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# BANANA

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## 1. Introduction

### 1.1. Sources and history of the first trading

#### 1.1.a. Sources

The banana plant originated from South-East Asia and has been cultivated for nearly 10,000 years. The first traces, which date back to 7 000 B.C., were found in Papua New Guinea<sup>1</sup>. This giant herb belongs to the Monocotyledon class and the Musaceae family. In its original wild state, the wild banana plant was reproduced by seeds. The wild plant can still be found today in the Philippines, Papua New Guinea and Indonesia. Natural banana crosses have produced extensive genetic varieties. These crosses have given rise to seedless varieties, which have advantageous nutritional qualities for humans<sup>2</sup>.

Over time, the banana has travelled by means of human migration with three phases of distribution: initially from South-East Asia and Papua New Guinea toward the Indian Sub-Continent, Africa, the Pacific and the Americas by population movements; then in the 15<sup>th</sup> Century by Arabian or Persian merchants from South-East Asia to the Middle East, Near East and then Africa and Europe; and finally, from the 16<sup>th</sup> Century, to the Caribbean islands and the New World by European explorers, colonists and missionaries<sup>3</sup>.

#### 1.1.b. History of the first trading

The export dessert banana was one of the first fruits marketed worldwide, appearing on the European and North American markets in the early 19<sup>th</sup> Century, from the Caribbean. The rise of the banana trade is explained firstly by the improving logistical chain, particularly transport conditions (rapidity, refrigeration), and the invention of the post-transport ripening techniques. Secondly, it was primarily the efforts of the many pioneers and adventurers who embarked in the production, transport and marketing of the dessert banana from 1870 to 1900 which brought it to prominence in North America.

In Europe, the first commercial banana cargo arrived in London from the Canaries in 1888, for the company E.W. Fyffe Son & Co. In 1890-1892, this company handled the transport and marketing of the banana to the United

Kingdom and other European countries on a regular basis<sup>4</sup>.

### 1.2. Cultivation; harvesting; processing; from transport to consumer

#### 1.2.a. Dessert banana cultivation

For its development, the banana plant requires temperatures of between 25°C and 40°C, a high level of sunshine and regular irrigation (approximately 180 mm of precipitation per month), corresponding to the climate conditions of the wet tropical zones.

In most cases the export banana is planted in **intensive monoculture** systems, where the farmer must maintain soil fertility, and manage diseases and parasites<sup>5</sup>.

However, the intensification of cultivation systems, as practiced nowadays, i.e. by making extensive use of fertilisers and pesticides, has proven impacts on the environment and humans: reduced soil fertility, overexploitation of soil, pollution, etc. Awareness of these negative impacts has led to gradual modification of cultivation systems in certain production regions, such as the French West Indies. Since the 1990s, the principles of agro-ecology have promoted rational agriculture, aimed at reducing use of fertilisers and pesticides, either by biological management (trapping pests, fallow remediation, etc.), or by implementing agricultural practices promoting biological regulation (service plants). The objective is **sustainable** banana production, i.e. profitable for the producer, economic in terms of natural resources, environmentally friendly and socially acceptable.

#### 1.2.b. Harvesting

The first production cycle of a banana plant comes at 9 to 12 months, depending on the climate zones. The bunches are harvested based on the fruit size and a benchmark interval between flowering and cutting: the cutting point is determined based on a sum of temperatures (expressed in degrees-days) above the threshold of 14°C (Cavendish banana vegetative zero) from flowering to the "¾ full standard" stage (which is the commercial benchmark). A difference of a few days to a few weeks may be observed, depending on the production zones and plantation altitude<sup>6</sup>.

<sup>1</sup> LASSOUDIÈRE A. (2010). *L'histoire du bananier*, Editions Quae, France. LASSOUDIÈRE A. (2010). *L'histoire du bananier*, Editions Quae, France.

<sup>2</sup> LESCOT T. (2015). «Genetic diversity of the banana», *Fruitrop*, 231: 98-102.

<sup>3</sup> CHAMPION J. (1963). *Le Bananier*, Editions G.-P. Maisonneuve et Larose, France.

<sup>4</sup> LASSOUDIÈRE A. (2010). *L'histoire du bananier*, Editions Quae, France.

<sup>5</sup> LASSOUDIÈRE A. (2007). *Le bananier et sa culture*, Editions Quae, France.

<sup>6</sup> Banana interprofessional association (AIB), (2014). «Fiche 2: Éléments constitutifs de la qualité de la banane», Recueil de fiches de qualité de la banane. CIRAD, France.

### 1.2.c. Packing / Processing

For export, bunches are cut and transported to the packing stations while still green, where the hand fragments are prepared and then packed into boxes. The base unit of the world banana trade is the 18.5-kg net box (US crate unit). However, there are other types of packaging which are made to customer requirements: trays, mini-packs, pre-packed bananas, or individual<sup>7</sup>.

The sorting rejects of fruits intended for export may be re-used for local consumption or livestock feed. However the bulk of the processing sector involves other types of banana.

### 1.2.d. From transport to consumer

Bananas are exported entirely by sea-freight between the production zones and destination markets, in ships with refrigerated holds, or in refrigerated containers. The main parameters checked during transport are temperature (between 13 and 13.5°C) and moisture. We can also find containers with controlled or modified atmospheres.

On arrival at the destination ports, the boxes of bananas, still green, are stored in ripening centres where the maturation process will be reproduced: the temperature is raised, regulated and stabilised between 16 and 18°C, and a gaseous mixture of ethylene and nitrogen is injected into the atmosphere to trigger maturation. After a few days (4 to 6 days, depending on the market requirements), yellow bananas will be available for the market. They will complete their maturation process between the distributor and consumer<sup>8</sup>.

### 1.3. Varieties; quality standards; classification

For millennia, migrations of people and plant material trade have placed the banana plant in very different ecological contexts across all the continents. Farmers have been able to harness natural mutations resulting from vegetative multiplication. It is this combination of natural reproduction and human selection which is behind the current genetic diversity<sup>9</sup>.

From a botanical point of view, the banana plant is divided into inedible fruit species, which can be used for purposes other than human nutrition (fibre, livestock feed, etc.), and fleshy seedless fruit species (known as parthenocarpic). So the latter have only vegetative

multiplication to reproduce. This group contains diploid cultivars (AA and AB) and triploid cultivars (AAA, AAB and ABB)<sup>10</sup>:

- The diploid groups AA and AB encompass varieties such as Figue Sucrée or fressinette. There are 290 listed cultivars, mainly in South-East Asia.
- There are three triploid groups:
  - The triploid group AAA comprises the **dessert banana varieties used for export**: Gros Michel, Figue Rose and Cavendish sub-group (more than 20 cultivars), etc.
  - The triploid group AAB comprises cooking **banana** varieties, such as plantains (more than 150 cultivars) and other cooking cultivars.
  - The triploid group ABB comprises hardy, **robust** cooking banana varieties (e.g.: Bluggoe or Cacambou, Saba, Pisan Awak or Fougamou, Pelipita, etc.).

### 1.4. Uses

Dessert banana plants have been cultivated for centuries by all populations in wet tropical regions, which have used their fruits as a daily staple - and continue to do so. Ripe fresh fruits are consumed as a dessert, and are also in general use as dessert ingredients. They represent the bulk of today's world banana trade.

However, we should note the various uses assigned to other banana varieties not intended for export. For example, cooking bananas such as the plantain may be fried (chips), boiled or dried. Similarly, in East Africa, banana plants have been cultivated for centuries for traditional beer making. They are also used in flour preparation and bread making (green plantain banana, cut into slices, heat dried and pulverised), purées, powders and juices, nectars, wines and alcohols.

Furthermore, the fresh vegetative parts, floral parts or even fresh fruits of the banana plant are used for animal feed.

Varieties unfit for human consumption have been used for their fibres: the fibre extracted from leaf seeds used to be used to make rope for sailboats. However, the fibres extracted from leaves are of lower quality during the harvesting stage.

Finally, banana plants may also have a purely ornamental function.

<sup>7</sup> Banana interprofessional association (AIB), (2014). «Fiche 3: De la station de conditionnement au quai d'arrivée», *Recueil de fiches de qualité de la banane*. CIRAD, France.

<sup>8</sup> Banana interprofessional association (AIB), (2014). «Fiche 4: En mûrisserie», *Recueil de fiches de qualité de la banane*. CIRAD, France.

<sup>9</sup> LESCOT T. (2015). «Genetic diversity of the banana», *Fruitrop*, 231: 98-102.

<sup>10</sup> LASSOUDIÈRE A. (2010). *L'histoire du bananier*, Editions Quae, France.

## 1.5. Fungal diseases and pests

### 1.5.a. Main fungal diseases

The most harmful of fungus-induced diseases in banana plantations are the very widespread sigatokas and banana wilt<sup>11</sup>.

#### *Sigatokas*

There are two distinct Sigatoka varieties, yellow and black (black leaf streak disease). They are caused by fungi which destroy the plant foliage. The disease appears in the form of elongated little black streaks which very rapidly transform into necroses which can completely destroy the leaves. This leads to decreased yield and advanced maturation of the fruits, which become unmarketable. Sigatokas can be found in nearly all production zones.

#### *Banana wilt (Panama disease)*

Panama disease is active in nearly all banana production zones. It is caused by a soil and root fungus *Fusarium oxysporum sp. cubense* (FOC) which asphyxiates the plant, rendering it incapable of taking nutrients and water from the soil. It is a persistent fungus which remains in the subsoil for more than 30 years. Panama disease comprises of five different races which can cause extensive damage under certain conditions (soil, climate, intensified cultivation, drainage, etc.), making banana plants practically unproductive.

**Race 1**, the best known, was behind the gradual disappearance of the Gros Michel variety in the Caribbean and Latin America in the 1940s and 1950s. Gros Michel was then replaced on industrial plantations by a resistant varietal group, Cavendish, which currently makes up the bulk of world trade.

**Race 2** affects the Bluggoe sub-group (cooking banana), **race 3** affects Heliconia (ornamental plant) and Gros Michel, while **race 4**, present since the 1930s on the Canaries, sporadically attacks varieties of the Cavendish sub-group under certain environmental stress conditions, in subtropical zones only (Canaries, South Africa, Taiwan, Australia).

Finally, **TR4** (tropical race 4), which appeared in the 1990s in South-East Asia (Taiwan, Indonesia, Malaysia, Southern China, Australia and the Philippines) attacks the Cavendish group under all tropical and sub-tropical conditions. This race was also detected in Jordan in 2006, and then the Middle East in 2012-2013 (Oman, Lebanon), and for the first time on the African continent (Mozambique in 2013), on Cavendish industrial

plantations. There is concern over the risk of this serious disease extending to all the big African production zones, as well as those in Central and South America, the heart of world dessert banana exports<sup>12</sup>.

As with many soil pathogens, management methods are limited, consisting primarily in a more or less long quarantine of larger outbreaks. Crop science research is not very active regarding this disease, which is complicated to study. Management methods, which are not specific to banana cultivation, are very limited. Conventional genetic improvement remains an important avenue, but is still under-explored.

Other known fungal diseases include anthracnoses, root rots, cladosporioses and cigar-end disease. However, there are existing practices for managing them effectively.

### 1.5.b. Pests

Pests such as **nematodes** (banana plant root parasites) or the **black banana weevil** (*Cosmopolites sordidus*) disrupt the plant's intake mechanisms and consequently cause reductions in yield, weaken the plant rooting and in severe cases can cause plants to topple. Besides conventional chemical treatments, use of healthy plant material (vitroplants) on a purified soil (fallow) limits nematode development, and new pheromone-based weevil trapping techniques are also available.

In agro-industrial cultivation, pesticide applications are still common, and pose major sanitary risks for the environment and worker health. For this reason and despite their effectiveness, their use is increasingly restricted in favour of alternative management techniques such as setting up "rational control" or creating new resistant hybrid varieties.

### 1.5.c. Bacterial and viral diseases

Bacterial diseases such as **Moko disease** can spread via the soil, plantation tools or the insects visiting the flowers or scars. They cause the three youngest leaves to wilt, and the death of the banana plant. There are no resistant varieties or means of chemical management. Only eradication along with quarantine can produce results. It is present in the Americas, and since 1968 in the Philippines.

Other **viral diseases**, such as mosaic or Bunchy Top (though less well-known), cause variable economic losses to both industrial and village plantations. The only existing means of managing viral diseases is by controlling the vector and using healthy stock. The procedure followed is based mainly on healthy plant stock, and low grassing of plantations, to limit favourable

<sup>11</sup> CIRAD (2015). «Banana diseases and pests», Fruitrop, 231: 85 – 97.

<sup>12</sup> LESCOT T. (2015). «Banana: Concern about Panama race 4 disease», Fruitrop, 231: 68.



breeding sites for aphid populations. There are no banana plants resistant to these diseases, or immediate curative means besides eradication after a viral attack.

### 1.6. Environmental and social impacts

The export banana is produced in numerous countries, across Africa, Latin America, the Caribbean and Asia, which make intensive use of inputs, particularly pesticides, paradoxically in a context of growing demand from society for reduced use of pesticides and increased protection for industry players (agricultural labourers, producers and consumers) and the environment.

Powerful, often negative externalities, such as depletion of natural resources, the need to take better account of social impacts and society demand for product safety and preservation of the environment and human health, are raising doubts as to the environmental, social and economic sustainability of production systems.

From a social viewpoint, the banana industry can represent a positive externality in terms of job creation in rural zones, revenue distribution, development of infrastructures (roads, water supply, etc.) or services (health, education, etc.) which benefit local populations, etc. Finally, it plays a major role in food security of local populations, for whom the banana is part of their daily diet. Finally, the presence of the companies may prove beneficial for the local development of these zones.

Work is in progress under the World Banana Forum (WBF)<sup>13</sup> for decent wages for banana plantation labourers.

### 1.7. Nutritional qualities

Bananas are a rich source of vitamins and minerals. It is also rich in fibres and carbohydrates, and low in fats. Bananas contain minerals such as potassium, phosphorus, calcium, magnesium, sodium, iron, copper, zinc and manganese. It also contains dopamine, a powerful antioxidant, and all the B group vitamins present in the plant kingdom<sup>14</sup>.

Thus bananas contribute to the proper functioning of energy metabolism and the nervous system and to maintain of good digestive transit<sup>15</sup>.

<sup>13</sup> World Banana Forum (WBF): <http://www.fao.org/economic/worldbananaforum/wbf-aboutus/en/#.VafNwaTtIBc>

<sup>14</sup> Banana interprofessional association (AIB), (2014). «Fiche 1: La banane en chiffres», Recueil de fiches de qualité de la banane. CIRAD, France.

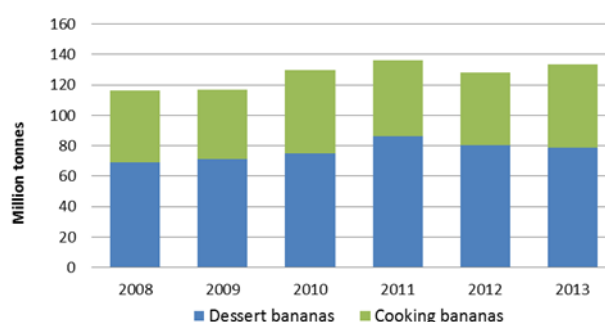
<sup>15</sup> Ariefel, 2015 : <http://www.aprifel.com/fiche-nutri-produit-allegations-banane,24.html>

## 2. Supply

### 2.1. Production

In 2013, as Figure 1 shows, world banana production amounted to nearly 134 million tonnes. Approximately 40 per cent (i.e. nearly 55 million tonnes) were cooking banana varieties (plantain and other types), and 60 per cent (approximately 79 million tonnes) dessert banana varieties (Cavendish, Gros Michel and others)<sup>16</sup>. Banana is a staple part of the diet of various populations across the world. Banana production has grown rapidly, registering a performance of +15 per cent since 2008.

Figure 1: World banana production, million tonnes, 2008-2013



Source: Lescot T., Cirad, FAO

### 2.2. Top 10 producers

Banana cultivation is nowadays present across the globe, in tropical and subtropical regions. The main production zones are located in Asia, representing 44 per cent of world volumes, followed by Africa (25 per cent) and Central and South America (22 per cent). Top ten producers are given in Table 1.

Table 1: Estimated banana production (dessert and cooking), tonnes, 2013

	Total production	Dessert bananas	Cooking bananas
World total	133 691 965	78 860 773	54 831 192
India	27 575 000	17 075 000	10 500 000
China	12 075 238	11 506 238	569 000
Uganda	8 926 308	500 000	8 426 308
Philippines	8 645 749	5 790 091	2 855 658
Brazil	6 892 622	6 402 622	490 000
Ecuador	6 739 739	6 145 527	594 212
Colombia	5 405 365	2 587 625	2 817 740
Indonesia	5 359 115	3 289 115	2 070 000
Rwanda	3 263 462	250 000	3 013 462
Nigeria	3 222 000	315 000	2 907 000

Source: Lescot, 2015; based on FAO data

<sup>16</sup> Lescot, 2015; based on FAO data



Table 2 shows top ten producers of the dessert banana, with Mexico, Costa Rica and Guatemala among the top producers.

**Table 2: Top 10 dessert banana producers, tonnes, 2013**

India	17 075 000
China	11 560 238
Brazil	6 402 622
Ecuador	6 145 527
Philippines	5 790 091
Indonesia	3 289 115
Colombia	2 587 625
Guatemala	2 210 000
Costa Rica	2 010 000
Mexico	1 887 772

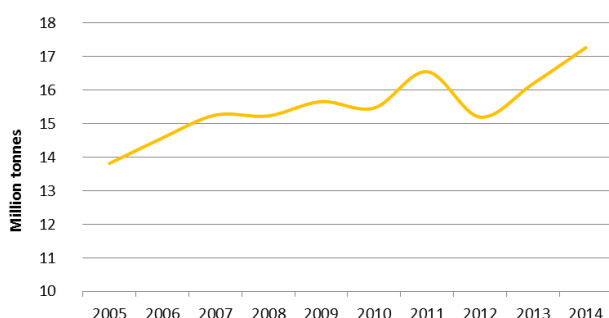
Sources: Lescot, 2015; based on FAO data

### 2.3. Exports

Banana is the number one fruit traded in the world in terms of quantities, ahead of the apple or citrus groups. However, self-consumption by local populations remains the main outlet for banana production: this figure is estimated at 85 per cent of dessert and cooking banana volumes produced in the world.

Hence exports represent only 15 per cent of world production. In 2014, more than 17 million tonnes of dessert bananas were exported, mainly in the Cavendish variety, as opposed to only 900 000 tonnes of cooking bananas. **Considering the supremacy of dessert bananas in world trade this document will deal only with the export dessert banana.** Banana exports in the past 10 years are represented in Figure 2.

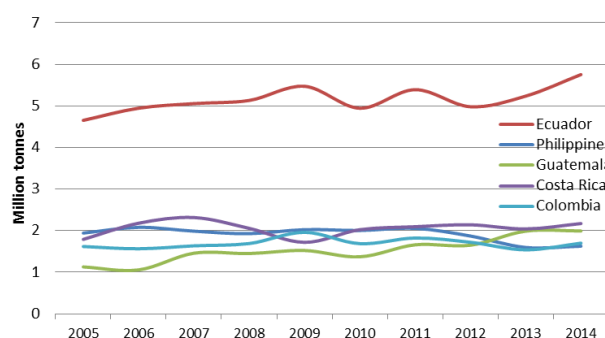
**Figure 2: World dessert banana exports, million tonnes, 2005-2014**



Sources: National customs, tradmap, Sopisco

The dynamic world trade remains as positive as production, registering steady growth. Exports have risen by more than 3 million tonnes over the past 10 years.

**Figure 3: Exports by major banana exporters, million tonnes, 2005-2014**

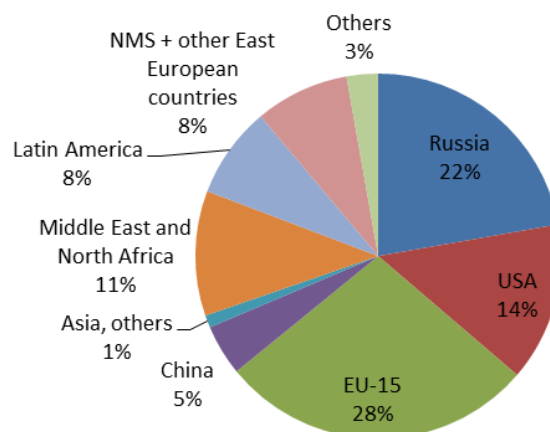


Sources: National customs, Sopisco, compiled by author

Ecuador dominates the world dessert banana trade (Figure 3), with exports exceeding 5.7 million tonnes in 2014<sup>17</sup>, thanks to an original production sector comprising small and large national producers<sup>18</sup>.

Unlike the other big producer countries, which self-consume the bulk of their production, Ecuador is primarily focused on exports (more than 90 per cent of volumes produced). The Ecuadorian banana sector, which represents 50 per cent of agricultural GDP, supplies all the world markets, with nearly 50 per cent of its supply aimed at the two main ones, the USA and EU, as well as Eastern Europe (Figure 4).

**Figure 4: Banana, Ecuador, exports by destination, 2014**



Source: Ecuadorian Customs

The group of countries exporting between 1 and 2 million tonnes comprises Colombia, Costa Rica, Guatemala and the Philippines. The latter country, the world no. 3 producer, which was the no. 2 world exporter until 2005, is now down in 5<sup>th</sup> position behind Colombia, reaching in 2013 its lowest export level for the past ten years. With just under 1.6 million tonnes, export volumes dropped by

<sup>17</sup> Ecuadorian Customs: <http://www.portal.bce.fin.ec/index.php/c-exterior>

<sup>18</sup> DAWSON C. (2011). «Bananas in Ecuador», *Fruitrop*, 189: 15

15 to 20 per cent due to climatic issues and also to increasingly grave sanitary. We should note the dazzling ascent of Guatemala, which broke the 2 million tonnes of exports barrier in 2013, dethroning the Philippines as the world no. 2 banana exporter. Guatemala ships nearly all of its volumes to the United States, to which it is the number one supplier, with approximately one-third of its procurement.

## 2.4. Factors affecting supply

### 2.4.a. Climatic factors

Climate events are among the main factors that directly affect world supply. For example in December 2012, **cyclone** Pablo, ravaged nearly 10 000 ha in the Philippines, leading to major production losses for nearly one year. The effects of this type of devastating event can last long, before a gradual return to production: a replanted banana plantation requires 9 to 12 months before entering production, and often the local infrastructures have been damaged during the adverse weather and need to be rebuilt (irrigation channels, drains, roads, packing stations, ports, etc.).

Other climate events also have impacts on production since they disrupt the development of the banana plant cycle and consequently lead to yield losses: this is the case with droughts, heavy rains, periods of low sunshine, cold fronts, winds, etc.

### *El Niño / La Niña phenomena*

El Niño phenomenon, which is manifested every 2 to 7 years in the form of increased temperatures in the south-east Pacific Ocean, causes climate disruptions on a worldwide scale: warmer and wetter air generates heavy rains which can cause floods in Latin America (Peru, Chile, Ecuador) and droughts in Indonesia and Oceania<sup>19</sup>. Conversely, la Niña is characterised by cooling of the waters of the Pacific. Hence banana production is affected by the climate disruptions arising from these phenomena in various parts of the world.

### *The role of climate change*

The impact of climate change is often mentioned, in particular with respect to the development of cyclone activity in the Caribbean and the Pacific<sup>20</sup>, or on the frequency of global phenomena such as El Niño or La Niña.

We can say for certain that the temperature increase generated by climate change may cause various

alterations, such as intensification of droughts, tornadoes, the appearance of cyclones in zones hitherto not affected, or less frequent cyclones but which are more intense. In parallel, ecosystems could become favourable to the development or intensification of certain diseases harmful to the crop. All these factors would obviously affect the world banana supply.

### 2.4.b. Diseases and pests

Banana production is affected by some fungal diseases such as Black Sigatoka (or black leaf streak disease) - now present in all of the world's production zones - or Moko disease in the Caribbean and Latin America. These diseases arise during periods of high humidity (rains), and may lead to falls in yield of up to 25 per cent. However, these losses do not last long, with production levels returning to normal thereafter. Conversely, supplies may be affected for longer periods by diseases such as Panama disease or Bunchy Top, which cause plant death (see section A).

### 2.4.c. Economic factors

The banana market is heavily influenced by economic factors, which may or may not be related to the sector.

On the one hand, there are direct economic factors affecting the competitiveness of the various production factors, such as cost of inputs, energy, freight, labour, and sailing the Panama Canal, among others. On the other hand, indirect economic factors, which are not exclusive to the banana market, affect world trade as a whole. This is the case when there are changes in international regulations or the exchange rate.

### 2.4.d. Production subsidy programmes

As part of the revision of the Customs arrangements on the European banana market, production aid have been set up for zones deemed to be losing competitiveness due to the opening up of the market. This is the case with the Banana Accompanying Measures (BAM) for certain ACP States and agricultural subsidies for the outermost European regions (POSEI) (see section F-iv).

## 2.5. Prospects

Projects to extend or create new plantations are flourishing in zones entitled to production aid and Customs preferences, which heralds a rise in supply in the coming years. This is the case with Cameroon, which has the objective of doubling its exports by 2019 (to 500 000 tonnes), or Côte d'Ivoire, where projects in progress might increase the production area by 1 500 ha<sup>21</sup>. The same applies to the Caribbean zone, where

<sup>19</sup> Centro Internacional para la Investigación del Fenómeno del Niño (CIIFEN) : [www.ciifen.org](http://www.ciifen.org)

<sup>20</sup> National Oceanic and Atmospheric Administration (NOAA): [www.noaa.gov](http://www.noaa.gov)

<sup>21</sup> LOEILLET D. (2013). «World banana market: Growing interest in African potential», *Fruitrop*, 216: 16-23.

local initiatives are also appearing, such as in Haiti with the creation of a banana export industry-

-However, the influence of these new projects (some of which still in the pipeline) on the supply balance needs to be put into perspective. The surface areas in question are marginal all in all, if we compare them to the 200 000 to 250 000 ha planted in Ecuador for example. The interesting point here is that recent developments involve Africa, the new frontier for the world economy, and that growing demand from local populations goes well beyond the planned few thousand hectares.

Finally, the dry zones (e.g.: northern Peru, Dominican Republic), each of which have a climate requiring less treatment due to lower sanitary pressure, are in favour, especially since organic crops can be planted on these soils.

However, in certain zones, agronomic constraints are increasingly weighing heavily on the economics of expanding plantations. A disease such as Black Sigatoka, which can develop resistance, forces producers to increase the number of treatments, or to move, or even to change their management method or cultivation system, as is the case now in the French West Indies with the implementation of agro-ecological methods. Similarly, the spread of the TR4 strain of Panama disease is concerning, and although it still seems to be under control, it remains a real threat for the production zones of Central & South America, and Africa.

### 3. Demand

Demand on the various consumer markets is growing, both in the producer countries, where the food requirements of local populations are increasing, and on the big import markets, where the banana has become an essential product for the distribution sector.

#### 3.1. Consumption

##### 3.1.a. European Union

European banana consumption beat its absolute record of 11.2 kg per capita in 2014, i.e. 600 g more than in 2013 and 900 g more than in 2012. The European market amounted to 5.7 million tonnes, thereby consolidating its position as the world number 1 consumption market. Within the European Union, the United Kingdom and Sweden are the main banana consumer countries, with more than 14 kg/capita/year. The smallest consumers are the New Member States in the East, such as Romania, Bulgaria, Hungary and Poland, with less than 6

kg/capita/year, giving the EU a significant margin for growth<sup>22</sup>.

##### 3.1.b. United States

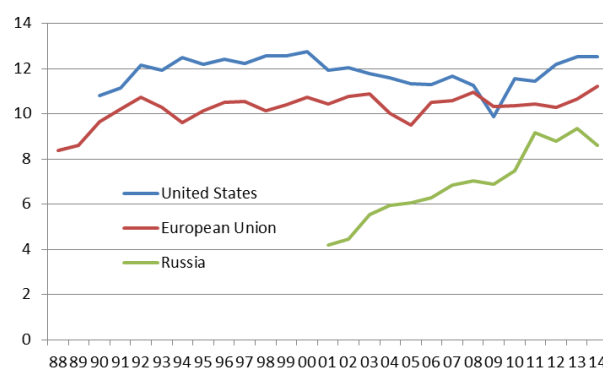
Registering a net consumption of 4 million tonnes in 2014, the US market is the world number two. The consumption per capita has been almost stable. In 2014, consumption averaged, 12.5 kg, i.e 0.4 kg below the record of 12.8 kg attained in 2000, but still above the European average (11.2 kg/capita/year).

##### 3.1.c. Russian Federation

Consumption on the Russian market has risen steadily since the early 2000s, going from 4.2 kg/capita/year in 2001 to more than 9 kg in 2011 and 2013. This was due in part, to the development of imports by Russian operators setting up in Ecuador, the main import source. However, growth has not been steady, in particular over the past four years where a year of decline has followed a year of growth. 2014 reflects the crisis in demand affecting national consumption as a whole. The depreciation of the rouble against the US dollar driven by a fall in energy prices, by rampant internal inflation and by the sanctions imposed by Europe and the United States due to the Russo-Ukrainian conflict, significantly increased the price of imported products such as the banana. Hence in 2014, Russian consumption dropped to 8.6 kg per capita, after a record year 2013 at 9.3 kg. Over Q1 2015, imports went down again by around 6 per cent.

Figure 5 compares annual banana consumption per capita in top three markets: the United States, the European Union and the Russian Federation.

**Figure 5: Annual banana consumption per capita in United States, European Union and Russian Federation, in kg, 1988-2014**



Source: Eurostat, processing by Fruitrop

##### 3.1.d. Japan

Banana consumption in Japan has been declining since 2009. Imports have collapsed, dropping back under the

<sup>22</sup> LOEILLET D. (2015). «World banana market: Currency parity having an effect», Fruitrop, 231: 40-67

one million-tonne mark since 2013. Annual consumption per capita has fallen to 7.4 kg, a level last seen in 2002. The main reasons behind this drop in consumption are i) a weak yen which favours exports rather than imports, and ii) falling household consumption due to a steep increase in VAT.

### 3.2. Top 10 consumers

The dessert banana is consumed mainly in big producer countries where consumption can exceed 20 kg/capita/year.

The big import markets are registering the best performances, with Europe and the United States leading the way, with consumption in excess of 10 kg/capita/year.

**Table 3: Consumption per capita in importer countries, kg, 2014**

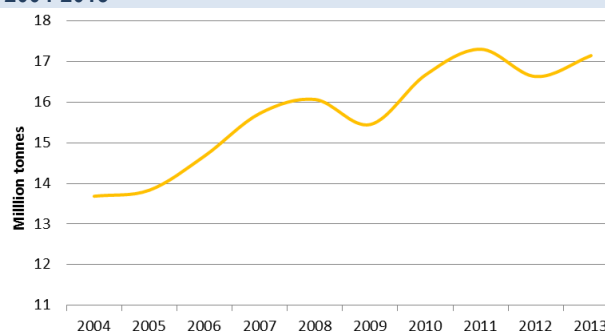
Importer countries	Consumption per capita, 2014, in kg
United Kingdom	17.1
Sweden	16.8
Denmark	14.1
United States	12.5
EU-28 average	10.2
France	8.7
Russia	8.6
Poland	7.5
Japan	7.4
Romania	3.2

Source: Loeillet, 2015

### 3.3. Imports

It is estimated that more than 17 million tonnes of bananas were imported worldwide in 2013. In first place was the EU-28, accounting for 32 per cent of volumes, followed by North America (30 per cent) and finally the Far East (20 per cent). World imports are steadily progressing, with a growth of 25 to 30 per cent over the past 10 years. The world's two biggest markets, Europe and the United States, are still registering positive performances, although the dynamic is less marked than in emerging countries, such as the Middle East or Eastern Europe where imports have practically doubled in the space of 10 years. Only Oceania and Latin America have been stagnant, registering no positive development in recent years. Figure 6 shows the trend in dessert banana imports in the past 10 years. In Table 4 top 10 importer countries are given.

**Figure 6: World dessert banana imports, million tonnes, 2004-2013**



Sources: National customs, Eurostat, Comtrade

**Table 4: Top ten banana importer countries, tonnes, 2013**

Top ten banana importer countries in 2013	Tonnes
United States	4 547 932
Russia	1 339 141
Belgium	1 219 968
United Kingdom	1 006 759
Japan	964 813
Germany	680 733
Italy	565 069
China	528 122
France	558 888
United Arab Emirates	401 004

Sources: FruiTrop 2015, Eurostat, Trademap.

The main importer countries are not necessarily the main consumer countries, since some act as a hub for the banana trade. This is the case with Belgium, the world no. 3 importer, which imported 1.2 million tonnes of bananas in 2013 via Antwerp, but which re-exported the bulk of it to neighbouring European countries. It is also the case with Germany (port of Hamburg) and the Netherlands (port of Rotterdam). France also acts as a hub for produce from Africa and the French West Indies, with which it has maintained close historical ties, and re-exports one-third of incoming volumes.

### 3.4. Factors affecting demand

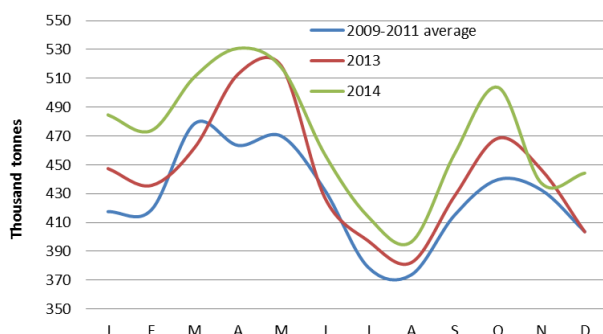
#### 3.4.a. Seasonality of consumption

Europe has seasonal banana consumption. Consumption troughs can be observed during the summer and end-of-year holidays, when demand turns to local seasonal fruits, school canteens are closed (holidays) and temperatures push consumers toward other products. Consumption reaches its peak in autumn and early spring (April-May and October), thanks to temperatures favourable for banana consumption and low pressure from local fruits, whose campaigns get off to a gradual start. Hence banana demand is dependent on **temperature, competition from other fruits** and the



**school calendar** (when institutional canteens are opened and closed).

**Figure 7: Estimated seasonal supply fluctuations of banana in the European Union, thousand tonnes, January to December**



Sources: Cirad-Fruitrop, Eurostat

### 3.4.b. Cyclical economic conditions

All factors potentially leading to variations in the competitiveness of production sources affect international demand, such as **increasing costs in the value chain** (freight, inputs), **variations in Customs duty**, **changes in exchange rates**, etc.

Following on from the 2008 oil crisis, the multiple variations in the production factors – rising steeply from 2008 to 2013, and then falling again in 2014 – the exchange rates and Customs duty, exhibited high volatility, consequently demonstrating the great uncertainty in terms of competitiveness of the various production zones.

### 3.5. Prospects

The consumption markets are still on the rise, and more particularly in the emerging markets.

Although the core banana consumption is based on a staple, commoditised and inexpensive product, the past twenty years or so have seen substantial, constant development of a so-called more ethical segment, where the consumer exhibits an interest in an environmentally friendly banana which can ensure the economic and social well-being of the producers. The emergence of a great variety of certification is the proof of this: consumers are searching for guarantees about the product (see section E-ii-2). This is the case with organic and Fairtrade labelled bananas (see section F-iii), which have seen a significant surge in recent years, but which represent only approximately 10 per cent of the market. However, there is a need to make sure consumers are not disappointed and downstream links of the industries are well supplied. Consumers have placed a lot of trust in these so-called virtuous industries, both from an environmental and social viewpoint therefore the various systems of governance of

these labels must be able to live up to the hope that they have managed to foster in public opinion.

## 4. Price

### 4.1. History

#### 4.1.a. Producer price / FOB price

With fluctuations in the price of certain raw materials, the industry's intermediate costs have risen steeply for the past 20 years, reaching their peak in 2008 before subsiding in 2014. This is the case for inputs, such as potassium chloride, or energy, which pose great uncertainties for producers.

In order to guarantee producers minimum revenue, certain countries such as Ecuador have established a guaranteed minimum price, and encourage the signature of contracts between exporters and producers. The minimum price paid was set, since January 2015 at 6.55 USD/43-pound box. At present, it is estimated that 10 to 20 per cent of volumes are traded based on the spot market footing, i.e. the prices governed by market fundamentals—supply and demand on the international markets, whereas 80 to 90 per cent of export volumes are under contracts. Conversely, in Costa Rica and Colombia, practically 100 per cent of traded fruits are under long-term contracts between producers and exporters.

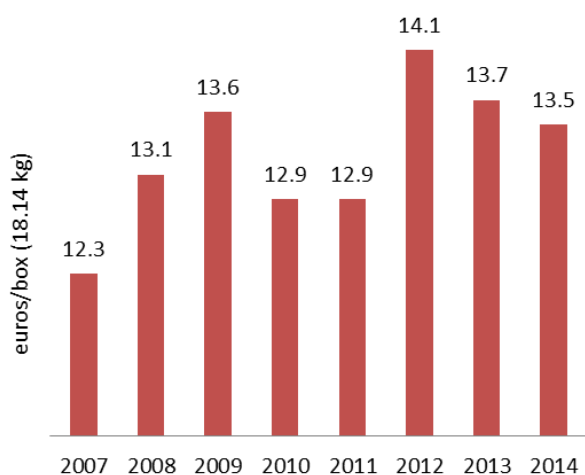
#### 4.1.a. Import stage price: green / quayside

##### Europe

Since 2010, import prices on the European market have generally fluctuated between €13 and €14 per 18.5-kg box. After reaching a maximum of €14.1/box, the average annual price in 2014 dropped slightly to €13.5/box. However, the inter-annual analysis reveals that, average price and volatility falling, due in part to the spread of contracts between importers and the distribution sector in the North European markets, which prevent excessive green banana price fluctuations during crisis periods. In Germany, volatility has fallen by a factor of 5 since 2009. Conversely, on other markets such as Eastern Europe, volatility has remained prevalent<sup>23</sup>.

<sup>23</sup> LOEILLET D. (2015). «European banana market in 2014: Carpe diem», *Fruitrop*, 229: 48-62.

**Figure 8: Annual average banana import price per 18.5 kg box in Germany (2<sup>nd</sup> and 3<sup>rd</sup> brands), in euros**

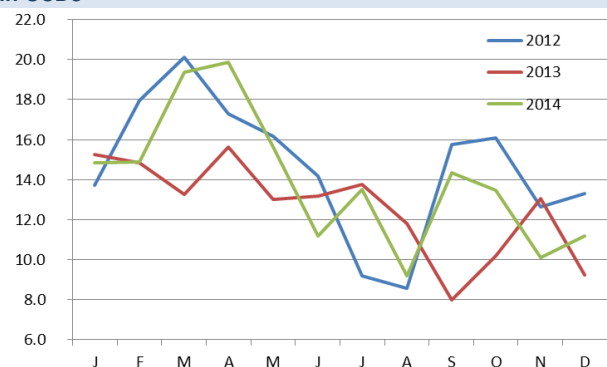


Source: Cirad-Fruitrop

### Russia

The average import price of green banana into Russia in 2014 was 14 USD/box CIF St. Petersburg, i.e. 1 USD/box more than in 2013. Volatility on this market is continuing to show very marked extremes, with crisis periods when import prices drop under the 10 USD/box mark, and prosperous periods when double the import price is reached. 2014 was particularly disrupted by major geopolitical events that rocked the financial balance of the sector. Indeed, the rouble plummeting against the dollar has caused import prices to increase by nearly 30 per cent<sup>24</sup>.

**Figure 9: Green banana prices, CIF St. Petersburg, Russia, in USDs**



Source: Cirad

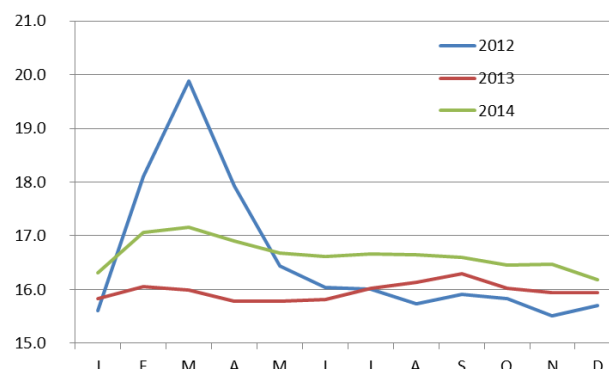
### United States

Since the US market is primarily contract-based, a very small part of volumes sold is derived from the spot market (10 per cent). The annual spot import price gained 4 per

cent in 2014, reaching 16.6 USD/box. It is highly stable, having remained above 16 USD/box since 2013<sup>25</sup>.

Observed over a longer term, import prices are tending to plateau out on most of the big importing markets such as Western Europe and the United States (Figure 10).

**Figure 10: Green banana prices (spot), United States, in USDs**



Sources: Sopisco, Cirad

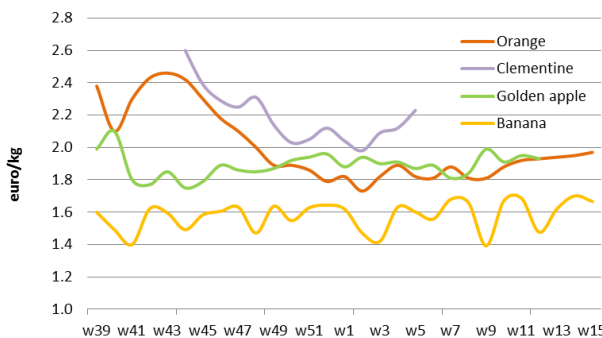
#### 4.1.b. Ex-ripening centre price: yellow / wholesale

Yellow banana prices are the prices at the “ex-ripening centre” stage. They take into account the green price, to which are added the ripening costs, the ripening operator’s mark-up and, sometimes, the cost of transport to the customer. The ripening activity is often taken on by import companies.

#### 4.1.c. Retail price

The banana is an essential item on the fruits and vegetable shelves in the distribution sector. It is present all year-round with a highly competitive price positioning (Figure 11). It is a staple product with no segmentation (one single variety, little advertising, few brands), and price is one of the only driving forces behind consumption<sup>26</sup>.

**Figure 11: Comparison of various fruits' retail prices in France, weeks of the 2014-2015 season, in Euros**



Sources: RNM, Cirad

<sup>24</sup> LOEILLET D. (2015). «The Russian, yoyo», *Fruitrop*, 229: 64-65

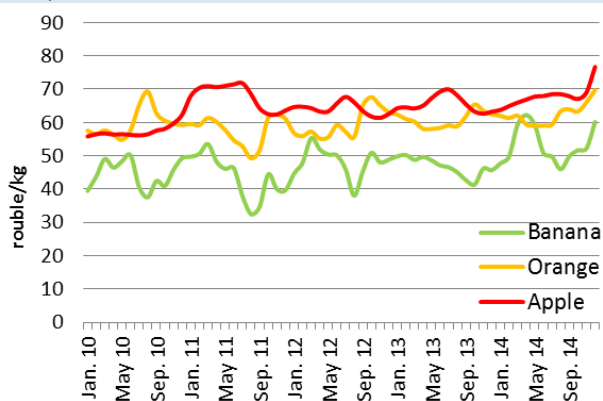
<sup>25</sup> LOEILLET D. (2015). «United States: too easy!», *Fruitrop*, 229: 68.

<sup>26</sup> BRIGHT R. (2014). «Fairtrade bananas: right message, wrong target?», *Fruitrop*, 220: 19-21.



Hence, the banana is one of the cheapest fruits on the market, ahead of even the apple and orange in Western and Eastern Europe, as in Russia (Figure 12). Promotions are in place year-round in the supermarket sector and no longer at particular times of year<sup>27</sup>.

**Figure 12: Retail prices of selected fruits in Russia, 2010-2014, in Roubles**



Source: Official statistics

Retail prices, calculated on a constant euro basis, have registered a downturn over the past 10 years. This positioning as a loss leader was particularly significant in 2012, when supermarkets in the United Kingdom engaged in a banana price war, in which retail prices registered levels of less than 1 USD/kg.

## 4.2 Price prospects

The prices at the various stages are following different trends. Whereas production costs have fluctuated in recent years, industry downstream prices, at both the import and retail stage, have stagnated, or even decreased, on the big consumption markets such as Europe and the United States. Hence, the various links of the industry are increasingly under pressure, and a value loss is frequently denounced by the upstream links.

In order to prevent value loss, the trend is for increasingly marked integration by the import companies, which are also well represented in production, either by direct land purchases, or by signatures of long-term contracts with producers.

Recently, green stage prices have been higher than in previous years, due in part to a euro/dollar exchange rate approaching parity, rising European demand stimulated by weather unfavourable for consumption of other fruits in spring, and a fairly moderate banana supply due to climate problems in the production zones. It is forecasted that bananas will be in short supply by the end of 2015 in some production areas, as the El Niño phenomenon has already caused damage in the Costa Rican banana

<sup>27</sup> LOEILLET D. (2015). «Retail prices: «low price» positioning», *Fruitrop*, 229: 66.

zones (flooding in June-July 2015) and in the Philippines (severe drought). In 2015, prices in Germany will remain unchanged, since the contracts were set at the beginning of the year for a one-year period. On the spot market, the price trend will be influenced by the fruit shortage.

## 5. Markets

### 5.1. Market structure

#### 5.1.a. Production structures

There are three coexisting types of organisation in producer countries. The **monopolistic** structure is increasingly rare. It is a form where the State controls the production sector, as in Surinam until 2006.

The **oligopolistic** structure comprises a few big production units which represent the majority, or even the totality, of the production and export capacities, such as in Cameroon or Côte d'Ivoire.

Finally, we can also find the **fragmented** structure, comprising hundreds or even thousands of small and medium producers. It is found in two scenarios:

- the producers work via a single contact for all the packing and export operations, etc.;
- large and small producers operate in a competitive environment. This is the most widespread scheme, particularly in Ecuador, Colombia and Costa Rica.

Export structures vary depending on the type of production organisation. The number of operators involved in the export operations varies from one entity to hundreds of firms (Ecuador), although in most cases, a few companies control the majority of the export flows.

#### 5.1.b. Industrial concentration

One of the major characteristics of the sector is the historic presence of big companies (Dole, Chiquita, Fyffes, Del Monte, Compagnie fruitière, etc.) which have always strongly structured the supply to the world market, and are present at practically all the links of the industry: production, sea-freight, import, ripening and distribution to international purchasing centres. They sometimes possess their own production units in producer countries, and supplement their supply with purchases made locally or from neighbouring countries. In recent years, there has been a disinvestment trend in production: certain firms appear to have reverted to contracts with producers or producers' associations in order to secure their supply. There are fewer companies which retain a strong production base in the South.

#### 5.1.c. Integration of downstream segment

Importers, whether independent or part of large groups, have integrated ripening subsidiaries and/or ripening

centres bound via service provision contracts. They may also have supply contracts signed with supermarkets. In this context ripening is just another stage in the integrated supply chain.

However, in the retail sector, the big supermarkets have only integrated the upstream segment (the import stage) in some very rare cases (Intermarché group in France, Magnit in Russia). Contracts with suppliers are consequently the favoured option.

## 5.2. Public / private standards

### 5.2.a. Public standards

In Europe, regulations are limited to defining the minimum quality standards for banana marketing.

Hence the European Commission Implementing regulation EU no.1333/2011 of 19 December 2011 brings together 3 texts previously in force in the banana sector (Regulation (EC) no.2257/94, Regulation (EC) no.2898/95 and Regulation (EC) no.239/2007). It lays down marketing standards for bananas: quality (minimum characteristics, classification into categories), sizing (minimum length and grade), quality tolerances, presentation (uniformity, packaging, presentation), marking (product identification, nature, origin, commercial specifications, brand). Finally, the Regulation lays down the provisions relating to verification of compliance with these marketing standards and requirements for notifications in the banana sector. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02011R1333-20130701&qid=1435062247440&from=EN>

The banana is also the subject of the European Parliament and Council Regulation (EC) no.396/2005 of 23 February 2005 on maximum residue levels of pesticides in or on food and feed of plant and animal origin.

Regarding the organic banana, Regulation (EC) no.834/2007 sets out all the rules to follow regarding production, processing, distribution, importing, inspection and labelling of organic products. [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2007.189.01.0001.01.ENG](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2007.189.01.0001.01.ENG)

Hence European Regulations and the various National Decrees define minimum quality, traceability and phytosanitary standards.

### 5.2.b. Private standards

Private standards are continuing to develop, with their specifications targeting a particular product or process, and occasionally the marketing process, as in Fairtrade. These standards can be classified into environmental issues (soil conservation, water protection, use of pesticides or waste management), social issues (workers'

rights, occupational health & safety) or other issues such as food safety.

### GLOBAL GAP<sup>28</sup>

This is a guide for good agricultural practices and worker safety that has become the basic certification for entry to the European market. A private sector body defines benchmarks on a voluntary basis for worldwide certification of agricultural products (including aquaculture). These benchmarks are mainly designed to reassure consumers of how foods are produced on the farms, with minimised harmful impacts of agricultural activities on the environment, reduced use of chemical inputs and a guaranteed responsible approach to worker health and safety (GRASP), as well as animal welfare (GLOBAL GAP Animal Welfare).

### Rainforest Alliance<sup>29</sup>

This is an environmental certification. Companies which scrupulously comply with sustainable development standards can use one of the Rainforest Alliance registered trademarks so that their products and services stand out on the market. This is the case for farms which comply with all the criteria of the Sustainable Agriculture Network, logging operations which comply with the stringent standards of the Forest Stewardship Council (FSC) and tour companies which demonstrate their progress in reducing their environmental footprint and supporting their workers, local culture and surrounding communities.

### Some supermarket specifications

**Tesco Nurture** (formerly Tesco Nature's Choice): a good agricultural practices code aimed at conservation of biodiversity, and in general, farm conservation and environmental management. Similar to the GLOBAL GAP code, this benchmark was developed by the British chain Tesco and the ADAS (Agricultural Development Advisory Service). The requirements of Tesco Nurture in some cases exceed legal requirements. The benchmark relates to all the producers supplying Tesco with fresh fruits, vegetables, salads and other horticultural products. This certification may be combined with GLOBAL GAP, BRC or IFS certification.

### Eco-labels

France's Grenelle Environment Forum has helped develop carbon footprint labelling, which measures CO<sub>2</sub> emissions, or water footprint labelling in the agri-business industries. Since the 1990s, life cycle assessment (LCA)

<sup>28</sup> GlobalGAP: [www.globalgap.org](http://www.globalgap.org)

<sup>29</sup> Rainforest Alliance: [www.rainforest-alliance.org](http://www.rainforest-alliance.org)

has sought to include other factors such as depletion of resources, air, water and soil pollution, as well as damage to biodiversity, so as to avoid having partial benchmarks. In this case it is referred to as environmental disclosure. However, there are no comprehensive labels including all these factors. The long-term trend is for increasing requirements, incorporating sustainability factors, as well as economic and social factors.

#### **Fairtrade label**

Fairtrade certification, one of the best known, certifies the banana marketing process. It is sometimes associated with an organic label (organic specifications) (see F-iii).

### **5.3 Contracts**

In North America, 90 per cent of banana volumes are sold under contract; the others are sold on the free market. These annual contracts have a fixed basic price per box, and also include variable surcharges based on fuel indexes, which are intended to offset changes in transport costs and other fuel-based costs.

On the European and Mediterranean markets, customers (retailers, ripening operators and wholesalers) employ annual or multi-annual arrangements with flexible prices depending on the market conditions. Bananas are sold on a non-official weekly price listing, which frequently varies with the supply, seasonal consumption trends, transport cost, exchange rate and other factors. However, certain European operators are starting to be supplied with bananas under a fixed price per box contract. These contracts generally include prices which are higher in the first half and lower in the second half, in accordance with the seasonal supply and demand trends. This is the case in Germany and the United Kingdom, where long-term contracts are signed with the distribution sector.

### **5.4. Niche markets**

#### **5.4.a. Organic banana**

Since the 1960s, fruits and vegetables from organic agriculture have been available on the market, conveyed by pioneering operators in organic agriculture and specialised shops. The organic banana appeared later, when organic agriculture received official national and European recognition, i.e. with the birth of the AB label in 1985 in France, and with the first European Regulation in 1991. Thereafter the first imports of organic produce were able to enter the European Union, and the organic banana reached European shelves from the early 1990s. At the time it was exclusively a niche, top-end market, with distribution in networks of specialist shops.

To meet the growing demand, a first turning point came toward the late 1990s. The supermarket sector ventured

onto this market segment, and so the traditional importers of the conventional banana committed to the sector in order to provide their supply. In step with the global development of organic products, organic banana imports and sales then picked up from the years 2005-2008, with the arrival of new importers which made it a systematic benchmark for the supermarkets, thus driving substantial development of the sector.

The organic market has grown to such an extent that it is difficult to talk about a niche market nowadays. It was estimated at 280 000 tonnes in 2010 in Europe, which at the time represented three-quarters of world organic banana exports. There are no specific data available (no Customs distinction between organic and conventional bananas), but it is estimated that the market growth has continued. In France, for example, it represented 10 per cent of banana sales by volume in 2012<sup>30</sup>.

There is also a trend toward dual certification. In France, supermarkets such as Carrefour have opted to convert their organic bananas to organic-Fairtrade, a move already long since made by Monoprix and four other general-purpose supermarkets (including Leclerc and Casino). The growth of this segment should continue in 2015, since Intermarché in turn has decided to switch to Fairtrade organic (see F-iii).

#### **5.4.b. Other niche markets**

There is a minor segment based on small bananas such as fressinette or green dessert bananas consumed cooked by ethnic populations. However, the volumes concerned are very small.

<sup>30</sup> CTIFL (2013). Distribution des fruits et légumes bio: perception et attentes de la distribution achat des ménages 2005-2012, Edition CTIFL, France. [http://www.fruits-et-legumes.net/etudes/sommaire\\_etude/DistributionF&LBio2013.pdf](http://www.fruits-et-legumes.net/etudes/sommaire_etude/DistributionF&LBio2013.pdf)

## 6. Regional / international trade

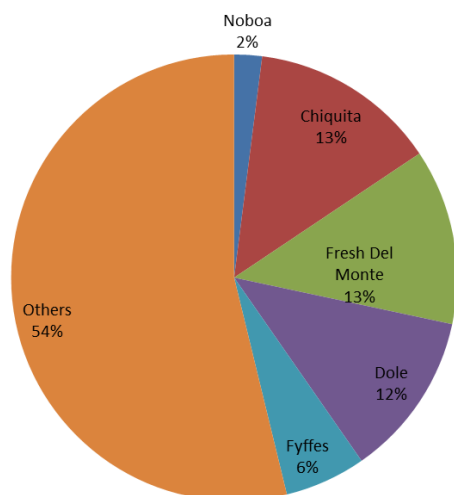
Table 5 shows top ten exporters (in 2014) and top ten importers (in 2013) of the dessert banana.

**Table 5: Top 10 exporters and importers countries, tonnes**

World dessert banana exporters, 2014 (tonnes)		World dessert banana importers, 2013 (tonnes)	
1 - Ecuador	5 755 901	1 – United States	4 547 932
2 – Costa Rica	2 171 384	2 – Russia	1 339 141
3 – Guatemala	1 991 682	3 – Belgium	1 219 968
4 – Colombia	1 699 666	4 – United Kingdom	1 006 759
5 – Philippines	1 626 225	5 – Japan	964 813
6 – Honduras	635 956	6 – Germany	680 733
7 – Dom. Rep.	423 607	7 – Italy	565 069
8 – Mexico	407 387	8 – China	528 122
9 – Cameroon	358 828	9 – France	558 888
10 – Côte d'Ivoire	357 243	10 – UAE	401 004

Sources: Trademap, FruiTrop, Eurostat, Sopisco.

**Figure 13: Market share of top 10 biggest trading companies, 2014**



Note: Calculation made by the author based on data from Fyffes, Ecuadorian customs, and estimates

As Figure 13 shows, **Chiquita** was historically the biggest banana trading company, for decades perfectly embodying the integrated banana supply chain. Although the last 10 years have seen a slowdown, and in 2002 the company declared itself bankrupt, it has continued to dominate the world banana trade. Its average annual turnover is estimated at 3 billion dollars, 64 per cent of which from the banana activity<sup>31</sup>, and it sells on average 125 million boxes worldwide<sup>32</sup>.

<sup>31</sup> CHIQUITA BRANDS Inc. (2013). Annual report 2013

<sup>32</sup> FYFFES (2015). Preliminary Results for year ended 31 December 2014.

[http://www7.global3digital.com/fyffesplc/uploads/finreports/preliminary\\_results2014-presentation-pdf](http://www7.global3digital.com/fyffesplc/uploads/finreports/preliminary_results2014-presentation-pdf)

**Fresh Del Monte**, protected by the success of its pineapples, has been able to withstand restructuring. It sells 117 million boxes of bananas worldwide.

With a highly diverse turnover of 4.2 billion USD (3.1 billion of which from the fresh fruits trade), **Dole** controls nearly 110 million boxes of bananas.

**Fyffes**, an Irish company founded more than 125 years ago, has imported bananas into Europe since 1888. In 2014, the company sold 54 million boxes (44 million in Europe and 10 million in the United States via their partner)<sup>33</sup>. It is an integrated group operating long-term contracts with producers in Central and South America, which has its own ripening centres and is a service provider in ripening and refrigerated transport.

Known for its Bonita brand, under which it markets several fruits including the banana, the family group **Noboa** encompasses 110 companies, and is the biggest conglomerate of companies in Ecuador, and the fifth biggest banana company in the world. In addition to its own production, Noboa purchases bananas from hundreds of associated producers. The company's share in Ecuador's total exports has decreased considerably in recent years because of legal problems. Noboa now represents approximately just 6 per cent of the country's banana exports.

The rest of the banana scene is fragmented because of the presence of small players on a worldwide scale.

### 6.1 Fairtrade initiatives

Fairtrade consists in a variety of standards set by certain NGOs. In the banana sector, the most widespread standard is set by FLO International, an NGO based in Germany. The member bodies (including Max Havelaar, a branch of FLO) work at the source with small producers. In order to meet growing international demand, agricultural employees of big private companies have been included in order to develop the supply of certified bananas. Certain pioneers of the movement are still protesting against this opening-up process, denouncing a kind of quasi-ideological turnaround.

Certification is issued by an independent body, FLO-Cert (for example), following on from its audit. Thanks to a guaranteed accurate price system, Fairtrade seeks to provide fair compensation to the producer or worker. Hence in the case of the banana, this price is divided into two parts: the minimum fair trade price — which is the lowest possible price that a purchaser can pay for a product to producers — and the development bonus — which is an additional sum paid to the producers, aimed

<sup>33</sup> FYFFES (2014). Annual report 2014,

<http://www7.global3digital.com/fyffesplc/uploads/finreports/FyffesAR2014.pdf>



at investment in their commercial activities and in their communities, or for socio-economic development of workers and their communities. There is also an organic differential for certain organic certified products. In the case of the banana, the minimum price already factors in the difference between organic and conventional production methods. The price list is revised from time to time by the organisation FLO, and is available on its website.

Access to Fairtrade certification, like all other certification, has a cost both for the producer, which needs to ensure it complies with the standards and must pay for an auditor to come in, and for the ripening operator, which must pay a fee for promotion and communication costs.

Sales of Fairtrade bananas have risen in Europe, alongside a geographic segmentation. With 58 per cent of sales, the British market is the main outlet, particularly the supermarket sector which is exhibiting a desire to sell only Fairtrade bananas, as the supermarkets Sainsbury's and Waitrose did back in 2007. Similarly, the Co-Op chain announced in early 2012 that it would switch its banana sales to 100 per cent Fairtrade. This is a growing trend, providing the supermarkets with a good brand image, but also a commitment to the sector.

Conversely, in France, as in Germany or Austria, sales of conventional Fairtrade bananas are not seeing the same success as in the United Kingdom, and practically all Fairtrade bananas sold on these markets are organically produced. In France, volumes sold of Fairtrade labelled bananas approached 19 000 t in 2014, up by nearly 11 000 t from 2013, and by more than 6 000 t from the previous record set in 2009. This performance is due to the increasingly marked commitment by certain supermarkets, such as Carrefour, to organic-Fairtrade dual certification.

It is estimated that 372 708 tonnes of Fairtrade bananas were sold worldwide in 2013, of which 34 per cent is attributed to organic-Fairtrade dual certification, and 66 per cent conventional<sup>34</sup>.

## 6.2 Commercial issues (disputes; negotiations, agreements)

The United States has a free market, with no Customs duty. In principle, it is simply sanitary regulations which limit the number of market suppliers, unlike in Europe where the import regulation system has seen significant changes over the past 25 years.

### 6.2.a. History of COMB and its disappearance

The banana trade has been hard hit by changing European regulations and policies. In 1993, the European Union set up a common management organisation, COMB (Common Organisation of the Market in Bananas), which limited *dollar*<sup>35</sup> and ACP banana imports in order to protect European production and ensure a supply balance between the various sources. COMB was founded on two principles: restriction of imports and revenue support for European producers. Hence Community bananas enjoyed free access to the European market, whereas dollar bananas were subjected to a tariff quota. Because of their historic relationships, ACP country bananas were entitled to a zero-duty quota.

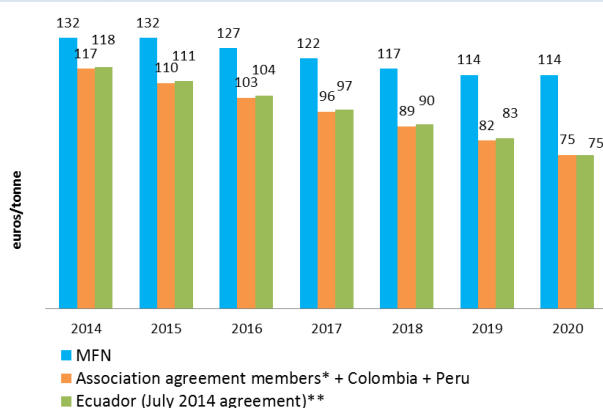
Since its implementation in 1993, COMB has caused tensions within the EU between dollar banana consuming countries such as Germany and Northern Europe, and producer countries such as France, Spain, Portugal and Greece. These latter, being producers in Martinique and Guadeloupe (France), the Canary Islands (Spain), Madeira (Portugal), Crete and Laconia (Greece).

After numerous attempts to harmonise European regulations and the WTO rules, the interested parties in the case (Europeans, Americans, producer countries) agreed to reform COMB. Since 2006, for dollar and 2007 for ACP countries, any concept of quotas for each source has been abandoned. The system adopted tariff-only management, without any quantitative restrictions for the dollar banana, and unlimited access without Customs duty for ACP suppliers. The Customs duty was initially set at 176 USD/tonne for dollar bananas in 2006. The scheduled decrease of the customs duty began in 2009, the price went down to 148 USD/tonne and continued to decrease on a yearly basis. In 2015, it is currently 132 USD/tonne and the objective is to reach 75 USD/tonne by 2020. The European producers enjoyed production and investment subsidies as part of enhancing the economic and technical competitiveness of the agricultural industries (POSEI). ACP suppliers received a 190 million euro plan in the form of banana accompanying measures (BAM).

<sup>34</sup>FAIRTRADE INTERNATIONAL (2014). Strong producers, strong future: annual report 2013-14. [http://www.fairtrade.net/fileadmin/user\\_upload/content/2009/resources/2013-14\\_AnnualReport\\_FairtradeIntl\\_web.pdf](http://www.fairtrade.net/fileadmin/user_upload/content/2009/resources/2013-14_AnnualReport_FairtradeIntl_web.pdf)

<sup>35</sup> Dollar banana is the name commonly give to the bananas produced in "non ACP third countries" of South and Central America and the Caribbean.

**Figure 14: Banana, EU Custom duty for third countries, excl. ACP, 2014-2020**



Note: MFN - most favored nations.

\*Costa Rica, Panama, Honduras, Guatemala, Nicaragua, El Salvador

\*\*Until the ratification procedure is completed, Ecuador stays at 132 euros/tonne.

Source: Cirad - FruiTrop

### 6.2.b. Negotiations for European Customs duty via bilateral agreements

The signature of bilateral agreements in 2012 between the EU and eight dollar banana suppliers has accelerated the process of bringing down Customs duties: Costa Rica, Panama, Honduras, Guatemala, Nicaragua, El Salvador, Colombia and Peru saw their Customs duty drop to 117 USD/tonne, whereas suppliers not signing the agreement, such as Ecuador, remained at 132 USD/tonne. In 2014, Ecuador signed an agreement with the EU, enabling it to join the scheduled reduction in Customs duty. The ratification process should be finalised in 2016.

### 6.2.c. Production aid

The **Banana Accompanying Measures** are European funds with the objective of granting 10 ACP countries (Cameroon, Côte d'Ivoire, Belize, St. Lucia, Jamaica, Dominica, St. Vincent, Surinam, Dominican Republic and Ghana) 190 million euros to improve the competitiveness of the banana industry, the working conditions of plantation labourers as well as the environmental impacts. There are a great variety of actions, relating to credit, housing, competitiveness, training, emergence of new producers, revitalising the sector, etc.<sup>36</sup>

**POSEI**, the Programme of Options Specifically Relating to Remoteness and Insularity, is aimed at the outermost regions of Europe in the agricultural sector (France: Guadeloupe, French Guiana, Martinique, Reunion, Saint Barthélemy and Saint Martin; Portugal: Azores and Madeira; Spain: Canary Islands). This programme is intended to support these production zones, including banana production, by providing an annual allowance and

technical assistance for production<sup>37</sup>. In this way it helps compensate for the lack of competitiveness of these sources against competition from the dollar sources.

**Table 6: ACP exports to the EU and BAM, in tonnes and million euros**

	Average ACP exports to the EU, 2009 to 2012		BAM – approximate allowance for each country	
	Tonnes	%	Million euros	%
Cameroon	230 695	23	48.29	26
Côte d'Ivoire	231 133	23	44.75	24
Belize	83 076	8	22.80	12
St. Lucia	13 819	1	10.35	5
Jamaica	0	0	4.73	3
Dominica	3 353	0	15.27	8
St. Vincent	1 842	0	9.93	5
Surinam	72 158	7	9.30	5
Dominican Rep.	308 354	31	16.34	9
Ghana	50 068	5	7.24	4
Total	994 862	100	189	100

Note: BAM - Banana Accompanying Measures.

Sources: Eurostat, ACP secretariat, in FruiTrop no.210, April 2013, p.42

## 7. Useful links

### 7.1 Statistics

Production statistics, FAOSTAT: <http://faostat3.fao.org/>

World trade statistics, TRADEMAP: <http://www.trademap.org/>

Philippines production statistics: <http://countrystat.bas.gov.ph/>

Ecuadorian Customs:

[http://www.portal.bce.fin.ec/vto\\_bueno/seguridad/ComercioExteriorEst.jsp](http://www.portal.bce.fin.ec/vto_bueno/seguridad/ComercioExteriorEst.jsp)

Guatemalan Customs: <http://www.banquat.gob.gt/>

Costa Rican Customs: <http://servicios.procomer.go.cr/>

European Customs, EUROSTAT:

<http://epp.eurostat.ec.europa.eu/newxtweb/>

### 7.2 International organisations and associations

Ecuadorian Banana Exporters Association (AEBE):

[www.aebe.com.ec](http://www.aebe.com.ec)

Costa Rican Banana Exporters Association – Corbana:

[www.corbana.co.cr](http://www.corbana.co.cr)

AIB (banana interprofessional association):

[www.labananechange.fr](http://www.labananechange.fr)

Banana Link: <http://www.bananalink.org.uk>

Bioversity International: <http://www.bioversityinternational.org/>

CIRAD (International Centre for Agricultural Research for Development): [www.cirad.fr](http://www.cirad.fr)

<sup>36</sup> LOEILLET D. (2013). «Banana Accompanying Measures, at last!», Fruitrop, 210: 42.

<sup>37</sup> Office for development of overseas agricultural economy (ODEADOM): [www.odeadom.fr](http://www.odeadom.fr)



CIIFEN (International Research centre on El Niño):  
<http://www.ciifen.org/>

Fairtrade international (FLO): [www.fairtrade.net](http://www.fairtrade.net)

FAO: [www.fao.org](http://www.fao.org)

FruiTrop Magazine: [www.fruitrop.com](http://www.fruitrop.com)

GlobalGAP: [www.globalgap.org](http://www.globalgap.org)

National Oceanic and Atmospheric Administration (NOAA):  
[www.noaa.gov](http://www.noaa.gov)

ODEADOM (Office for development of overseas agricultural economy): [www.odeadom.fr](http://www.odeadom.fr)

Promusa: <http://www.promusa.org/>

Rainforest Alliance: [www.rainforest-alliance.org](http://www.rainforest-alliance.org)

European Regulations: <http://eux-lex.europa.eu>

CIRAD's research unit GECO:  
[http://www.cirad.fr/ur/systemes\\_bananes\\_ananas](http://www.cirad.fr/ur/systemes_bananes_ananas)

World Banana Forum (WBF):  
<http://www.fao.org/economic/worldbananaforum/wbf-aboutus/en/#.VafNwaTtIBc>

### 7.3 Latest news

#### *Chiquita purchased by Cutrale-Safra*

The Chiquita-Fyffes merger, which was to give rise to the world's biggest banana group in late 2014, has been foiled by a counter-bid: the American company Chiquita agreed in late 2014 to be purchased by the investment company Safra Group and the orange juice company Grupo Cutrale, for approximately 1.3 billion dollars. Chiquita is thus becoming a fully-blown subsidiary of the Brazilian company Cutrale-Safra.

*Various sources*

#### *The return of El Niño*

El Niño phenomenon is returning for the first time since 2010. It could even be as intense as in 1997-1998—the most powerful recorded to date—and extend until the first months of 2016. The initial effects are already making themselves felt: drought in Colombia, the Dominican Republic and even in the Philippines and major floods in Costa Rica in early July 2015. The dynamic and statistical forecasts for the forthcoming quarter July-August-September are predicting a shortage of rain in the north-east region of South America, Central America, the Caribbean coast and the eastern tip of Brazil, the south of Ecuador and in northern and north-eastern Peru.

*Sources: Reefertrends, CIIFEN*

#### *Ecuadorian banana exports to China still on the rise*

Since July 2014, China has substantially increased its imports from Ecuador, following a drastic fall in its own

production and that of its main supplier, the Philippines. In early 2015, Proecuador launched a promotion campaign in collaboration with the Chinese importer Goodfarmer, in order to consolidate Ecuador's market share. The results seem encouraging: Ecuadorian volumes imported by China in the 1<sup>st</sup> half of 2015 exceeded by 20 per cent the record import level of the second half of 2014, i.e. nearly an additional 30 000 tonnes.

*Source: FruiTrop*

### 7.4 Partners

CIRAD (International Centre for Agricultural Research for Development): [www.cirad.fr](http://www.cirad.fr)

FruiTrop Magazine: [www.fruitrop.com](http://www.fruitrop.com)

Sopisco News: [www.sopisco.com](http://www.sopisco.com)

Reefer Trends: [www.reefertrends.com](http://www.reefertrends.com)