

CERTIFICATION IN THE VALUE CHAIN FOR FRESH FRUITS

The example of banana industry



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The example of banana industry

by
Pascal Liu

TRADE POLICY SERVICE
Trade and Markets Division

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
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ACRONYMS AND ABBREVIATIONS

ACP	African, Caribbean and Pacific Group of States
AEBE	Asociación de Exportadores de Banano del Ecuador
ALVESA	Alma Verde Sociedad Anonima
AMS	Agricultural Marketing Service of USDA
APOQ	Asociación de Pequeños Productores Orgánicos de Querecotillo
APPBOSA	Asociación de Pequeños Productores de Banano Orgánico Samán y Anexos
ASOBANU	Asociación de Bananeros Unidos
ATJ	Alter Trade Japan
ATO	alternative trade organization
BANELINO	Bananos Ecológicos de la Línea Noroeste
BÖLW	Bund Ökologische Lebensmittelwirtschaft
BRC	British Retail Consortium
CAFTA	Central America Free Trade Agreement
CB	certification body
CEI-RD	Centro de Exportación e Inversión de la República Dominicana
CIESTAAM	Centro de Investigaciones Económicas, Sociales y Tecnológicas de la Agroindustria y la Agricultura Mundial
CIF	cost, insurance, freight
CIMS	Centro de Inteligencia sobre Mercados Sostenibles (Sustainable Markets Intelligence Center)
CIRAD	International Cooperation Centre of Agricultural Research for Development
COLSIBA	Coordinadora Latinoamericana de Sindicatos Bananeros
CORBANA	Corporación Bananera Nacional
ECBTA	European Community Banana Trade Association
EFTA	European Fair Trade Association
EPA	Economic Partnership Agreement
ERS	Economic Research Service of USDA
EU	European Union
EurepGAP	See GlobalGAP
FAO	Food and Agriculture Organization of the United Nations
FAS	Foreign Agricultural Service of USDA
FLO	Fairtrade Labelling Organizations International
FOB	free on board
FTAANZ	Fair Trade Association of Australia and New Zealand
GAP	good agricultural practice
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GlobalGAP	Global Partnership for Safe and Sustainable Agriculture
ha	hectare
HACCP	Hazard Analysis and Critical Control Point
IFAT	International Fair Trade Association
IFOAM	International Federation of Organic Agriculture Movements
IFS	International Food Standard
ILO	International Labour Organization
INIBAP	International Network for the Improvement of Banana and Plantain
IPPM	integrated production and pest management
ISO	International Organization for Standardization

ITC	International Trade Centre
IUF	International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers Associations
JAS	Japanese Agricultural Standard
kg	kilogram
lb	pound
LDC	least developed country
MFN	most-favoured nation
MT	metric tonne
NAFTA	North American Free Trade Agreement
NEWS!	Network of European Worldshops
NGO	Non-governmental Organization
NOP	National Organic Program
OCIA	Organic Crop Improvement Association
OTA	Organic Trade Association
PROMPEX	Comisión de Promoción del Perú para la Exportación y el Turismo
RA	Rainforest Alliance
REPEBAN	Red de Productores de Banano Orgánico Comercio Justo
RUTA	Regional Unit for Technical Assistance (Central America)
SA8000	Social Accountability Series 8000
SAI	Social Accountability International
SAN	Sustainable Agriculture Network
SESA	Servicio Ecuatoriano de Sanidad Agropecuaria
SÖL	Stiftung Ökologie & Landbau (Foundation Ecology & Agriculture)
SQF	Safe Quality Food
TransFair Canada	
TransFair USA	
UBESA	Unión de Bananeros Ecuatorianos
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VREL	Volta River Estates Limited
WB	World Bank
WIBDECO	Windward Islands Banana Development and Exporting Company
WINFA	Windward Islands Farmers' Association
WTO	World Trade Organization
ZMP	Zentrale Markt- und Preisberichtsstelle GmbH

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Introduction

BANANAS: ECONOMIC SIGNIFICANCE AND CHALLENGES FOR EXPORTING COUNTRIES

Bananas¹ are the world's most exported fresh fruit both in volume and value. In volume, world exports of fresh bananas exceeded 14.1 million metric tonnes in 2006. Global imports were estimated at 12.6 million metric tonnes². In the fresh fruit industry, bananas have the highest export ratio, since approximately one quarter of global banana production is exported as opposed to 11 percent for apples and less than 3 percent for mangoes. Bananas are exported primarily from developing countries to industrialized countries, the latter accounting for close to 90 percent of world net imports. With global exports worth some US\$5 billion in 2006, bananas are an essential source of income and employment for hundreds of thousands of households in developing countries, notably in Latin American, the Caribbean, Southeast Asia and West Africa. Yet, the livelihoods of banana producers, workers and their families have been threatened by two phenomena. First, the banana industry has suffered from global oversupply, which has resulted in recurrent price falls. The latest episode of price collapse in the late 1990s - early 2000s was very severe. Although prices picked up in 2005, this rebound was mainly due to temporary factors such as unusually-violent hurricanes, strong economic growth in emerging markets and market liberalization in the European Union (EU). Prices are expected to contract again in the medium term as these demand factors recede and recently-established plantations enter full production. The second threat is the use of unsustainable production and trade methods. These methods have contributed to the depletion of natural resources and have had adverse impacts on the health of farmers, workers, their families and local communities. Media reports on the negative environmental and social effects of intensive production may have even slowed the growth of banana consumption in some major markets. These two phenomena are mutually reinforcing. When prices collapse, producers are pressured into using methods that are cheaper in the short term but unsustainable. In turn, the use of unsustainable methods depresses prices. Several commentators have argued that fierce competition in an oversupplied global banana market has led to a 'race to the bottom' that is detrimental to farmers, workers, the environment and eventually the entire economy of the producing countries.

Some officials in banana exporting countries and development agencies consider that certification³ to specific voluntary standards may be one of the instruments available to mitigate these threats. They reckon that certain standards have the potential to add value, enhance market access and reduce the adverse environmental and social impacts of banana production. In order to make informed decision on whether to invest in certification, they need to address the following questions:

- How widespread is certification in the export banana sector?
- What are the advantages of certification schemes from the producers' perspective?

¹ In this report the term "banana" only refers to sweet bananas and excludes plantains.

² The difference between exports and imports is mainly due to fruit shrinkage and loss in transit, in addition to possible under reporting by some importing countries.

³ For definitions of certification and standards see Chapter I.

- What are the markets for organic and fair-trade bananas and their growth prospects?
- Who are the main players in the organic and fair-trade banana industries?
- Do certified bananas fetch higher prices than conventional bananas?
- Does the export chain allow producing countries to reap the full benefits of certification?
- What are the main challenges ahead for producers of certified bananas?

This report intends to provide key elements for answering these questions. Before starting the analysis, it is necessary to introduce the factors that have fuelled the adoption of certification in the banana industry and the main categories of schemes used.

THE RATIONALE FOR CERTIFICATION IN THE BANANA INDUSTRY

An increasing proportion of the bananas that are traded internationally are certified to voluntary standards. This is partly due to the highly concentrated and integrated nature of the industry, but is also a consequence of its recent history. The banana export sector came under considerable pressure from the late 1990s when prices dropped severely in the main import markets, reaching an all-time low in 2000. Although they recovered in 2001, they fell again in 2002 and remained low until early 2005. The crisis was partly caused by the surplus production in the face of a relatively inelastic demand in the principal developed markets and the financial crisis in Asia and the former USSR countries. In addition, large-scale banana producers and traders, in particular multinational companies, had to face growing criticism by non-governmental organizations (NGOs) and consumers over their handling of labour rights and the environmental and social damage caused by agrochemical intensive cultivation methods. The trade disputes over the EU banana import systems in the 1990s further exacerbated the pressure. Finally, a succession of highly publicized food poisoning cases in several developed countries caused widespread concern over the safety of food in general. The banana industry has responded to these multiple challenges with a variety of strategies. One of them is product differentiation through certification.

SCOPE OF THE REPORT

This report only deals with certification to voluntary standards, which producers are free to adopt or not. Certification to mandatory governmental standards (officially named 'technical regulations') such as phytosanitary certification programmes that may be imposed by importing countries is outside its scope. Since the early 1990s, a variety of voluntary standards and certification programmes have become available to the banana industry. Broadly speaking, the standards used in the industry can be classified into two categories depending on the type of organizations that developed them. The first category includes environmental and social standards developed by not-for-profit NGOs. It covers a wide range of issues such as environmental protection, labour rights, safety and health at work, social equity and the welfare of local communities. Among these standards the most common in the banana industry are organic agriculture, Rainforest Alliance, fair-trade, SA8000 and ISO 14001⁴. A growing number of banana producers and traders have sought to obtain certification against one or more of these standards for a variety of reasons. Some of the schemes use a label targeting consumers that may lead to a price premium. Other possible benefits lie in improved

⁴ ISO-14001 is a standard of the International Organization for Standardization (ISO), an international body in which governmental and private standardizing bodies are represented.

market access and stability. Some schemes help rationalize production, reduce costs, improve labour management and enhance the morale and participation of workers. Others help preserve productive natural resources. Sometimes the main reason for adoption is the need for improving the company's image and showing its commitment to social responsibility.

The second category includes standards aiming at food safety, quality, traceability and good agricultural practices mainly developed by large firms in major markets, notably food retailers and processors. Most of these certification programmes emerged in the late 1990s in the wake of a series of food crises. In many developed countries changes in legislation putting the liability for food poisoning on distributors and retailers prompted industry groups to design certification programmes oriented towards their suppliers to ensure the safety and traceability of the products they purchase. Retailers and processors are increasingly demanding that their suppliers be certified to these standards as a condition for continuing the business relation. Among this category, the most common standards are GlobalGAP (formerly named EurepGAP, a standard for good agricultural practices developed by a group of European supermarket chains), ISO-22000, BRC (British Retail Consortium), SQF and IFS. Most of the large banana producing and trading companies have now obtained certification against at least one of these. In general, this decision is prompted by the demand of their clients (in particular supermarket chains). From the producer's perspective, the main advantage of this type of certification is to maintain market access. These certification schemes are usually oriented towards corporate clients and therefore certified products seldom bear a label that it is aimed at consumers. There is generally no price premium. This may create problems, especially for small-scale banana growers, as complying with new standards usually entails additional costs. Investments are often necessary to upgrade the production facility. 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 international markets.

For these reasons, this report deals with the first category of certification schemes, with a particular focus on those that use an on-product label targeting consumers and have the potential to generate a price premium. It focuses on the economic dimension of trade in certified bananas. The environmental and social dimensions are also essential, but other authors have already addressed them.

REPORT OUTLINE

The first chapter of this report introduces the main voluntary environmental and social certification programmes that are used in the banana sector. It goes on to describe the main patterns of international trade in certified bananas. Chapter II examines the market situation and prospects of certified organic bananas. Chapter III offers a similar analysis for fair-trade bananas. Chapter IV reviews the various types of benefits and challenges associated with organic and fair-trade bananas from the perspective of producing countries. Export prices for certified bananas are analysed and compared to those of conventional fruit for a selection of producing countries. The chapter goes on to analyse the distribution of prices along selected value chains and seeks to determine whether producing countries reap the full benefits of certified banana exports. Finally, Chapter V offers a summary of the report findings, examines their policy implications and suggests areas for further research and action.

CHAPTER I: OVERVIEW OF INTERNATIONAL TRADE IN CERTIFIED BANANAS

I. BACKGROUND: ENVIRONMENTAL AND SOCIAL ISSUES IN BANANA PRODUCTION AND TRADE

The rise of certification schemes aiming at sustainable agriculture in the banana industry results to a large extent from the adverse environmental and social effects that arose from short-term profit-maximizing management strategies in large plantations. The expansion and intensification of production in large plantations in the 1980s and early 1990s gave rise to a series of environmental problems. The expansion of banana cultivation was sometimes done at the expense of forest or other natural vegetation. For example, in Costa Rica the area under cultivation increased from 20 000 hectares to 50 000 hectares in just five years (Bendell, 2001). More importantly, banana production for export is generally intensive, with high levels of external inputs, and often takes place in monoculture plantations organized along agro-industrial lines. Most farms rely on the frequent use of agrochemicals to maintain fertility and limit losses caused by pests. Because large monoculture crops are prone to increased attacks by pests and diseases, growing quantities of pesticides are generally needed. In turn, the extensive use of agrochemicals has given rise to the emergence of pest strains that are resistant to pesticides. Pollution was also caused by inadequate disposal of waste such as pesticide-impregnated plastic bags or rejected fruit. Inappropriate production practices have often led to pollution of land, watercourses and aquifers, and a reduction in biological diversity.

The 1980s and 1990s witnessed rising public awareness of environmental issues. This evolution was reflected at the 1992 United Nations Conference on the Environment and Development in Rio de Janeiro, when governments recognized the importance of good stewardship of natural resources in achieving sustainable development. As consumers have become increasingly sensitive to environmental issues, the intensive mode of agricultural production has attracted growing attention. Due to the high concentration of production and trade in large transnational companies, the banana sector came under close scrutiny in the 1990s. Strong pressure from NGOs, negative media coverage and a shift in consumer preference towards 'ecofriendly' products led some companies to take measures to reduce the adverse impacts of banana cultivation on the environment.

Solutions have been sought to the most pressing problems. The management of input and output flows has been rationalized in many farms. Waste disposal has improved considerably over the past ten years. Collection of plastics, composting of organic rejects and filtering of wastewater have become common practices on many plantations.

In the meantime, the world banana market became oversupplied and prices declined, thus reducing the incentive to increase banana production. The area cultivated in bananas has stabilized in the main producing countries (except in the Philippines) and it is expected that future production increases will primarily derive from yield increases in existing farms rather than expansion to new land. As a result, banana production has become less of a threat to primary forests.

However, the pollution caused by the intensive use of agrochemicals in monoculture production remains a challenge, as changes in input use may directly affect productivity. Banana monoculture attracts a wide range of pests and diseases, notably fungal diseases, which are difficult to combat in tropical climate. The main fungal disease, Black Sigatoka, is able to mutate and develop resistance to fungicides, posing a problem to plantation

managers seeking to reduce agrochemical use. Biological techniques to control this fungus have not proved conclusive so far and further research is needed in this area.

Part of the solution to Black Sigatoka may be found in integrated production and pest management (IPPM) methods. These include a careful management of fertilization levels to sustain production but avoid leaching out of surplus fertilizer. IPPM methods manage pests by mechanical and biological means as much as possible and only use chemical pesticides as a last resort. When pesticides have to be used, those that are less toxic and persistent are favoured. The focus of IPPM shifts away from the eradication of pests towards limiting their population to a level where the damage they cause is economically acceptable.

In addition to its negative environmental impacts the use of pesticides may also have adverse effects on the health of plantation workers and neighbouring communities. Although related to practices of many years ago, the health problems caused by the use of a nematicide (*nemagon*) containing dibromochloropropane are still a reality for many workers today. Some of them sued banana and agrochemical companies and obtained compensation, while others are still engaged in lawsuits.

Even authorized pesticides may cause health problems if the recommended safety measures are not strictly followed. These may include the wearing of facial masks, boots and gloves, or even impermeable clothes. However, such clothes are extremely uncomfortable in the hot and humid conditions of banana cultivation. For this reason, the International Code of Conduct on the Distribution and Use of Pesticides states in Article 3: "Pesticides whose handling and application require the use of personal protective equipment that is uncomfortable, expensive or not readily available should be avoided, especially in the case of small-scale users in tropical climates." (FAO, 2002). Further, the long-term toxicity of an authorized pesticide may be discovered only many years after its approval was granted. Various cases of soil contamination by the indiscriminate use of pesticides that were legal for long periods have been reported in a number of producing countries.

In addition, the banana industry has often faced social problems related to the non-respect of labour rights on plantations. In several instances the conventions of the International Labour Organization (ILO) and even national labour laws were not enforced, leading to abuses such as child work, excessive working hours, discrimination, sexual harassment, non-respect of health and safety regulations and absence of provision of medical assurance. Another frequently debated social issue in banana production is the right to freedom of association and collective bargaining, as formulated in ILO conventions No. 87 (1948) and No. 98 (1949). In many cases plantation management resisted independent worker unions. Over time, the relationship between unions and banana companies became extremely contentious.

Some of these conflicts and several cases of labour rights abuse were taken to the ILO and publicized in the major banana importing countries. They coincided with growing consumer awareness of the "ethics" of food production and trade due in part to the sensitization campaigns launched by various NGOs working in areas such as human rights, social development and "fair-trade". Issues such as conditions of work, wages of farm labour or the price paid to small producers in developing countries attracted the attention of public opinion in developed countries. Consumer associations and other groups now want guarantees that workers' health is not put at risk by the lack of adequate safety measures on the farm or the use of pesticides known to be hazardous. They are increasingly interested in labour rights issues such as freedom of association or the right to join an independent trade union, as well as in "fair" remuneration of farm workers and small producers.

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

Some progress has been observed in recent years. In general, relations with trade unions have improved gradually in many countries. For example, Chiquita Brands signed in 2001 an agreement with the International Union of Food, Agricultural, Hotel, Restaurant, Catering, Tobacco and Allied Workers Associations (IUF, an international federation of trade unions) and COLSIBA, the Central American federation of banana worker unions, in the presence of the Director General of the ILO (IUF, 2001). However, tensions remain in some producing countries, as exemplified by the killing of a trade unionist at the Yuma plantation belonging to Fresh Del Monte's Guatemalan subsidiary Bandegua in 2007. The SITRABI trade union reported that at least five banana workers were killed between February and April 2008 (Banana Link, 2008).

2. CERTIFICATION IN THE BANANA INDUSTRY

2.1 Basic principles of certification

Certification is a written guarantee by an independent certification agency that a production process or a product meets the criteria or requirements contained in a certain standard. The basic elements of a certification system (also called certification 'programme' or 'scheme') are the standard and the system to control the compliance of the certified entity with the standard. The object of certification can be a product or a process. Environmental and social standards are generally aimed at the production process (and sometimes also the trading process, as in fair-trade standards). These standards can focus on environmental issues such as soil conservation, water protection, pesticide use, or waste management; social issues (such as worker rights, occupational health and safety); or on other issues such as food safety. The improvements can result in the protection of local resources, healthier workers, and other benefits for producers, consumers and local communities. The certification is voluntary when producers freely decide whether or not they want to certify their production methods.

Certification can differentiate a product from other products, which can be helpful to promote the product in different markets, improve its market access, and in some cases, result in a better price paid to the producer. Certification is mainly used when the producer and the consumer are not in direct contact, as in the international market. In those cases where there are doubts on the effectiveness of the regulatory system of the exporting country, certification may be used to create trust (FAO, 2007). Producers can choose among many different types of certification. The decision on whether or not to seek certification and what type of certification to choose, are important decisions that influence farm management, investments and marketing strategies.

Each certification programme has different objectives and thus different requirements that the producer must comply with in order to be certified. The cost of complying with the standard and of certification depends on the types of changes the producer will have to make and on the type of certification programme chosen. In general, the cost of certification

is based on the time spent by the inspector(s) doing the farm inspection (farm audit) and on their travel expenses.

2.2 Certification programmes frequently used in the banana industry

There is a number of certification programmes that apply to fruit and vegetables produced for export, including bananas. The bulk of bananas that enter international trade are certified to one or more standards. This report covers those environmental and/or social standards which are the most significant to banana trade in terms of quantities certified, namely organic agriculture, fair-trade, Rainforest Alliance, SA8000 and ISO 14001. For the reasons explained in the previous section it does not deal with other certification schemes, such as those aiming primarily at food safety or good agricultural practices⁵. It should be noted that the selected certification schemes are all voluntary, i.e. producers and traders are free to choose whether to adopt them or not. However, these schemes differ widely in terms of ownership, objectives, scope, requirements, criteria, indicators and monitoring procedures (FAO, 2001a). All are privately-owned standards, except for organic agriculture. The Rainforest Alliance standard, SA8000 and ISO 14001 are single standard, each one owned by one non-governmental organization, while there are several fair-trade standards. Similarly, there is a wide array of organic agriculture standards, some privately-owned, some governmental, some intergovernmental (Table 1).

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

As indicated above, there is a variety of organic agriculture standards. Historically, the first standards were developed by non-governmental organizations (e.g. organic farmer associations, trade associations, certification bodies). Then, as the market for organics grew governments started to regulate organic labelling and develop national standards. France was among the first governments to adopt a regulation on organic farming. Finally, some intergovernmental entities have adopted laws and standards. The European Union adopted it in 1991 (Regulation EEC 2092/91). In 1999 the Committee on Food Labelling of the Codex Alimentarius Commission adopted Guidelines for the Production, Processing, Labelling and Marketing of Organically Produced Foods. According to the Codex definition, *“organic agriculture is a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activity. It emphasises the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using, where possible, agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfil any specific function within the system.”*

Organic agriculture is one of several approaches to sustainable agriculture and many of the techniques used (e.g. inter-cropping, rotation of crops, double-digging, mulching, integration of crops and livestock) are practised under various agricultural systems. What

⁵ Although some of these schemes claim that they also aim at environmental and social improvements, these are not their priority objective and have yet to be demonstrated by more systematic evidence

Table 1. Main characteristics of selected certification schemes

	Organic	Fair-trade	Rainforest Alliance	SA8000	ISO 14001
Number of standards	> 10	> 4	1	1	1
Ownership	NGOs, governments	NGOs, Certification bodies	RA-SAN (NGO)	SAI (NGO)	ISO (International organization)
Focus of standard	Environmental	Social equity	Environmental	Working conditions and labour rights	Environmental management system
Countries where it applies	All	Developing countries	Developing countries	All	All
Certification by	Accredited certification bodies (CB)	FLO-Cert for FLO standard. CB for their own standards	Sustainable farm certification	Accredited certification bodies (CB)	Accredited certification bodies (CB)
Main beneficiaries	All types of farms	Small farmers	Large farms	Large farms and agro-industries	Large farms and agro-industries

makes organic agriculture unique, as regulated under various laws and certification programmes, is that: (1) almost all synthetic inputs are prohibited, and (2) 'soil building' crop rotations are mandated.

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

Fair-trade

According to the major four international NGOs involved in fair-trade⁶, fair-trade is a trading partnership, based on dialogue, transparency and respect, which seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South. Fair-trade organizations are engaged actively in supporting producers, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.

There is a variety of fair-trade standards developed by a number of NGOs. In the agricultural sector, the most widespread system is that of the Fairtrade Labelling

⁶ The International Fair Trade Association (IFAT), FLO (Fair Trade Labeling Organizations International), NEWS! (Network of European Worldshops) and EFTA (European Fair Trade Association).

Organizations International (FLO), an international NGO based in Germany. FLO gathers 20 national fair-trade labelling NGOs, mostly from developed countries in Europe, North America, Asia and Oceania and 3 regional producer networks. FLO's member organizations work with small producers and farm workers to increase their security and economic self-sufficiency, and empower them in their own organizations. The FLO system relies on certification, i.e. compliance with the FLO standard is verified by a third party that has not interest in the business transaction. FLO is responsible for developing the standard and supporting producers but the fair-trade certification is carried out by a separate organization, FLO-Cert, a not-for-profit NGO. The FLO fair-trade system guarantees agricultural producers a minimum price and a price premium on product sales.

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

Other fair-trade certification systems have emerged recently. They have been developed by private certification bodies, notably Ecocert (France) and IMO (Switzerland). However, the quantities of bananas certified to these standards were negligible at the time of writing this report. The International Organization for Standardization has debated the relevance of developing a standard for fair-trade, but no decision has been taken so far.

It should be noted that a number of alternative trading organizations (ATOs) import foods under fair-trade principles although they do not belong to the FLO system. They usually do not use certification, but instead monitor themselves the compliance of their suppliers with their standard (second-party verification). Some of these organizations have existed for several decades, well before the creation of FLO, and import significant quantities of foods. Examples include GEPA (in Germany), Oxfam VW (in Belgium) and the Alter Trade Group (in Japan). However, presently over 95 percent of fair-trade bananas are traded under the FLO system. This report uses the term "Fairtrade" created by FLO to designate those fair-trade bananas which are certified under the FLO system.

Rainforest Alliance (RA)

The Rainforest Alliance certification aims to promote good farm management practices for natural resource conservation, improve worker conditions and community relations, and environmental management. The Rainforest Alliance supports the international secretariat of the Sustainable Agriculture Network (SAN), a group of non-governmental organizations working for environmental conservation and development. In collaboration with the producers, SAN has developed standards for fruits, coffee, tea, cacao, cut flowers and fern production.

The environmental requirements of the standard include: conservation of forests, streams, and wildlife; soil and water management; storage, transport and application of agrochemicals; integrated pest management; criteria for waste management; and a farm management plan that integrates the environmental and social standards. Some of the criteria, particularly on the social aspects, require compliance with national legislation and internationally recognized conventions.

The Rainforest Alliance certification for farms is carried out by an international certification company, Sustainable Farm Certification, Intl. After the initial audit, there is an inspection

every year. All farms must achieve a minimal level of compliance with SAN standards and demonstrate continual performance improvements to maintain certification. The producer pays the cost of farm inspections and an additional annual fee to SAN that depends on the area of land to be certified. The certification mark is mostly used in promotional activities, but is increasingly being used directly on bananas as well.

The Rainforest Alliance certification generally requires higher environmental and social standards in relation to conventional production methods. An important characteristic is the use of a point system that allows for certain flexibility. Also the certification allows for the use of agrochemicals under certain guidelines. These characteristics may be important for producers in particular farming situations. Currently, the certification is limited to the production of fruits, coffee, tea, cacao, cut flowers and ferns. It has mainly been taken up by large-scale banana producers, but recently also in coffee, including some cooperatives of smaller producers. There is no clear evidence of price premium paid to the producer. Whether certification will give a financial benefit to the producer may depend on market recognition, and the negotiations between buyers and sellers. The Rainforest Alliance does not guarantee a price premium but claims that most certified producers can negotiate a price premium ranging between 0 and 30 percent because of increased quality and widespread recognition for its label. The author could not find other sources of information.

The Rainforest Alliance reported that as of May 2008, it had certified 31 727 large and small farms and cooperatives in 19 countries for a total area of 250 385 hectares. It estimates that 1 250 000 farmers, farmer workers and their family members directly benefit from the programme. As regards bananas, there were 368 RA-certified banana operations in nine countries with a total of 64 112 hectares.

RA-certified bananas are mainly sold in North America and Europe. 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 the Rainforest Alliance 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, accounting for 88 percent of Chiquita's imports from Latin America (FAO, 2008a).

The Rainforest Alliance certification is best known in the US market. According to Rainforest Alliance sources, about half of the RA-certified bananas imported into North America are sold with the Rainforest Alliance label, amounting to a total retail value of approximately US\$700 million per year. 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 (Reefer Trends, 2007). This was the first time a Dole plantation was certified by the Rainforest Alliance.

For many years, Chiquita's policy in the European market was to sell its RA-certified bananas with its label only and without any Rainforest Alliance label. More recently, however, the "Rainforest-Alliance certified" label has been affixed on bananas sold in some European markets.

Exports 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 Rainforest Alliance certification for its other plantations, supply could increase markedly.

SA8000

Another programme that is used in the banana industry is SA8000, the Social Accountability standard. It is a workplace standard that focuses on labour rights and worker health and safety. It is 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. SA8000 was developed by Social Accountability International (SAI), an NGO based in the United States. SAI's accreditation services for SA8000 are managed by Social Accountability Accreditation Services (SAAS). SAAS accredits independent certification bodies to carry out inspection and certification of production facilities.

SA8000 certification has been used for bananas and pineapples, as well as other agricultural products (FAO, 2004). It is primarily used in large plantations. All Chiquita-owned plantations are certified to SA8000. In 2005, Chiquita reported approximately 500 000 metric tonnes of SA8000 certified banana imports into North America, all of which were also RA-certified. Dole also imports SA8000 certified bananas grown in Colombia (it announced in July 2007 that all its Colombian plantations were certified SA8000), Costa Rica, Ecuador, Honduras, Guatemala and the Philippines, but volume data are unavailable and the percentage of its overall production that is certified SA8000 is unknown.

The SA8000 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.

ISO 14001

The ISO 14000 series is part of the internationally recognized industry standards of the International Organization for Standardization (ISO) and concerns environmental management systems. As a management system, ISO 14001 does not specify performance targets others than those that may be included in national laws. This has led some environmentalists to criticize the standard for allowing firms to do 'green washing' without any real improvements in their environmental performance. 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 certified fruits, as they are sold as conventional bananas. Due to the absence of premium, this standard is not as attractive to smaller producers because of certification costs and extensive documentation requirements (FAO, 2003a). Producers can, however, use certification as a sales advantage when negotiating with importers, wholesalers and retailers. It was not possible to obtain data on the quantities of bananas certified to the ISO 14001 standard, as these bananas do not carry a certification label and no organization tracks them.

2.3 Economic significance of certification in the banana industry

Table 2 displays estimates of the export quantities of bananas certified to the fair-trade, Rainforest Alliance and organic agriculture standards. Bananas certified to other standards are not covered in the table, as they are sold on the conventional banana market without any certification label. Exports of bananas certified to one of the above three standards were estimated at over 2 million metric tonnes in 2007, accounting for close to 15 percent of global banana exports. The exact value of retail sales is unknown due to the lack of price data, but the global value was likely to approach US\$3 billion in 2007.

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

The remainder of this report will focus on organic and fair-trade certification, two environmental and social certification programmes that apply to a substantial share of banana trade and have a potential to add value. Sales of bananas 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, raise export earnings, improve food security and resilience to climate change, preserve natural resources and diversify the local economy. Certification to organic and fair-trade standards is a strategy for banana growers and exporters to add value to their products. It can contribute to increasing the economic viability of smaller scale agriculture. Rising demand for certified bananas creates new market segments where producers may be able to demand price premiums and secure buyers for their products. Although Rainforest Alliance certified bananas account for substantial trade volumes, this standard will not be examined in the remainder of the report as it is primarily used by plantations rather than small-scale growers. The bulk of RA-certified bananas are traded by Chiquita. The author could not find data on prices and possible price premiums.

Table 2. Estimated exports and sales of bananas certified to selected sustainable agriculture standards

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

Author's calculation based on governmental and industry sources

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

CHAPTER II: CERTIFIED ORGANIC BANANAS

NOTE:

National agricultural census data and official trade statistics usually do not distinguish between certified and non-certified products. Therefore, most of the figures on organic products presented in this section are estimates. Some estimates were obtained from governmental agencies, others from industry bodies, experts and specialized media. The author cross-checked them for consistency and adjusted them when discrepancies were found. When a more specific source was used, it is indicated in the text or below the figures and tables.

1. PRODUCTION AND SUPPLIERS

The production of organic bananas shows a strong concentration in the Latin America and Caribbean region. According to Kilian *et al.* (2005), the region's production accounted for nearly 50 000 tonnes in the early 1990s and reached around 250 000 tonnes in 2003-04, corresponding to an annual growth of more than 20 percent. Although no recent figures for production are available, it can be estimated based on the export quantities and certified areas that close to half a million tonnes were produced in 2007.

World exports of certified fresh organic bananas were estimated to range between 260 000 and 270 000 metric tonnes in 2006. Preliminary estimates indicate that they exceeded 300 000 metric tonnes in 2007 accounting for over 2 percent of global sweet banana exports. As can be observed in Figure 1, exports have risen ninefold since 1998, when they were estimated at 29 000 metric tonnes (Sauvé, 1998). The rise was particularly strong between 2004 and 2006 for two reasons. First, in 2005 and 2006 production in the Dominican Republic recovered from the damage caused by bad weather in 2004. Second, Ecuador and Peru raised their shipments markedly over these two years.

The world's largest exporters of organic bananas are Ecuador, the Dominican Republic, Peru and Colombia (Figure 2). Ecuador's share has soared in the past three years (Figure 3) and in 2007 it accounted for over 40 percent of global supply.

Figure 1 - World exports of fresh certified organic bananas, 1998-2007

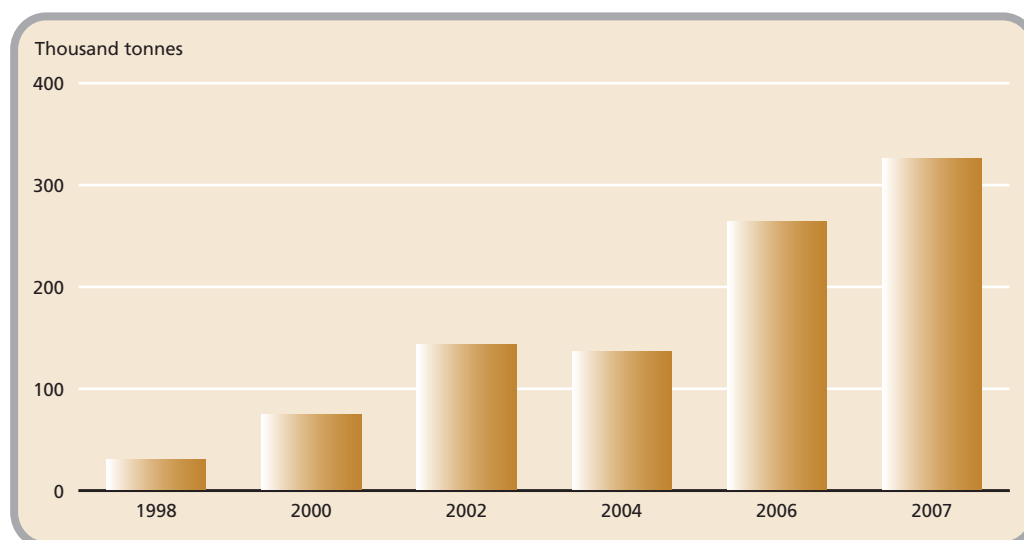
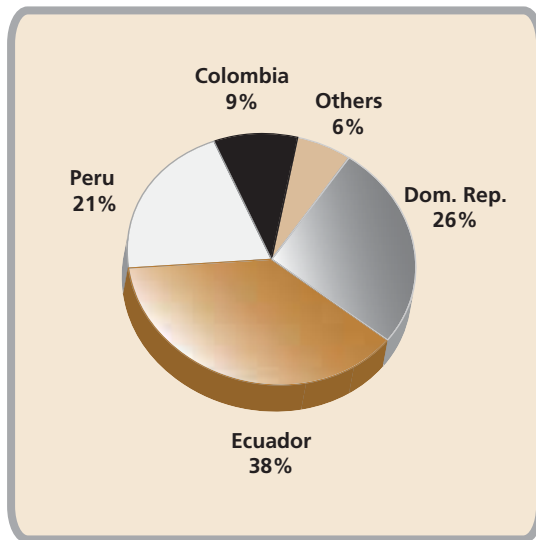


Figure 2 - Shares of the leading organic banana suppliers in world exports (in volume, average for 2006-2007)



to medium scale farms. A substantial share of the family farms is fair-trade certified. According to some industry experts, the average yield is relatively low at some 800 boxes (of 18.14kg) per hectare. The main certification bodies that are active in the banana sector are the German BCS-Öko, estimated to account for 60 percent of the market, the Swiss IMO and the Italian Suolo e Salute.

The Dominican Republic was one of the first countries to export certified organic bananas on a large scale and until 2006 it was the world's largest exporter of organic bananas, accounting for nearly one-third of global shipments. It also exports substantial quantities of conventional bananas. The share of organics in its exports varied between 32 and 58 percent over the period 1999-2007. The bulk of the harvest is exported to Europe, in particular the United Kingdom, which accounted for over half of the exports in 2006 and up to 80 percent in 2007. Other significant markets are Belgium, Sweden and Germany (Figure 4).

Figure 3 - Variations in organic banana exports by country, 1999-2007

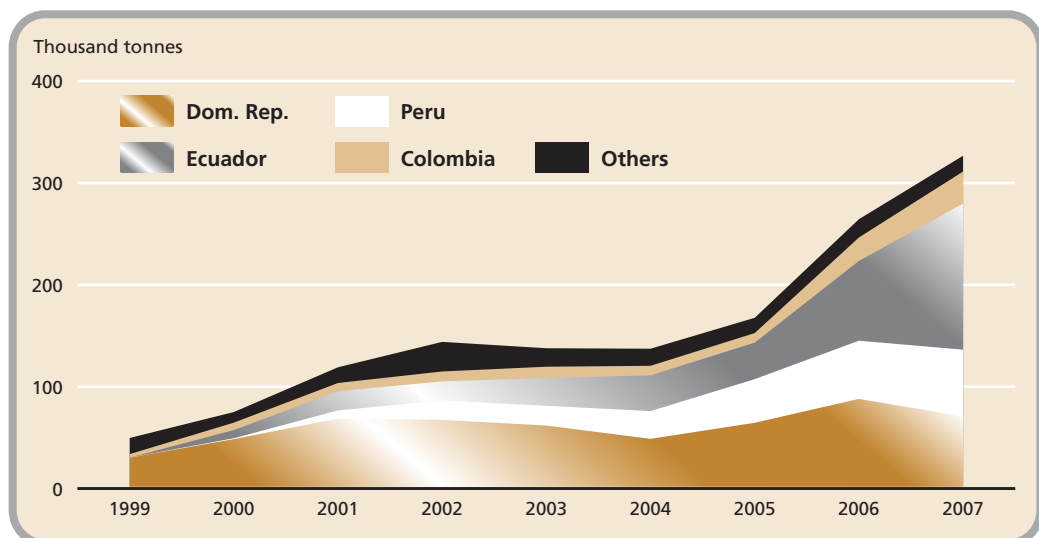


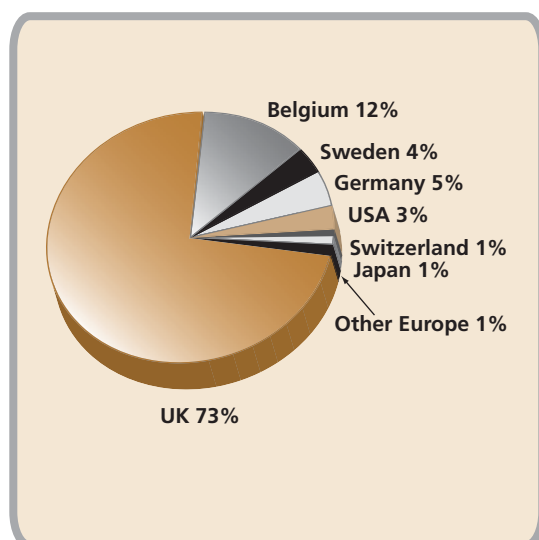
Table 3 - Exports of organic and conventional bananas from the Dominican Republic (metric tonnes)

	Conventional	Organic	Total	% organic
1999	29 350	28 650	58 000	49
2000	33 390	46 810	80 200	58
2001	63 200	67 000	130 200	51
2002	47 024	65 676	112 700	58
2003	64 909	60 091	125 000	48
2004	54 964	45 845	100 808	45
2005	104 242	61 841	166 082	37
2006	117 811	85 489	203 301	42
2007	138 758	66 777	205 535	32

Source: CEI-RD (2008)

Beside Europe the Dominican Republic exports to the United States (between 3 000 and 6 600 metric tonnes shipped annually in the period 2004-2006) and small quantities to Japan (less than 1 000 metric tonnes per year). There are two categories of exporters: specialized organic exporters (in particular SAVID SA, Horizontes Orgánicos, Cooprobata with Agrofair) and conventional banana producer-exporters that also produce organically such as Plantaciones del Norte.

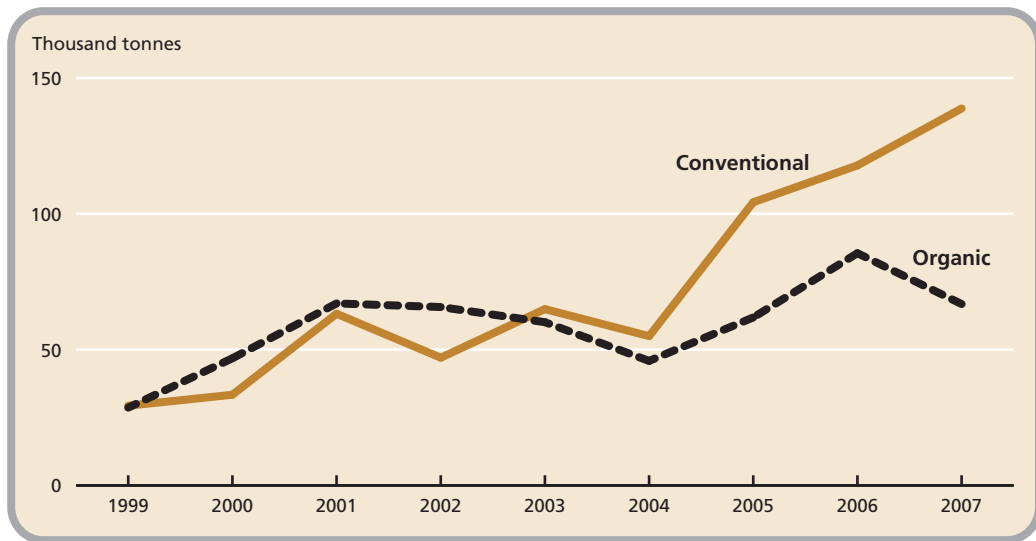
Dominican exports of organic bananas have been on a rising long-term trend but the increase has not been steady. The country's geographical location in the Caribbean makes it particularly vulnerable to hurricanes. Production was severely disrupted by hurricanes that struck the island in late 1998 and in November 2003 and 2004, causing severe drops in shipments in the years 1999 and 2004 (Figure 5). Exports recovered markedly in 2005 and a further rise was observed in 2006. Production was disrupted again in 2007. Floods

Figure 4 - Main markets for Dominican organic banana exports (in percentage of export value 2004-2007)

and strong winds in Spring hit the Azua region in the southwest where the bulk of bananas are produced organically. Then, in December 2007 hurricanes Noel and Olga destroyed 4 905 hectares out of the 10 062 hectares of land planted to bananas. This was considered as the worst natural disaster hitting the Dominican Republic in many years. As a result of the extensive damage, exports contracted in 2007 and are forecast to drop markedly in 2008. According to industry sources, total banana exports (both conventional and organic) may fall by up to 80 000 metric tonnes (Notifax, 2008), but will pick up in 2009 due to the renewal of plantations and crop expansion.

Exports of conventional bananas have been rising even faster than those

Figure 5 - Exports of organic and conventional bananas from the Dominican Republic, 1999-2007

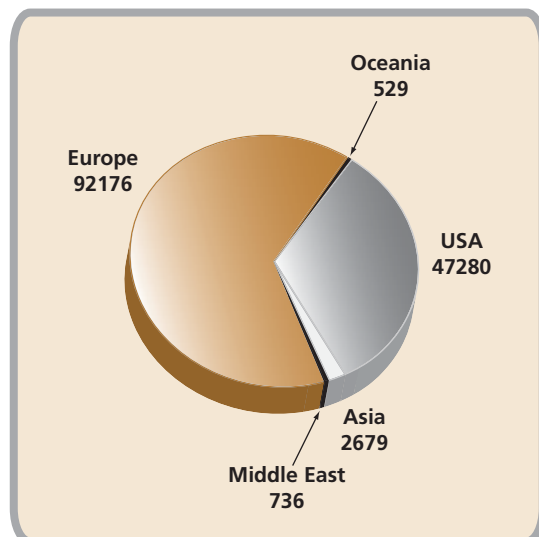


of organic bananas in the past four years. This can be partly explained by the attractiveness of the EU market for conventional bananas, where prices have been high, and recent changes in the EU banana import system. Until the early 2000s the Dominican Republic could only export a limited quantity of bananas duty free. Following the latest reform of the import system in 2006 and the signature of an Economic Partnership Agreement with the European Union at the end of 2007, the Dominican Republic can now export bananas duty free without any quantitative restrictions. Organic bananas enjoy the same advantages but their production is more difficult and costly, which explains why they have benefited comparatively less from the liberalization of the EU import system.

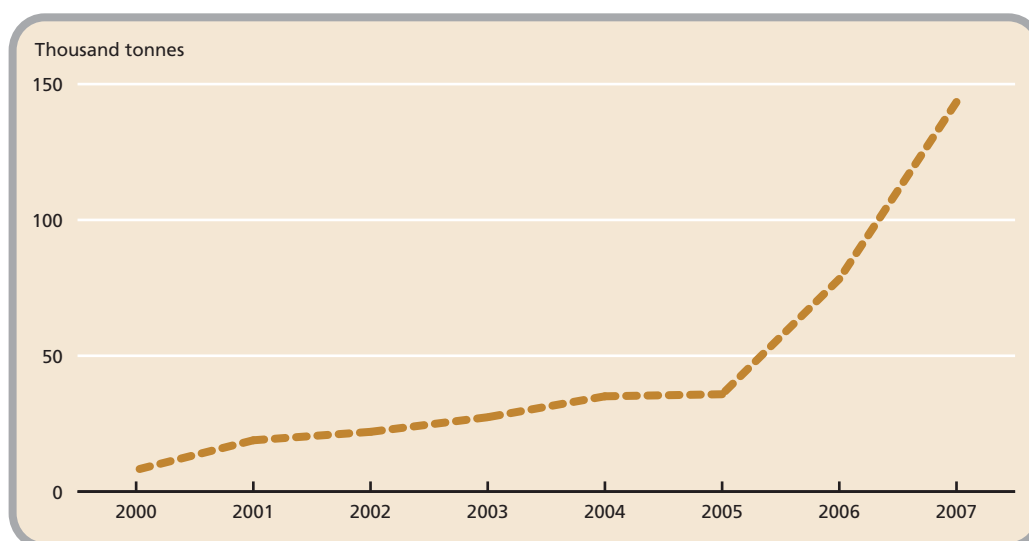
1.2 Ecuador

Ecuador is the world’s largest banana exporter and the fourth largest producer behind India, Brazil and China. It shipped an estimated 4.5 million tonnes worldwide in 2007. Although it

Figure 6 - Ecuador’s exports of organic bananas by destination (metric tonnes in 2007)



entered the organic industry relatively late, Ecuador’s organic banana output has risen fast since 2004. In 2007, Ecuador became the world’s largest supplier, accounting for almost half of world exports with over 140 000 metric tonnes shipped abroad. Some 64 percent of these exports were destined for Europe and about one third went to the United States. The remainder was shipped to Asia and the Middle East (Figure 6). Ecuador more than trebled its exports over the period 2005-2007, as new farm land obtained organic certification (Figure 7). According to its Ministry of Agriculture, the certified area planted to bananas rose nearly threefold from 4 700 hectares in 2004 to 13 800 hectares in 2007 (Notifax, 2007). Despite this, organics still account for a fraction of Ecuadorian banana exports (3 percent in 2007, Table 4).

Figure 7. Organic banana exports from Ecuador, 2000-2007**Table 4 - Share of organic banana exports in total banana exports from Ecuador**

	Exports (MT)	Organic share (%)
2004	35 085	0.8
2005	35 837	0.7
2006	78 284	1.7
2007	143 420	3.1

Source: AEBE

Ecuadorian organic bananas are mainly produced by relatively small-scale farms (from 1 to 10 hectares) usually organized in cooperatives in mountain areas where pest pressure is lower than in the main conventional cultivation zones. These cooperatives tend to sell their harvest to exporters (local firms and multinational companies such as Dole) but a few of them ship directly to importers under the fair-trade system. This is the case of the El Guabo farmer

association. The association has over 500 members and exports organic and fair-trade bananas mainly to Europe. In 2007 it shipped over 31 000 metric tonnes of organic bananas under the Eko brand and was Ecuador's largest exporter of such bananas. UBESA, the local subsidiary of Dole, ranked second with close to 30 000 metric tonnes and was followed by Noboa with some 16 000 metric tonnes under the Bonita brand. Noboa is by far the largest producer and exporter of conventional bananas in Ecuador. The multinational fruit company Del Monte shipped approximately 6 000 metric tonnes of organics. Overall, these three companies accounted for over a quarter of organic banana exports in 2007. A dozen of organic certification bodies operate in Ecuador, of which three (BCS-Öko, Skal and Ceres) are predominant in the banana sector. BCS-Öko was reported to hold some 80 percent of the banana certification market in Ecuador. In 2005 some problems were detected in the organic certification system and solutions were subsequently proposed by independent experts (FAO 2006).

Being by far the world's largest exporter of conventional bananas with over 4 million tonnes exported annually on average and in view of the large area of bananas in transition to organic cultivation, Ecuador seems bound to raise further its exports of organic bananas. In the 4-month period January-April 2008 shipments already totalled close to 58 000 metric tonnes (AEBE, 2008). Emilio Ramirez (2006) estimates that the average yield ranges between 1 600 and 1 800 18 kg-box per hectare and forecasts that exports will reach 350 000 metric tonnes in 2010. However, this forecast seems overoptimistic, as the actual export yield is currently much lower (closer to 600-700 boxes/ha or 10-11 MT/ha). Further,

the expected growth could be mitigated by the spread of pests and diseases, in particular the Black Sigatoka fungus, into the organic production area. The disease already causes considerable damage in the areas where conventional bananas are cultivated. According to local sources, the cost of treatments may account for between 15 and 20 percent of total production costs.

Maintaining the trust of foreign customers in the local certification system will support the further growth of exports. An article in the Ecuadorian online magazine *Banana Export* (2008) reported that producer groups have requested that the national sanitary control authority Servicio Ecuatoriano de Sanidad Agropecuaria (SESA) step up its controls over the activities of the certification bodies and that the certification bodies be monitored by a multi-stakeholder committee where they would be represented.

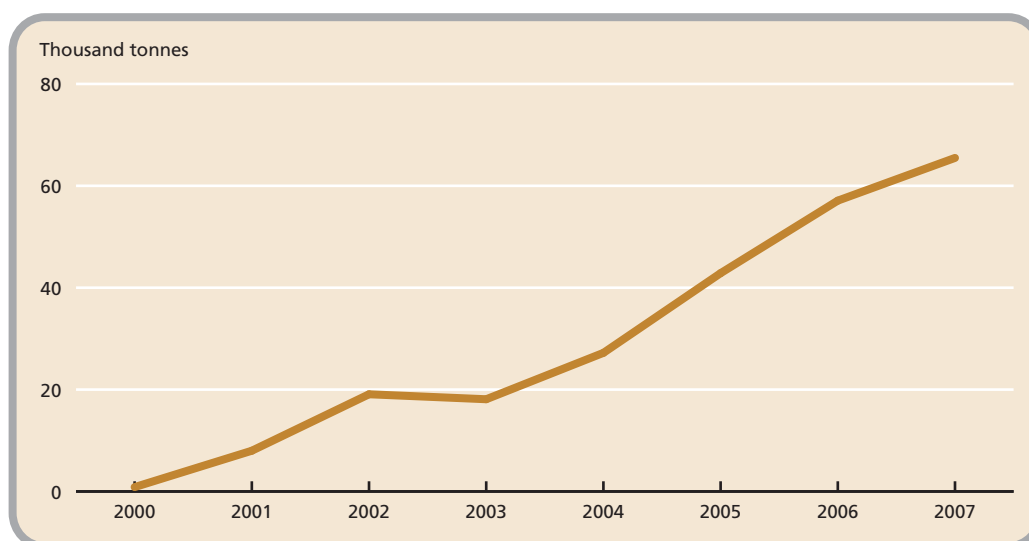
1.3 Peru

According to Peru's Ministry of Agriculture, over 270 000 hectares were cultivated organically (certified or in transition) by some 33 000 farmers in 2005. The average farm size is small, as 88 percent of the farms have less than 5 hectares. According to USDA (2008), total organic exports reached USD 220 million in 2007, making Peru the world's seventh largest organic exporter. Organic products as a whole are Peru's third largest agricultural export (behind coffee and asparagus). Organic bananas rank second after organic coffee and account for 19 percent of Peru's organic exports in value.

Organic banana cultivation started at the end of the 1990s, when the Ministry of Agriculture launched a programme to convert banana farms to organic agriculture in the Northern Coast area with support from the International Network for the Improvement of Banana and Plantain (INIBAP). The first exports of organic bananas took place in 2000 through POPSAC, a Peruvian private company. It was then replaced by Dole, which played an important role in expanding exports.

In contrast with other substantial suppliers, virtually all bananas exported from Peru are organic. Over 3 500 farmers grow organic bananas on approximately 3 500 hectares of certified land in the northern regions of Piura (81 percent of land, concentrated in Valle del Chira, Sullana Province), Tumbes (18 percent in the Tumbes and Zarumilla Provinces) and Lambayeque (1 percent). Due to this geographical concentration, the formation of associations and the transition to organic cultivation was rapid. The northern coast regions benefit from a relatively favourable climate (tropical dry), fertile soils, water resources and a relatively low incidence of pests and diseases. The Ministry of Agriculture (2006) estimates the yield at 1 920 boxes per hectare. The industry provides incomes for an estimated 15 000 persons (workers, farmers and their families). Organic bananas are mainly produced by small-scale farmers (the average farm size is 0.75 hectares) usually organized in associations or cooperatives. These groups include the Asociación de Pequeños Productores Orgánicos de Querecotillo (APOQ) and Asociación de Pequeños Productores de Banano Orgánico Samán y Anexos (APPBOSA). They tend to sell to exporters (local firms and multinational companies) but a few of them (e.g. APPBOSA) ship directly to importers under the fair-trade system. The share of exported fruit that is also Fairtrade certified has been increasing steadily. Five organic certification bodies operate in Peru: BCS-Öko (Germany, predominantly bananas), Bio-Latina (Peru), Control Union, OCIA (United States) and IMO (Switzerland).

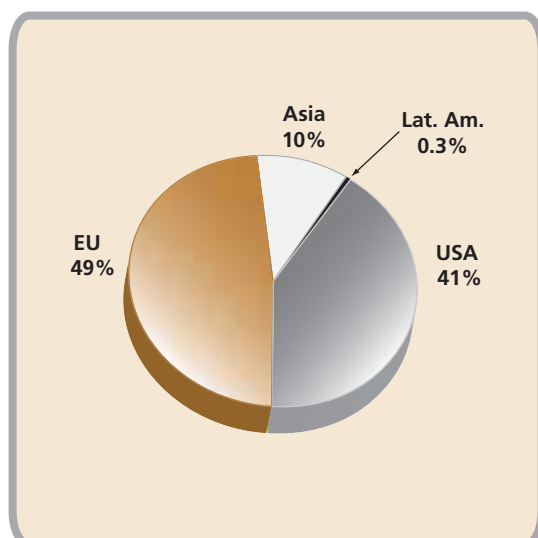
Peru's exports of certified organic bananas started in 2000. They increased markedly over the past seven years, from less than 1 000 metric tonnes in 2000 to over 65 000 metric tonnes in 2007, earning nearly 32 million that year (Figure 8). Peruvian bananas are mainly shipped to the European Union and the United States, but sizeable quantities are destined

Figure 8 - Peru's organic banana exports, 2000-2007

for Japan (Figure 9). Peru's shipments are set to continue rising, as a number of farms are in transition to organic management. They are projected to exceed 80 000 metric tonnes in 2008 (Soldevilla, 2008). According to industry sources quoted by FAS (2008), the area dedicated to organic banana cultivation will expand by nearly 40 percent to 7 200 hectares. The organic price at FOB level is high. It ranged between USD 8 and 9 per box between 2006 and 2007.

1.4 Colombia

As in the case of Ecuador, organics are only a small fraction of Colombia's banana exports. Until 2006, its organic bananas originated mainly from one large firm, the Daabon company (Grupo Daabon), which produces and exports a range of organic tropical fruits, in fresh and dried forms. The firm obtained organic certification in 1993. Production is located in the North of the country, in the Sierra Nevada de Santa Marta, near the coastal city

Figure 9 - Peru's organic banana exports by destination (in % of volumes 2004-2007)

of Santa Marta which serves as export harbour. Daabon had seven certified organic banana farms for a total area of approximately 500 hectares in early 2008. It forecasts the banana area to grow to close to 700 hectares by the end of 2008. Until 2005 Daabon was virtually the only Colombian exporter of organic bananas. In 2005 Dole established a large organic commercial farm ("Don Pedro") in the area of La Guarija. According to Dole's website, the farm was certified in 2005 and has over 310 hectares of organic bananas. It is equipped with a suspended cable-way harvesting system and a modern packing facility. According to Notifax (2008c), there are plans for converting some 2 000 hectares of banana land in the Santa Marta area to organic status. Colombian exports exceeded 30 000

metric tonnes in 2007. Colombia's main market is the United States, followed by the European Union and Japan.

1.5 Other suppliers

Honduras and Mexico are minor suppliers. **Honduras'** exports have been relatively stable over the past five years. They originate from a plantation owned by a company named ALVESA (Alma Verde Sociedad Anonima), a subsidiary of Dole Foods. All the production is exported to the United States. Industry sources indicate that the Ministry of Agriculture considers developing the cultivation of organic bananas in the South (Valle de Nacaome) in partnership with Chiquita Brands (Notifax, 2007). However, the large-scale expansion of production seems 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 and Japan in the late 1990s but production has decreased markedly since then. According to CIESTAAM (2005), the area under organic cultivation fell from 826 hectares in 2000 to only 153 hectares in 2004-2005. Mexican sources estimated output at 2 400 metric tonnes in 2006 and it is likely that exports were below 2 000 metric tonnes.

Ghana: Ghana's entry into the organic banana industry is relatively recent. In the early 2000s, the Volta River Estates Limited company (VREL), a large plantation located south of Lake Volta which was the only Ghanaian exporter of bananas and was certified to fair-trade standards, started converting parts of its land to organic cultivation. It later obtained organic certification and now exports bananas that bear the double certification organic and fair-trade, mainly to the United Kingdom, France and the Netherlands. According to FLO, VREL exported some 2 500 tonnes of organic bananas annually in 2005 and 2006.

The Philippines: The Philippines has been exporting organic bananas since the 1990s but no recent data could be obtained on its production and exports. The bulk of its exports go to Japan, which is also the main market for its conventional bananas. A study carried out by IFOAM Japan on behalf of the World Bank, RUTA and FAO (World Bank, 2005) estimated that it shipped some 10 000 metric tonnes of organic bananas to Japan in 2002. In addition, substantial quantities of non-certified organic bananas are shipped to Japan. Some of these bananas (balangon variety) are produced in the Negros Island and traded under a fair-trade system by an NGO (Alter Trade Japan) and distributed by Japanese consumer cooperatives.

A number of **other tropical countries** cultivate bananas organically. These include Brazil, Costa Rica, Guatemala, Bolivia, Uganda, Cameroon, Togo, Burundi, India, Australia and Thailand. However, the quantities that they export are very low. Among the leading four exporters of fresh conventional bananas, Costa Rica is the only country that does not export fresh organic bananas. It does produce organic bananas, but the bulk of the harvest is processed into purée. The organic banana purée is exported to Europe and the United States where it is used as ingredient for the foodstuff industry (in particular the baby food industry). Bolivia has started producing organic bananas recently with the support of the United States Agency for International Development (USAID). Banabeni, a group of small grower organizations representing 990 families in the Alto Beni province started exporting organic bananas to Chile in 2007 (USAID, 2007). Similarly, in Guatemala, one company has started producing bananas organically and is planning to ship them to the US and European markets (AEBE, 2008b). Cameroon exported small quantities of fresh organic bananas to the European Union in the late 1990s - early 2000s but had to stop due to the competition of Latin American and Caribbean suppliers. Uganda sells to Europe small quantities of a specific variety named 'apple banana'. India and Thailand market organic

bananas domestically and to neighbouring Asian countries. Multinational fruit company Fresh Del Monte recently indicated that it is considering converting its Brazilian banana plantations to organic cultivation (Notifax, 2008b).

2. MAIN MARKETS FOR ORGANIC BANANAS

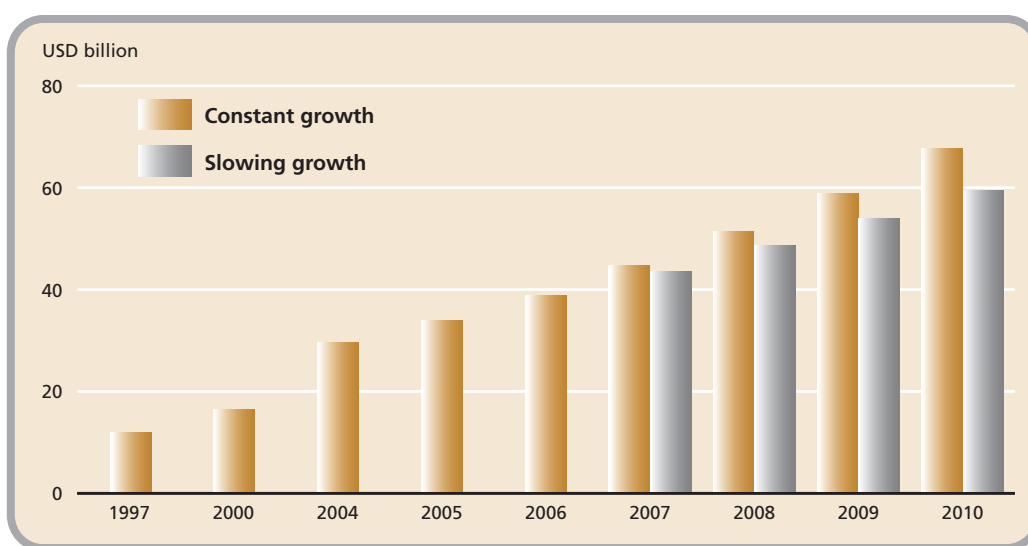
2.1 Overview

Based on estimates collected from various studies and industry sources⁷, global retail sales of organic foods were estimated at some USD 34 billion in 2005. Few final figures are available for 2006 yet, but it is estimated that sales approached USD 40 billion⁸. They have increased by over 200 percent in less than a decade, growing from approximately USD 11 billion in 1997 (Figure 10). Although growth slowed slightly in the early 2000s, it has remained robust (43 percent between 2002 and 2005) (IFOAM, 2007).

It is estimated that 98 percent of the sales of certified organic products take place in developed countries. North America and Europe account for the bulk of retail sales as illustrated in Figure 11. Other markets are Japan, Australia and New Zealand. Although developing countries presently account for only a fraction of sales, consumption is rising steadily in some of them, in particular in the emerging economies of East Asia (Singapore, Malaysia, China, Republic of Korea) and Latin America (Argentina, Brazil, Chile). In these countries organic sales are overwhelmingly concentrated in the large cities and purchasers originate from the upper classes.

Developed countries account for the bulk of imports of certified organic bananas. Europe, North America and Japan together represent 99 percent of imports. Europe alone accounted for over half of world imports in 2006 (Figure 12). The retail value of organic banana sales worldwide was estimated to approach USD 800 million in 2007.

Figure 10 - World retail sales of certified organic products (past and projected)



⁷ ITC, Eurofood, SÖL, Organic Monitor and other sources.

⁸ Organic Monitor (2008) has a slightly lower estimate of USD38.6 billion.

Figure 11 - Main markets for organic foods (in percentage of world retail sales in 2006)

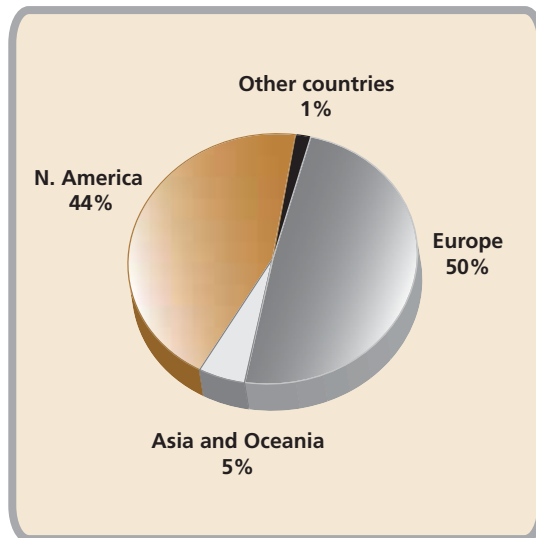
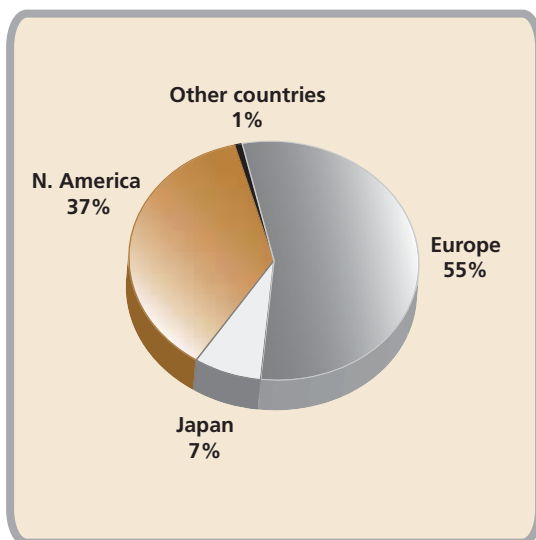


Figure 12 - Geographical breakdown of global organic banana imports in 2006



2.2 Europe

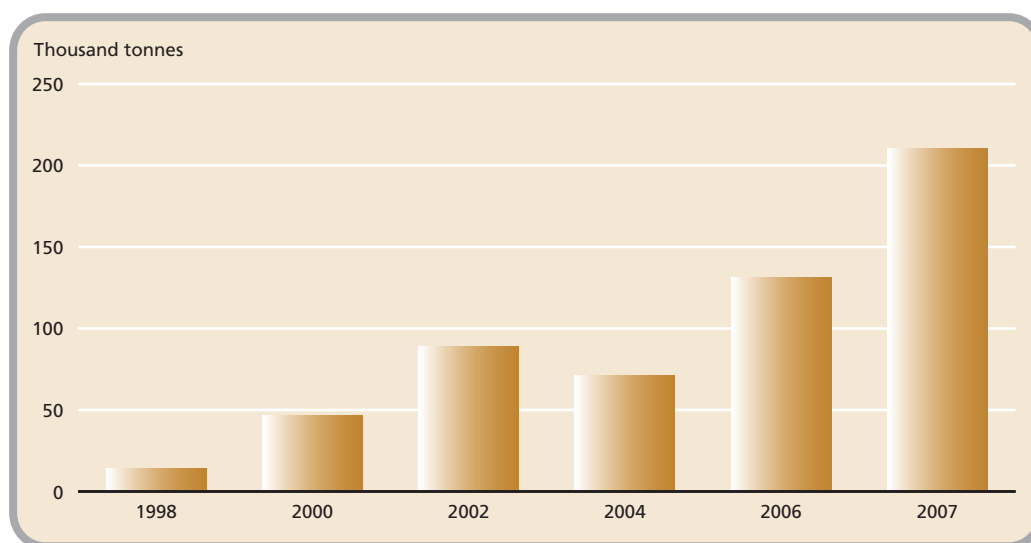
A. Imports and consumption

Europe is the world's largest market for organic products, accounting for half of global retail sales in 2006. According to Organic Monitor (2008), sales of fruit and vegetables certified to an organic and/or fair-trade standard exceeded €5 billion for the first time in 2007, with organic produce accounting for the bulk of this figure. Organic vegetables were the largest category, valued at €2.5 billion in 2007. The market share of organic and fair-trade fresh produce is particularly high in northern European countries. Organic Monitor (2008) estimates that over 5 percent of all fresh produce sold in countries such as the United Kingdom, Germany and Finland is now certified organic and/or fair-trade, while in Switzerland the market share has already exceeded 10 percent. Imports of fresh certified organic bananas into Europe were estimated to range between 130 000 and 140 000 metric tonnes in 2006. Preliminary estimates for 2007 indicate that they exceeded 200 000 metric tonnes. If this figure is confirmed, organics would account for over 4 percent of Europe's banana imports.

European imports of organic bananas have risen markedly since the late 1990s. They were multiplied by ten over the 8-year period 1998-2006. This compares with a 38 percent increase in total EU banana imports. The rise has been almost continuous, except in the year 2004 when output in the Dominican Republic, Europe's leading supplier at that time, was curtailed by the damage caused by a hurricane in late 2003 (Figure 13).

Over 95 percent of organic bananas are consumed in Western Europe. The leading consumption countries are the United Kingdom, Germany, France, Switzerland, Italy, Austria, the Netherlands and the Nordic countries. The market share of organic bananas in the EU-25 was estimated at over 3 percent in volume in 2007. Germany and the United Kingdom alone consumed nearly 100 000 metric tonnes in 2006, accounting for about three quarters of European consumption. Although the absence of data on retail prices makes it difficult to calculate the value of organic banana sales, it can be estimated in the order of €400 million (USD 590 million) in 2007.

The United Kingdom has become the largest market for organic bananas in Europe and the second largest in the world after the United States. Hinrichs (2007) estimates

Figure 13 - European imports of organic bananas, 1998-2007

UK consumption at 55 000 metric tonnes in 2006. This represents a market share of approximately 6 percent. Some UK retailers such as Marks & Spencer and Waitrose sell almost exclusively organic bananas. Over 10 percent of the bananas sold by leading supermarket chains Tesco and Sainsbury are reportedly organic. Sales continue to expand. According to industry sources, organic bananas accounted for 8 percent of the UK banana market at the end of 2007. This would translate into a volume of over 70 000 metric tonnes.

With retail sales of organic foods estimated at €5.4 billion (close to USD 8 billion) in 2007, **Germany** is by far the leading European organic market. Organics already account for over 3 percent of total food sales and the market grew by some 18 percent in 2007 (BioFach, 2008). The quantities of organic fruit and vegetables sold by retailers doubled in three years, reaching almost 250 000 metric tonnes in 2007 (Fruchthandel, 2008). Germany is the second largest market for organic bananas in Europe. Imports of organic bananas have risen rapidly since 2005, partly as a result of greater supply from Latin America. However, the estimates of their sales volumes vary substantially across sources. According to Fruchthandel (2007), sales doubled in 2006 to reach an estimated volume of almost 48 000 metric tonnes. However, Hinrichs (2007) has a slightly lower estimate of 44 000 metric tonnes for 2006. The 2008 annual report of the German organic NGO Bund Ökologische Lebensmittelwirtschaft (BÖLW) has an even higher estimate of 11 percent market share for 2006, which would represent well over 80 000 metric tonnes. Preliminary results by ZMP (personal communication, 2007) showed a further rise of 40 percent in the first quarter of 2007, leading to a market share of 9 percent, while BÖLW's report indicates a market share of 13.9 percent. The latter figure may be overestimated or may relate only to certain types of retail outlets. For the whole year 2007, Fruchthandel (2008) indicates sales of 57 000 metric tonnes based on ZMP data.

Although smaller than the United Kingdom and Germany, **France** is a relatively important market for organic bananas. Much of its imports arrive indirectly through other EU countries (in particular Belgium and the Netherlands). France sources organic bananas mainly from the Dominican Republic, Peru and Colombia, with smaller quantities of organic and fair-trade bananas originating from Ghana. A large share of these imports is indirect, with Belgium and the Netherlands playing the role of entry point.

Italy imports substantial quantities of organic bananas, but consumption is mainly concentrated in the Northern and Central regions. Italy's domestic production of organic fruits and vegetables is considerable (FAO, 2001b) and these products may compete with organic bananas.

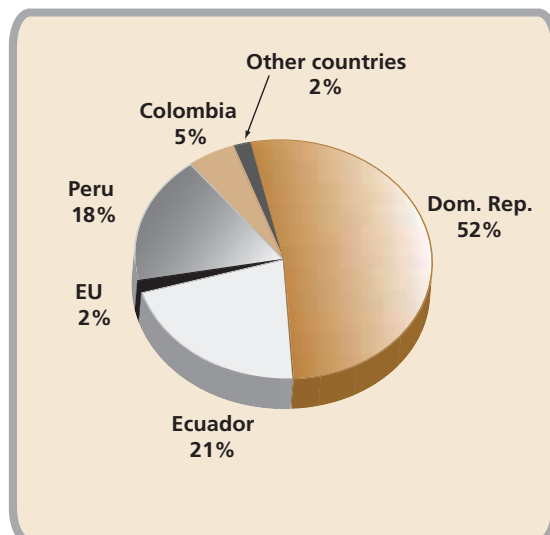
In spite of its relatively small population, **Switzerland** imports substantial quantities of organic bananas. It has the highest individual consumption of organic foods in Europe with an average of €102 (approximately USD 130) in 2006 according to ZMP (personal communication, 2008). Total retail sales of organics were estimated at close to USD 1.2 million in 2007, giving the sector an average market share of nearly 5 percent. The Swiss retail market is dominated by two large supermarket chains, COOP Switzerland and Migros, both of which make organic bananas widely available to customers in their stores. The price difference between conventional and organic bananas tends to be lower than in other European countries, making organic bananas relatively attractive to consumers.

B. Suppliers

Europe's main suppliers are the Dominican Republic, Ecuador, Peru and Colombia (Figure 14). The Dominican Republic was long its chief supplier, accounting for over half of its imports in 2006, but Ecuador took over the rank of leading supplier in 2007. In addition to these large suppliers, Europe also imports relatively small quantities of fresh organic bananas from sub-Saharan Africa (mainly Ghana, which ships some 2 500 metric tonnes of bananas under the double certification organic and fair-trade). Some of the overseas territories of EU member states produce organic bananas, notably the Canary Islands (Spain) where 50 hectares were cultivated organically in 2007 according to FruiTrop (2008). If the average local yield is applied this translates into a production volume of some 2 000 metric tonnes. The Portuguese island of Madeira in the northern Atlantic ocean also produces organic bananas but it was not possible to find data on the quantities harvested and sold. It is assumed that the quantities are low.

Organic bananas are imported into Europe by different types of firms: specialized organic importers (e.g. ProNatura and Brochenin in France; Eosta and AgroFair in the Netherlands; Organic Farm Foods in the United Kingdom), large conventional fruit importers (e.g. Fyffes, Dole and Pomona) and the specialized subsidiaries of some supermarket chains.

Figure 14 - Origins of organic bananas marketed in Europe (volume shares, 2006)



C. Prices

The lack of reliable data on prices for organic products in general makes it difficult to analyse the prices of organic bananas. There are virtually no data available on prices at import level. Surveys of importers have proven ineffective as firms consider price information as commercially sensitive. At wholesale level, data can be found for a few EU countries, but systematic data collection started only recently and the series are incomplete. Data on retail prices are very scarce and anecdotal.

Germany

Germany is the second largest market for organic bananas. ZMP, a German

Table 5 - Annual ranges of retail prices for bananas in Germany

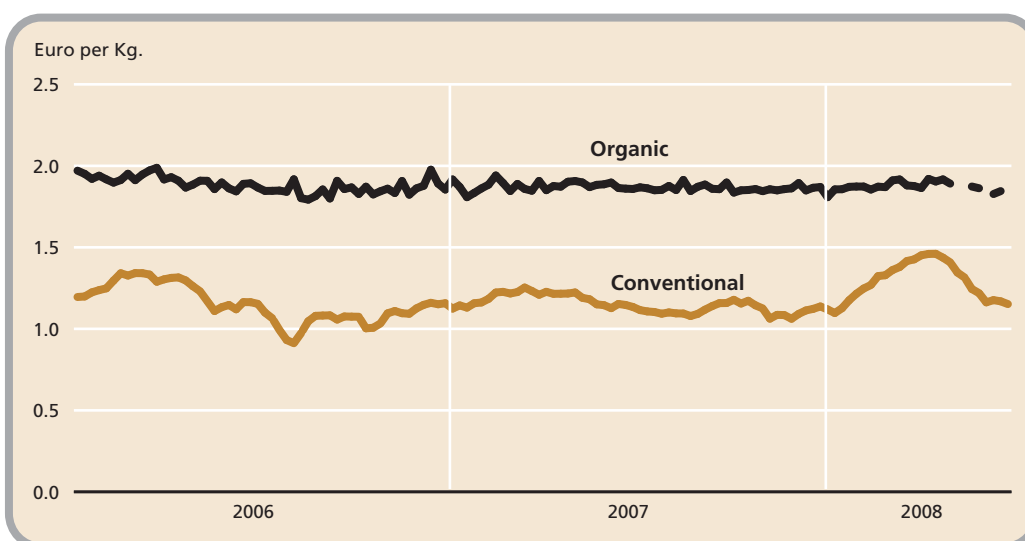
Year	Average organic price (€/kg)	Average conventional price (€/kg)	Organic price premium (%)
2006	1.88	1.15	63.3
2007	1.87	1.15	62.6
2008 (Jan.-Jun.)	1.87	1.29	45.5

Source: ZMP (2008)

firm that collects agricultural prices, has published wholesale and retail prices for some organic products including bananas in recent years. Data for the period 2004-2006 show that the rapid increase in organic banana imports into the German market was paralleled by a relative price decline. While retail prices ranged between €2.20 and €2.35 per kg in 2004, the range was only €1.8 to €2 per kg in 2006. However, prices seem to have stabilized since then, as illustrated in Table 5. They fluctuated moderately (+/- €0.1/kg) around €1.9/kg over the period April 2006-June 2008 and were much more stable than the conventional banana prices which ranged in the band of €1 to 1.5/kg (Figure 15). The organic price premium at retail level was around 63 percent over the period 2006-2007. However, it fell to 45.5 percent in the first half of 2008 as the price of conventional bananas rose while the organic price remained stable.

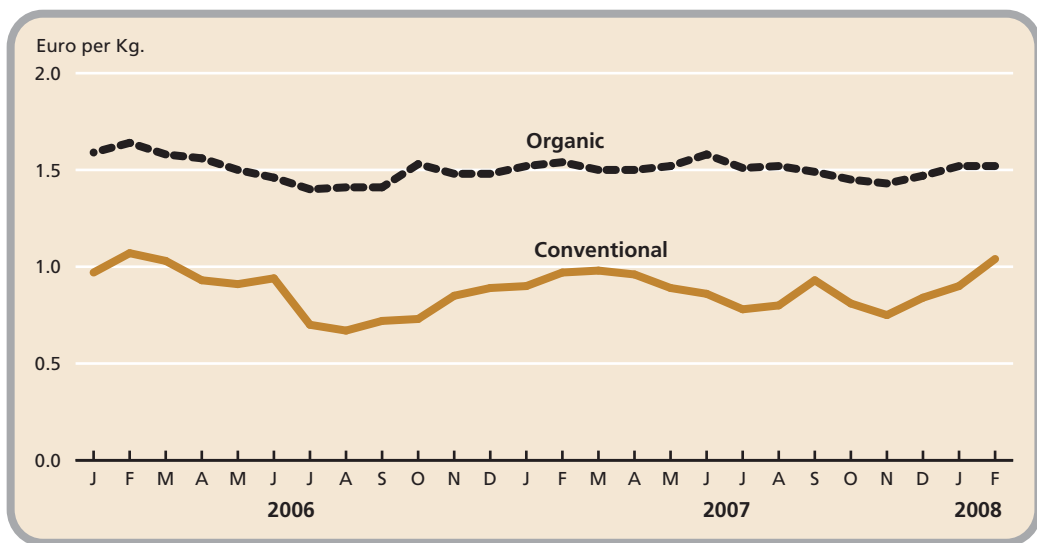
France

Although it is a smaller market than the United Kingdom and Germany, France consumes substantial quantities of organic bananas and its imports have been expanding rapidly in recent years. It is the only substantial European market where official prices for organic bananas at both wholesale and retail levels could be found over a significant period of time. These data are regularly collected and published by the French *Service des Nouvelles des Marchés* (Market News Service).

Figure 15 – Retail prices for organic and conventional bananas in Germany (January 2006-June 2008)

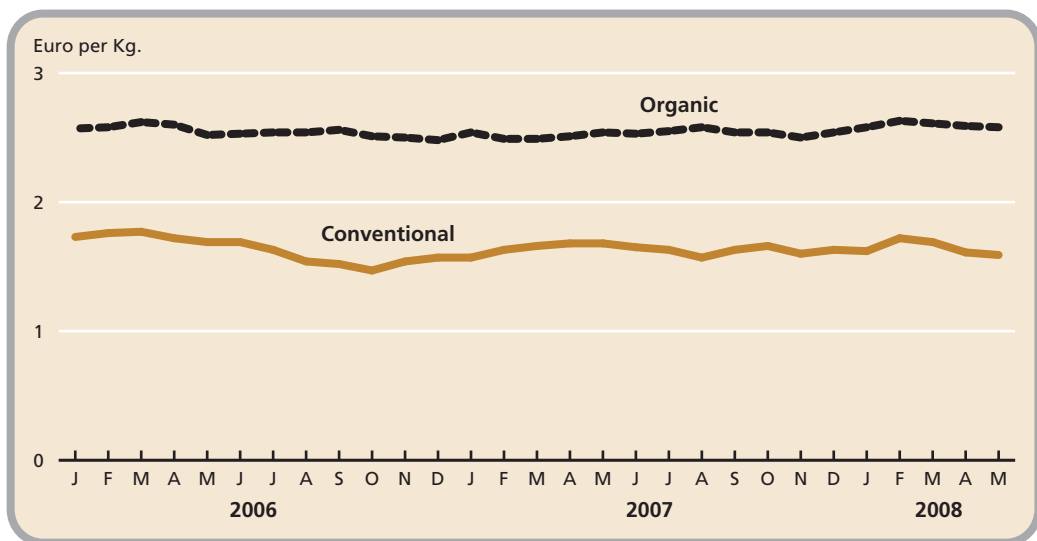
Source: ZMP (2008)

Figure 16 - Monthly wholesale prices for organic and conventional bananas in France (origin: Americas)



Source: Service des Nouvelles des Marchés (2008)

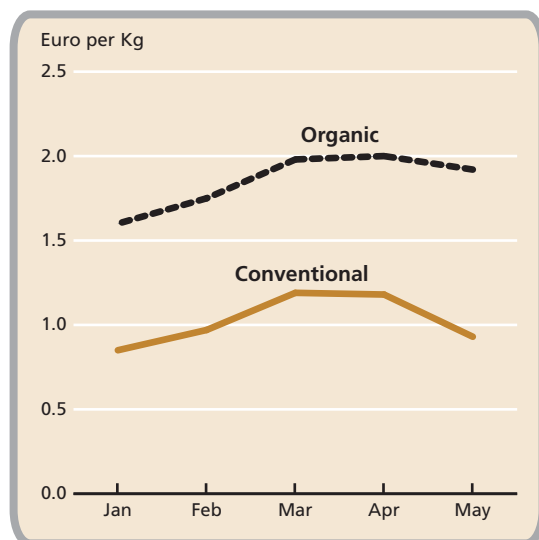
Figure 17 - Monthly retail prices for organic and conventional bananas in France (origin: Americas)



Source: Service des Nouvelles des Marchés (2008)

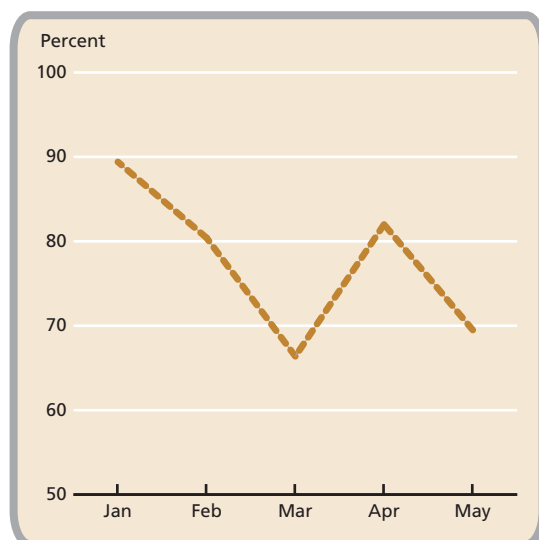
Figure 16 displays wholesale prices for organic and conventional bananas. Similarly to Germany, organic prices are more stable than conventional prices, which exhibit wide fluctuations. The average price premium was €0.63 per kg at wholesale level over the period considered. It grew from 76 percent in 2006 to 83 percent in 2007. The behaviour of prices at retail level is illustrated in Figure 17. Again, organic prices are more stable than conventional prices. The average retail price premium is €0.91 per kg, which is higher than the premium at wholesale level in absolute terms but not in relative terms. It rose from 56 percent in 2006 to 64 percent in 2007. In comparison with Germany, both the organic and conventional prices are higher in France. The organic price premium is also higher.

Figure 18 – Italy: monthly average wholesale prices of organic and conventional bananas (January-May 2008)



Sources: Chambers of Commerce of Bologna and Florence (2008)

Figure 19 – Italy: difference (percentage) between organic and conventional banana monthly wholesale prices (January-May 2008)



Sources: Chambers of Commerce of Bologna and Florence (2008)

Italy

Italy competes with France for the rank of third largest organic market in the European Union. Wholesale prices for organic and conventional bananas were found for the period January-May 2008 in the markets of Bologna (organic) and Florence (conventional). Figure 18 displays the average price of organic bananas imported from Colombia, the Dominican Republic, Peru and Ghana compared to the price of conventional bananas imported from various (unspecified) countries. The average difference over the 5-month period was €0.83/kg. Both prices vary in the same direction and, unlike in France, they have similar spreads. The organic price premium averaged 81 percent with a minimum of 65 percent and a maximum of 90 percent (Figure 19).

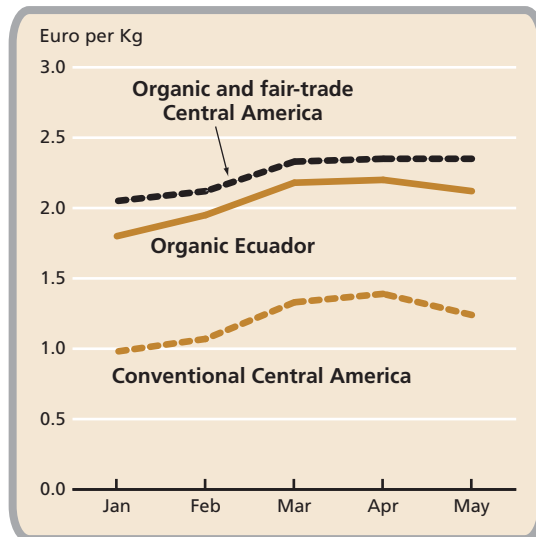
Figure 20 displays the average prices of double certified organic/fair-trade bananas and conventional bananas, both imported from Central America. The average difference over the 5-month period exceeded €1/kg, representing an organic price premium of 87 percent. Prices for organic bananas from Ecuador are displayed in the same graph. Unsurprisingly they are slightly lower than those of double-certified organic/fair-trade bananas. The difference, which varies between €0.1 and 0.2/kg, reflects the fair-trade premium and higher production costs in Central America.

C. Market prospects

Consumption of organic bananas is expected to increase further in Europe, especially in the European Union. With 27 member states and a population of nearly half a billion consumers with high average income, the European Union is

the world's largest market for bananas. It imported almost 4.7 million tonnes in 2007 from Latin America, Africa and the Caribbean, accounting for over one third of global banana imports. Several factors may contribute to raise its consumption of organic bananas. First, suppliers of organic bananas are expected to benefit from the liberalization of the EU banana import system. In January 2006, the European Union replaced its complex system of tariff quotas with a tariff-only system. Presently, there are no longer any quantitative restrictions on banana imports. As a result, banana imports have increased markedly since early 2006.

Figure 20 – Italy: monthly average wholesale prices of organic and conventional bananas from Central America and Ecuador

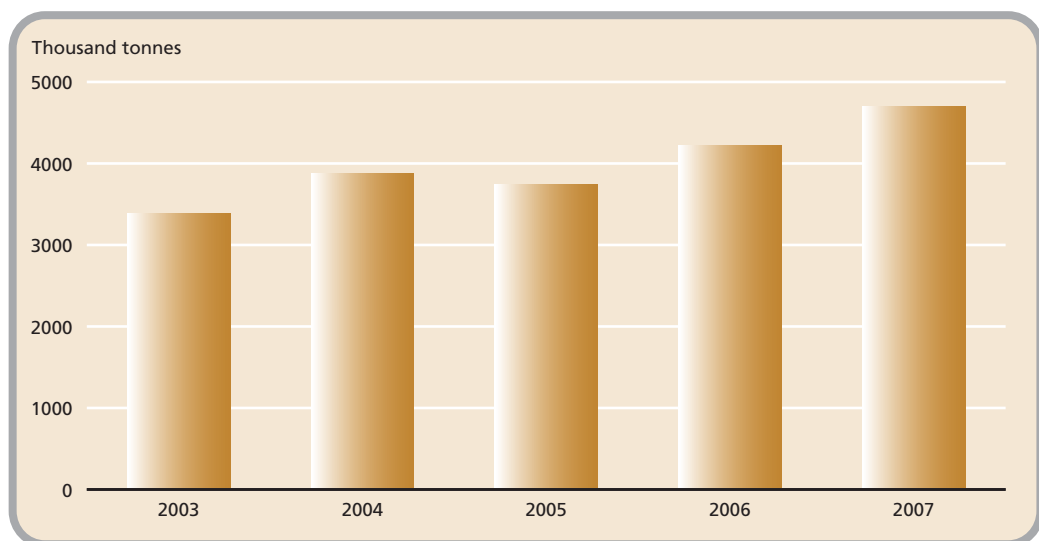


Sources: Chambers of Commerce of Bologna and Florence (2008)

In 2007, they were one million tonnes above their annual average for the period 2003-2005 (Figure 21)⁹. Organic bananas will benefit from the overall growth in banana imports. Another effect of the liberalization has been to raise their competitiveness *vis-à-vis* conventional bananas. In the tariff-quota system, banana traders had to obtain an import license in order to market their bananas in the European Union. Most of the licenses used to be allocated to the so-called “traditional operators”, who mainly imported conventional bananas, while organic banana importers received very few. As a result they had to purchase the licenses from traditional operators, and this raised the cost of organic bananas. With the removal of the import quotas, they no longer need to buy licenses and therefore organic banana have gained competitiveness with respect to conventional bananas.

The second factor is the rising purchasing power of consumers in the 12 new member countries following the enlargements of 2004 and 2007. In most of the recently-acceded countries the income per capita is well below the average of the older members, but it has risen rapidly since accession and is expected to catch up in the long term. Average per

Figure 21 - EU total net banana imports, 2003-2007



Note: EU-25 from 2003 to 2006, EU-27 in 2007

Source: Eurostat quoted in ECBTA (2008)

⁹ This rise also reflects the adhesion of Bulgaria and Romania to the European Union since January 2007.

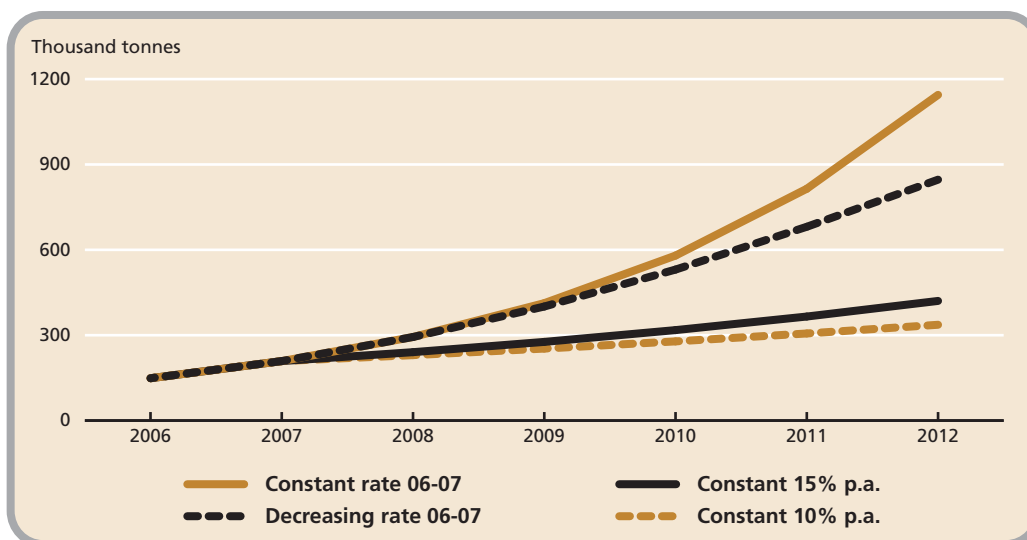
capita consumption of bananas is still relatively low in these countries (6.7 kg as opposed to an EU average of 11 kg). Their banana consumption has risen markedly in the past four years and the trend is expected to continue. Organic banana consumption is forecast to benefit from the general expansion as incomes increase.

The third factor is the general trend towards an increase in the market share of organic foods throughout the European Union. 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 USD 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 USD 60 billion in 2010 (Figure 10). The UK market research company Mintel revealed that, despite the credit crunch, it expected the organic market to grow 44 percent by 2012. A spokesman for the Soil Association mentioned that a 10 percent growth was expected in 2008 (Farmers Guardian, 2008). Market expansion will be fuelled by both conventional and specialized large-scale retailers. According to the International Federation of Organic Agricultural Movements (IFOAM), in 2006 more than half of all certified products were sold in mainstream supermarkets, which are widening their range of organic foods and even creating specialized stores. For instance, French retailer Carrefour has been developing a new chain of dedicated organic stores in shopping centres. The first shop with 24 m² of space and some 350 items was opened recently in Thionville, France. In addition, specialized organic supermarket chains have developed across all European countries. For example, a new Biocoop shop opens in France every week. The network had some 300 organic stores and organic supermarkets in 2008.

Growth is forecast to be particularly strong in the fresh produce category. Organic Monitor (2008) projects the market for organic and fair-trade fresh produce to double in the coming years. Organic fruit sales are predicted to overtake organic vegetable sales as more tropical and exotic fruit varieties are introduced. Organic fruit imports are set to expand as domestic production in the European Union is rising less rapidly than demand. Indeed, several European countries report declining areas of organic farmland. Rising prices of agricultural products are discouraging farmers to convert to organic practices. European retailers are developing global supply chains to ensure continuous supply of organic fruits and vegetables. Supply-demand imbalances are expected to continue as consumer demand for organic products rises. Organic bananas will doubtless benefit from rising consumer interest in health, nutrition and ecological issues. Their market share is still relatively low (some 3 percent), which means that there is room for further increase. Some organic fruits (e.g. apples) have a market share reaching up to 10 percent in some countries.

A fourth factor that may raise imports of organic bananas is the new regulation EEC 834/2007 governing the importation of organic foods produced outside the European Union which will enter into force in 2009. The new rules, in particular the new "equivalence certification" option, are expected to make it easier for non-EU organic producers to obtain certification against EU standards and therefore market their products as organic within the European Union.

Future European imports of organic bananas were projected using four different scenarios. In the first one, imports are assumed to continue growing at the high rate observed between 2006 and 2007 (+40 percent). Under this optimistic scenario they are projected to reach close to 1 200 000 tonnes in 2012 (Figure 22). In the second scenario this rate decreases annually to reach 20 percent in 2012, leading imports to reach slightly below 900 000 tonnes in 2012. In the third one, banana imports are assumed to grow at the annual rate observed for European sales of organic foods overall in recent years (15

Figure 22 - Projected EU imports of organic bananas to 2012

percent). Finally, the fourth scenario assumes a somewhat slower constant annual growth of 10 percent. Under this more conservative assumption European imports are projected to exceed slightly 300 000 tonnes.

Competitive positions of suppliers

It is difficult to determine which suppliers stand to benefit from the market increase, as there are countervailing factors at play. On the one hand, well-established Latin American suppliers, in particular Ecuador and Peru, are likely to take advantage of higher European demand. Their producers are competitive and efficient, and large areas are already in transition to organic cultivation in both countries. They have the US dollar as national currency or their currency is pegged to it. A further depreciation of the dollar against the euro would favour their exports to Europe. In addition, Peru has well-organized grower groups that are Fairtrade-certified such as the Red de Productores de Banano Orgánico Comercio Justo (REPEBAN). Colombia may also benefit, although to a lesser extent due to internal political problems and the relative strength of its national currency.

On the other hand, other countries benefit from preferential market access. The European Union applies a general tariff of €176 per tonne to banana imports. However, some groups of countries are exempted from this tariff. Bananas imported from any Least Developed Country (LDC) can enter duty-free without any quantitative restrictions in accordance with the EU's Everything But Arms initiative. Similarly, since January 2008 countries from the ACP group (Africa, Caribbean and the Pacific) which have signed an Economic Partnership Agreement (EPA) with the European Union can export their bananas duty- and quota-free. Since all the ACP countries that supply substantial quantities of bananas to the European Union have signed an EPA, in practice virtually all ACP bananas now have free access to this market. This provision favours especially the Dominican Republic and Ghana, which already export substantial quantities of organic bananas to the European Union. But other ACP or LDC suppliers could emerge.

However, it is not certain that ACP and LDC countries will be able to retain this tariff preference for a long time. Latin American countries that export bananas to the European Union have complained that the tariff of €176 per tonne is too high and constitutes an unfair discrimination. In the previous EU system, duty-free imports of ACP bananas were capped by a quota of 775 000 tonnes. Since this quota was removed in January 2008, Latin

American suppliers fear that ACP bananas will displace their exports to the European Union and insist that the tariff should be substantially reduced. Conversely, ACP countries oppose any tariff reduction on the ground that this tariff difference is needed to compensate for the lower competitiveness of their banana industries.

A tariff reduction under the WTO negotiations would raise the competitiveness of Latin American suppliers *vis-à-vis* ACP suppliers. However, within each of these groups there are wide differences across countries in terms of income per capita, level of economic development and competitiveness of the banana industry. While Latin American banana producers tend to be modern and efficient, there are exceptions (e.g. Nicaragua, Panama). Also, within the ACP group, some suppliers (e.g. the Windward Islands, Jamaica) have low competitiveness but others (e.g. Cameroon, Côte d'Ivoire, the Dominican Republic) have efficient producers. The fact that imports of ACP bananas exceeded the duty-free quota of 775 000 tonnes in 2006 and 2007 means that some ACP suppliers can compete even when they face the same tariff as Latin American suppliers. However, a substantial tariff cut would have a strong negative impact on the exports of several Caribbean suppliers and may even lead to their exclusion from the EU market.

In the meantime, panels established under the Dispute Settlement Body of the World Trade Organization have ruled that the EU import system modified in 2006 is not compatible with the rules of the General Agreement on Tariffs and Trade (GATT). The European Commission appealed the ruling in August 2008. Negotiations with Latin American suppliers to agree on a tariff reduction phased-in over several years had been very close to conclusion but stopped after the failure of the WTO Geneva Ministerial meeting to reach an agreement on the overall Doha Round negotiations at the end of July 2008.

Beyond the European Union, several emerging markets offer prospects for sales expansion. In Russia sales of organic foods have increased in the wake of economic development and rising purchasing power, especially in the supermarkets of the large cities (USDA, 2008b). Organic banana sales are bound to benefit from this expansion. Large Russian banana companies such as Sorus and Sunway are well-established in Ecuador. They could easily increase their organics imports into Russia.

Table 6 - 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	3 000-4 000
Total (estimated)	100 000

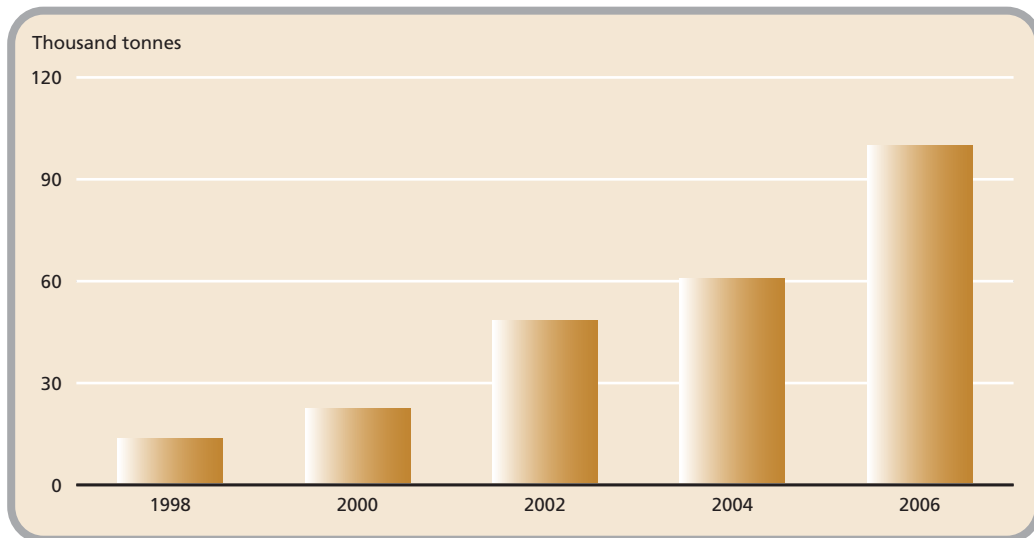
Sources: statistical departments for Peru and the Dominican Republic, industry for the other countries

2.3 North America

A. Current market situation

Bananas are by far the top North American fruit import with 14 percent of the total value of imports¹⁰. The United States is the country with the highest sales of organics. OTA (2008) estimates total retail sales of organic products in 2007 at some USD 21 billion. All organic bananas found on the North American market are imported since neither Canada nor the United States produces this fruit¹¹. Industry estimates for

¹⁰ USDA-FAS Database.

Figure 23 - North American imports of organic bananas

imports of fresh organic bananas in 2006 range between 80 000 and 110 000 metric tonnes. 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 (Table 6). As illustrated in Figure 23, imports have risen by almost 700 percent since 1998 when they were estimated at 13 000 metric tonnes (Sauvé, 1998). The rise was particularly strong between 2005 and 2006 as Ecuador, the leading supplier, doubled its shipments. Preliminary estimates for 2007 show no substantial rise in imports as the main suppliers directed the bulk of their shipments to Europe, where prices were more remunerative due to the strength of the euro. 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. Although the absence of data on retail prices makes it difficult to estimate the value of organic banana sales in North America, USD 130 million can be taken as a conservative estimate for 2007.

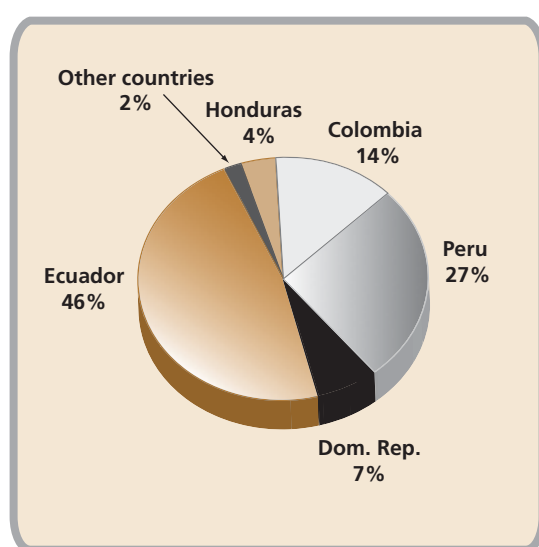
B. Suppliers and marketing channels

Ecuador has become by far the largest supplier to North America in recent years, accounting for almost half of total imports (Figure 24). Peru accounted for over a quarter of North American imports in 2006 and its shipments are set to rise further. Imports from Colombia have also expanded but less rapidly than those from Ecuador and Peru. The Dominican Republic is the world's second largest exporter of organic bananas, but it ranks only fourth among suppliers to North America, as the bulk of its production is exported to Europe. Although it was not possible to determine what quantities of organic bananas are imported from Mexico, it is estimated that these quantities are very low. Mexican organic banana production declined since the early 2000s and was estimated at less than 2 500 metric tonnes in 2005. There is no evidence that output has recovered since then.

In North America, organic bananas are mainly imported and distributed by Dole Foods ("Dole"), 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 its organic bananas are purchased from independent growers. In Peru, Dole

¹¹ Except a negligible quantity produced in Hawaii.

Figure 24 - Shares of suppliers in North American organic banana imports in 2006



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.

At least two major banana trading 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. Double certification is rising and offers particular market advantages.

C. Prices

According to a large import company, in 2006 the premium at FOB level was approximately 30 percent and selling prices at import level in the United States ranged between USD 14 and 18 per box. However, the lack of data on prices for organic bananas at import level makes it very difficult to draw general conclusions on import price premiums. No governmental or independent organization records the import prices of organic bananas, and companies will not disclose these data. 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 7 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.

Data on wholesale prices for organic bananas are available from some markets through the Agricultural Marketing Service of USDA (AMS). The wholesale markets of Boston and

Table 7 - Unit value of bananas imports into the United States (USD/MT)

Banana type	Organic	Organic	Conventional	Conventional	All banana imports
Country of origin	<i>Dominican Republic</i>	<i>Peru</i>	<i>Ecuador</i>	<i>Costa Rica</i>	<i>All</i>
2005	494	402	264	280	271
2006	562	478	291	293	287
2007	572	467	281	279	287

Source: Department of Commerce, US Census Bureau, Foreign Trade Statistics and USDA-FAS for 2007

Table 8 – Average wholesale prices of organic and conventional bananas in the United States

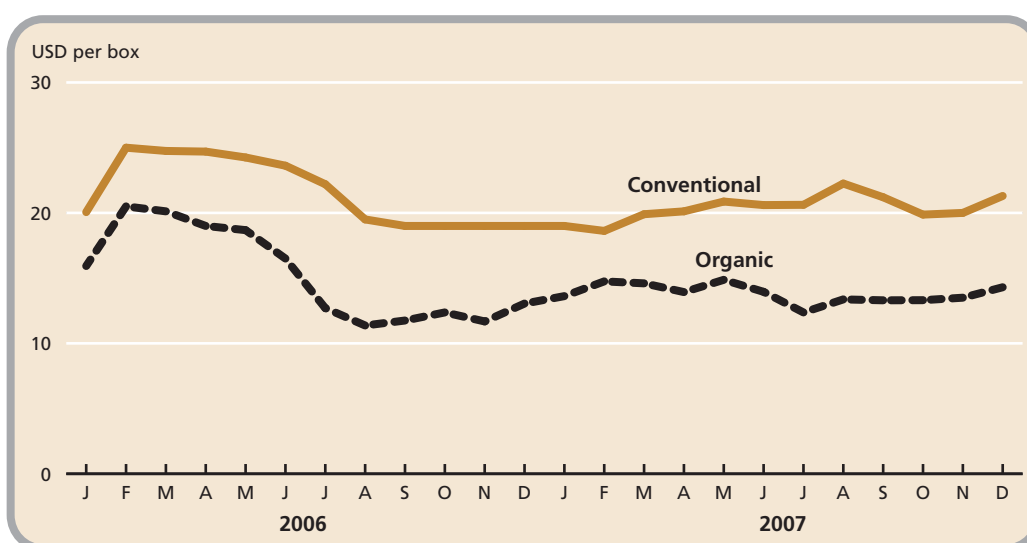
USD/box (18.14kg)	2005 Organic	2005 Conv.	D%	2006 Organic	2006 Conv.	D%	2007 Organic	2007 Conv.	D%
Boston	19	13	47	20	14	40	18	14	30
San Francisco	19	12	62	21	15	44	20	14	47

Source: USDA-AMS (2008). Figures are rounded

San Francisco have some of the most complete data sets and were chosen as they represent a large city on the East and West coasts. Over the period 2005-2007, the organic price premium at wholesale level was above 30 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 8). This decline in premium at wholesale level contrasts with the increase observed at import level.

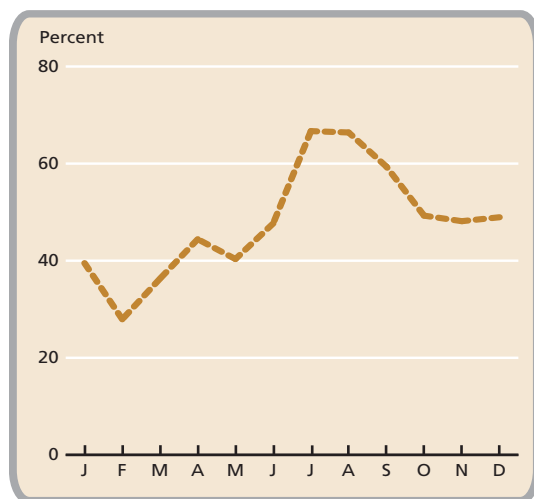
As illustrated by Figure 25, the wholesale prices of organic and conventional bananas usually vary in the same direction. Yet, organic prices tend to be more stable over time than those of conventional bananas. During the period 2006-2007 organic prices at the San Francisco wholesale market fluctuated in the band USD 19 to 25/box, while conventional prices ranged between USD 11 and 20/box. The organic price premium fluctuates markedly over time: it varied between USD 4.13 and 9.50/box in 2006 and between USD 4.10 and 8.90/box in 2007. In percentage terms, it ranged between 22 and 72 percent over the year 2007 (Figure 26). The summer peak of the premium may be explained by the fact that conventional banana prices usually drop during the summer when bananas face the competition of domestically-harvested summer fruits. Organic bananas may be less affected by this pattern.

It was not possible to obtain data sets on retail prices for organic bananas. Industry sources indicate that retail price premiums for organic bananas are usually between 10

Figure 25 - Average monthly wholesale prices for organic and conventional banana in the San Francisco market, 2006-2007

Source: USDA-AMS (2008)

Figure 26 - Organic banana price premium (in percentage) in the San Francisco wholesale market in 2007



Source: USDA-AMS (2008)

and 50 percent. These premiums are expected to decrease slightly as more major retailers and producers enter the market.

D. Market prospects for organic bananas in North America

North American organic banana imports have risen by 10 to 50 percent per year over the last five years. Although a deceleration was observed in 2007 and is expected in the next decade, growth is likely to remain robust, as bananas will continue to benefit from the overall expansion of the organic market. The North American market for organic foods shows the fastest growth worldwide, with yearly growth rates of approximately 18-20 percent (OTA, 2007). In 2006 it accounted for 44 percent of global revenues. In spite of signs of deceleration

due to the economic crisis, market expansion continues to be rapid in the United States. Di Matteo (2008) argues that between April 2007 and April 2008, sales of organic products (Wal Mart excluded) grew by 25 percent while those of conventional foods only rose by 4.4 percent and estimates that total organic retail sales reached USD 20 billion in 2007. Fresh fruit and vegetables lead the sales of organic foods. The Organic Center has claimed that organic produce accounts for nearly ten percent of retail sales of fresh produce, but this percentage may be overestimated. Several major fresh produce grower-shippers have recently announced ambitious programmes to convert all or most of their fruit and vegetable acreage to organic, assuming consumer demand continues to grow. The report argues that many fruit and vegetable farms are converting to organic agriculture methods, especially in the Western U.S. Concentration among organic retail chains and the rising involvement of conventional supermarkets will increase the efficiency of organic food distribution. This is likely to contribute to reducing retail prices and expanding organic sales.

In addition, it is possible that the expected further decrease of the import tariff on banana in the European Union will make this market more attractive and divert conventional 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 retail chains such as Whole Foods and Trader

Joe's in the United States and Planet Organic in Canada, provided the logistical challenges of shipping, ripening and distribution can be met.

2.4 Asia and the Pacific

The Asia-Pacific market for organic foods is still very small compared to the European and North American markets. It was estimated at close to USD 2 billion in 2007, accounting for some 5 percent of global retail sales. Japan is by far the main market, far ahead of Australia, New Zealand and the Republic of Korea. Nevertheless, sales of organic foods are growing markedly in some emerging economies such as Malaysia, China and Thailand.

A. Current market situation

Organic bananas are imported in several countries of the region, in particular Japan, Singapore, Republic of Korea and New Zealand. However, the volumes are very small in all countries but Japan. Australia produces small quantities of organic bananas for its domestic consumption but does not import any. The Australian Government prohibits imports of fresh bananas on phytosanitary grounds. Thailand reportedly produces small quantities of organic bananas, mainly for domestic consumption and export to neighbouring countries. The Republic of Korea imports small quantities (less than 1 000 metric tonnes annually) from South America. The remainder of this section focuses on Japan owing to its importance in the Asian banana market.

Japan is a large market for organic foods but there is a lack of statistical data on these products. Estimates of organic food retail sales in 2006 range between USD 1.2 and 1.5 billion. It is difficult to provide a precise figure for the value of the organic banana market in Japan due to the lack of price data, but retail sales were likely to be in the order of USD 50 million in 2006. A study carried out by IFOAM Japan on behalf of the World Bank, RUTA and FAO (World Bank, 2004) estimated that Japan imported some 18 000 metric tonnes of organic bananas in 2002. However, due to the high rate of fumigation imposed on phytosanitary grounds at the port of entry, only an estimated 9 000 metric tonnes were sold with the organic label (fumigated fruits automatically lose their organic status). The Japanese import market of organic banana is dominated by Hiro International Co. Ltd, which imports mainly from the Philippines. Daabon Organic Japan Co. Ltd is another leading importer of organic bananas. It is a subsidiary of the Colombian organic producer and exporter Grupo Daabon. Kyoko Foods is a wholesaler that purchases organic bananas from Hiro International. These importers and wholesalers distribute organic bananas to supermarkets, organic specialty retail shops, consumer cooperatives, and distributors specialized in organic products. In 2004 Kyoko Foods declared that it handled an average of approximately ¥3.5 million (wholesale price to retailers) worth of organic bananas from the Philippines monthly. In terms of quantity, they purchased 10 000 tonnes from Hiro International in 2002, 7 410 tonnes in 2001 and 6 760 tonnes in 2000.

B. Suppliers

The main country supplying Japan in organic bananas is the Philippines, which is also by far its largest conventional banana supplier, accounting for some 80 percent of total imports. Imports from the Philippines account for over half of total organic banana imports. They are difficult to estimate, as Japanese customs statistics do not distinguish organic from conventional bananas. Moreover, it was not possible to obtain data on organic banana exports from the Philippines. Based on the above study, it can be estimated that the volume of imports ranged between 10 000 and 15 000 metric tonnes in 2004, although the volume of bananas marketed with the organic label was probably in the range of 5 000 to 8 000 metric tonnes due to the high fumigation rate as mentioned above. Based on discussions with a Philippine exporter, it is assumed that exports have remained unchanged since then and ranged between 10 000 and 15 000 metric tonnes in 2007 (Table 9).

Table 9 - Estimated exports of organic bananas to Japan in 2007

Country of origin	Exports to Japan (MT)
Colombia	3 000
Dominican Republic	300
Peru	8 000
Philippines	10 000-15 000
Mexico	1 000-2 000
Total	22 000-28 000

Sources: exporters for Colombia, Dominican Republic and Peru; author's estimates for the Philippines and Mexico

Note: according to Japanese importers, about 50 percent of the bananas are fumigated at the port of entry and therefore lose their organic status

Other suppliers of organic bananas to Japan include Peru, Colombia, Ecuador and the Dominican Republic. On average, Colombia's exports to Japan oscillated between 2 000 metric tonnes and 3 000 metric tonnes in the period 2004-2007. While the Dominican Republic was a leading supplier of organic bananas to Japan in the early 2000s, its deliveries have contracted and fell to some 300 metric tonnes in 2007. Conversely, Peru's shipments have risen steadily since 2003, making this country Japan's second largest supplier, with approximately 7 000 metric tonnes in 2007. Imports from Ecuador were estimated to range between 2 000 and 3 000 metric tonnes. Mexico was Japan's second largest source of organic

bananas in the early 2000s. The Japan Banana Importers Association (2006) reported total imports from Mexico of 2 610 metric tonnes in 2005 and 2 832 metric tonnes in 2006. However, these figures include conventional bananas since Mexican organic banana production in these years was estimated at less than 2 500 metric tonnes.

C. Prices

In the above mentioned study, IFOAM Japan surveyed approximately 80 large and medium-size supermarket stores, as well as 12 to 15 department stores and independent retailers that carry organic foods in the Tokyo area. Product prices were compared in each store by direct observation. Interviews on pricing strategies were conducted with staff from the purchasing department of the major supermarkets.

The survey found that organic bananas were available at 10 stores, ranging from ¥40 to ¥76 per 100g. The average price of organic bananas was ¥587 per kg, compared to ¥505 for conventional bananas. The organic premium of bananas was therefore 16.2 percent (Table 10). Examining the value chain, IFOAM Japan found that margins for bananas are 30 percent for the retailer and 10 percent for the wholesaler. The importer charges around 60 percent of the final retail price.

D. Prospects for organic bananas

The fresh banana market in Japan is expected to remain unchanged in the near future. If certified suppliers respond quickly to the recent boom of safe and reliable food, as well as to the heightened interest in health issues, the demand for certified organic bananas could rise, provided that their prices remain moderate. Nonetheless,

fumigation seems to be an obstacle, especially in the case of Organic JAS bananas, as more than half and up to all of the shipments could be fumigated, which implies that the products lose the Organic JAS status at the port of entry. The importers and wholesalers interviewed during the above mentioned study reckoned that organic bananas are fumigated at

Table 10 - Retail prices of imported organic and conventional bananas in Japan (2004)

Organic retail price	Conventional retail price	Premium (%)
¥587/kg	¥505/kg	16.2

Source: WB/FAO/IFOAM Japan 2004

a rate of around 50 percent¹². All of them considered that fumigation is an issue that needs to be resolved in order to promote organic banana imports. Their overall outlook on the future of this market was not very optimistic.

From the perspective of suppliers, an expansion of the Japanese market would primarily benefit the Philippines, due to its proximity and the trade links established with Japanese companies. Latin America is at a disadvantage in terms of distance and transportation costs, especially in competing with the Philippines and Taiwan Province of China. However, Ecuador, which is the second largest conventional banana exporter to Japan, is able to supply the Japanese market due to its low production costs that partly compensates for its high transport costs.

Beside Japan, other Asian countries may provide market outlets for organic bananas. The Republic of Korea has a sizeable market for organic products. Total sales were estimated at USD 318 million in 2007 and imports at USD 43 million (USDA, 2008b). Its current imports of organic bananas are very low, indicating a strong expansion potential. In the medium term, emerging economies such as China, Thailand, Malaysia and Viet Nam will raise their consumption of organic bananas. However, it is not certain that the expected rise in consumption will be met by imports as these countries have strong domestic production potential.

¹² Although one importer reported that 99 percent of the organic bananas that they imported were fumigated, several others indicated that the rate at which organic bananas are fumigated is around 50 percent.