Canada[10]. The system will track all products entering from the United States, certified to the National Organic Program (NOP), from the European Union, certified to EEC 2092/91, or from Japan, certified to the Japan Agricultural Standards (JAS). A few other countries (e.g. the Dominican Republic and Peru) also keep records of their organic trade[11].

The harmonization of standards, which is a long-term goal of organizations like the International Social and Environmental Accreditation and Labelling Alliance (ISEAL) and the International Federation of Organic Agricultural Movements (IFOAM), might contribute to efforts to track international trade in certified goods. At the very least, harmonized standards would make it easier and more practical for government agencies to track production and

[9] The Nutrition Business Journal (2004) estimates that the organic retail food sales in the United States will only reach 3.5 percent of total sales by 2010. This seems like an unusually low estimate compared to other sources
[10] www.statcan.ca/trade/scripts/trade_search.cgi
[11] www.cei-rd.gov.do

trade[12]. In the United States, for example, organic agricultural products could be added to the Foreign Agricultural Service's existing tracking system for agricultural trade. In the interim, trade estimates from importers, exporters and retailers remain the only way to determine trade flows. Because fair-trade NGOs such as FLO and TransFair USA keep some statistics on the amounts of products certified and traded, it is possible to obtain a slightly clearer picture of the market for fair-trade products than it is for other certified products[13].

This lack of information regarding the market for certified products means that an assessment of its economic importance relies heavily on estimates from exporters, importers, distributors, retailers, certifiers and certification NGOs. In collecting and compiling these estimates, the goal was to obtain as accurate and detailed an overview as possible of the North American import market for socially and environmentally certified fresh produce, coffee and cocoa.

The data collected for this study were obtained from a literature review, internet research, and a survey of government analysts, private consultants and market operators, including certifiers, exporters, importers, distributors, wholesalers and retailers. The initial two-month (October and November 2006) literature review included a comprehensive review of FAO, USDA, Agriculture Canada, ITC, IFOAM and FLO reports, along with extensive internet research. Interviews were conducted via email and telephone in December 2006 and January 2007, with follow up interviews and emails for most respondents. Further data were collected at the BioFach World Organic Trade Fair in February 2007. BioFach provided a valuable opportunity to obtain current data and trend estimates through interviews with consultants, exporters and national agricultural export organizations from Latin America. Estimates of trade volumes and values were compared and measured against each other, averaged where minor discrepancies occurred, and noted where major discrepancies occurred. Additional estimates were collected in the period June-September 2007 through email contacts and internet research.

The organizations and firms surveyed were questioned about production, export and import volumes, the importance of the North American market for each product and country of origin, price premiums and trends. Wherever possible, the import volumes, values and countries of origin of these products have been estimated for recent years in order to obtain an overall picture of the North American market for imported certified products. This information has been used to assess the relative importance of each country of origin and product, with the aim of identifying economic opportunities for developing economies. It has also been used to estimate what percentage of the market for agricultural foods is organic, fair-trade or double-certified, what percentage is imported, and what percentage is produced domestically.

[12] Tim Larson, Colorado Department of Agriculture

[13] It should be noted that the only source of fair-trade statistics is fair-trade NGOs and certifiers and there is no reliable way to verify the data against other sources

4. OVERVIEW OF THE NORTH AMERICAN MARKET FOR CERTIFIED AGRICULTURAL PRODUCTS

With its large population and its high individual purchasing power, the North American market provides considerable opportunities for exports of value-added agricultural products. The combined population of Canada and the United States exceeded 335 million in 2006 and grows rapidly compared to other industrialized countries. It is expected to reach almost 350 million in 2010. The region's gross domestic product (GDP) (in current prices) exceeded US$14 300 billion in 2006. Per capita GDP was amongst the highest in the world at nearly US$44 000.

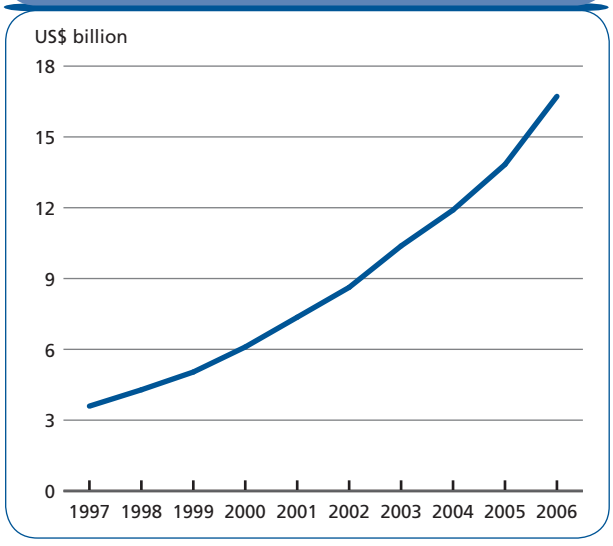
North America ranks just behind Europe, the world leading region in terms of certified food sales. Retail sales of certified foods can be conservatively estimated at US$18 billion for 2006. With over 80 percent of this amount, organic products dominate this market.

Markets for organic products

The United States is the world's largest organic retail market and accounts for over 40 percent of global sales. Its retail sales for organic goods (food and non-food) were estimated at US$14.6 billion in 2005, of which foods comprised some US$13.8 billion, accounting for 2.5 percent of total food sales. Preliminary estimates for 2006 vary according to sources. Based on preliminary findings from the 2007 Manufacturer Survey released in May 2007, the Organic Trade Association (OTA) estimates that US organic food sales grew by 21 percent in 2006 and amounted to US$16.7 billion in consumer sales, accounting for 2.8 percent of all food sales. However, the Nutrition Business Journal (2007) estimates organic food sales at US$15.7 billion in 2006.

According to OTA, the annual growth rate of the US organic market has ranged between 15 and 21 percent over the period 1997-2006 (Figure 3). This compares with an average of 3.4 percent for the total food market. New, more developed distribution channels are one of the factors driving market growth in the United States and Canada. Specialized retail outlets for certified goods, such as Whole Foods and Wild Oats, continue to expand, while large supermarket chains like Safeway, Kroger and Albertson's are increasing their organic and fair-trade ranges considerably[14].

Figure 3. Retail sales of organic products in the United States 1997-2006



Source: OTA 2007

[14] IFOAM (2006)

Within the organic sector, fruit and vegetables are the most important category with approximately 41 percent of the total value of the organic market, about 39 percent of which is fresh produce and 2 percent of which is frozen[15]. Animal products account for about 14 percent of the market, but are the fastest growing product category. Processed and packaged goods make up the remaining 44 percent of the market.

According to OTA (2006), in 2005, 47 percent of organic foods were sold through natural food stores, 46 percent through conventional channels and 7 percent were sold through direct and other marketing channels (e.g. farmer's markets, food service and other non-retail –store sales).

According to USDA, US organic food imports for 2002 were estimated at US$1-1.5 billion[16]. If imports are growing at the same rate as the overall organic market, then 2006 organic imports were likely worth US$1.9-2.9 billion. US exports of organic foods were between US$125 and US$250 million in 2002, which would put them between US$242 and US$485 million in 2006 if exports are in line with overall organic market growth. USDA and the International Trade Centre (ITC) report that well over half of all US organic exports go to Canada, with the rest going to Japan, European Union, Republic of Korea, Taiwan Province of China, Australia and New Zealand.

In Canada, organic retail sales were estimated to exceed US$1 billion in 2006, up from some US$900 million in 2004. In a report released in May 2007[17], the Organic Agriculture Centre of Canada (OACC), quoting figures collected by AC Nielsen, estimates sales at one billion Canadian dollars but recognizes that the actual figure may be higher. Canada is the world's sixth largest organic market, with a significant portion of Canadian imports coming from or through the United States (IFOAM 2007, OTA 2006). The growth rate for the Canadian market over the last 10 years has ranged between 15 and 20 percent *per annum*. Canadian organic imports were valued at approximately US$100-200 million for 2005. It is likely that Canada has the world's highest import ratio of organic food[18]. National importers estimate that 80-90 percent of all organic products on the Canadian market are imported, with over 70 percent of these coming from or re-exported from the United States. Conversely, 80-90 percent of organic goods produced in Canada are exported, mostly to the United States. The Canadian market for certified foods is growing 2-3 percent faster than the US market, which means that exports to Canada may have increased even more since 2002, and Canadian importers are increasingly interested in direct imports from producer countries[19].

While North American market size and market growth are impressive, it is important to note that roughly 80-90 percent of the organic food products consumed in North America are produced domestically[20]. Nevertheless, IFOAM reports yearly that the demand for organic products in North America is so high that many industry sectors experience chronic shortages. A 2005 report from the Organic Monitor stated that the North American organic market was being stunted by undersupply, and that companies were looking for foreign producers to bolster supplies, creating significant opportunities for imports[21]. Interestingly,

[15] Nutrition Business Journal
[16] USDA, cited by ITC (2006)
[17] OACC (2007)
[18] ITC (2006)
[19] ITC (2004)
[20] Due to climate and the length of the growing season, Canada imports more of its organic products (and more of its agricultural products in general), but most of these are imported from the United States and are therefore part of North American domestic production
[21] Food Navigator-USA (2005)

North America is the only region in the world where organic food companies are listed on the stock exchange[22].

Markets for fair-trade foods

Annual sales in 2005 exceeded US$500 million in the United States and US$44 million in Canada. The United States has become the largest market for fair-trade foods, overtaking European countries that were the traditional leaders. Preliminary estimates for 2006 show that the sales value should approach US$800 million in the United States. Coffee is overwhelmingly the most important fair-trade certified commodity, representing approximately 86 percent of the total US market for fair-trade certified products[23]. The fair-trade food market is smaller than the organic market, but growing at an even faster rate. This is not surprising since the market is still in its infancy in North America. According to the Fair Trade Almanac, the Canadian market grew by 99 percent from 2004 to 2005 and the US market grew by 35 percent. Meanwhile the total North American fair-trade market has had an average 70 percent yearly growth rate over the last five years[24].

The sales of foods certified to other standards and marketed in North America are more difficult to assess. Specific estimates for coffee and bananas are provided in the relevant chapters.

[22] IFOAM (2006)
[23] Transfair USA (2007)
[24] TransFair USA (2007)

CHAPTER 2: CERTIFIED FRESH FRUIT AND VEGETABLES

1. OVERVIEW OF THE MARKET FOR FRUIT AND VEGETABLES IN NORTH AMERICA

1.1 Market size

Approximately 25 million metric tonnes of fresh vegetables and 12 million metric tonnes of fresh fruit were consumed in the United States in 2005. The vegetables with the highest per capita consumption are potatoes, tomatoes, sweet corn, lettuce and onions, while the most consumed fruits are oranges, grapes (including wine grapes), apples, bananas and pineapples[25]. This domestic production supplies 79 percent of the total US market for fruit and vegetables. The United States Census of Agriculture reports over 100 separate fruit and vegetable commodities (or categories of commodities) and USDA data show that over 21 million metric tonnes of vegetables, over 3 million metric tonnes of citrus, and almost 7 million metric tonnes of non-citrus fruit were produced for the fresh produce market in 2005. Most fresh-market produce is sold in the spot market (although there has been a recent increase in contractual arrangements) and most production is seasonal, with the exception of the citrus market.

The total Canadian fresh fruit and vegetable market by volume is approximately 2 to 3 million metric tonnes of fresh vegetables and 1 to 2 million metric tonnes of fresh fruit. This brings total North American fruit consumption to roughly 13 to 14 million metric tonnes and vegetable consumption to 27 to 28 million metric tonnes. Agriculture and Agri-Food Canada (2004) reports that the fruits with the highest per capita consumption are bananas, apples and oranges, while potatoes, lettuce, carrots, onions, tomatoes and cabbages are the most consumed vegetables. In Canada, fresh fruit and vegetable production is even more seasonal than in the United States, and the range of products grown is limited by climatic conditions. In 2005, Canada produced Can$533 million (US$460 million) worth of fruit and Can$560 million worth (US$480 million) of vegetables (farm gate value), approximately half of which was sold fresh[26]. Domestic production accounts for 15 to 20 percent of the total Canadian fresh produce market.

1.2 Imports

The United States is the world's largest fresh fruit importer and second largest vegetable importer, with some 14 percent of global fruit imports and 8 percent of global vegetable imports. In 2005, the United States imported approximately US$8 billion worth of fresh fruit and vegetables, with an almost 13 percent increase in 2006, bringing the total value of 2006 imports to approximately US$9 billion[27]. By volume, this represents roughly 11.8 million metric tonnes for 2005 and 12.2 million metric tonnes for 2006[28]. Interestingly, the value of imports increased by 13 percent between 2005 and 2006, while the volume of

[25] USDA (2006a)
[26] Statistics Canada (2006)
[27] USDA FAS BICO Import Commodity Aggregations, January 2006 (USDA, 2006b, p. 15)
[28] USDA FAS BICO Import Commodity Aggregations, January 2006

imports increased by over 3 percent, indicating that the relative unit value of imported fresh fruits and vegetables has risen. Between 2002 and 2004, imported fresh and processed fruits and vegetables accounted for 21 percent of US domestic consumption, representing a 16 percent increase over the previous decade[29].

Although it is a much smaller market, Canada imports the bulk of its fruits and vegetables consumption (80 to 85 percent) and is the eighth largest fruit importer and sixth largest vegetable importer, accounting for some 4 percent of global fruit imports and 3 percent of global vegetable imports[30]. In 2001, 84 percent of all North American fruit and vegetable imports were in fresh form, and fresh produce was the fastest growing import category[31].

Fresh fruit and vegetable imports have been growing steadily in North America since 1970 and this growth accelerated in the 1980s and 1990s. They have recently reached a record level, accounting for between 20 and 25 percent of all fruit and vegetable consumption "The influx of immigrants accustomed to produce-heavy diets, a rising consumer awareness of the role of fruit and vegetables in good nutrition, and an increase in the demand for year-round fresh availability play key roles in the rise in US imports of fresh vegetables[32]". Retailers provide most fruit and vegetables year-round by supplementing domestic supplies with imports, particularly during the winter and early spring months, but the demand for in-season non-domestic fruit imports is growing as rising demand and competition fuel imports. Fruit imports in particular are rising during the primary North American growing seasons, as well as the off-season, due to increased demand and competition from developing-country producers with lower production costs. As a share of total fruit consumption, fresh fruit jumped from 36 percent in 1992-94 to 44 percent in 2002-04, and the consumption of imported fresh fruit doubled, jumping from 12 to 24 percent[33]. The import share of US consumption of all vegetables also doubled over the same period, rising from 7 to 14 percent, and the share of fresh-market vegetables and melons rose from 10 to 16 percent[34]. This growth is partly due to the steady rise in the popularity of tropical fruits since the 1980s and the fact that products that were previously sold seasonally are now often on the market year-round.

The US and Canadian markets for fresh fruit and vegetables are closely tied, with most Canadian imports being US-grown or re-exported from the United States. In 2005, Canada absorbed 33 percent of all US fruit, tree nut and vegetable exports, and 40 percent of all US fresh non-citrus fruit exports, creating by far the largest market for US fruit and vegetable products and accounting for the majority of Canadian imports. In the same year, Canada imported approximately 47 percent of all US vegetable, melon and pulse crop exports, with fresh vegetables accounting for a significant portion. In value terms, total fruit exports from the United States to Canada were worth about US$2.7 billion and total vegetable exports were worth about US$1.8 billion in 2005[35]. Similarly, the United States provides the largest market for Canadian products[36]. The United States imported 83 percent of Canada's fresh fruit exports, worth US$90 million, and 90 percent of its fresh vegetables, worth US$400 million, in 2001. In addition to its US imports, Canada imported roughly 32 percent of fresh fruits from Central America and Southern Hemisphere countries, and 9 percent of vegetables

[29] USDA (2006a)
[30] USDA (2004)
[31] USDA (2004)
[32] USDA (2006a) p. 16
[33] USDA (2006a)
[34] USDA (2006a)
[35] USDA (2006a)
[36] USDA (2004)

from Mexico in 2001. While there is growing interest in direct imports from Canadian buyers, it can reasonably be estimated that 80 percent of non-US-grown Canadian fresh produce imports are imported first into the United States (and therefore captured in US import data) and then re-exported to Canada[37]. The Canadian market is roughly one-tenth the size of the US market, and similar in terms of market characteristics.

Mexico, Canada, Chile, China and Costa Rica were the largest sources of US fruit and vegetable imports in 2005. The major vegetable imports are fresh tomatoes, melons, canned mushrooms, onions and fresh sweet peppers. The major fresh fruit imports are bananas, fresh grapes, pineapples, berries, citrus, avocados, olives, mangoes and apples.

1.3 Prices

Fresh fruit and vegetables are a diverse range of commodities affected by many supply and demand factors; "few fruit and vegetable price series are highly correlated (move together over time), which means that market analysis can not easily be generalized across crops in the sector[38]." Prices are more variable than for non-agricultural commodities, and supply is subject to factors largely beyond the producer's control, such as weather and pests. Moreover, labour expenses are a large portion of production costs for fruit and vegetables (42 percent in the United States) and are highly variable. The perishable nature of fresh produce contributes further to the variability in price. In 2004, fresh fruit and vegetables accounted for about 19 percent of the retail value of US agricultural products. Between 1992-94 and 2002-04, grower prices for fresh-market vegetables rose 22 percent, with strong increases in demand for crops like romaine lettuce, spring onions and broccoli, and grower prices for fresh-market fruit rose 19 percent, reflecting strong growth in citrus prices[39]. Consumer prices for fresh fruit and vegetables have risen much more quickly than prices for other food products in the last decade due to increased demand, marketing and transportation costs. Grower prices have risen at roughly the same rate as inflation, but retail prices have increased by about 20 percent in real terms[40]. Prices for imported fruits and vegetables tend to be comparable to domestic products, depending on the fruit and the season. Higher transportation costs may be offset by lower labour and production costs in developing countries.

2. ORGANIC FRUITS AND VEGETABLES

Organic agriculture is by far the predominant certification scheme in the North American market for certified fruits and vegetables. The other certification schemes considered in this study are less important in terms of sales except in the banana category (see the section on bananas below).

Fresh fruit and vegetables are also the most established product category of the organic market and were the first product category to become widely available.

2.1 Market size

In the United States, sales of certified organic fruit and vegetables in 2006 were estimated at US$6.7 billion in 2006, up 24 percent from US$5.4 billion in 2005 (Table 2). They represented 40 percent of all organic food sales. In Canada, fresh organic fruit and

[37] ITC (2004)
[38] USDA (2006a) p.23
[39] USDA (2006a) citing the USDA National Agricultural Statistics Service Agricultural Prices 2004 Summary
[40] This discrepancy in grower and retail prices is likely because more efficient crop production has slowed the growth of farm prices (USDA, 2006a)

vegetable sales were worth roughly US$600 million in 2005 up 20 percent from US$500 million in 2004, representing over 50 percent of the total organic market. According to most estimates, fresh organic fruits and vegetables account for 2-3 percent of total fresh produce consumption and are the most mature organic product category. The top organic fruits and vegetables purchased in North America are tomatoes, carrots, peaches, squash, leafy vegetables, apples, pears, potatoes and bananas[41]. Other important products include strawberries, beans, mushrooms, cantaloupe, celery, broccoli and oranges. Vegetables tend to be more popular than fruit on the organic market, partly because a higher proportion of vegetables is grown domestically.

Table 2. Retail sales of organic fruit and vegetables in the United States

	2004	2005	Growth 04-05 (%)	2006	Growth 05-06 (%)
Retail sales (US$ billion)	4.8	5.4	12.5	6.7	24
Share of F&V in organic food sales (%)	40	39		40	

Source: Organic Trade Association 2007

Organic farming has been one of the fastest growing segments of US agriculture for over a decade. The United States had under a million acres of certified organic farmland when Congress passed the Organic Foods Production Act of 1990. By the time USDA implemented national organic standards in 2002, certified organic farmland had doubled, and doubled again between 2002 and 2005.

Over the period 1998-2005, organic fruit area rose from 49 414 acres to 97 277 acres while vegetables area expanded from 48 277 acres to 98 525 acres[42].

2.2 Imports

While different estimates put fresh produce at 40 to 50 percent of organic retail sales in North America in 2005, it is not as dominant in terms of imports. North American domestic production accounts for an estimated 75-80 percent of the organic fruit and vegetable market, but the remaining 20-25 percent nevertheless makes fresh produce one of the largest import categories and the most important product group for certified trade[43]. Based on this percentage, the import market for organic fruit and vegetables is worth approximately US$1.2 to 1.5 billion. Interestingly, the share of imports for fresh produce (20-25 percent) is larger than the share of imports for overall organic sales (10-20 percent)[44]. This represents a large enough import market to create considerable opportunities for developing countries interested in expanding their production and export of certified fresh produce.

2.3 Prices

The prices of organic fruits and vegetables exhibit wide variations over time, reflecting a general characteristic of the fresh produce sector. Systematic collection of price data for organic products has been limited, thus preventing in-depth analysis of market trends for

[41] The Packer (2002)
[42] USDA ERS (2007)
[43] USDA (2004)
[44] However, most Canadian imports come from or through the United States, so to avoid double-counting it is safer to use the US estimate as proxy for a conservative North American estimate

organic prices and price premium over conventional foods. Analysis of price premiums for certified products is limited by the absence of consistent and comparable price data. However, several studies (including USDA ERS 2003, Sok and Glaser 2001, Vandeman 1998, Greene and Calvin 1997) have found substantial organic price premiums at various levels (retail, wholesale and farmgate) for various organic products including fruits and vegetables.

Wholesale prices of organic fresh produce are almost always higher than those of their conventional equivalent. For fruit, the average organic price premium ranged between 30 and 90 percent in both 2005 and 2006. However, there is a considerable variation over time, depending on product and its availability, and in a few cases over a short period of time, organic products were cheaper than their conventional equivalent (negative price premium). Similarly, retail price premiums for imported organic fresh fruits (and other products) vary dramatically depending on product, season, availability and certification. The range of price premium is wider at retail than at wholesale level, generally between 0 and 100 percent.

Wholesale organic price premium have tended to remain stable over recent years, although there have been differences across products. An USDA study (2005) found that premium have declined for mesclun mix but remained stable for broccoli and carrots. Table 3 below shows that although premium contracted for bananas between 2005 and 2006, they remained stable for raspberries and strawberries and even rose for apples and pears. These findings cannot be generalized to the wide range of organic fruits and vegetables and the lack of price data makes it impossible to cover all fresh produce.

In the short term, USDA predicts that price premiums for organic products will remain strong for most products and these premiums will continue to contribute to the growth

Table 3. Differences in average prices for organic and conventional fresh fruit, Boston and San Francisco wholesale markets, 2005-06

	Wholesale market and fruit	Organic price premium (%)
Boston	**2005**	**2006**
Bananas	45	40
Rasberries	36	35
Strawberries	83	83
Apples	n.a.	48
Avocados	n.a.	84
San Francisco	**2005**	**2006**
Apples	28	46
Apricots	54	
Blackberries	67	
Bananas	62	44
Pears	70	91
Pears	28	64
Avocados	n.a.	36
Mangoes	n.a.	32
Peaches, yellow	n.a.	67
Peaches, white	n.a.	38
Pineapples	n.a.	28
Rasberries	n.a.	7

Source: United States Department of Agriculture, Agricultural Marketing Service

in organic production and market expansion[45]. In the North American market for organic products, undersupply creates further opportunities for imported products and boosts price premiums[46]. A portion of the organic price premium is due to increased production costs for certified products, a portion is due to superior quality (or perceived superior quality) and a portion is due to relative levels of supply and demand. More research on price premiums is needed, but in the long run it is probable that the part of the premium associated with undersupply will decline as more suppliers enter the market and the gap between supply and demand narrows.

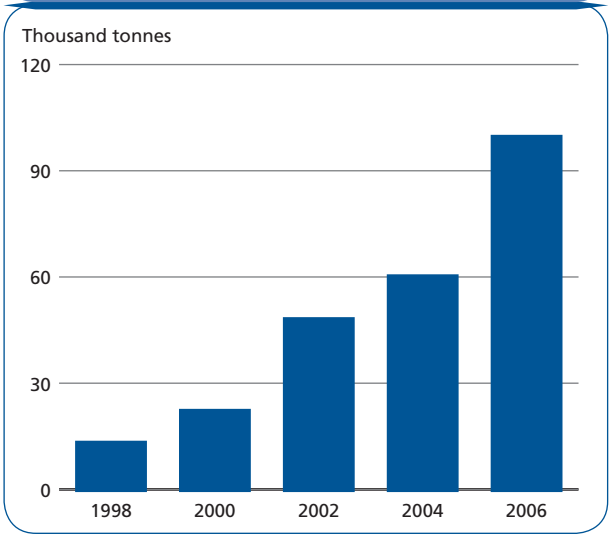
2.4 Main organic fruits imported into North America

At present, organic vegetable imports represent a small portion of certified fresh produce imports in North America. While certified vegetables undoubtedly present opportunities for developing country producers, data are extremely scarce. Therefore this section will focus on fruits with an emphasis on fruits, cultivated in tropical countries.

2.4.1 Bananas

All organic bananas found on the North American market are imported since neither Canada nor the United States produces this fruit[47]. Industry estimates range between 80 000 and 110 000 metric tonnes for 2006. Based on data obtained from supplying countries, it can be estimated that actual imports probably exceeded 100 000 metric tonnes, accounting for over 2.3 percent of the 4.3 million metric tonnes of total fresh banana imports. As illustrated in Figure 4, imports have risen by almost 700 percent since 1998 when they were estimated at 13 000 metric tonnes[48]. The rise was particularly strong between 2005 and 2006 as Ecuador, the leading supplier, doubled its shipments. Canada imports the bulk of its organic bananas through the United States. North America accounts for slightly less than 40 percent of world organic banana imports.

Figure 4. North American imports of organic bananas



The main suppliers of organic bananas to North America are Ecuador, Peru and Colombia (Table 4). Ecuador has become by far the largest supplier in recent years, accounting for almost half of total imports. It has raised its production markedly and doubled its exports over the past two years as new farm land obtained organic certification. According to its Ministry of Agriculture[49], the certified area planted to bananas rose nearly three-fold from 4 700 hectares in 2004 to 13 800 hectares in 2007. Preliminary data indicate that Ecuador overtook the Dominican Republic to become the world's leading supplier of organic bananas in 2007. This is consistent with its rank as the world's largest exporter of conventional bananas with over 4 million tonnes exported annually.

[45] USDA (2006a)
[46] IFOAM (2006)
[47] Except a negligible quantity produced in Hawaii
[48] Sauvé (1998)
[49] Quoted in Notifax issue 571, October 2007, CORBANA, Costa Rica

Table 4. Estimated imports of organic bananas into North America in 2006

Country of origin	Estimated imports (MT)
Ecuador	47 000
Peru	26 400
Colombia	13 600
Dominican Republic	6 800
Honduras	3 600
Other countries	2 000-3 000
Total (estimated)	**100 000**

Sources: Statistical departments for Peru and Dominican Republic, industry for the other countries

Peru's exports have also increased markedly over the past six years, from less than 1 000 metric tonnes in 2000 to over 26 000 metric tonnes in 2006. According to preliminary data released by PromPex[50], over the first nine months of 2007 it had already exported some 44 000 metric tonnes, of which approximately 14 000 metric tonnes to the United States. Peru accounts for over a quarter of North American imports and its shipments are set to continue rising, as a number of farms are in transition to organic management. Both in Ecuador and Peru, organic bananas are mainly produced by small-scale farms usually organized in cooperatives. These cooperatives tend to sell their harvest to exporters (local firms and multinational companies) but a few of them ship directly to importers under the fair-trade system. In Peru, over 3 500 small farmers grow organic bananas on 3 400 hectares of certified land.

Imports from Colombia have also expanded but less rapidly than those from Ecuador and Peru. They originate mainly from one large producer, the Daabon company. While the Dominican Republic is the world's largest exporter of organic bananas, it ranks only fourth among suppliers to North America, as the bulk of its production is exported to Europe. It has raised its exports of organic bananas over the last two years but not as rapidly as Peru and Ecuador. Organic bananas are produced on both small family farms and commercial plantations in the Dominican Republic. A substantial share of the family farms is fair-trade certified.

Honduras and Mexico are minor suppliers. Honduras' exports have been stable over the past five years. They originate from a plantation owned by the Standard Company, a subsidiary of Dole Foods. The expansion of production is unlikely due to the high pressure of pests and diseases, especially the Black Sigatoka disease. Mexico pioneered organic banana exports and was a leading supplier to the United States in the late 1990s but production has decreased markedly since then. Current exports are very low.

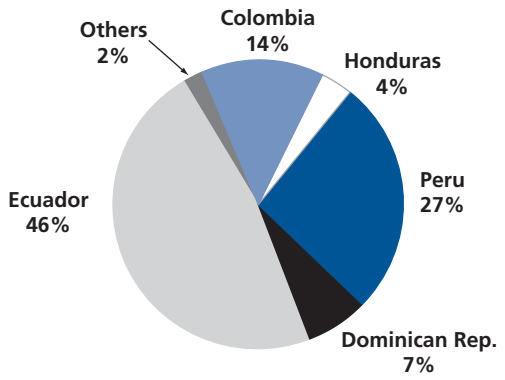
In North America, organic bananas are mainly imported and distributed by Dole Foods, which was estimated to account for over two-thirds of the market in 2006. Dole imports from Peru, Ecuador, Colombia, Honduras and the Dominican Republic. Some 60 percent of Dole's organic bananas are purchased from independent growers. In Peru, Dole is the largest organic banana exporter.

Other importers include Daabon Organics USA and Chiquita Brands ("Chiquita"). Daabon Organics USA is the local subsidiary of Grupo Daabon, a Colombian agribusiness company that cultivates organic bananas and is by far the largest organic banana exporter in Colombia. It also sells organic bananas to Dole.

Chiquita grows organic bananas in Peru, Ecuador and Colombia and reported exports of some 5 000 metric tonnes to the United States in 2006.

[50] PromPex web site www.prompex.gob.pe

Figure 5. Shares of suppliers in North American organic banana imports (2006)



At least two major banana companies plan on gradually expanding their organic segments in order to take advantage of market opportunities. The same two companies also plan on increasing the amount of double-certified (environmental and social) bananas they import; industry experts agree that double-certification is rising and offers particular market advantages.

Prices

According to a large import company, the premium at FOB level was approximately 30 percent and selling prices at import level in the United States ranged between 14 and 18 dollars per box. However, the data on prices for organic bananas at import level are very fragmentary, which makes it very difficult to draw conclusions on import price premiums. A possible solution is to compare the unit value of bananas imported from countries that only export organic bananas with that of bananas sourced from countries that overwhelmingly export conventional bananas. As shown in Table 5 below, the average unit value for organic bananas was 65 percent higher than for conventional ones in 2005. In 2006, the price differential increased to 80 percent.

Table 5. Unit value of banana imports into the United States (US$/MT)

Banana type	Organic	Organic	Conventional	Conventional	Average all bananas
Country of origin	Dominican Rep.	Peru	Ecuador	Costa Rica	All
2005	494	402	264	280	271
2006	562	478	291	293	287

Source: Department of Commerce, US Census Bureau, Foreign Trade Statistics

Data on wholesale prices for organic bananas are available from the wholesale markets of Boston and San Francisco. Over the period 2005-2006, the organic price premium at wholesale level was above 40 percent for bananas. In 2006, prices rose for all types of bananas, due to the reduction of supply from Latin America while domestic demand remained firm. However, the organic price premium declined slightly (Table 6). This decline in premium at wholesale level contrasts with the increase observed at import level.

Retail price premiums for organic bananas are usually between 10 and 50 percent, and could decrease slightly as more major retailers and producers enter the market.

2.4.2 Pineapples

According to the Centro de Inteligencia sobre Mercados Sostenibles (CIMS), North American organic fresh pineapple imports in 2004 were probably around 1 000 metric tonnes and worth as much as US$2.53 million. This represents roughly half the total

Table 6. Average wholesale prices of organic and conventional bananas in the United States

US$/box (18.14 kg)	2005 Organic	2005 Con-ventional	D %	2006 Organic	2006 Con-ventional	D %
Boston	19	13	47	20	14	40
San Francisco	19	12	62	21	15	44

organic pineapple market, with the other half coming from Hawaii. Dole has recently started growing organic pineapples in Costa Rica, but production levels are still relatively low. According to some industry experts, they are one of the top fruit prospects for developing country exporters[51]. This is at least partly due to the rapid expansion of conventional pineapple supply, which is motivating many producers to enter the organic pineapple market in order to differentiate their fruit. According to CIMS, the industry is developing primarily in Honduras and Costa Rica, and the United States is the main target market for exports. It is likely that the organic pineapple supply will increase in the medium term with Costa Rica as the industry leader. CIMS reports that in 2005 there were 140 Latin American producers, accounting for 230 hectares and 10 300 metric tonnes of product, in the "transition period" of organic conversion.

Organic price premiums for pineapples tend to be higher than the premiums for many tropical fruits, and according to CIMS demand is increasing slightly faster than average as well. A dramatic increase in the supply of fresh conventional pineapples between 2002 and 2005 had a serious impact on prices, with the prices for some varieties falling by as much as 50 percent. Organic pineapple prices were unaffected, however, and price premiums averaged around 100 percent on the FOB price and at 25 percent on the retail price between 2002 and 2005. As for other organic tropical fruits, price premiums exhibit strong variations depending on the season and the arrival of imported fruits (Table 7).

Table 7. Monthly wholesale prices of pineapples (1 layer gold ripe, various sizes) in 2006 (San Francisco)

Price (US$/ carton)	Organic	Conventional	Premium (%)
April	23.5	16.6	41.8
June	24.2	21.4	13.3

Source: United States Department of Agriculture, Agricultural Marketing Service

2.4.3 Mangoes

According to CIMS estimates, North America imported 2 500 metric tonnes of fresh organic mango in 2002[52]. primarily from Mexico and Ecuador, although Brazil, Colombia, the Dominican Republic and Peru also export fresh organic mango[53]. This represented about 1 percent of the total mango market and it is reasonable to assume that imports have risen to at least 3 600 metric tonnes since then (with a conservative 10 percent yearly growth estimate). CIMS estimates that the growth rate was 15 percent over the last four years, which would bring 2006 import estimates closer to 4 400 metric tonnes. Since 2002, New Harvest Organics and Exporganica SA[54] have started importing organic mangoes to North America from Peru and Ecuador, respectively. New Harvest imported about 120 metric tonnes in 2004

[51] ITC (2002)

[52] Agra-Europe cites CIMS estimates that only 1 900 metric tonnes were sold in the United States in 2002, which would mean that 600 metric tonnes were sold in Canada.

[53] Latin America exported almost 5 500 metric tonnes of fresh organic mangoes in 2002, along with 7 800 metric tonnes of puree, 1 800 metric tonnes of individually quick-frozen (IQF) fruit and 530 metric tonnes of dried fruit (Agra-Europe, 2004).

[54] FreshInfo News (2006)

and 150 metric tonnes in 2005, all of which were double-certified (organic and fair-trade). Nevertheless, some industry experts identify mango as a top fruit prospect for developing country exporters because of the general increase in North American demand for tropical fruits in general and mangoes in particular[55].

Table 8. Monthly prices for mangoes (Kent variety, various sizes) at the San Francisco wholesale market, 2006

Month	Organic	Conventional	Premium (%)
February	5.6	5.0	10.7
April	6.9	4.5	53.3

Source: United States Department of Agriculture, Agricultural marketing Service

As for other organic tropical fruits, price premiums exhibit strong variations depending on the season and the arrival of imported fruits (Table 8). Price premiums have fallen considerably since 2000 when they were 100 percent. In 2004 premiums were 40 percent at farm level, but were approximately 130 percent at the wholesale level, higher than for other organic fruits. CIMS reports that mango price premiums at retail level are extremely variable and depend on whether they are sold in specialty retail outlets or supermarkets, as is the case with other organic products. Agro-Europe also reports considerable price fluctuation depending on country of origin, variety, grade and time of the season[56]. CIMS predicts a decrease in mango premiums, particularly at the farm level.

2.4.4 Citrus

The United States produces most of the citrus consumed on the North American market. Total organic citrus output was estimated to range between 100 000 and 120 000 metric tonnes in 2003[57]. In spite of its domestic production, the United States imports organic citrus, especially in the summer months when local produce is scarce. No estimate of imported volumes could be obtained.

According to several US importers, Mexico is the largest supplier of imported fresh organic citrus imports followed by Argentina and Chile. Other suppliers include Honduras (lemons), Guatemala, Brazil (oranges) and South Africa (oranges and grapefruit).

3. FAIR-TRADE FRUITS

Fair-trade fruit has been marketed in North America since 2004, but it is not yet a significant part of the market for certified goods, and there are no fair-trade vegetables in production. There is a budding market for fair-trade banana and mango in North America, but volumes are very low and highly variable. Total volumes were estimated to be below 3 000 metric tonnes in 2006.

The entrance of more retailers into the fair-trade market (Whole Foods recently decided to become a fair-trade licensee) has created pressure to bring more products into the fair-trade market. Despite the considerable market potential for fair-trade products, North America presents particular challenges for fair-trade fruit. Supermarkets in the United States tend to offer conventional and organic bananas and pineapples, for example, and are reluctant to add another category or replace an existing one. Perhaps most important is the fact that the cost of goods for supermarkets is approximately 50 percent higher with fair-trade certified produce because of price premiums and smaller shipping volumes[58]. The European market

[55] ITC (2002)
[56] Agra-Europe (2004)
[57] FAO (2003)
[58] TransFair USA (2007)

prices for bananas and pineapples are traditionally higher than the North American prices, which makes the fair-trade prices slightly more competitive in the European market.

Demand for fair-trade products is similarly high relative to supply and adds to the premiums already guaranteed by fair-trade certification[59]. Retail price premiums for fair-trade fruits are intended to ensure that small producers can cover the costs of sustainable production and invest in development. FLO generally sets a Fairtrade Minimum Price for its products (along with a Fairtrade Premium that is added to the overall price) that guarantees certain returns for producers. It is still early to estimate fair-trade premiums on fruit, but if they mirror coffee premiums they will likely range from 20 to 60 percent[60]. Fair-trade premiums are less variable than the premiums for other certified products because minimum prices are set and agreed upon in advance, producers can be paid in part in advance, and contracts allow for longer term planning and more sustainable production practices.

3.1 Bananas

Bananas account for the bulk of fair-trade certified fruits in the North American market, but sales have failed to meet the high initial expectations of fair-trade organizations so far. Fair-trade bananas were introduced into the North American market in 2004 and TransFair USA reports that they met with high demand. However, import volumes into the United States have fallen since then, totalling only 2 600 metric tonnes in 2006 (Table 9). This last figure compares with sales of over 130 000 metric tonnes in Europe. Most of the fair-trade bananas found on the Canadian market come from the United States, from which they are re-exported. Direct imports from producing countries into Canada are negligible.

Table 9. Sales of FLO-certified fair-trade bananas in the United States and Canada

	2004	2005	2006
	(metric tonnes)		
USA	3 700	3 300	2 600
Canada	184	239	0

Source: FLO 2007

The logistical challenges of shipping small quantities and the inspection period at US ports have created quality problems for fair-trade bananas[61]. Fair-trade bananas are shipped to Europe in larger quantities and are packaged in vacuum bags, which help to preserve freshness. The quantities shipped to North America remain relatively small, and vacuum bags are unpopular with US buyers. Growth in the fair-trade certified banana market is further limited by the fact that the North American banana market is dominated by three large firms (Chiquita, Del Monte or Dole). Supermarkets tend to have long-term exclusive contracts with one of these companies, which makes it virtually impossible for other firms to sell bananas to North American supermarkets[62].

Most of the fair-trade bananas imported into North America are also certified organic. The share of organic bananas in fair-trade banana imports rose from 73 percent in 2005 to 94 percent in 2006. In 2004 and 2005, all fair-trade bananas were imported from Ecuador and Peru, and in 2006 Colombia also became a source of supply[63]. Ecuador is among the leading suppliers of fair-trade bananas worldwide.

[59] TransFair USA (2007)
[60] Cafédirect, see www.cafedirect.co.uk/about/gold_prices.php
[61] Ocean freight for smaller shipments of bananas costs roughly twice as much and takes twice as long, which increases costs and compromises freshness. For example, in 2004, fair-trade certified bananas were shipped from Ecuador to the West Coast of the United States, but quality problems arose because shipping and customs agricultural inspections were taking up to thirty days. Transfair USA, personal correspondence
[62] TransFair USA, personal correspondence
[63] TransFair USA (2006)

The FLO system guarantees a Fairtrade Minimum Price and pays an additional premium. The minimum price depends on the country of origin and on whether the fruit is organic or not, as detailed in Table 10 below. The premium paid in addition to the minimum price is 1 US dollar per box of 18.14 kg (40 lbs). In order to assess the economic benefits of fair-trade to exporting countries, it would be interesting to compare the fair-trade price with the FOB price for each country. However, real FOB prices are seldom available because the traders consider them as confidential information. What national statistical agencies usually publish as FOB prices often consists of the average unit value of total banana exports. Therefore, the table below displays these unit values as a proxy for FOB prices. It is interesting to note that the fair-trade minimum FOB price is substantially higher than the average unit value of exports for all countries except Peru. This specific case can be explained by the fact that all exported bananas are organic.

Table 10. Minimum prices for FLO-certified fair-trade bananas (US$ per 18.14 kg box, 2006)

	FT minimum (farm price gate)		FT minimum (FOB)	Price	Average unit value of exports
Origin	**Conventional**	**Organic**	**Conventional**	**Organic**	**Conventional**
Colombia	5.50	7.25	6.75	8.50	5.61
Costa Rica	5.75		6.75		5.33
Dominican Rep.	7.00	8.50	8.50	10.00	
Ecuador	5.50	7.25	6.75	8.50	4.44
Ghana			8.00	10.00	
Jamaica			9.06 (free alongside ship)		7.60
Panama	6.00		7.00		4.60
Peru		7.00		8.50	8.58*
Philippines	6.00		7.50		
Winward Islands	7.60		9.00		

Source: FLO 2007
Note: (*) organic only

According to TransFair USA, the 2 600 metric tonnes of fair-trade bananas imported in 2006 generated an additional income (through the fair-trade premium) of US$1.2 million to six farmer groups in the three supplying countries.

In spite of the decreasing imports in 2006, the considerable success of fair-trade bananas in the European market indicates that there is potential for growth in the North American market. In Switzerland, for example, fair-trade bananas are the market leader, now accounting for nearly 50 percent of all banana sales[64]. In the United Kingdom, a market that has many characteristics in common with the United States, sales of fair-trade bananas reached some 20 percent of all banana sales in the summer of 2007, amounting to over 3 000 metric tonnes per week[65]. In Finland, the share is 11 percent up from 7 percent in 2005. In all three countries, the high market share is due to the strong involvement of a few leading supermarket chains: J. Sainsbury, The Coop and Waitrose in the case of the United Kingdom; COOP in the case of Switzerland; and Kesko and Siwa in the case of Finland. Both

[64] FLO (2007)
[65] Smith, A. (2007)

Sainsbury and COOP decided that they would only sell fair-trade certified bananas. In view of the similarly high concentration in the North American retail sector, a similar decision by one of the leading retailers of the United States would boost fair-trade banana imports almost overnight. The world trend is positive. Overall, world sales of fair-trade certified bananas grew to 135 000 metric tonnes in 2006, up 31 percent from 2005. Sources in the fair-trade sector expect volumes to reach 200 000 metric tonnes by the end of 2007. The benefits to developing country growers may be substantial. According to FLO, the 28 fair-trade-certified banana producer organizations (spread across seven countries) earned an estimated extra income of US$21 million (€15 million) in 2006.

Another factor that supports strong growth prospects for fair-trade bananas in North America is the fact that other fair-trade products have experienced rapid expansion in this market. Fair-trade experts are confident that the market will grow, although perhaps not as quickly as the market for other fair-trade products (coffee and cocoa, for example).

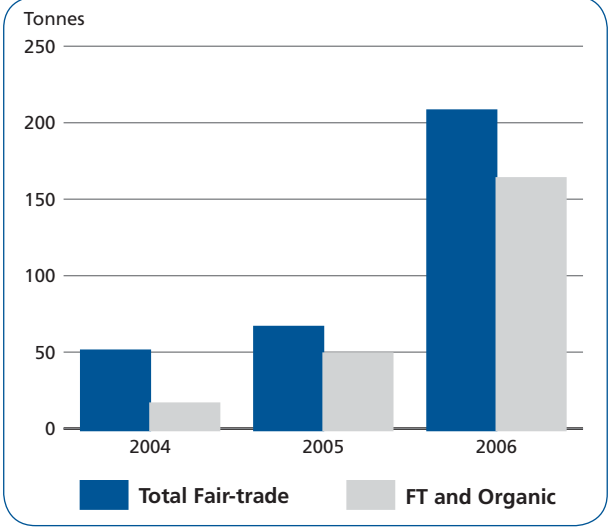
3.2 Pineapples

Imports of fair-trade pineapples into North America started in 2004 but have remained negligible. In 2004, the United States imported about 200 metric tonnes of fair-trade pineapples from Costa Rica, but in 2005 imports fell to zero and in 2006 they stood below one metric tonne[66]. As with fair-trade certified bananas, a few large firms dominate pineapple imports in North America and negotiate long-term contracts with supermarket chains. There have also been quality problems with fair-trade pineapples, mainly due to logistical challenges.

3.3 Mangoes

Imports of fair-trade certified mangoes into the United States started in 2004. They have enjoyed a substantial increase, exceeding 200 metric tonnes in 2006 (Figure 6). In 2004 and 2005, all fair-trade mangoes were imported from Peru and Mexico, while in 2006 they were imported from Peru, Mexico and Haiti. Demand is strong, but supply is seasonal, which makes it difficult to build momentum[67]. According to TransFair USA, the 200 metric tonnes of fair-trade mangoes imported in 2006 generated an additional income (premium) of US$220 000 to three farmer groups in the three supplying countries.

Figure 6. Imports of FLO-certified mangoes into the United States 2004-2006



[66] TransFair USA (2006)
[67] TransFair USA, personal correspondence

4. RAINFOREST ALLIANCE (RA) CERTIFIED FRUITS

4.1 Bananas

Annual sales of RA-certified bananas in North America were estimated at 1 million metric tonnes in 2005 and in 2006 based on information received from RA and Chiquita Brands ("Chiquita"). This volume accounts for approximately 28 percent of total US banana imports. Bananas are by far the most important RA-certified product owing to the long-standing collaboration between RA and Chiquita. All Chiquita's owned banana plantations in Latin America are RA certified. In addition, 84 percent of the bananas that Chiquita purchases from independent producers in Latin America are RA certified. The plantations of the Favorita Fruit Company (REYBANPAC), the third largest banana exporter in Ecuador and a key Chiquita supplier are RA certified. According to Chiquita, the company imported almost 2 million metric tonnes of RA-certified bananas worldwide in 2006[68], accounting for 88 percent of Chiquita's imports from Latin America.

According to RA sources, about half of the RA-certified bananas imported into North America are sold with the RA label, amounting to a total retail value of approximately US$700 million a year. RA does not guarantee price premiums, but claims that most certified producers are able to negotiate a price premium because of increased quality and widespread recognition for the RA label. Premiums vary from 0 to 30 percent for RA-certified bananas, according to RA sources. The authors could not find other sources of information.

Until 2006, Chiquita was the only company importing RA-certified bananas into North America. In February 2007, Dole announced that its 1 990-hectare Esperanza plantation in Costa Rica had been certified by RA[69]. This was the first time a Dole plantation was certified by RA.

4.2 Citrus

RA-certified citrus production is limited to one 7 000-acre farm in Costa Rica, but RA hopes to expand into the citrus industry in Latin America, specifically in Belize.

5. OTHER CERTIFICATION PROGRAMMES

There is a number of other certification programmes that apply to fruit and vegetables imported into North America. One larger programme that merits attention here is ISO 14001. The ISO 14000 series is part of the internationally recognized ISO industry standards and concerns environmental management systems. There is no ISO 14001 labelling for products per se, but firms may advertise their ISO certification in their documents and public relation operations. While there are organizational benefits, particularly for large growers, there is no price premium for ISO 14001 and it is not as attractive to smaller producers because of certification costs and extensive documentation requirements[70]. Producers may, however, use certification as a sales advantage when negotiating with importers, wholesalers and retailers.

Another programme of interest is SA-8000, the Social Accountability standard. It is a workplace standard that focuses on labour rights and worker health and safety. It is

[68] Chiquita, personal correspondence
[69] Reefer Trends online daily news, 7 February 2007
[70] FAO (2003)

based on the conventions of the International Labour Organization (ILO), the Universal Declaration of Human Rights and the United Nations Convention on the Rights of the Child. SA-8000 was developed by Social Accountability International (SAI), an NGO based in the United States. SAI accredits independent certification bodies to carry out inspection and certification of production facilities.

SA-8000 certification has been used for bananas and pineapples, as well as other agricultural products. In 2005, Chiquita reported approximately 500 000 metric tonnes of SA-8000 certified banana imports into North America, all of which were also RA certified. Dole also imports SA-8000 certified bananas grown in Colombia (it announced in July 2007 that all its Colombian plantations were certified SA-8000), Costa Rica, Ecuador, Honduras, Guatemala and the Philippines, but volume data are unavailable.

The SA-8000 label is not used on products and there is no differentiated retail market. Producers can, however, use certification as a sales advantage when negotiating with importers, wholesalers and retailers.

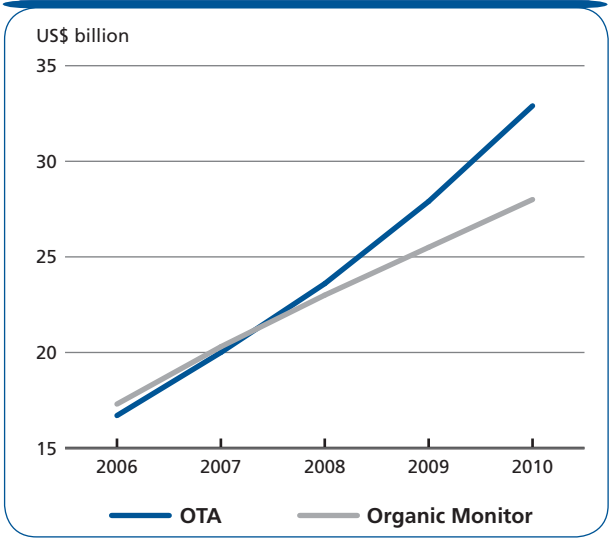
6. MARKET PROSPECTS FOR DEVELOPING COUNTRY SUPPLIERS OF CERTIFIED FRUIT AND VEGETABLES

The market for certified fruit and vegetables is bound to expand in the wake of the steady increase in fresh produce consumption. North American per capita consumption of fresh produce is expected to rise over the next decade, stimulated by several major socio-economic and demographic trends. Among the key factors that will drive this growth are changes in consumer preferences, and rising incomes. Changes in population characteristics (i.e. age, lifestyle, family size and race/ethnicity), education and marketing have significantly increased consumption of fresh produce and this trend is expected to continue. These changes have also affected the types of fruits and vegetables bought in North America – more than ever before, consumers choose fresh produce based on novelty, convenience, taste, aesthetic appeal, nutrition and health benefits, and environmental and/or social impact. Between the early 1990s and the early 2000s, average per capita consumption rose by between 2 and 5 percent depending on product and the geographical area. In Canada, consumption rose by 12 percent in the 1990s and has continued to rise since 2000[71]. Nevertheless, the average individual still does not consume the recommended 5-10 servings of fruit and vegetables a day in either country[72]. which indicates a substantial growth potential.

Public health policy (i.e. national health campaigns and recommended daily intake) is also expected to foster consumption. Continued and redoubled awareness-raising campaigns and education programmes promoting fresh produce are underway in Canada and the United States, supported by new policies for schools, prisons, hospitals and other institutions. In addition, private actors in the retail, agriculture and health industries are running their own promotional campaigns and strategically driving increased consumption. Information on balanced diets and scientific studies on the nutritional benefits of fresh fruit and vegetables are becoming more widespread and easily accessible as a result of the internet

[71] Statistics Canada (2006), CANSIM
[72] Centers for Disease Control and Prevention, USA

Figure 7. Projected retail sales of organic agriculture products in North America



Sources: Organic Monitor 2006 and OTA 2007

and a burgeoning "health and wellness" industry. Finally, an aging and increasingly health-conscious population is paying closer attention to what they eat and fresh fruit and vegetables are an undisputed component of a healthy diet[73]. This increasing focus on healthy eating is set to benefit organic fruit and vegetables primarily. Surveys repeatedly show that health is the main reason why consumers buy organic foods.

Fresh fruits and vegetables are not only the largest market category, but also have one of the most diverse ranges of countries of origin and the highest levels of consumer interest in the major markets. Furthermore, organic fruit and vegetables are usually – together with dairy products – 'entry products' when consumers start buying organic food[74]. Fruits and vegetables are considered to be important gateway products and, according to some experts, the fresh produce sector is the most critical part of the organic industry as a whole[75]. An increase in the production and export of some certified products (i.e. fresh produce), and the associated market expansion, can raise consumer interest and stimulate the market for other products.

Organic fresh produce consumption is expected to grow in the near and medium terms following the general trend of the organic food market. Various reports predict strong growth in the Canadian and US markets over the next five years with a dramatic increase in the availability of organic foods throughout mainstream distribution channels. Organic Monitor forecasts that the US market for organic foods will grow at a compound annual rate of almost 12 percent and reach US$32.5 billion by 2012[76]. OTA has a more optimistic growth forecast of 18 percent annually from 2007 to 2010. Their forecasts for 2010 range between US$28 and 33 billion (Figure 7)[77]. The stronger involvement of large-scale retail chains, in particular the mainstream ones will contribute significantly to this rise. Wal-Mart's push to increase its organic range alone should raise overall sales noticeably, and other major retailers such as Kroger, Safeway and Loblaws are joining the race to meet the burgeoning demand for certified foods. In addition, specialized natural and organic supermarkets such as Whole Foods, Trader Joe's and Wild Oats in the United States and Planet Organic in Canada are forecast to continue their expansion. In order to meet this demand from retailers major United States food firms such as Heinz and Kellogg's have developed organic product ranges. Some have purchased existing organic food companies and introduced product line extensions of existing national brands with an organic focus. Mergers within the industry have also consolidated organic and natural food brands to create stronger market forces. Beyond the market pull, it is fast becoming the norm for multinational and national corporations, including food distributors and retailers, to integrate Corporate Social Responsibility into their management

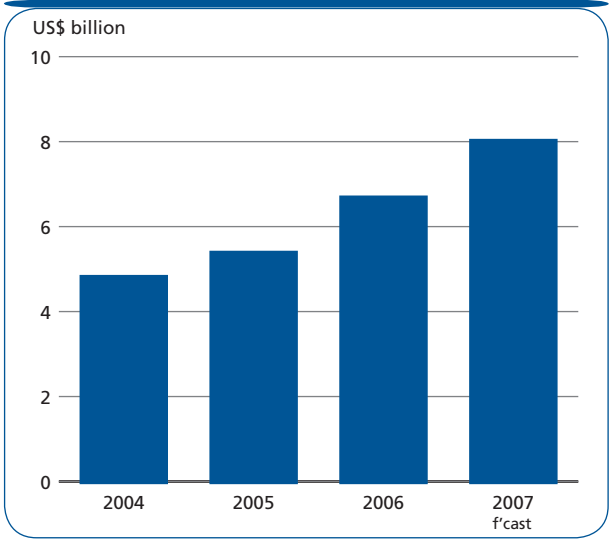
[73] USDA (2006a) and interview respondents
[74] ITC (2006) p.35 and USDA (2006a)
[75] USDA (2006a)
[76] Organic Monitor (2006)
[77] OTA (2007)

practices and communication strategies. Social and/or environmental certification is a visible and credible means of showing their commitment to social responsibility.

Finally, another important factor driving the expected growth is the establishment of National Organic Standards in October of 2002, which has increased consumer awareness of organic products in the United States.

In its 2007 Manufacturer Survey, OTA notes that retail sales of organic fruit and vegetables expanded by 24 percent in 2006. It forecasts that sales will continue to grow strongly (+20 percent), reaching some US$8 billion in 2007 (Figure 8).

Figure 8. Recent and projected growth of organic fresh fruit and vegetables sales in the United States



Source: OTA 2007

A large share of the rising demand for organic produce will be met by domestic supply. However, there will also be room for foreign suppliers. Exporters of certified fresh produce stand to benefit from the general rise in all fruit and vegetable imports. Import volumes have been growing steadily in North America since 1970 and have recently reached a record level, accounting for between 20 and 25 percent of all fruit and vegetable consumption. Fruit imports in particular are rising during the primary North American growing seasons, as well as the off-season, due to increased demand and competition from developing country producers with lower production costs. This growth is partly due to the steady rise in the popularity of tropical fruits since the 1980s and the fact that products that were previously sold seasonally are now often on the market year-round. USDA ERS estimates that growth in the demand for imported fresh fruits and vegetables will continue to accelerate, particularly the demand for premium products (i.e. tomatoes, peppers, asparagus and tropical fruits).

Developing countries have advantages in producing organically due to comparatively lower labour costs. Organic cultivation tends to require more labour inputs and therefore has higher production costs. The cost of labour in North America is very high compared with that of most developing countries, which means that products with high labour inputs can be produced more cheaply in developing countries. The fact that many developing country farmers use low-chemical input production systems which can be converted to organic more easily is also a comparative advantage.

Tariffs on fresh fruit and vegetables are low in general in the United States and Canada except for a few products during their domestic harvest season (e.g. melons). Bilateral trade agreements (NAFTA with Canada and Mexico, CAFTA with Central America, and separate agreements with Chile and Argentina) have further reduced or eliminated tariffs on fresh produce, which has reduced costs for North American consumers and further stimulated demand[78]. This, in turn, has

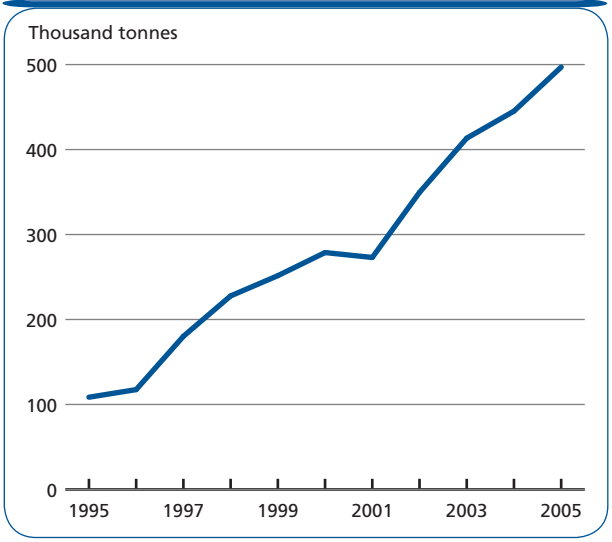
[78] USDA (2006a and 2004)

fostered imports significantly and increased the availability of fruit and vegetables on the North American market. USDA claims that even with a depreciating US dollar, income growth in the United States will continue to stimulate fruit and vegetable imports in the foreseeable future.

The United States is the obvious target market for developing country exporters due to the sheer size of its domestic market and its role as an entry point to the Canadian market. Yet, exporters should also consider direct shipments to Canada. Many Canadian traders also import at least part of their requirements direct from foreign suppliers other than the United States, and there is a growing interest in the organic industry to source more internationally and direct from source. The Canadian organic industry aims to have a 10 percent share of the total Canadian retail market by 2010[79]. Although this target seems overoptimistic, there is no doubt that steady growth will continue over the coming years. Distribution channels are characterized by the huge size of the country, i.e. regional distribution is commonplace. For example, the largest distributor of fresh produce has distribution centres in Vancouver, Toronto and Montreal[80].

In terms of product categories, the best market opportunities are currently seen in organic tropical fruits due to the current undersupply of the North American market. Supply appears to be particularly short for organic pineapples and mangoes. Developing countries producing organic pineapples should take advantage of the rapidly growing US market. With overall pineapple imports standing at over 660 000 metric tonnes, North America accounted for 40 percent of world imports in 2006. Pineapple imports have been rising steadily in the United States, increasing almost five-fold in the ten-year period 1995-2005 (Figure 9). Prices for conventional pineapples have contracted since 2003, as supply has expanded faster than demand. The unit value of imports was US$460 per tonne in 2005, down from US$580 per tonne in 2003.

Figure 9. Pineapple imports into the United States



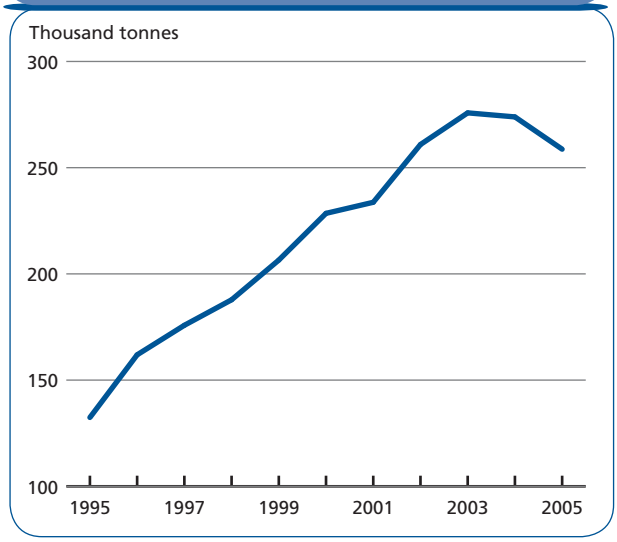
Source: FAOSTAT 2007

In the United States, per capita consumption is the highest among developed countries with 2.1 kg. But it is still low in absolute terms, meaning that there is a potential for increase. It was not possible to estimate the share of organics in total pineapple consumption, but it is believed to be much lower than for other fruits due to lack of supply. Consequently, export opportunities exist, especially for producers in countries that already supply large quantities of pineapples to the United States: especially Central American countries (Costa Rica, Honduras, Guatemala and Panama) and Mexico, which benefit from geographical proximity with the United States. More distant countries that already have a fruit export logistic chain in place (e.g. Ecuador) may also benefit. The focus should be on sweet varieties (e.g. MD-2). Producers should be aware that a few multinational import companies (e.g.

[79] Agriculture and Agri-Food Canada (2004a)
[80] ITC (2004)

Fresh Del Monte, Dole and Chiquita) control the bulk of the North American pineapple market. They often have exclusive contracts with supermarket chains. A suggested strategy for new entrants is to seek collaboration with these companies since they do not produce large quantities of organic pineapples and may be interested in extending their range.

Figure 10. Mango imports into the United States



Source: USDA FAS 2007

Organic mangoes are another export opportunity for developing countries. Their imports have grown in line with conventional mango imports, which almost doubled over the period 1995-2005 (Figure 10). The United States accounted for one-third of world mango imports in 2006, with almost 300 000 metric tonnes. Per capita consumption is the highest among developed countries but below 1 kg/pers/year (0.9 kg), meaning there is a potential for increase. It was not possible to estimate the share of organics in total mango consumption but it is believed to be much lower than for other fruits. North America offers export opportunities for organic mango producers in countries that already supply large quantities of mangoes to the United States: especially Mexico, Peru, Ecuador and Brazil. Perishability is a key challenge for shippers of organic mangoes. In this respect, Central America and Caribbean countries (e.g. Cuba) have a comparative advantage due to their proximity to North America. Producers should focus on coloured varieties (e.g. Kent, Keitt and Tommy Atkins) for which there is a clear market preference.

The mandatory heat treatment under USDA control is a major constraint for developing exports of fresh mangoes (be they organic or conventional) to the United States. The necessary facilities represent a considerable investment and relatively more so for the smaller volumes of organic trade. Furthermore, the treatment shortens the fruit's shelf life, which makes exports from African origins extremely difficult given the already longer transport times.

Organic banana imports have risen between 10 and 50 percent per year over the last five years and the growth rate is forecast to remain between 10 and 20 percent over the next decade, in keeping with the rest of the organic market. In addition, it is possible that the expected further liberalization of the EU's banana market may divert bananas away from the North American market. Assuming that North American demand remains stable, this might drive prices for conventional banana up, thereby reducing the difference with organic prices and raising demand for organic bananas. This expected growth will create market outlets for Latin American producers.

However, industry sources consider that organic banana production will likely double in the next few years, which raises the risk of market imbalance and a drop in prices. Existing suppliers, in particular Ecuador and Peru, have heavily invested in organic banana farms and large areas of land are currently in transition to organic cultivation. Multinational banana companies such as Dole and Chiquita have been investing in new organic farms, either directly owned or through partnerships with local companies. As mentioned above,

the multinational fruit companies (e.g. Fresh Del Monte, Dole, Chiquita) control the bulk of the North American banana market. They often have exclusive contracts with supermarket chains. Therefore, Latin American or Caribbean producers aiming to export organic bananas to North America may try to seek collaboration with these companies. An alternative strategy may be to sell directly to specialized organic or natural products chains such as Whole Foods or Trader Joe's, provided the logistical challenges of shipping, ripening and distribution can be met.

In addition to the three fruits mentioned above, numerous export opportunities exist in other organic tropical fruits. Organic avocados have a strong market potential and Mexican growers may benefit from future demand growth. Organic exotic fruits such as litchis, guava and passion fruit, may offer market outlets for some Latin American growers although volumes are not forecast to reach the same levels as those of the above fruits. In addition, some possibilities exist for fresh organic citrus exports to the United States. Although the United States produces organic citrus, demand seems to exceed supply. There are opportunities for exporters to supplement domestic production with high quality, competitively priced, and particularly off-season organic citrus[81]. The best market opportunities are for supplies of fresh organic citrus during the season of low production in the United States, and for supplies of organic citrus products that are scarce such as limes. Latin American countries are well positioned to take advantage of these opportunities because of their lower labour costs and geographical proximity. Mexico is well placed to take advantage of this gap, but there is also room for other suppliers in Latin America. Suppliers have to pay particular attention to potential pest and disease problems, though. US phytosanitary rules on citrus imports are extremely strict.

The growing ethnic market in North America also opens demand for organic exotic vegetables. Developing countries should also consider the market for off-season organic temperate fruits and vegetables (apples, pears, grapes, tomatoes, peppers and zucchini).

In spite of a disappointing start due to logistical problems among others, imports of fair-trade fruits should reach more meaningful levels in the longer run. The fair-trade NGOs will need to overcome a series of obstacles. The key constraint is the lack of awareness by North American consumers. Further, supermarket category managers are often reluctant to add yet another fruit category to their range, as they view it as extra work for very little profit. In the case of pineapples and bananas, exclusive arrangements between supermarkets and the fruit multinationals are a further impediment. If North American fair-trade organizations manage to raise consumer awareness and pressure supermarkets into carrying fair-trade foods as their European counterpart did, demand for fair-trade fruits could soar. In the United Kingdom, fair-trade bananas reached a 20 percent market share in 2007 due to the decision by a few large-scale retailers to only sell this type of bananas. Similarly, in Switzerland, fair-trade banana account for nearly half of banana sales. Also, collaboration between the multinational fruit importers and fair-trade organizations would help expand the market for fair-trade bananas and pineapples, but it is not clear whether these players are willing to work together.

Imports of RA-certified bananas are expected to rise, as Chiquita is likely to push more suppliers to become certified (currently 84 percent of the bananas purchased from independent suppliers come from certified farms). In addition, if Dole continues seeking RA certification for its other plantations, supply could increase markedly. Prospects are less clear as regards other RA-certified fruits. Currently, citrus are the only other fruit whose production is certified by RA, but imported volumes have been negligible so far.

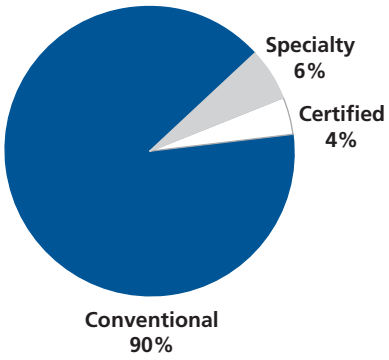
[81] FAO (2003d)

CHAPTER 3: CERTIFIED COFFEE[82]

Coffee is one of the most important commodities on the world market. It is produced and exported by nearly 60 nations, ranks as one of the top cash crops in developing countries, and is critical to the economies of several of them[83]. According to the International Coffee Organization (ICO), world exports of green coffee amounted to 5.3 million metric tonnes in 2006, valued at approximately US$10.85 billion. The value of exports is expected to exceed US$12 billion in 2007 – a considerable rebound from the low of US$5.5 billion that producing countries received in 2002 but still only about 17 percent of the US$70 billion estimated global retail sales[84].

Nevertheless, in some nations, producers received only US$0.30 per pound of coffee when export prices are over three times higher. In one African nation, producers earn even less with an average of only US$0.09 per pound of robusta[85]. For many, coffee is the only cash crop yet it can be a difficult way to earn a living. Low prices are only part of the challenge. World conventional coffee markets are highly competitive and typically cyclical with recurring patterns of oversupply that make prices volatile and producer incomes very insecure.

Figure 11. World exports of certified coffees in relation to specialty and conventional coffees in 2006



Source: D. Giovannucci estimates based on various data sources

Social and environmental cetification has created a fast-growing niche market that offers an advantage to growers that can produce quality certified products. Certified coffees are commonly defined as those that include the three pillars of sustainability (economic, environmental and social) and are certified by independent third parties. This category has emerged from almost negligible quantities in the late 1990s to become a significant portion of today's coffee exports. In 2006, certified coffees amounted to approximately 4 percent of global green coffee exports or more than 220 000 metric tonnes (Figure 11)[86].

[82] Please cite as: Giovannucci, D., Liu, P. and Byers, A., 2008 Adding Value: Certified Coffee Trade in North America. In Pascal Liu (Ed.) Value-adding Standards in the North American Food Market - Trade Opportunities in Certified Products for Developing Countries. FAO. Rome
[83] World Bank (Lewin, B., Giovannucci, D. and Varangis, P., 2004)
[84] ICO (2007)
[85] ICO (2007)
[86] Giovannucci, D (2008)

While the market penetration of certified coffee is still relatively modest, coffee is nevertheless the leading agricultural sector in terms of both the number and frequent use of such certifications. These certification initiatives are more responsive to public needs and have become important vehicles for managing or regulating sustainability in coffee[87].

When coffee prices plummeted in the late 1990s and early 2000s, hundreds of thousands of farmers were forced out of business. Oxfam[88] and the Lewin *et al.* World Bank report (2004) note resulting hunger, dislocation, and even a number of deaths attributable to this collapse. Prices for certified coffee declined considerably less than those of conventional coffee during the crisis, providing some growers with a lifeline[89].

1. OVERVIEW OF THE NORTH AMERICAN COFFEE MARKET

Nearly all coffee sold in North America is imported from developing country producers and exporters[90]. The North American coffee market accounts for over one quarter of global coffee imports in value (27 percent in 2005) and the United States is the world's largest single buyer of coffee. Its consumers are increasingly attentive to quality and origin, and have demonstrated a growing interest in the social, economic, and environmental aspects of coffee production. The expansion in the number of gourmet coffeehouses in the United States illustrates this rapid evolution. From approximately 450 in 1991 there are now nearly 24 000 in operation[91]. The unique development of such differentiated demand in the United States and Canada, especially over the last decade, has had a significant impact on the coffee industry and its producers. In recent years, the value of differentiation has increasingly concentrated in the intangible and downstream parts of the value chain as some retailers sell coffees at many multiples of their purchase price[92]. The demand for certified and higher quality gourmet coffees allows producers to capture a greater percentage of the final retail value for their crops in the form of price premiums[93].

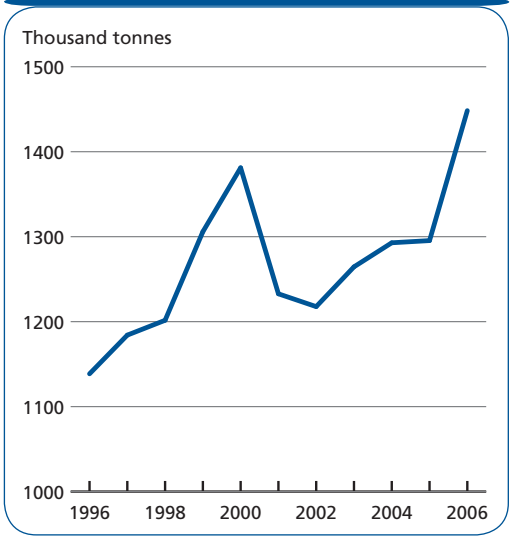
Volume, value and prices

Approximately 1.42 million metric tonnes of conventional green coffee was imported into North America in 2006, with 1.28 million metric tonnes entering the United States[94] and 139 000 metric tonnes into Canada[95]. The FOB value in 2006 is estimated to exceed US$3.6 billion[96]. The tariff levels are favourable to coffee imports: green and roasted coffees enters the United States and Canada duty free and for most other processed coffee products the tariff is either zero or very low. When measured by value, Colombia accounts for the largest share whereas Brazil supplies the largest quantity. Green arabica coffee accounted for about 53 percent of the total. The United States also exported significant quantities of coffee (68 percent of which was roasted) that in 2006 were valued at US$451 million. Canada is the largest market for US exports and it also re-exports a modest amount of coffee.

[87] Raynolds, L., Murray, D. and Heller, A. (2007)
[88] Oxfam (2003)
[89] Varangis, P., Siegel, P., Giovannucci, D. and Lewin, B. (2003)
[90] With the exception of production from Hawaii and Puerto Rico
[91] Sources: SCAA, Mintel, NCA elaborated in Giovannucci, D. (2008)
[92] Ponte, S. and Daviron, B. (2005)
[93] World Bank (Lewin, B., Giovannucci, D. and Varangis, P., 2004)
[94] USDA FAS (2007)
[95] Canadian Coffee Association (2007)
[96] USDA FAS (2007)

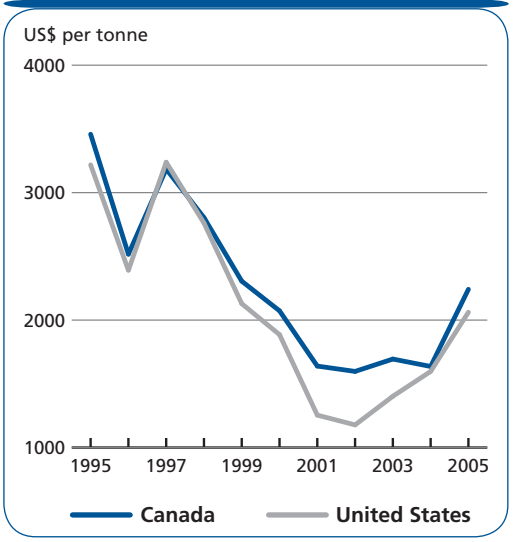
North American consumption has shown little overall growth in recent years. The quantity of green coffee imported into North America grew markedly in the 1990s and reached a peak in the year 2000. The volume declined in 2001 and 2002 and then showed only marginal average growth of approximately 1 percent per annum (Figure 12) until 2005. Disaggregating the different market segments uncovers that the sales of conventional coffees actually declined while growth has occurred in the differentiated or specialty coffees. Real prices for all coffees fell from the mid-1990s, reaching record-low levels in the early 2000s. This fall was reflected by declining unit values of imports in Canada and the United States as shown in Figure 13. The severe price declines appear to have had little or no impact on global consumption trends. The fall in prices however caused considerable hardship for all coffee producers. Import prices have partly recovered since 2002, but they are still below the nominal price levels of the early 1990s.

Figure 12. Imports of green coffee into North America



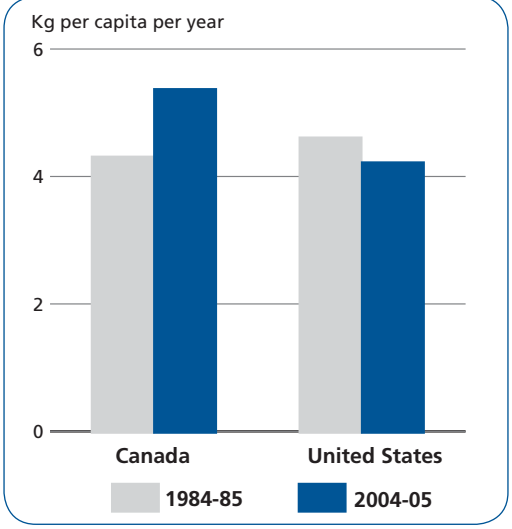
Source: FAOSTAT (ICCO for 2006)

Figure 13. Unit value of United States and Canada green coffee imports



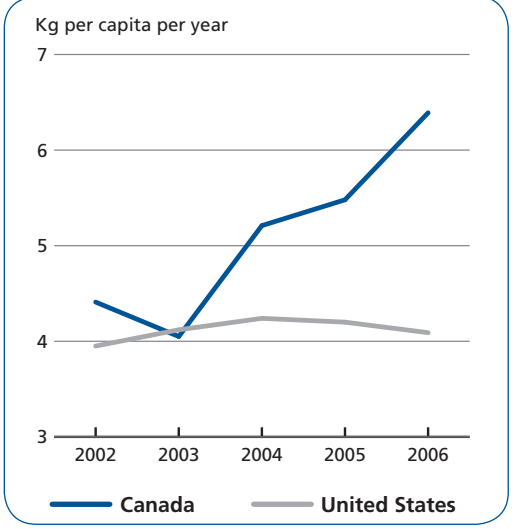
Source: FAOSTAT

Figure 14. Change in coffee consumption across two decades, United States and Canada



Source: International Coffee Organization (ICO) 2007

Figure 15. Recent changes in coffee consumption in Canada and the United States



Source: International Coffee Organization (ICO) 2007

In the United States, per capita consumption has been almost stagnant over the past five years, and is even below its level of the mid-1980s despite population growth. Conversely, it has expanded in Canada (Figures 14 and 15). Individual consumption in Canada reached 6.39 kg per capita in 2006 and is among the highest in the world, well above that of the European Union (4.95 kg), the United States (4.09 kg) and Japan (3.38). Higher consumption rates are only found in Scandinavian countries and some smaller European states (Benelux, Estonia and Switzerland).

2. CERTIFIED COFFEE

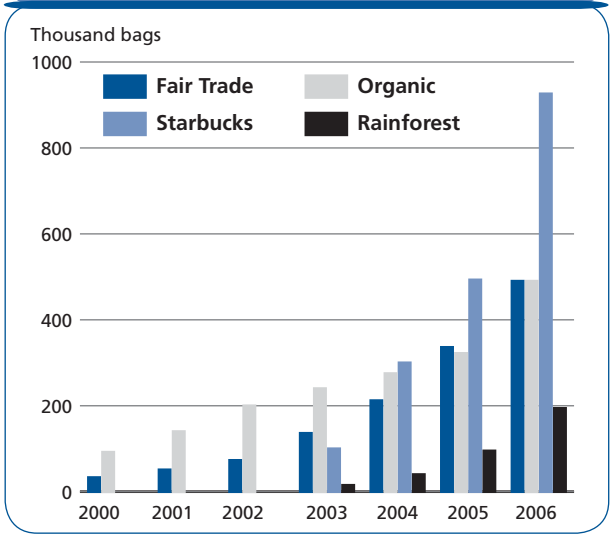
Calculating estimates of the quantities of certified coffees marketed in North America is made difficult by the fact that only a portion of the coffees that are certified under a sustainability programme are actually sold under a certified seal. Several factors contribute to this dynamic:

a) A portion of a farm's output may not meet quality requirements of a buyer seeking certified coffees and must therefore be sold as conventional.
b) Some coffees are purchased for their sustainability attributes and, for various reasons may be blended or marketed without the identity of a certification.
c) A buyer may want to purchase only a portion of the coffee as certified and the rest as conventional, even though the entire farm may be certified.
d) In some cases, buyers are not seeking a certification but will give preference to certified coffees even though they do not use the certification and may or may not pay a premium.

Unless otherwise specified, the figures provided in this section relate to the quantities actually purchased as certified. Total certified production volumes may be substantially higher.

Estimates for 2006 indicate that the imports of certified coffees rose to approximately 110 000 metric tonnes, accounting for nearly 8 percent of the market. These certified coffees include organic, Fairtrade, Rainforest Alliance, Bird Friendly, Utz Certified and Starbucks C.A.F.E. Practices and account for overlapping certifications (Table 11). This is a very substantial growth from the approximately 60 000 metric tonnes of certified coffee that were imported into North America in 2005, then accounting for approximately 5 percent of the green coffee imports. The export value (FOB) for these coffees was estimated at approximately US$330 million in 2006[97].

Figure 16. Estimated growth of US certified coffee imports



Sources: Giovannucci from own data and CIMS, TransFair, Rainforest Alliance, Starbucks

[97] Calculation by Root Capital and Giovannucci based on conservative estimates of average FOB prices

Many large North American retailers such as Starbucks, Dunkin Donuts and McDonalds, now offer organic and/or fair-trade coffee. Other coffees certified as sustainable are increasingly becoming popular as well (Figure 16). RA is now one of the fastest growing coffee certification schemes in North America, due in part to its partnership with industry giants like Kraft Foods. Utz Certified and Bird-Friendly (Smithsonian Migratory Bird Center) have smaller positions.

Table 11. Estimated imports of certified green coffee into North America

Type	Quantity (MT)
Organic	30 700
Fair-trade	32 100
Rainforest Alliance	11 600
Utz certified	1 800
Bird friendly	200
C.A.F.E. Practices (Starbucks)	58 000
Total (*)	**110 000**

(*) Due to multiple certification, the total is less than the sum of the rows

2.1 Organic coffee

Market situation

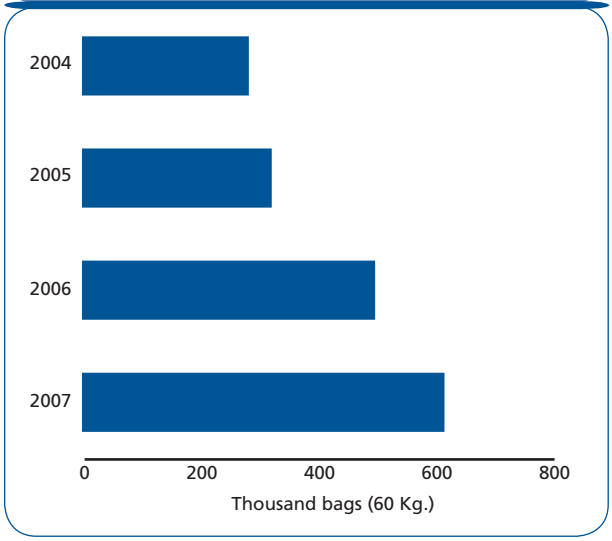
Based on a survey of importers and industry sources, Giovannucci estimates that world sales of certified organic coffee exceeded 67 000 metric tonnes in 2006, nearly half of which (30 700 metric tonnes) were consumed in North America. This is considerably more than the approximately 52 000 metric tonnes of organic coffee consumed worldwide in 2005[98], when 19 000 metric tonnes (37 percent) were consumed in North America (Table 12 and Figure 17). The share of North America in world organic coffee consumption has increased substantially.

Table 12. Estimated imports of certified organic coffee (metric tonnes)

Year	2003	2005	2006
World	42 000	52 000	67 000
North America	16 500 (2004)	19 000	30 700

Source: Giovannucci and Coffee Guide for 2005 and 2006; World Bank (2005) for 2003. Giovannucci and CIMS for 2004.

Figure 17. US imports of organic coffee (past and industry projections)



Source: Giovannucci and Villalobos, 2007. The State of Organic Coffee: 2007 US Update, CIMS: San José, Costa Rica

This estimate indicates that organic coffee represents approximately 2 percent of the total North American coffee market in volume. The share in value is slightly higher since organic coffee usually fetches higher prices than conventional coffee.

Market trends

Estimates for the growth rate of the organic coffee market differ across sources. Data collected by AC Nielsen[99] show that organic coffee sales in the United States increased by 54 percent during the period November 2004 - November 2005, while total coffee sales grew by only 8.5 percent in that period (covers only certain segments of the market). Data from the *Organic Trade Association's 2006*

[98] The Coffee Guide (2007)
[99] AC Nielsen quoted in Supermarket News, 19 December 2005 issue, United States

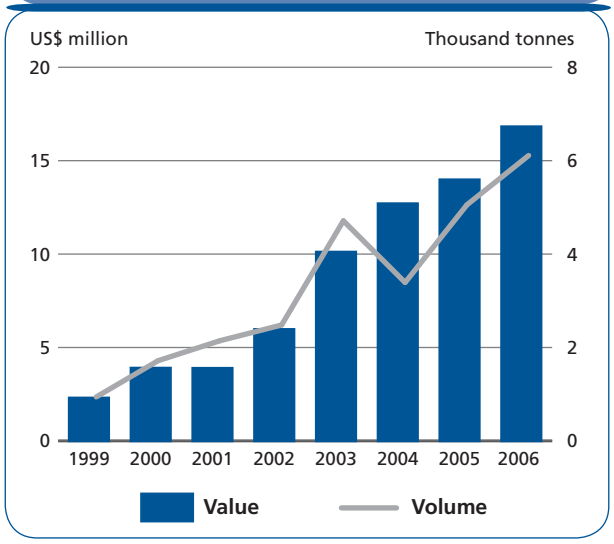
*Manufacturer Survey poi*nt to a slightly slower growth for organic coffee of 40 percent over the period December 2004 - December 2005. Both surveys polled limited sources. As regards North American organic coffee imports, Giovannucci and Villalobos found in research conducted for CIMS covering US importers that the average growth rate between 2004 and 2005 was 23.5 percent[100]. Their more recent 2007 survey indicates that the average growth in 2006 was approximately 56 percent compared to 2005 imports of green organic coffee[101]. They estimate that growth will slow considerably in 2007.

Suppliers

Certified organic coffee is exported from more than 30 countries (Table 13). Most of the global supply comes from Latin America where the largest exporter in 2006 was Peru (26 400 metric tonnes), followed by Central America, Brazil, Mexico and Colombia. Ethiopia is Africa's largest exporter followed by Uganda. In Asia, Papua New Guinea and Timor-Leste are the leading exporters followed by Indonesia and India.

Most organic coffee found in North America comes from Latin America, in particular from Peru, Mexico, Brazil, Bolivia, Colombia, Costa Rica, Guatemala and Nicaragua. Peru's exports to the United States have been rising steadily since 1999 and reached 6 100 metric tonnes in 2006 (Figure 18). Coffee accounts for over half of Peru's organic export earnings to the United States. There is strong interest in organic coffee from a wider range of countries[102].

Figure 18. Peru's exports of organic coffee to the United States (volume & value)



Source: J. Fernandez, PromPeru 2007

Prices

Price premiums vary considerably due to several factors. In many cases, organic premiums are part of larger premiums based on quality, regional designation, reputation of the producer or additional certifications like fair-trade or bird friendly[103]. In recent decades tight relationship between supply and demand meant that nearly any certified organic coffee would receive a premium. In a study carried out

Table 13. Organic coffee suppliers

Latin America and the Caribbean	Bolivia, Brazil, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Peru, Trinidad and Tobago, Venezuela
Africa	Burundi, Cameroon, Ethiopia, Ghana, Kenya, Madagascar, Malawi, Rwanda, Togo, United Rep. Tanzania, Uganda, Zambia
Asia	China, Timor-Leste, India, Indonesia, Lao PDR, Nepal, Philippines, Sri Lanka, Thailand, Viet Nam

* Some are occasional exporters

[100] Giovannuccci, D. and Villalobos, A. (2006)
[101] Survey of US-based importers estimated to cover well over 90 percent of the North American market.
[102] ITC (2002)
[103] Giovannucci, D. and Villalobos, A. (2006)

in Northern Nicaragua during the 2000-2001 harvest, Bacon[104] found that the average price reported at the farm gate for organic coffee was US$0.63 per pound, while that of conventional coffee was US$0.41 per pound, i.e. a premium of 54 percent. While the actual amount paid has remained somewhat constant, the relative percentage is clearly greater during periods of low prices. Today the organic premium is much more correlated with quality. High-quality producers tend to receive a larger premium.

In the first half of the 2000s, the premiums for organic coffee showed a declining trend as new supply from many origins became available. However, the decline reversed in 2005 as demand firmed up in several channels, particularly among larger retailers. According to Giovannucci and Villalobos, price premiums averaged around US$0.28 per pound (US$0.62 per kg) in 2005 and many companies reported premiums between US$0.15 and US$0.80. For 2006, Giovannucci and Villalobos, cite that premiums paid by importers averaged US$0.24 per pound with a tighter range of US$0.10 to 0.60 per pound. This represents a general average premium of just over 20 percent. Some Latin American exporters reported premiums between 30 and 40 percent for 2005 and 2006[105].

A premium paid by the buyer is not necessarily received by the producer. As certified coffees move further into mainstream distribution channels they become part of increasingly complex supply chains and, quite often, face less transparent transactions. It is difficult to determine how the premiums are distributed along the supply chain and how much reaches the farmer or cooperative. There is considerable variation in distribution and a number of North American importers are not aware of how the premiums they pay are distributed in the country of origin.

Importers that are aware of what price reaches their suppliers claim in a recent study that approximately 80 to 90 percent of the premium reaches the farmer or cooperative[106]. However, this is probably not representative of all certified coffees since it is likely that importers with a greater interest in knowing what their farmers receive may also stimulate higher payment levels to them.

2.2 Fair-trade coffee

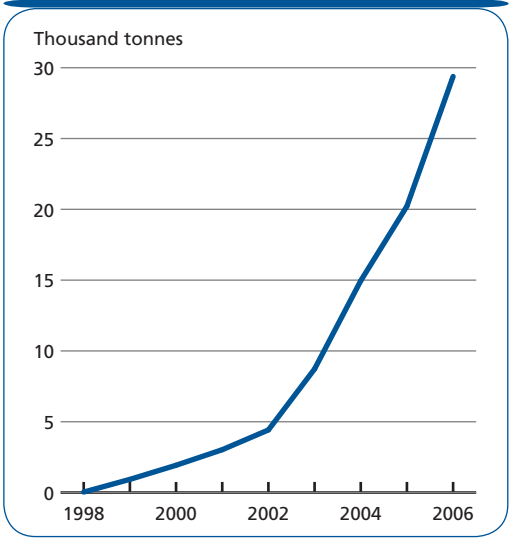
Market situation

Coffee is by far the most important fair-trade product and sales of fair-trade certified coffee have grown considerably in the last decade. FLO indicates that sales of certified fair-trade coffee worldwide reached 52 077 metric tonnes in 2006, up from 33 994 metric tonnes in 2005 (+53 percent). Nearly half of this volume was sold in North America.

According to TransFair USA[107], 29 380 metric tonnes of fair-trade coffee were imported into the United States in 2006, up from 20 220 metric tonnes in 2005 (+45 percent). The fair-trade coffee market in the United States has grown dramatically in recent years (Figure 19), although preliminary estimates for 2007 indicate a marked deceleration due in part to some over-purchasing in 2006. Canada imported and sold an estimated 2 770 metric tonnes of green fair-trade coffee in 2006 growing by approximately 60 percent over 2005.

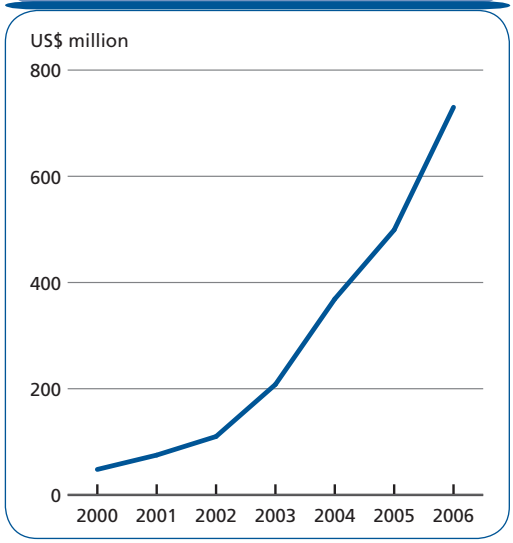
[104] Bacon, C. (2005)
[105] Daabon and Apex Brasil
[106] Giovannuccci, D. and Villalobos, A. (2007)
[107] TransFair USA (2007) Fairtrade Almanac 1998-2006

Figure 19. Imports of FLO-certified coffee into the United States



Source: TransFair USA (2007)

Figure 20. Estimated retail sales value of fair-trade certified coffee in the United States



Source: TransFair USA (2007)

Fair-trade certified coffee imports account for some 2 percent of the total US green coffee imports. TransFair USA estimates that the retail sales of fair-trade coffee in the United States reached US$730 million in 2006 (Figure 20), up from US$499 million in the previous year (+46 percent). It calculates that fair-trade coffee represents over 3 percent of the US retail market value. The number of firms (roasters and importers) licensed by TransFair in the United States has risen steadily since 1999 to 463 firms in 2006 (Table 14).

Table 14. Number of firms licensed by TransFair USA

No of licensees	Roasters	Importers	Total
2000	62	13	75
2006	395	68	463

Source: TransFair USA (2007)

There is considerable overlap of the organic and fair-trade coffee sectors. In 2006, approximately 78 percent of the fair-trade coffee sold in the United States was also certified organic while in Canada and the world this reached near 50 percent on average. This reflects a tendency toward double and even triple certifications; a trend with challenging implications for producers (see Section 3). The premium for fair-trade coffee that is also certified as organic rose in 2007 by US$0.05 per pound to US$0.20. The increase reflects the higher costs of organic production and compliance and also serves as an incentive for greater environmental sustainability.

Suppliers

Fair-trade coffee was produced and exported by 26 countries in 2006 (Table 15). The five largest fair-trade suppliers to the North American market were Peru, Mexico, Nicaragua, Indonesia and Ethiopia, together accounting for two-thirds of US imports. Other important suppliers include Guatemala, Colombia and Brazil[108].

[108] Transfair USA (2006)

Table 15. Countries supplying FLO-certified fair-trade coffee to the United States in 2006

Country	Exports to the USA (MT)
Peru	7 349
Mexico	3 581
Nicaragua	3 299
Indonesia	2 821
Ethiopia	2 584
Brazil	1 998
Guatemala	1 788
Colombia	1 520
Papua New Guinea	< 1 000
Costa Rica	<1 000
Dominican Republic	< 1 000
Haiti	< 1 000
Honduras	< 1 000
Timor-Leste	< 1 000
El Salvador	< 1 000
Rwanda	< 1 000
United Rep. Tanzania	< 1 000

Source: TransFair USA 2007

Table 16. FLO Minimum prices for coffee as of 2007 (US cents per pound FOB)

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

Source: FLO 2007

Table 17 Countries and farmers supplying fair-trade coffee globally in 2006 (FLO-certified)

Country	Farmers participating
1. Bolivia	3 666
2. Brazil	7 500
3. Cameroon	1 037
4. Colombia	19 502
5. Congo, D.R.	87
6. Costa Rica	14 555
7. Côte d'Ivoire	3 937
8. Dominican Rep.	5 745
9. Timor-Leste	17 576
10. Ecuador	1 249
11. El Salvador	1 257
12. Ethiopia	40 325
13. Guatemala	8 898
14. Haiti	28 968
15. Honduras	2 054
16. India	2 343
17. Indonesia	2 346
18. Kenya	8 811
19. Laos	517
20. Mexico	24 988
21. Nicaragua	7 174
22. Papua New Guinea	4 756
23. Peru	33 991
24. Rwanda	10 916
25. United Rep. Tanzania	3 321
26. Thailand	192
27. Uganda	2 950
28. Venezuela	677
29. Zambia	289
TOTAL	**259 627**

Source: FLO International and TransFair USA 2007

Prices

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 16). When market prices rise above the minimum, i.e. US$1.21 for many washed arabicas, a small additional premium is paid[109]. 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. When the coffee is also certified organic, an extra premium of US$0.20 per pound applies.

This system proved very beneficial during the recent price crisis. Although the fall in conventional coffee prices caused considerable hardship for small coffee growers across the developing world, the price obtained by fair-trade growers was often above the

[109] 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).

Figure 21. Fair-trade price advantage in difficult years

international market price (Figure 21). In October 2001, when the market price fell to a record low of US$0.45 per pound, the price of fair-trade coffee was 180 percent higher. Recently, as market prices have stayed above the US$1.00 range, the relative premiums for fair-trade coffee have been more modest. 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 (i.e. organizational strengthening, more stable relationship with buyers and community investment).

Over a quarter of a million farmer families directly benefited from the sales of fair-trade coffee in 2006 (Table 17). Most belonged to 241 organizations of coffee producers that were certified by FLO in 2006. FLO estimates that the fair-trade system earned farmers an extra income of some €41 million (US$57.4 million) that year. 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 estimates that the quantities sold in the United States alone generated an additional income of US$17 million for 106 farmer cooperatives in 23 countries.

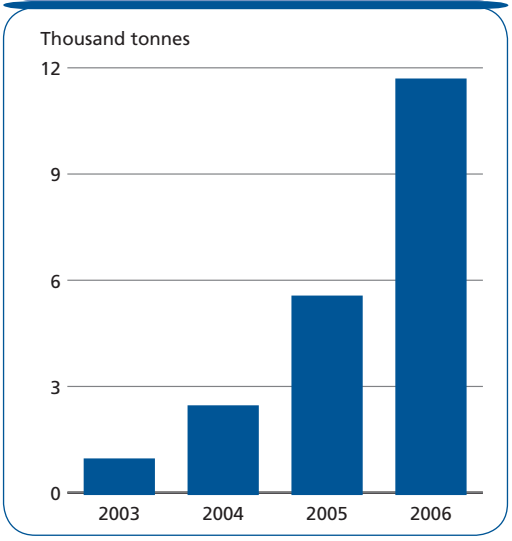
2.3 Rainforest Alliance coffee

RA emerged in the mid-1990s as a certifier of environmentally friendly coffees (originally called Eco-OK) that were then collectively called shade-grown. From early efforts in Central America, it has expanded to other parts of Latin America and more recently to Africa and Asia. In terms of coffee volume sold, it is currently the fastest growing. As of October 2007, RA had certified 16 838 farms and over 200 000 hectares of coffee.

According to RA, 11 631 metric tonnes of their certified coffee were imported into North America in 2006, up from approximately 5 500 metric tonnes in 2005. This represents slightly less than 1 percent of the total imports of green coffee into North America. Since 2003, North American imports of RA-certified coffee have grown by more than 100 percent annually (Figure 22).

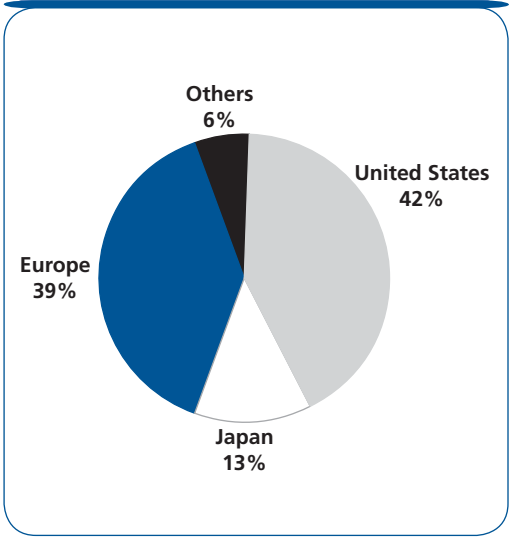
The international market for these coffees has also expanded considerably in recent years with more than 100 percent average annual growth in the last three years. In 2006, North America represented roughly 42 percent of all RA coffee sales (Figure 23) though this share is dropping. Sales are expanding rapidly in Europe and are also on the rise in several other markets including Japan, Australia and Brazil, though at a slower pace.

Figure 22. Imports of RA-certified coffee into North America



Source: Rainforest Alliance

Figure 23. Markets for Rainforest Alliance coffees (2006)



Source: Elaborated from Rainforest Alliance data

As with the organic and fair-trade certification schemes, RA has recently been adopted by some larger roasters and retailers such as Kraft Foods, Tchibo and Lavazza in Europe and Wal-Mart and Kraft in the United States. As with other certifications, their partnerships with major industry players are growing. For example, all of the nearly 1 200 McDonald's restaurants in the United Kingdom and Ireland now exclusively sell Kenco (Kraft Foods) coffee from RA-certified farms.

Brazil is the single largest supplier of certified RA coffees. Nearly all of the RA coffees before 2006 came from Latin America. Today Ethiopia, United Republic of Tanzania and Indonesia also participate (Table 18). Several new origins are in the process of certification.

Table 18. Exporters of Rainforest Alliance coffees (2007)

Country	No of farms
1. Brazil	34
2. Colombia	2 104
3. Costa Rica	2 023
4. El Salvador	210
5. Ethiopia	6 294
6. Guatemala	88
7. Honduras	309
8. Indonesia	539
9. Mexico	1 149
10. Nicaragua	17
11. Panama	4
12. Peru	4 065
13. United Rep. Tanzania	2

Source: Compiled from RA data

The price premiums for certified RA coffee range from US$0.04 to US$0.20 per pound with the average at US$0.08 to US$0.12. As with many other certification schemes, these premiums depend largely on the quality of the product and the relationship between the buyer and the producer.

2.4 Bird Friendly coffee

Bird Friendly® (BF) was one of the early environmentally-oriented certification schemes for coffee and helped to establish the standards now used by others. It emerged as a response to the dramatic decline in North American migratory bird species when this decline was strongly correlated to the reduction of the avian winter habitat areas of Latin America. The reduction of these forests often coincided with their conversion to agricultural land, including the conversion of naturally shade-grown coffee to more intensive methods that eliminated much of the tree cover. Studies in the 1990s demonstrated that shade coffee farms could both provide valuable habitat for avian biodiversity as well as remain profitable. To encourage such farmers, the Smithsonian Migratory Bird Center (SMBC) elaborated its BF certification. The BF programme focuses on natural biodiversity and a prerequisite

for its seal is organic certification, which, among other guidelines, prohibits the use of any synthetic fertilizers, pesticides, herbicides or fungicides.

While relatively small in terms of coffee sold, it supplies a significant North America niche. Over 3 600 metric tonnes of BF coffees were sold in 2006, all to Japan, Canada and the United States. Yet, according to the SMBC, less than 200 metric tonnes were sold with the BF label. The bulk of BF-certified coffee is grown in Mesoamerica, from southern Mexico through Central America (Table 19).

Table 19. Number of bird-friendly certified farms by country of origin (2006)

Country	No of certified farms
Mexico	11
Peru	10
Salvador	6
Guatemala	4
Bolivia	1
Venezuela	1

Source: Smithsonian Migratory Bird Center

Price premiums for BF coffee have ranged from US$0.05 and US$0.28 per pound with the average typically being between US$0.05 and US$0.10; that is in addition to the price premium for the organic certification. As with other certifications, the premiums vary according to the buyer and the quality of the coffee.

2.5 Utz Certified

The Utz Certified label currently has a relatively modest presence in North America, but is growing. This programme was founded in Guatemala as Utz Kapeh in 1997 by Dutch coffee roaster, Ahold Coffee Company and later became an independent globally-oriented foundation. It helped to develop a code of Good Agricultural & Business Practices that is now the Coffee Code of GlobalGAP (formerly EurepGAP). It also uses basic social criteria from the International Labour Organization Conventions. Producers and participating firms must meet the Chain of Custody requirements that ensure traceability.

Utz Certified coffee is exported from 18 producing countries and sold in 19. Utz is one of the few schemes that certify significant quantities of robusta coffee. Europe is, by far, its major market region. Global sales of Utz certified coffee reached 36 000 metric tonnes in 2006, representing 25 percent growth over the prior year. North American sales accounted for less than 5 percent or 1 800 metric tonnes[110].

Products that use the Utz Certified logo may benefit from a suggested price premium but there is no mandate for this. In practice, producers have been receiving premiums that average US$0.03 to US$0.05 with a reported range of between US$0.01 and US$0.12 over the last three years[111].

2.6 Private company standards for quality and sustainable coffee production

The standards and verification programmes set by companies are seldom included in sustainability discussions because of three reasons: i) they are under the private control of a company or group of firms that can at any time alter, dilute, or simply not fully use the standard or code as they see fit; ii) they may be designed more for corporate needs than for producer sustainability, for example, having questionably effective standards or not using independent third-party certification; and iii) they may not meet the economic needs of producers (one of the pillars of sustainability) by not providing adequate remuneration for sustainable production practices.

[110] Source Utz Certified

[111] Giovannucci personal communication with Utz Certified and field investigations to Central America, Mexico, Colombia in 2005-06.

Nevertheless, this report briefly considers two company certification schemes because of their large potential impacts due to the size of their purchasing and the perception that, for the most part, the above arguments may not apply to them. It should be noted that at the time of writing this report no independent study has been carried out on the costs and benefits of these schemes.

Starbucks is one of the world's leading coffee brands and one of the top retail food chains operating more than 14 000 outlets worldwide in 2007. Several years ago it developed its own private sourcing standard called Coffee and Farmer Equity Practices or C.A.F.E. Practices that incorporates a set of basic social and environmental standards with its private quality requirements.

In 2006, Starbucks purchased more than 145 000 metric tonnes of coffee and paid an FOB average price of US$1.42 per pound (non-exporting growers may reportedly obtain 15-35 percent less depending on how many middlemen stand between them and the exporter). Nearly 77 000 metric tonnes were independently certified according to C.A.F.E. Practices[112] and approximately 56 000 metric tonnes were estimated to be sold in the United States. Global projections for 2007 indicate that the total will exceed 100 000 metric tonnes[113] Starbucks also purchased significant but smaller amounts of organic, fair-trade and other eco-friendly coffees.

Nespresso is one of Nestlé's fastest-growing subsidiaries providing espresso and brewing equipment on a membership basis to clients around the world. North America is one of its most important markets. Although it is not a certification scheme, it may be useful to mention Nespresso's AAA Sustainable Quality Program® due to the impacts it may have on coffee growers in the future. This programme was co-developed with RA, whose members also verify compliance with the standard. It features social and environmental practices and purchases coffees in Costa Rica, Colombia, Guatemala, Mexico, Brazil and Kenya. It was publicly introduced in 2005 and is still relatively new. In 2006 nearly 6 000 metric tonnes, or approximately one-third of Nespresso's purchasing, met its AAA standard[114]. According to Nespresso, producers typically receive well above the market price for a combination of quality and sustainability though Nespresso makes no distinction in terms of a premium for meeting the AAA standard.

3. COSTS AND BENEFITS TO DEVELOPING COUNTRY SUPPLIERS

3.1 The value of transparent price premiums

Many buyers believe that it makes good business sense to request that some higher standard of quality is met as part of sustainable practices. Indeed, the trend toward higher quality in certified coffees may well improve their desirability in the marketplace[115]. However, when buyers fail to distinguish the value they place on sustainable practices, they dilute its importance. Paying a high price for a certified coffee may simply mean that a buyer is purchasing a higher-quality coffee with preferred flavour characteristics. As such, when

[112] Starbucks corporate records
[113] Estimate calculated from total global certification based on relative percentage of total store revenue earned in the United States.
[114] Personal communication November 2007 D. Giovannucci with Nespresso's Karsten Ranitzsch and GoodBrand & Company's Dean Sanders.
[115] Bacon (2005); CIMS (2003)

there is no correlation between the price and the recognition of a producer's sustainable practices, it becomes more difficult for a producer to justify the costs of sustainability. For sustainability to advance, producers need to have a clear signal from the market about sustainability and there is no signal clearer than a price premium.

The transparency of pricing — where buyer and seller clearly understand what is being paid for — facilitates transactions and improves market functions. In practice it may be difficult to achieve a rigid or exact distinction such that, for example, 37 cents is for the quality and 22 cents is for the certification. Nevertheless, some distinction is necessary. While the lack of transparency may create a temporary negotiation advantage for the buyer, this is a false economy since it is also more likely to reduce the number of interested participants or the number of certified products available. Furthermore, without clarity and transparency in these transactions, it becomes difficult for any buyer or firm to claim they are supporting sustainability. Without a clear correlation between price and sustainability practices, the buyer may simply be paying for any other characteristic such as rarity or taste.

Besides knowing what the premium is for, it is also important to know who receives it. Growers that are large enough to export directly tend to receive much, if not all, of the negotiated premium for certified coffees. However, most growers operate through middlemen or cooperatives that play a vital role in marketing their coffee. In some cases these can capture a substantial portion of the premium paid for certified products. Few buyers are willing to disclose the distribution of premiums along the value chains. Yet, if producers fail to receive a fair portion of the premium they may also fail to achieve sustainability. In accordance with fair labour practices, companies are increasingly insisting on transparency that assures them that their value chain is performing sustainably. Some, like Starbucks, want to know what the farmers who provide their coffees are actually paid. Recent examples illustrate the dangers faced by firms that are unaware of (or uninterested in) the pay or the conditions of their value chain[116]. Value chains can be both transparent and competitive as demonstrated by one of the fastest-growing certified coffee import firms in North America[117]. Transparency and sustainability are intertwined.

3.2 Assessing the costs and benefits of different certification schemes

Increasingly, producers have their coffee certified to two or three different standards. Roasters and major retailers in North America as well as Europe have shown an increasing trend toward multiple certifications for a single product[118]. Today, the majority of both organic and fair-trade coffees in the market carry at least one other certification. The implications of meeting multiple standards can be substantial for any producer. In addition to learning the individual requirements of the different standards, they may necessitate following somewhat different practices and also keeping separate sets of records. In some cases additional financial resources are required in order to invest in meeting the standards. The benefits they receive may be both tangible and intangible and can vary significantly between standards.

Several of the certification programmes, encourage and even require farmers to meet basic good management methods such as keeping records, adopting lower-cost integrated pest management, or resource and water conservation strategies. Though the evidence is only anecdotal, some certifiers note that this appears to provide some efficiency benefits at the farm level that can supplement an actual premium.

[116] US government resolution of child slavery in the cacao industry, Wal-Mart and JCPenney garment industry "sweatshop" scandals, Nike Inc.'s stock value decline resulting from consumer awareness of pay and working conditions in their contracted footwear factories. See also: Klein, N. (2000); Utting, P. (2005)

[117] Firm is ranked in Inc. Magazine's "Inc. 5000", that lists the fastest growing companies in America. See http://sustainableharvest.com/mba

[118] Busch, L. and Loconto, A. (2007); Giovannucci, D. and Koekoek, F.J. (2003); Busch, L. and Bain, C. (2004)

A recently launched effort under the auspices of 20 institutions[119] has developed a useful method for measuring, at the farm level, the costs and benefits of any sustainability initiatives. This work carried out by the Committee on Sustainability Assessment (COSA) is now being piloted in Africa and Latin America. For producers, it provides relevant information on the expected financial and time investments so they can both select and manage any sustainable practices they choose in a more cost-effective manner. Traders and the rest of the industry benefit since sustainable management can help to achieve stability and consistency in farm output. For policy-makers, COSA methods offer clear and objective information on how different sustainable practices actually impact producers and their communities. Even the sustainability initiatives or standards bodies themselves benefit since they need to understand the impacts of their methods at the farm level[120].

4. MARKET PROSPECTS

In recent years, there has been strong growth in the demand for certified coffee. Some certification labels are gaining credibility, generating substantial revenues for producers, and rapidly entering the mainstream[121]. While the conventional coffee market shows little or no growth in North America, the market for certified coffees has been growing at double digit rates since the turn-of-the-century. Of course, the volumes are still smaller for certified coffees so large growth rates are slightly less significant. Nevertheless, an average for the three-year period 2004-2006 shows consistently higher growth for certified coffees than for either conventional or specialty and gourmet coffees (Table 20).

North America's growth pattern resembles tendencies in other developed markets including much of Europe and Japan. Giovannucci and Koekoek (2003) note that growth for certified coffees has historically occurred in either small-scale or alternative trade channels whose intrinsic reach would limit the expansion of certified products. Increasing consumer demand in recent years has stimulated most mainstream retailers to devote more space to sustainable products.

Today, highly visible retail food service chains (i.e. Starbucks and McDonald's) and mainstream supermarkets (i.e. Wal-Mart, Kroger, Safeway and Loblaws) are the twin drivers for the fast-growing consumption of certified sustainable products. These firms seek to both differentiate their offerings and meet emerging demand while improving their positioning as socially responsible corporations. These market channels have provided considerable opportunities for certified producers and yet could pose severe challenges as well.

Table 20. Growth rate of distinct coffee industry segments

	Global %	USA %
Conventional	1-2	0-1
Gourmet (speciality)	5-10	10-15
Organic	13-17	38
Fair-trade	46	41
Rainforest Alliance	106	120
Utz certified	31	+

Source: Giovannucci calculations based on USDA, SCAA, FLO,TransFair USA, Giovannucci, CIMS, Utz Certified, Rainforest Alliance

When large firms manage considerable proportions of the volume, even minor changes in their purchasing choices can have a significant impact on what is still a relatively small segment of the market. Certified markets are still relatively thin in terms of the number

[119] The Sustainable Coffee Partnership at: www.iisd.org/markets/policy/scp.asp
[120] www.iisd.org/standards/cosa.asp
[121] World Bank (2004). And also in Giovannucci, D. and Ponte, S. (2005)

of buyers and therefore can be volatile. This does not match well with the much longer timeframe of producers who typically have to work for one to three years to complete a certification process.

Industry projections for the North American market suggest continued but more modest growth in 2007 and 2008. Double-certified coffees such as organic + fair-trade are likely to continue their strong growth since they are widely accepted by consumers and broadly distributed. About three-fourths of fair-trade coffee in the United States and half in Canada and the rest of the world is also certified organic with this trend likely to continue or even increase. Similarly, a large proportion of organic coffee commonly also carries another certification with fair-trade being the most common. Imports of organic coffee into North America are forecast to reach about 35 000 metric tonnes in 2007[122]. The Coffee Guide forecasts global imports to range between 60 000 metric tonnes and 66 000 metric tonnes in 2007[123] while Giovannucci estimates over 70 000 metric tonnes. The growth of single-certified fair-trade coffee sales is also expected to slow somewhat from its pace in recent years. Sales of RA-certified coffee are projected to grow, though less quickly than in the past, with 2007 global estimates exceeding 2006 numbers by just over 50 percent and overall volume exceeding 40 000 metric tonnes. Utz Certified coffee, which has a relatively modest presence in North America, is expected to grow well in 2007 though on a small base as global sales reach approximately 50 000 metric tonnes.

Quality continues to be a key factor for growth in the North American market for certified organic, BF and fair-trade coffees. With the advent of much larger buyers, several certification schemes have attracted much larger producers as well. The less demanding standards can provide large volumes at lower costs for buyers, and are facilitating the creation of more mainstream commercial partnerships between producers, traders and large buyers. There are also company codes (not certification schemes) that intend to provide the most basic social and environmental standards to the industry, though none have yet been visible in North America[124].

There are concerns for the consumer perception of different sustainability labels on products. Some of the concerns focus on the possible difficulty of making distinctions between them though currently few are advertised and no problem has yet emerged. Other concerns center around the potential advertising of a label when the product may contain only small quantities of sustainably-grown coffee. The organic label is the only one that is regulated in North America (this is pending in Canada) and requires a very high percentage (>95 percent) of certified organic product before the term can be used on the label.

Many growers are adapting their production methods in order to take advantage of these emerging market segments[125]. More than 20 million families rely on coffee for their livelihood and between one and two million farms participate in the different certified programmes. Many are small-scale family farms that produce over 70 percent of the world's coffee[126].

Differentiated and value-based products offer a way for producer countries to participate in the highly competitive international coffee market. According to a World Bank report by

[122] Projections from Giovannucci.
[123] World Market for Organic Coffee, The Coffee Guide, 03.02.11
[124] The Common Code for the Coffee Community (4C) is the most visible such code. It encourages basic good agricultural and management methods and includes minimum social and environmental standards.
[125] Bacon, C. (2005)
[126] Oxfam (2001)

Lewin, Giovannucci and Varangis, a competitive market position based on processes that are more difficult to duplicate, such as certified coffees, is potentially a more viable long-term strategy for coffee producers:

Differentiation can present a feasible competitive platform, especially for countries lacking the necessary factors to be competitive as bulk raw material producers. Such process-oriented strategies lend themselves well to many of the poorer producing countries and present a rare opportunity for rural smallholders to participate in global markets while also safeguarding their natural resources[127].

Nevertheless, it is important to note that this segment of the market is also becoming increasingly competitive as it grows. Being certified is important for many growers but it is not enough. Success depends on also having good quality, consistency and effective marketing relationships.

[127] World Bank (Lewin,B., Giovannucci, D. and Varangis, P., 2004. p.13)

CHAPTER 4: CERTIFIED COCOA

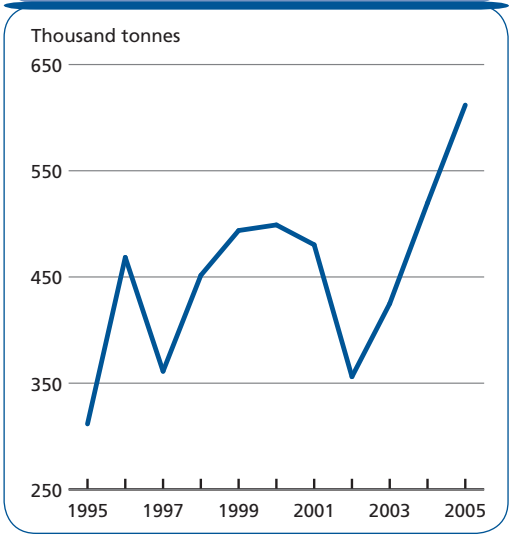
All cocoa sold in North America is imported and most cocoa is produced in developing countries, creating specific opportunities for developing country exporters. There is strong demand in North America for high quality products and, unlike coffee, the cocoa market is presently characterized by undersupply.

1. OVERVIEW OF THE NORTH AMERICAN COCOA MARKET

North America imported an annual average of 1.55 million metric tonnes of cocoa beans and processed products (including chocolate) over the period 2005-2006 for a value of some US$3.5 billion, accounting for 16 percent of world imports in value. Imports of cocoa beans amounted to 552 000 metric tonnes (474 000 metric tonnes in the United States and 78 000 metric tonnes in Canada) valued at US$846 million in 2006. Imports of chocolate account for over half of the import value (Table 21). According to a report released in 2007[128], total sales of chocolate through all channels reached US$16 billion in the United States in 2006.

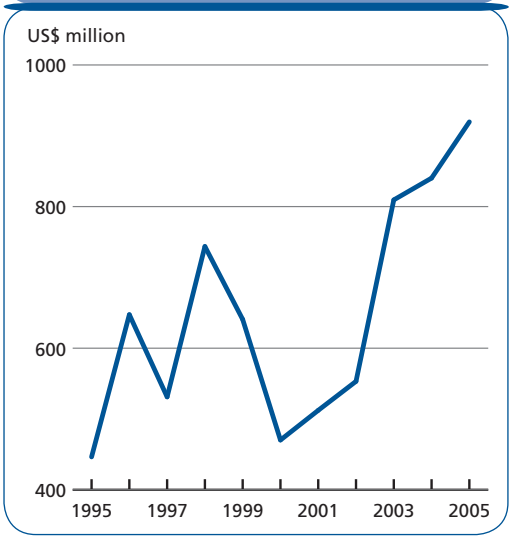
North American consumption grew by approximately 30 percent between 1990 and 2005. Imports of cocoa beans grew markedly from 2002, reaching a high of 632 000 metric tonnes in 2005 (Figure 24). In value, they rose from less than US$500 million in 2000 to over 900 million in 2005 (Figure 25). They dropped in 2006, as more semi-

Figure 24. Imports of cocoa beans into North America



Source: FAOSTAT 2007

Figure 25. Import value of cocoa beans into North America



Source: FAOSTAT 2007

[128] Packaged Facts (2007)

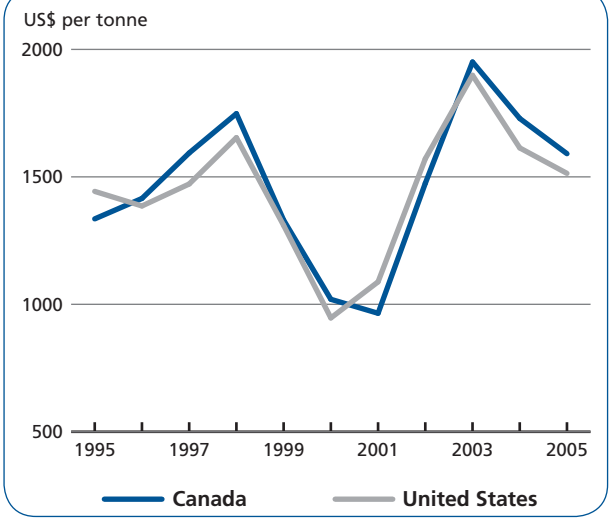
Table 21. Imports of cocoa products into North America in 2006

Products	Volume 2006 (MT)	Value 2006 (000 US$)
Cocoa beans	551 759.9	846 008.7
Butter	120 255.0	491 560.5
Powder and cake	166 086.0	229 931.2
Paste/liquor	54 715.1	136 606.0
Chocolate	648 332.5	1 814 449.6
Total	1 541 148.5	3 518 555.9

Source: COMTRADE 2007

processed and processed products were imported. Nevertheless the total value of imported cocoa products (including chocolate) continues to increase (+3.4 percent between 2005 and 2006). The unit values of cocoa beans imported into the United States and Canada rose in the early 2000s, reflecting the strong increase in world cocoa prices (Figure 26).

Figure 26. Unit values of cocoa bean imports into Canada and the United States



Source: FAOSTAT 2007

2. CURRENT MARKET SITUATION FOR CERTIFIED COCOA

There are even fewer trade data for certified cocoa than for certified coffee or fresh produce. In the specific case of cocoa, the absence of official statistics is compounded by several factors: the quantities produced and marketed are extremely low; there are different forms of cocoa products (beans, liquor, powder, cake, butter, paste, chocolate) and the quantities imported may differ from those marketed due to stocks. The data are incomplete and very fragmented. Worse, the reliability of the few available estimates may be questioned. Therefore, readers should consider the data provided in this chapter as indicative estimates only and give more importance to the trends.

Several organizations and industry sources point to a marked expansion in the production and sales of certified cocoa and its processed products. According to a recent ITC report[129], sales of organic chocolate and other cocoa products are on the rise and world demand for organic cocoa is growing. The International Cocoa Organization (ICCO) reckons that the market for certified organic chocolate has developed dramatically in recent years, with global sales of organic chocolate alone (not including other cocoa products) reaching US$304 million in 2005, a 75-percent rise over its level of 2002[130]. It explains this increase by

[129] ITC (2006), p.46
[130] ICCO (2007)

consumer concerns about food safety and environmental issues and the growing demand for premium chocolate. In the United States, the share of premium chocolate grew from 13 percent of the total market in 2002 to almost 17 percent in 2006[131]. In response, organic cocoa production has increased significantly – farmers are attracted by higher prices and governments and development agencies are encouraging them to convert to organic production. While the North American certified cocoa market is growing fast, Europe is by far the largest importer of certified cocoa beans (especially organic) and the largest processor and manufacturer of certified cocoa and chocolate products. A portion of the certified cocoa processed and packaged in Europe is re-exported to the United States, Canada and Japan.

2.1 Organic cocoa

Market situation

There is a critical lack of data on the quantities of organic cocoa marketed worldwide. More studies have been done at production level, but estimates differ widely across sources. ICCO estimates that production of organic cocoa worldwide exceeded 15 500 tonnes in 2005, while Willer and Yussefi[132] calculate a much larger figure exceeding 32 000 metric tonnes. However, these authors estimate exported volumes at 10 627 metric tonnes at least, due to data gaps for some exporters, i.e. only one-third of total output. This compares to an estimate of world production in 2000 of 11 700 metric tonnes made by the Swiss Import Promotion Programme (SIPPO) in a report released in 2002[133]. It could be that the ICCO figure relates to production for export only. Both the ICCO and Willer and Yussefi reports have significant data gaps and do not provide production volumes for substantial suppliers such as Colombia and Ecuador. Under this assumption it can be inferred that exported quantities ranged between 11 000 and 15 500 metric tonnes in 2005. It is certain that the organic market only represents a very small share of the global cocoa market, estimated by ICCO at less than 0.5 percent in 2006[134].

It is difficult to determine what percentage of this quantity is sold in North America. Most estimates regarding North American organic cocoa imports date from 2000 and 2001, with approximately 70 metric tonnes imported in 2000 and 75 metric tonnes imported in 2001[135]. Although less than 1 percent of the North American cocoa market is organic, there has been a sharp rise in demand in recent years. According to the Nature Conservancy, organic chocolate sales have grown by approximately 70 percent per year since 2002. Even though current market penetration remains low, exporters, certifiers and industry experts agree that the potential of organic cocoa is high. However, there are many challenges on the supply side relating to quality, the cost of certification and producer access to and knowledge of organic supply channels. Trade channels will have to allow for increased volumes of organic cocoa, for example through the entry of bigger players in the market[136]. The development of direct trade channels and growth in the processing and manufacturing industry in North America should accelerate considerably the growth of the North American organic cocoa market.

Suppliers

Beside the cocoa re-exported from Europe, the organic cocoa sold on the North American market originates mainly from Latin America and the Caribbean. According to ICCO

[131] Packaged Facts (2007)
[132] IFOAM (2006)
[133] SIPPO (2002)
[134] ICCO (2007)
[135] ITC (2004) and SIPPO (2002)
[136] ICCO (2007)

and Willer and Yussefi, this region produces more than 70 percent of the world supply of organic cocoa (Table 22). The Dominican Republic is by far the largest supplier[137], but estimates of its production and exports differ widely across sources. While ICCO estimates output at 5 000 metric tonnes in 2005, Garibay[138], has a much higher figure of 14 350 metric tonnes. Estimates of its exports are displayed in Table 23. However, most of its exports are destined for Europe, although shipments to North America have been rising in the recent past.

Table 22. Different estimates of organic cocoa production (in MT) in selected countries in 2005 according to two sources

Countries	ICCO	Willer and Yussefi
Madagascar	1 500	1 500
United Rep. Tanzania and Uganda	1 500	1 400
Bolivia	400	300
Brazil	1 100	n.a.
Costa Rica	300	n.a.
Dominican Republic	5 000	14 350
Mexico	2 500	9 419
Panama	350	n.a.
Peru	1 850	4 500
Other Latin America and Caribbean	238	128
Sri Lanka	200	n.a.
Vanuatu	500	500
Other Asia and Pacific	62	50
Total identified	**15 500**	**> 32 000**

Sources: ICCO Annual report 2005/06 and IFOAM (2006)
n.a.: not available

Peru exported almost 1 000 metric tonnes of organic cocoa beans in 2006 for a value of US$2 million[139] and its export promotion organization PromPex claims that it is the world's second largest supplier of organic cocoa. Most of its exports go to Europe, with North America accounting for less than 20 metric tonnes in 2006. However, CIMS ranks Colombia as the second leading supplier and estimates that together with the Dominican Republic this country produces 50 percent of the world's organic cocoa[140]. The uncertainty over Colombia's exports makes it difficult to estimate total world supply.

Table 23. Exports of organic cocoa beans from the Dominican Republic 2004-2006 (in MT)

Exports	2004	2005	2006
To North America	121	355	454
Total	3 319	1 676*	4 002

Sources: CEI-RD, 2007
* IFOAM (2006) estimate total Dominican Republic exports at 8 500 metric tonnes

According to ICCO, Africa produced over 3 000 metric tonnes of organic cocoa in 2005, but most of it was exported to Europe. ICCO and Willer and Yussefi rank Madagascar, the United Republic of Tanzania and Uganda as the main producers of organic cocoa in Africa. There is evidence that organic cocoa production is increasing rapidly. Newcomers such as Cuba and Venezuela are reported to be expanding their cocoa areas under organic management.

Prices

As for many other organic products, the market for organic cocoa has exhibited strong price fluctuations, which are mainly due to the small quantities, the lack of consistency in

[137] The National Confederation of Dominican Cocoa Cultivators (CONACADO) is the largest producer and exporter of organic cocoa in the world. See www.cei-rd.gov.do
[138] Quoted in Willer and Yussefi (2006)
[139] PromPerú, August 2007
[140] CIMS/EM (2005)

Table 24. Unit values of cocoa bean exports to the United States in 2006

Country	Conventional cocoa beans (US$/MT)	Organic cocoa beans (US$/MT)	Price premium (US$/MT)	Percentage premium (%)
Peru	2 354	5 684	3 331	142
Dominican Republic	1 394	1 590	195	14

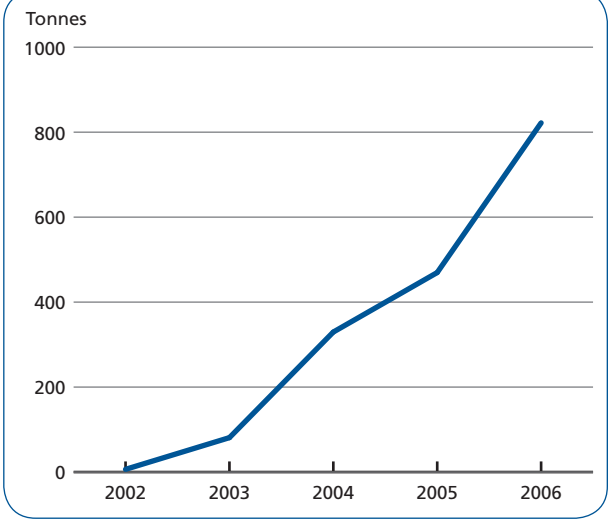
Sources: CEI-RD online and PromPeru 2007

quality and the irregular pattern of deliveries. ICCO estimates average price premiums at between US$100 and US$300 per metric tonne at production level, but the Colombian producing and exporting company Daabon indicates export price premiums of up to US$1 600 per metric tonne for organic cocoa in 2006.

According to data from the Peruvian and Dominican statistical agencies, price premiums at export level varied considerably between the two countries in 2006 (Table 24). The FOB prices of Peru's organic cocoa exhibit wide variations depending on the destination. In 2006 it ranged between 1 958 (for Switzerland where 70 percent of the exports were directed) and 6 752 US dollars per metric tonne for the United Kingdom[141].

The considerable range in organic premiums reflects the price variations mentioned above and is also due to the difficulties of estimating premiums along the supply chain, and variations in quality and supply chain relationships.

Figure 27. US imports of fair-trade certified cocoa



Source: TransFair USA 2007

2.2 Fair-trade cocoa

Market situation

World imports of FLO-certified cocoa almost doubled in one year, reaching close to 11 000 metric tonnes in 2006. Imports into the United States rose to 820 tonnes. They have risen steadily since FLO-certified cocoa was introduced into the US market in 2002 (Figure 27). The growth rate reached 75 percent in 2006. Between 40 and 50 percent of the imported quantities were re-exported to Canada. According to TransFair USA, some 80 percent of the fair trade certified cocoa imported into North America between 2002 and 2006 was also certified organic (Table 25).

The number of TransFair cocoa licensees in the United States rose by 32 percent between 2005 and 2006, with a total of 45 licensees at the end of 2006.

[141] PromPeru, August 2007

Table 25. Percentage of organics in imported fair-trade cocoa

	2002	2003	2004	2005	2006
Imports (MT)	6.4	81	329.6	469.6	821.9
% also organic	51	97	85	72	80

Sources: TransFair USA 2007

Suppliers

Overall, fair trade cocoa is produced in Peru (six producer groups), Côte d'Ivoire (two producer groups), the Dominican Republic (two producer groups), Belize, Bolivia, Cameroon, Costa Rica, Ecuador, Ghana, Haiti, Nicaragua and Panama (one producer group each). In 2006, eight farmer cooperatives in seven developing countries exported FLO-certified cocoa to North America. TransFair USA estimates that the 820 metric tonnes they exported earned farmers an additional income of almost US$200 000 (Table 26).

Table 26. Estimated additional income to farmers of fair-trade cocoa exports to the United States

Year	Additional farmer income (US$)	Number of cooperatives	Number of countries
2002	956	n.a.	n.a.
2003	12 171	n.a.	n.a.
2004	38 291	6	5
2005	130 323	10	8
2006	199 164	8	7

Sources: TransFair USA 2007

Prices

As for coffee, the FLO pricing system consists of a guaranteed Fairtrade Minimum Price and a premium. FLO has set the Fairtrade Minimum Price (FOB) for certified standard-quality cocoa beans at US$1 600 per metric tonne. In addition to the Fairtrade Minimum Price, buyers also pay a fair-trade premium set by FLO (US$150 per metric tonne FOB). If the world market price for the specific origin or type of cocoa beans is higher than the Fairtrade Minimum Price, then the fair-trade price is the sum of the world market price and the fair-trade premium. If the cocoa is also certified and labelled organic then there is an additional premium (on top of the Fairtrade Premium) of US$200/MT. The Fairtrade Minimum Price for organic cocoa (including premiums) is US$1 950/MT[142].

There are also FLO prices for semi processed cocoa products such as cocoa liquor, butter and powder. These prices are calculated on the basis of the Fairtrade Minimum Price of the cocoa bean.

2.3 Rainforest Alliance certified cocoa

RA also certifies cocoa and, according to its own estimate[143], approximately 4 000 metric tonnes were exported to North America in 2005. The quantities marketed under the RA label are unknown. RA-certified cocoa is grown in the Dominican Republic, Ecuador and other tropical countries as listed in Table 27. RA is optimistic about future expansion of RA-certified cocoa production and expects the market to grow considerably in the next

Table 27. Areas of RA-certified cocoa in supplying countries (2006)

Country	Certified cocoa area (ha)
Dominican Republic	3 998
Ecuador	3 845
Côte d'Ivoire	2 167
Brazil	268
Guatemala	90
Costa Rica	3

Source: Rainforest Alliance

[142] FLO (2007)
[143] Based on a conservative average yield of 300 to 400 kg per hectare

few years. Some RA-certified cocoa is also certified organic and most of it is shade grown. According to RA, price premiums for single-certified RA cocoa are between 20 and 25 percent.

2.4 Bird Friendly

Although there is not yet certification for shade grown or bird friendly cocoa, RA-certified cocoa is generally shade grown and recent research shows that coffee shade growing methods have similar positive results when used in cocoa production. It is possible that the Smithsonian Migratory Bird Center will develop a bird friendly label for cocoa.

3. MARKET PROSPECTS FOR CERTIFIED COCOA

Cocoa and chocolate are not considered to be "traditional" organic or fair trade products, but certified cocoa consumption has shown considerable growth in recent years and is expected to become increasingly popular over the next decade, fuelled by the growth of the overall North American cocoa market[144]. According to ICCO, this market will grow by some 30 percent over the next decade. The report released by Packaged Facts[145] forecasts that total sales of chocolate through all channels in the United States will reach US$18 billion by 2011.

One of the principal reasons for the rapid growth in demand is a dramatic change in chocolate consumption; more and more consumers are choosing high quality, differentiated cocoa products and cocoa is increasingly seen as an "ethical" product. Consumers are willing to pay more for chocolate because they see it more as a luxury and a delicacy. They are also starting to look for chocolate products with a higher percentage of cocoa mass, perhaps in part because of studies demonstrating the health benefits of dark chocolate. Recent research on the role of antioxidants in reducing cancer risks has raised attention on their presence in foods. The ORAC (Oxygen Radical Absorbency Capacity) index ranks foods according to their concentration of antioxidants. Dark chocolate has one of the highest ORAC indexes (Figure 28).

The recent acceptance of organic and fair trade standards for cocoa in the United States and the entry of US-based organic processors should reduce prices, increase supply and stimulate considerable market growth. Previously, all certified cocoa was shipped to Europe for processing and packaging, and then re-exported to North America. There is strong demand in North America for high quality product and the cocoa market is characterized by undersupply. A 2005 CIMS/Ecomercados study shows that the North American market for organic and fair trade cocoa presents a significant opportunity for developing country producers.

There is evidence that organic cocoa production is increasing rapidly. Although less than 1 percent of the North American cocoa market is organic, there has been a sharp rise in demand in the last few years and suppliers are scrambling to meet demand. According to the Nature Conservancy, organic chocolate sales have grown by approximately 70 percent per year since 2002 and the market value should reach about US$35 million in the near future. In this survey, several producer groups and industry sources forecast that the market is likely to grow by at least 20 percent per year during the next decade. Colombia-based Daabon, one of the largest Latin American organic cocoa producers, plans on tripling its

[144] CIMS/EM (2005)
[145] Packaged Facts (2007)

production before 2010 and establishing a processing facility. Much of Daabon's cocoa is double-certified organic and RA, and the company expects to have over 3 000 hectares planted by the end of 2007.

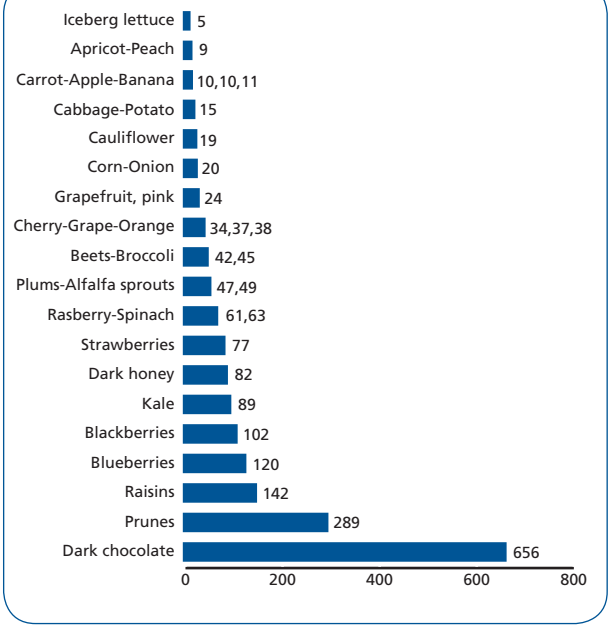
In addition, rising interest in good-quality Central American cocoa and the prospects for organic cocoa exports should lead to the expansion of organic cocoa production in Central America if the challenges associated with the cocoa pod disease, *Cocoa moniliasis*, can be overcome.

Some industry sources point out that organic cocoa faces considerable supply side challenges. The main ones relate to quality, the cost of certification and producer access to and knowledge of organic supply channels. On the other hand, these challenges, combined with consumer trends and cocoa's relatively late entry into organic production, mean that there may be more opportunity for growth in the cocoa market than there is for any other organic products. Growing interest from major manufacturers and retailers will likely foster demand for certified cocoa considerably in the next few years. Cooperation and partnerships between producers and North American importers, manufacturers and retail groups, is critical if the North American organic cocoa market is to reach a substantial size.

As for fair-trade certified cocoa, this market has grown very strongly since 2002 and industry experts predict that the expansion will continue over the next few years at least, with most fair trade cocoa also being certified organic. As with coffee and other certified products, there has been a sharp increase in double-certified cocoa, particularly organic and fair-trade. The rising number of cocoa processors and distributors licensed by TransFair USA is a sign that the market is taking off.

Developing countries seeking to add value to their certified cocoa may benefit from the increasing demand for processed products such as cocoa butter or chocolate. The type of cocoa products imported into North America has changed markedly over the past 10 year. While imported quantities have risen for all product types, the rise has been stronger for chocolate than for cocoa beans (Figure 29). In value terms, in 1995-1996, cocoa beans accounted for one-third of imports while the share of chocolate was slightly below 40 percent. In 2005-2006, the latter was almost 50 percent while the former had fallen to one-quarter (Table 28). This change in the product mix has important implications for developing country producers and exporters.

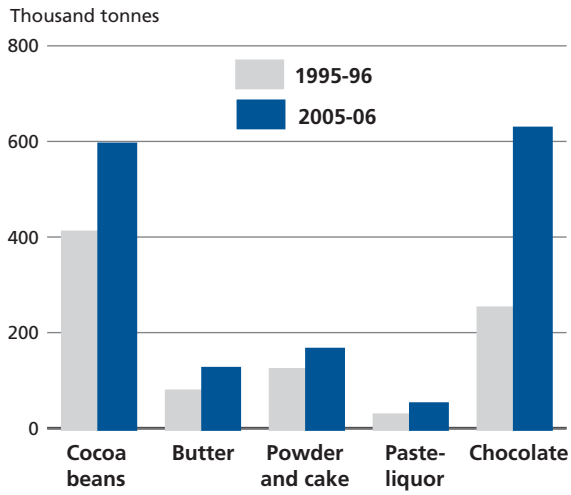
Figure 28. Ranking of selected foods acccording to their ORAC index



Source: Fabrice Vaillant, CIRAD

However, tariff escalation may be a challenge for developing countries aiming to add value to their certified cocoa by exporting processed products such as cocoa butter or chocolate to the United States. While this country allows duty-free imports of cocoa beans, it applies much higher tariffs on processed cocoa products. It should be noted,

Figure 29. Change in the types of cocoa products imported into North America



though, that countries that have the Most Favoured Nation (MFN) status benefit from much lower tariffs (Table 29). As for Canada, it grants duty-free entry to cocoa beans and applies low tariffs on processed cocoa products except chocolate ice cream mix and ice milk mix.

Table 28 . Share of products in the total value of cocoa product imports

	Average 1995-1995 (%)	Average 2005-2006 (%)
Cocoa beans	33.6	25.7
Butter	16.5	14.2
Powder and cake	7.4	6.8
Paste/liquor	3.3	3.5
Chocolate	39.2	49.8

Table 29 . Import tariffs on cocoa beans and products in the United States

Code	Product description	GEN tariff	MFN tariff
1801	Cocoa beans, whole or broken, raw or roasted	0%	0%
1803	Cocoa paste, whether or not defatted:		
1803.1	- Not defatted	6.6 cent/kg	0%
1803.2	- Defatted	6.6 cent/kg	0.2 cent/kg
1804	Cocoa butter, fat and oil	25% of FOB value	0%
1805	Cocoa powder, not containing added sugar or other sweetening matter	6.6 cent/kg	0.52 cent/kg
1806.1	Cocoa powder, containing added sugar or other sweetening matter:	from 20% to 40% of FOB value or from 25 to 39.5 US cents/kg depending on the product	from 0 to 10% of FOB value or from 21.7 to 33.6 US cents/kg depending on the product

Source: Market Access Applied Tariffs Database, GF Trade, European Commission

CONCLUSIONS

The use of private standards and certification has been increasing rapidly in the North American food sector, resulting in further market segmentation and creating new opportunities for product differentiation. Admittedly, not all of these standards directly add value to products. In many instances, producers mainly adopt a business-to-business certification scheme more because it is demanded by their corporate customers than because they see a clear opportunity for value adding. In such cases the choice of certification is primarily a defensive strategy to avoid losing clients.

In contrast, some environmental and ethical certification schemes that target consumers with a recognizable on-product label tend to result in higher product prices and may provide farmers with new market opportunities. The markets for organic and fair-trade foods are of particular interest to small-scale farmers in developing countries, as they usually offer higher prices. Demand for organic foods in North America is forecast to continue expanding rapidly, mainly fuelled by consumer concerns about health and the environment. Other growth factors include the higher involvement of conventional and specialized supermarket chains in the marketing of organic foods and the development of organic product lines by conventional food manufacturers. In addition, North American food processors, distributors and retailers increasingly include corporate social responsibility into their management principles and public-relation strategies. Selling certified foods is a visible and credible means of showing their commitment to social responsibility.

Domestic production will not be able to cover all the expected growth in demand, thus leaving substantial room for imports. Developing countries are well positioned to supply a wide range of organic products such as fresh produce, cocoa, coffee, tea, herb teas, sugar, aromatic herbs and spices. Organic agriculture tends to be labour intensive, which may give developing country smallholders a comparative advantage. The increased per capita consumption of fresh fruit and vegetables, combined with renewed consumer interest in the health value of these products means that there is market demand for imported certified fresh produce in North America. In this category, the best export opportunities for developing countries are in tropical fruits, exotic vegetables and off-season temperate fruit and vegetables. Chapter 2 of this study has focused on the market potential of tropical fruits. Within this category, the outlook is good for organic pineapples and mangoes, which should benefit from the rapid expansion of the overall pineapple and mango markets. The expected growth should provide outlets for both established suppliers and new entrants. Imports of other tropical fruits such as papayas, litchis, rambutans, guava and passion fruits are also expected to rise, partly due to the growing ethnic markets and the demand of the foodstuff industry, but quantities should remain much lower than those of pineapples and mangoes.

Growth prospects are also good for organic bananas, but the large areas of banana land currently in transition to organic cultivation means that there will not be much room for new suppliers. Existing producers, in particular in Ecuador, Peru and Colombia, are expected to meet the future additional demand. In both the banana and pineapple sectors, the control exerted over the North American market by the large US fruit companies may be a constraint to market entry. On the other hand, forging trade partnerships with them may also be a valid strategy for some developing country exporters. Alternatively, exporters may approach specialized organic importers.

While North American imports of cocoa and its processed products have been rising steadily, the market share of organic cocoa is still extremely low. There is therefore considerable growth potential. World supply of organic cocoa is still low compared to the demand of the manufacturing industry, which leaves room for new suppliers. The fact that North American importers increasingly source their cocoa directly from producing countries provides producer organizations with new opportunities.

Although total coffee imports are growing very slowly in North America, consumption of specialty coffee has soared in the last decade. This trend is expected to continue and will benefit certified coffees, in particular organic coffee. The market for certified coffee is growing at approximately 20 times the rate of the conventional coffee market. For growers who can produce high quality coffee, certification is a strategy for adding value, accessing niche markets and securing buyers. The best prospects are seen in organic coffee that also bears fair-trade certification.

The North American market for certified fair-trade foods is also expected to expand substantially, although its size will remain well below that of the organic market. Fair-trade benefits specifically developing country farmers, in particular smallholders, and offers guaranteed minimum prices and premiums. Beside these direct advantages, certified producers may benefit from long-term trade relationships, pre-financing and support from the FLO network. However, the market penetration of fair-trade foods is still extremely low in North America for all products but coffee. There is a significant market potential for products such as cocoa, tea, herb teas, sugar and honey. The market for fair-trade cocoa is forecast to expand markedly. An increasing number of cocoa producers in Latin America is obtaining fair trade certification. Fair-trade cocoa which is also certified organic stands to benefit from strong market growth. Even for fair-trade coffee, whose imports are already sizeable, further growth potential exists, especially if it is also certified organic. The number of stores selling fair-trade coffee has soared in recent years, providing a basis for further expansion.

In contrast, the market for fair-trade fruits has not yet taken off in North America. The market control exerted by the large US fruit companies is seen as an obstacle to the development of fair-trade bananas and pineapples. The mango market being more fragmented, it may be easier for developing countries to export fair-trade mangoes than fair-trade bananas and pineapples. In any case, fair-trade organizations will need to undertake significant awareness raising and promotion campaigns if the fruit market is to reach a meaningful size. Forging partnerships with supermarket chains is necessary. In this respect, the example of the United Kingdom is telling. The decision of two leading retail chains that all bananas on their shelves should be fair-trade certified raised the share of this product from less than 5 percent to some 20 percent of the British market. Fair-trade avocados could become an interesting market, especially for Mexican farmer groups. In the medium term, fair-trade exotic fruits such as litchis and papayas may offer exports opportunities, in particular for Latin American and Caribbean countries, but only a limited number of suppliers will benefit, as these are likely to remain niche markets.

Beside organic agriculture and fair-trade, other types of certification labels targeting consumers in the North American market may provide developing countries with export opportunities, but they focus on a limited number of products. The Rainforest Alliance has a strong presence in the banana market and, to a lesser extent, in the coffee sector. In order to expand the volume it certifies, it has forged alliances with large US market players (e.g. Chiquita for bananas, Kraft for coffee). Imports of RA-certified coffee are growing rapidly. In the North American banana market, if Dole, which has recently obtained certification for one plantation in Costa Rica, decided to seek RA certification for all its Latin American

farms, the market share of RA-certified bananas would exceed 50 percent. However, the level of recognition of the RA label by consumers and the price premium for RA-certified bananas are unknown. Presently, virtually all the RA-certified banana farms are plantations. Whether this standard would meet the needs of small-scale growers and earn them a premium remains to be determined. RA is trying to expand in the cocoa and citrus markets, but the quantities marketed under the label have been very low so far.

The United States is an obvious destination for exporters due to the enormous size of its market and its role of entry point to the Canadian market. However, developing country exporters should not neglect Canada. Many Canadian traders and distributors also import at least part of their requirements directly from foreign suppliers other than the United States, and there is a growing interest in the organic industry to source more internationally and directly from the producing country. The increasing involvement of conventional supermarket chains is accelerating the growth of organic food sales. In the fair-trade sector, Canada may provide excellent market outlets in spite of its smaller population due to the high awareness of its consumers on social issues.

This study has focused on a few certification schemes that are thought to be the most advantageous and suitable to small-scale farmers in developing countries. Beyond these, farmers and exporters in these countries may find benefits in other schemes such as those aiming at good agricultural practices, good manufacturing practices and food safety (e.g. SQF, GlobalGAP, and ISO-22000), worker rights and welfare (SA-8000) and product quality. These schemes may be of particular interest to large-scale commercial farms, plantations and large food-processing firms. Because North American consumers have an increasing number of requirements on the foods they buy, multiple certification gives a market advantage. For small-scale producers the combination of organic and fair-trade, possibly with a food safety certification, may improve market access considerably. In any case, the choice of a standard should be based on a comprehensive *ex ante* cost-benefit analysis.

The North American market for certified products is characterized by volatility in demand and strong price fluctuations. Consequently, even though the bulk of demand for certified products is in developed countries, farmer organizations and trade associations in developing countries should strive to diversify markets. This includes developing their domestic market, which provides an alternative when prices fall in the export markets. It also offers an outlet for products that do not qualify for export. Further, sales of certified products need not be less profitable in the domestic market. Admittedly, prices are lower but so are marketing costs. Finally, domestic sales of organic and fair-trade goods are growing in developing countries and these markets are set to become an important part of the global market in the next decades, providing further sales points for producers.

Areas for further research

There is much evidence that voluntary standards and certification can improve incomes, working conditions, organisational capacity, social capital and environmental quality in developing countries. Yet, few studies have undertaken to quantify the overall benefits to these countries. The lack of data is a key constraint. While the industry can provide estimates for quantities, it is often reluctant to disclose price data, which are confidential by nature. This makes it difficult to estimate the price premiums for certified foods. Although several researchers have examined organic food prices in the United States, the studies tend to be too narrow in coverage. More systematic studies are needed, especially on the prices of foods certified to the organic and Rainforest Alliance standards. This is a complex field, as prices exhibit wide variations over time and space. Similarly, the distribution of the profits generated by certified food sales from retailers, through distributors, importers, exporters to producers has not been analysed in a systematic manner. Even in the fair-trade

sector, there is a scarcity of information, with most studies focussing on a specific farmer group. Case studies demonstrate that the benefits and costs of standards vary considerably depending on the type of farm, product and location. Further research is needed in this area.

Better knowledge of the costs and benefits and their distribution along the supply chain will help to clarify the debate and determine the extent to which standards and certification can be used as a tool for sustainable economic development. It is also important to consider the non-pecuniary effects of certification, such as organisational development or added social and human capital. This information is essential to farmers who are considering how to add value to their products, and to governments, aid agencies, NGOs or trade associations considering strategies for agricultural development and poverty alleviation.

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Value-adding standards in the North American food market

Trade opportunities in certified products for developing countries

This publication analyses the use of voluntary standards and certification schemes in the food markets of the United States of America and Canada. With its large population and its high individual purchasing power, North America provides considerable opportunities for exports of value-added agricultural products. Consumers are increasingly attentive to the social and environmental aspects of food production as evidenced by the significant expansion of certified food sales in both natural food stores and mainstream supermarket chains. North America ranks just behind Europe, the world's leading region in terms of certified food sales. The United States of America is the world's largest organic food market and accounts for over 40 percent of global sales.

The report assesses the market opportunities for developing countries aiming to export value-added certified foods to North America. After discussing the potential of various types of voluntary standards for adding value to agricultural products, it focuses on a few environmental and social certification schemes that use a registered on-product label targeting consumers. Special emphasis is put on organic and fair trade certified agricultural products due to their value-adding potential, their level of recognition by consumers and the strong and sustained growth of demand. The main product categories examined are tropical fruits, coffee and cocoa owing to their economic significance to many developing countries and their high market potential in North America.

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