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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)

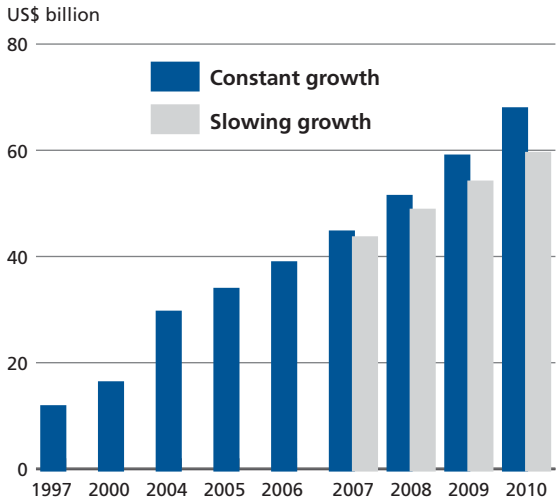
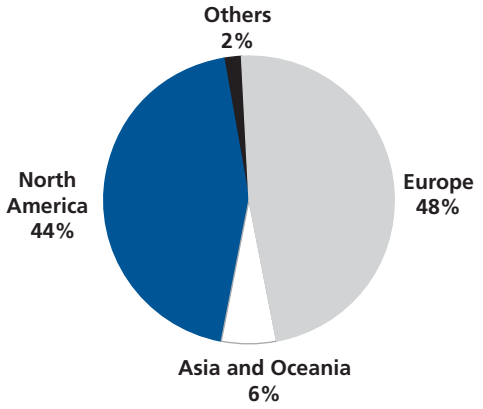


Figure 2. Main markets for organic foods (in percentage of world retail sales in 2005)



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.

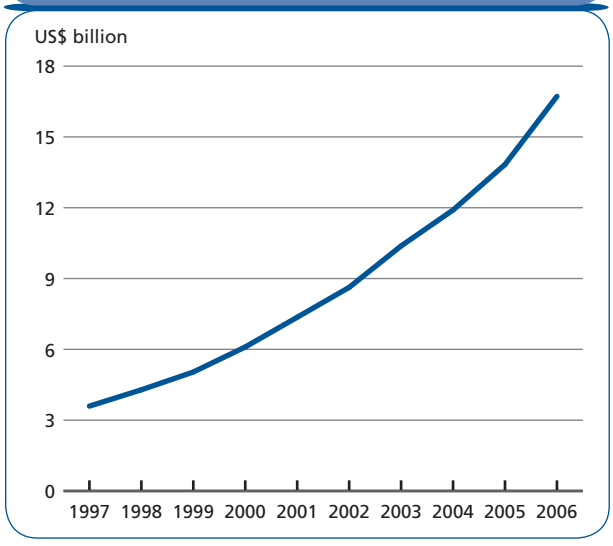
North America ranks just behind Europe, the world leading region in terms of certified food sales. Retail sales of certified foods can be conservatively estimated at US$18 billion for 2006. With over 80 percent of this amount, organic products dominate this market.

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.

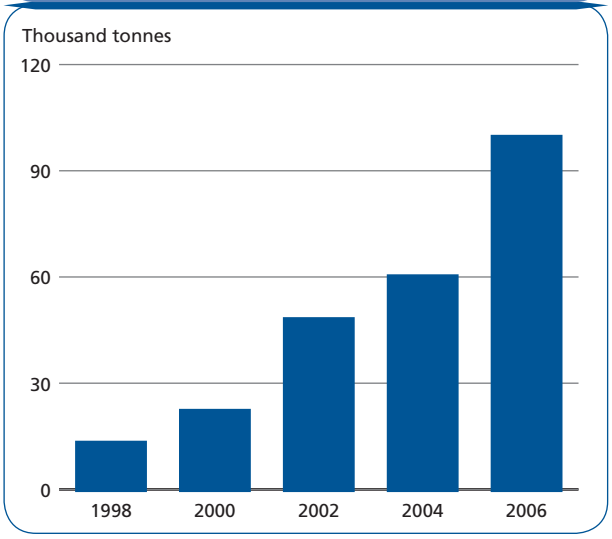
2.4 Main organic fruits imported into North America

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.

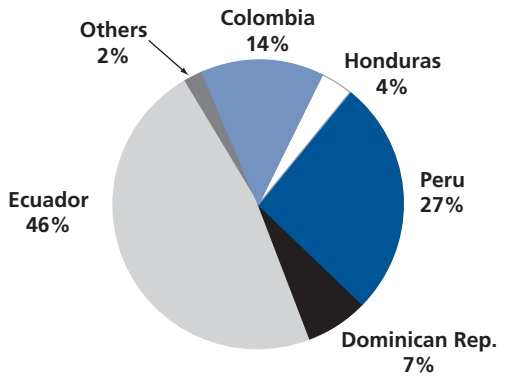
In North America, organic bananas are mainly imported and distributed by Dole Foods, which was estimated to account for over two-thirds of the market in 2006. Dole imports from Peru, Ecuador, Colombia, Honduras and the Dominican Republic. Some 60 percent of Dole's organic bananas are purchased from independent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

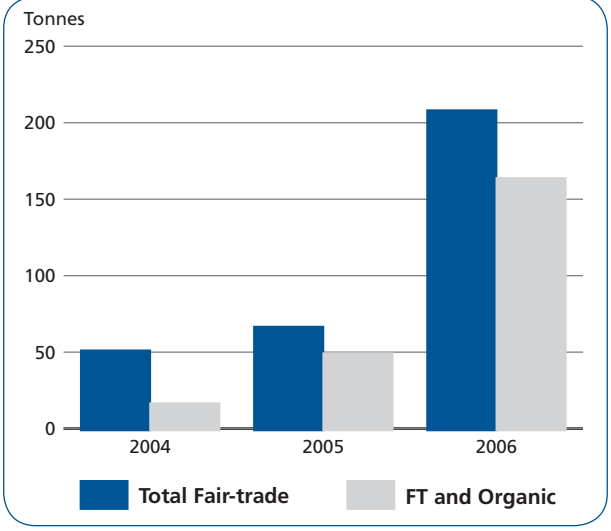
3.2 Pineapples

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.

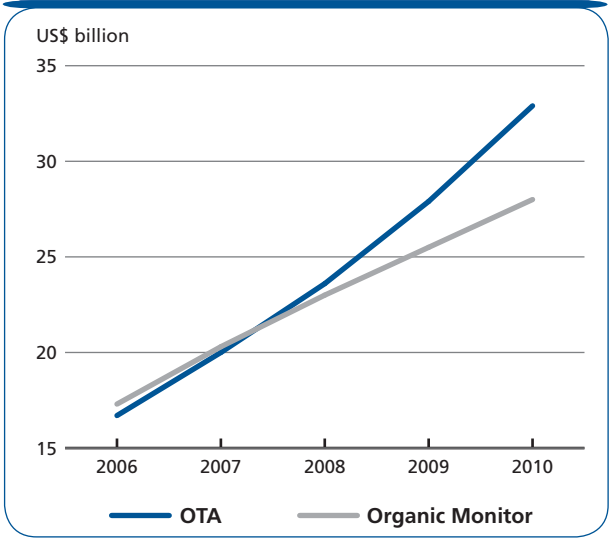
6. MARKET PROSPECTS FOR DEVELOPING COUNTRY SUPPLIERS OF CERTIFIED FRUIT AND VEGETABLES

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

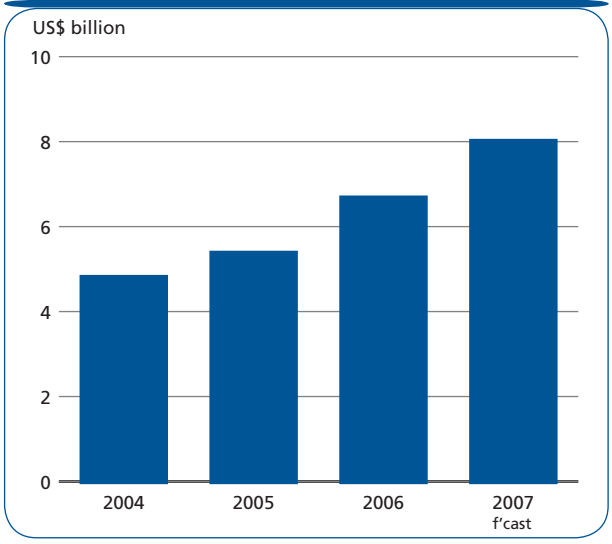
[73] USDA (2006a) and interview respondents
[74] ITC (2006) p.35 and USDA (2006a)
[75] USDA (2006a)
[76] Organic Monitor (2006)
[77] OTA (2007)

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

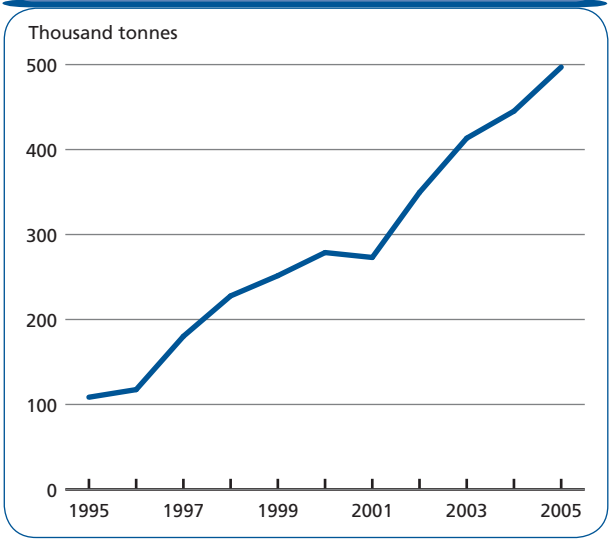
[78] USDA (2006a and 2004)

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



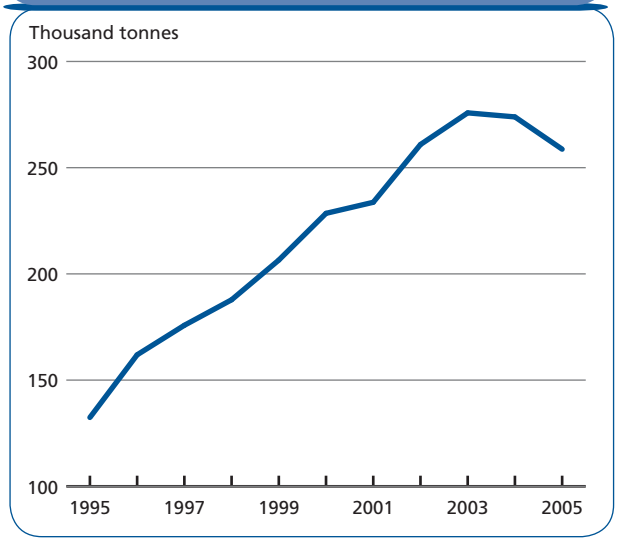
Source: FAOSTAT 2007

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)