# Coffee: The Hidden Crisis Behind the Success Story

## Study on Sustainability Within the Coffee Industry

Synthesis

Report Compiled By BASIC For Commerce Équitable France

## Author:

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- To improve our understanding of the societal issues facing economic stakeholders and individuals today;
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# SUMMARY

# INTRODUCTION

Over two billion cups of coffee are consumed every day, generating revenues close to 200 billion dollars per year[1], primarily in Europe, the United States and Brazil, but also increasingly in Asia, where its consumption goes hand in hand with the rise of living standards among the middle classes[2].

The coffee market generates substantial revenues for downstream stakeholders - roasters and distributors - in the chain The success of coffee capsules and pods - which now represent more than 11% of the world sales of coffee, with sales expected to grow by 45% between now and 2020 - has enabled most of the established sector leaders, with Nestlé in the lead, to significantly increase their sales: accordingly, the value added created in France by the coffee sector[3] more than doubled between 1994 and 2017, increasing from 1.2 billion to 2.6 billion euro.

Coffee is produced primarily in Brazil (32% share in volume), Vietnam (19%), Colombia (9%) and Indonesia (7%).[4] It is grown by approximately 25 million farmers in over 80 countries throughout the tropics, mostly on small plantations of fewer than 5 hectares[5]. In 2017, they produced around 9 million tons of coffee (60% Arabica and 40% Robusta), of which almost 3/4 were traded on world markets, coffee ranking as the most expensive agricultural product listed on the stock market (its export value soared to 18 billion dollars in 2015)[6]. However, since the end of the 1980s and the last International Coffee Agreement, which regulated world trade, the coffee sector is characterised by greater price volatility, lower overall income for farmers and a concentration of power in the hands of traders, top international brands and distributors; all of these are trends that call the economic sustainability of the sector into question.

In addition, for the past few years, coffee production — especially Arabica — has been impacted by rising temperatures and altered rainfall patterns due to climate change, generating uncertainty in crop yield, damage caused by pests and diseases and difficulty in maintaining quality. Recent studies estimate that without strong action to fight climate change, by 2050 the world's coffee farming regions will have dwindled by 50%[7]. Moreover, certain varieties of coffee, a valuable genetic resource for farmers, could become extinct by 2080[8], making coffee crops more homogeneous - and therefore less rich in terms of flavour and aroma - and more vulnerable to disease.

To address this situation, many companies, particularly sector leaders (Nestlé, Starbucks, JDE, etc.), have implemented action plans in production countries to limit the impact of climate change and improve the situation for producers, including through certification and/or independent labels[9]; these come in the wake of the supply chains established 30 years ago by advocates of free trade - companies, NGOs, cooperatives, committed consumers - in order to improve the living and working conditions of coffee producers.

Therefore, despite the reassuring consumer communications of certain multinational coffee companies, it is legitimate to question whether (all) the current initiatives are fit to meet the challenges of the coffee sector. More globally speaking, the key question is: which conditions could enable true sustainability in the coffee sector - for producers as well as consumers - and could ensure its resilience in the face of climate change?

These are the key questions of this study, which draws on the panorama of existing research and data, around 20 interviews with experts (in the production, processing and distribution of coffee) and three specific studies on value chains involving the main producing countries of Arabica coffee: Columbia, Ethiopia and Peru.

# WHEN THE DOWNSTREAM STAKEHOLDERS REAP ALL THE BENEFIT

In 2017, the global consumption of coffee is estimated at 9 million tons[10] and generates a turnover of 200 billion dollars[11]. Consumption of coffee has been steadily growing over the last 50 years at an average annual rate of +2% volume[12] with a more marked increase since the early 2000s.

In France, the market grew to 5.8 billion euros for 345,200 tons in 2017[13]. The French consume on average 5.4kg of coffee par year[1415], mostly at home, with the the away-from-home market absorbing 40% of the total value (and 17% of the volume). According to Euromonitor, **sales of coffee for home consumption have increased by 1.2 billion euros since 2003 in France, or an increase of 54% over 15 years, the like of which has not been seen since the 1970s**.

## The polarisation of consumption between mass-produced and premium coffee

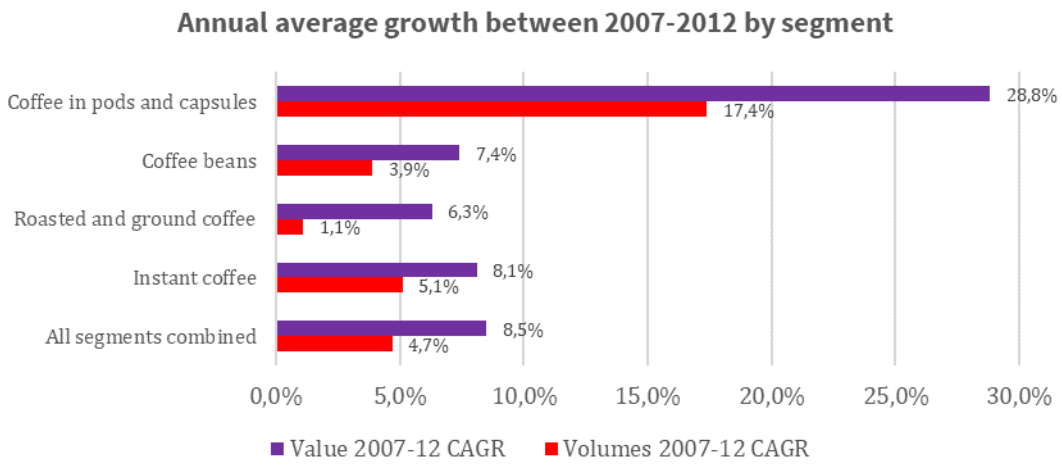



*Figure 1. Average annual growth in the consumption of coffee in terms of volume and value from 2007-2012 per segment on a global level. Source: BASIC, from information provided by Euromonitor.*

Historically associated with a largely undifferentiated product, in recent years the world coffee market has become polarised **with two distinct trends** emerging:

1. **an increase in the sale of instant coffee, driven by the increase in consumption in developing countries and coffee-producing countries, and by the consumption of the poorest classes in the West**. Primarily made from Robusta and popularised by Nestlé via its Nescafé brand, instant coffee represented 37% of global sales between 2007 and 2012, increasing by 8.1% in volume over this period;
2. **the appearance of "premium" coffees, which emphasised the taste experience and the origins of the beans** (primarily Arabica)[16]. Launched in US coffee shops in the 1970s, Starbucks, in particular, was responsible for spreading this trend throughout Europe, where its 6 billion euro market grew by 50% between 2010 and 2016[17]. Thanks to Nespresso, a subsidiary of Nestlé, and its system of coffee-capsule machines, launched in the 1990s and copied by all its competitors, premium coffee infiltrated the domestic consumption market[18].

## The coffee pod revolution: France a forerunner

If coffee pods and capsules (or "single-serve coffee") accounted for only 11% of global coffee sales in 2012, **their sales revenue has since tripled**[19].

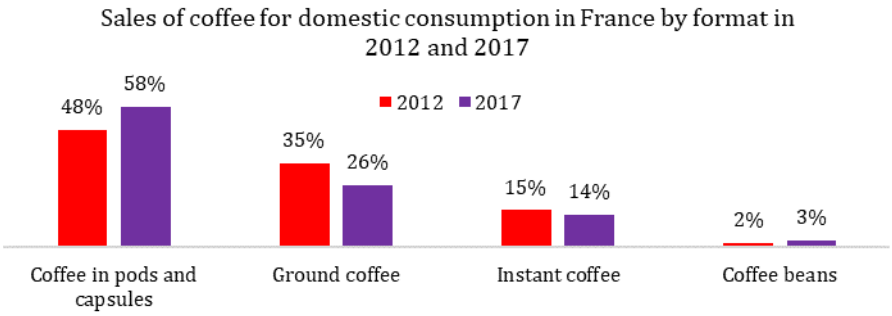



*Figure 2. Coffee consumption at home in France per format between 2012 and 2017. Source: Basic*

The growth of the market in France is linked primarily with the single-serve coffee segment, which now represents 58% of at-home coffee consumption: 1.2 billion euros of mass distribution sales revenue in 2017[20] with online and shop sales of Nespresso amounting to an estimated 800 million euro during the same year[21].

> This makes France the largest market in the world for single-serve coffee (per person), ahead of Germany and the United States[22].

## Concentration of key links in the supply chain

On a global scale, the majority of the market share is in the hands of a few major stakeholders in the coffee industry (roasters or brands): in 2015, **sales of coffee for home consumption were dominated by Nestlé with the four largest roasters generating 40% of the total sales revenue**. This concentration process accelerated in 2017 following the fusion Mondelez's "coffee" activities with Douwe Egberts Master Blenders, which gave rise to the second largest global company "JDE."

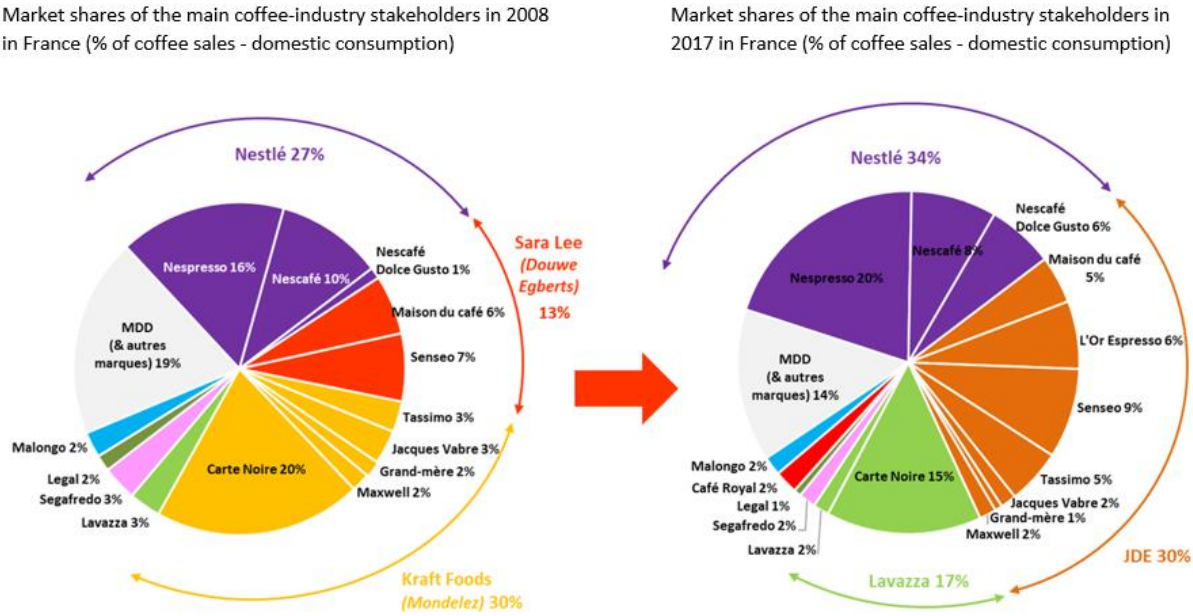



*Figure 3. Market shares of the main coffee-industry stakeholders in 2017 in France (in large food retailers). Source: BASIC, from 2018 Euromonitor data.*

Like the international market, **the French coffee sector has intensified over the last ten years**:

- In 2008, 70% of coffee sales for domestic consumption[23] was absorbed by three multinationals: Kraft Foods (integrated into the Mondelez group from the end of 2012), followed by Nestlé and Sara Lee[24].
- By 2017, **the three main multinationals now generated 80% of sales**: Nestlé taking the lead ahead of JDE and Lavazza[25]).

The giants of the sector are also competing with brands and distributors who now represent 7% of global sales and 30.6% of the volume sold by French superstores.

The away-from-home market, on the other hand, is dominated by Starbucks, who, alone, represent 21% of the estimated global market.

Similar market domination is also found at the level of buyers, historically the indispensable "middlemen" in the standardized coffee supply chain[26]: **in 2013, the five largest buyers were managing almost 40% of the global trade in green coffee beans[27].**

The increasing domination of fewer players in the downstream supply chain leads to an increasingly significant imbalance of power in favour of the roasters and buyers, which reduces the capacity of producers to negotiate their terms of sale and contributes to their growing vulnerability.

## Specialisation of producing countries

Faced with the polarisation of the market in terms of premium and standardised coffees, **producing countries have implemented two major strategic approaches** :

- **One is focused on producing quality coffee,** usually, Arabica, valued for its origin (this is particularly the case of Peru, Colombia and Ethiopia, the subjects of our case studies).
- **The other focuses more on reducing coffee production costs** and is often associated with Robusta, which is essentially considered a standard cheap raw material (in Vietnam and Brazil).

The two strategies are applied differently, however, depending on the country and its characteristics: species and varieties grown, how much institutionalised, land ownership, processing method, history, political choices, promotion in international markets, etc.

**The global result is production specialisation in the main producing countries.**

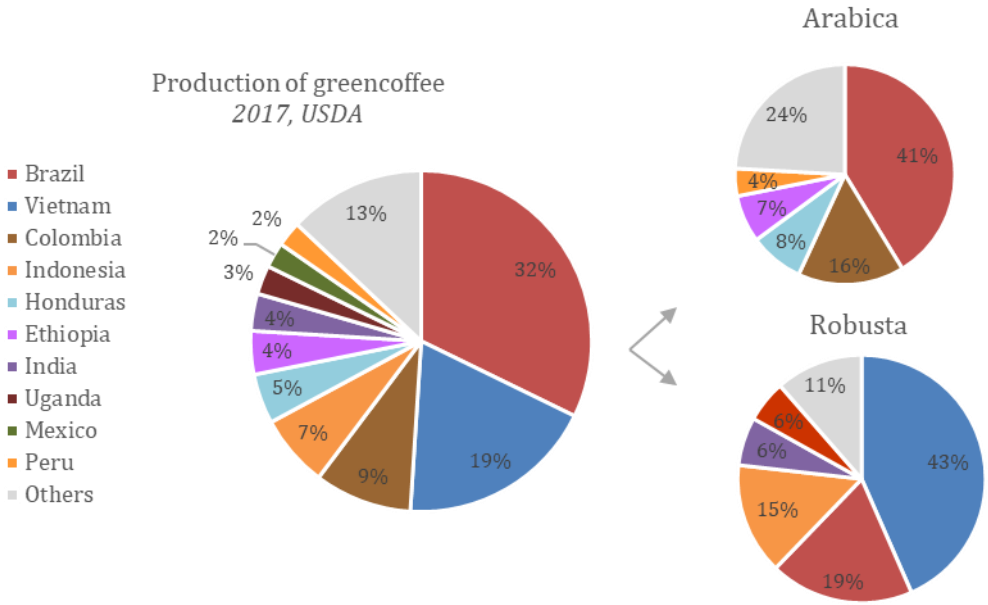



*Figure 4: Breakdown of total coffee production in 2017 for the top 10 producing countries, and for the top five countries by species of coffee. Source: BASIC from USDA*

Apart from Brazil, the world's largest producer of arabica and second largest of Robusta, the principal countries specialise in the production of only one of the two species; the leader in Robusta, Vietnam does not produce Arabica, while Colombia, Honduras and Ethiopia do not produce Robusta. [28]

**Although the growth in coffee volume is mainly due to the increase in the global production of Robusta,** associated with the rise in instant coffee consumption, **Arabica sales still accounted for 2/3 of the total value of coffee exports in 2017.**[29]

Lastly, although the country of origin is of value for export, differences in associated costs, especially among arabicas, are reflected very little in consumer prices, which shows that roasters and distributors have a sufficient margin to absorb (higher) costs related to the quality of the product.

## Explosive Growth of a Newly-Created Value

The development of pods and capsules and the concentration of key stakeholders have gone hand in hand with **a strong growth in sales and profits for industry leaders in France**.

These changes show how the main brands can create and retain value down the chain, thanks to the "immaterial" aspects of marketed products: innovation, brand image, specific formats, specialised networks and more overall global consumption that goes beyond the taste of the products. To do this, they have made use of many more marketing resources, their main advantage over other stakeholders upstream.[30] Roasters and distributors have increased their revenues over the last fifteen years, as seen in the example of the French market.

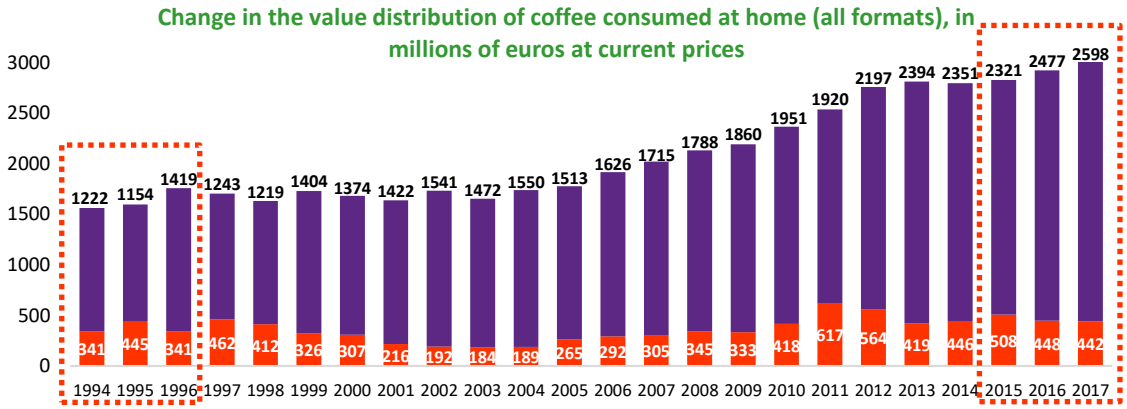



*Figure 5. Changes in distribution of the value of coffee consumed at home in France in today's euros. Source: Basic*

However, according to our estimates, the increase in extra coffee production and transport costs in 2017 compared to 1994, including costs related to the development of pods and capsules, was only about 310 million euros. **Additional income earned by roasters and distributors in the French market could have reached approximately 1.1 billion euros during the same period.**

> The added value created in France by sales of roasted ground coffee (packets, pods and capsules) more than doubled between 1994 and 2017, rising from 1.2 billion euros to 2.6 billion euros, i.e. 1.4 billion euros more.

## …Yet this does not trickle down to the producers

**The coffee value chain is an oligopoly** that upstream brings together millions of small farmers who have very weak bargaining power compared to the power of the economic stakeholders, who are much fewer in number and are located downstream.

Since the late 1990s, **roasters and distributors have generated the most revenue in the sector**. They enjoy growing market power in close coordination with international traders with whom they have often built privileged relationships over decades[31]. The influence of these two stakeholders is reflected in many supply chains by the establishment of entry barriers[32] (minimum volumes, supplier inventory management, etc.) and by the dependence of small producer[33]. This corresponds to a governance model that economists call "relational."

**Thanks to this change, the main distributors, roasters and traders have reduced the value share of green coffee in the value of the finished product**: On several occasions they even managed to increase their gross margin while the value distributed to farmers decreased, creating paradoxical situations - like now - of a rise in value in countries of consumption coupled with a fall in value in the countries of production.[34]

Upstream in supply chains, coffee growers are generally subject to terms of trade unless they can collectively organise themselves into cooperatives and/or their governments regulate prices. Thus, the value of imported coffee in France is **both weak and volatile in comparison with changes downstream in the chain.**

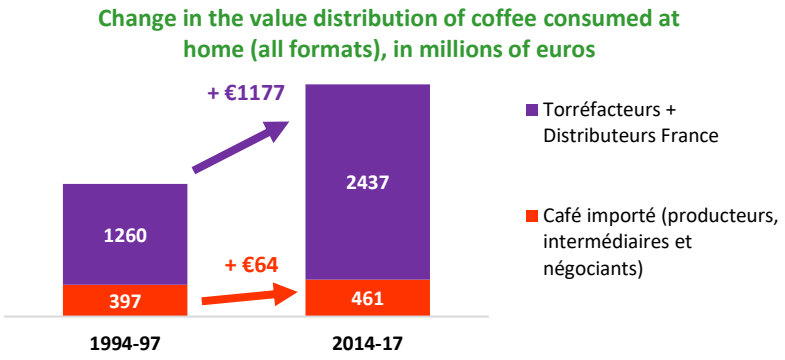



*Figure 6. Changes in value distribution for coffee consumed at home in France: annual average 1994-1997 and 2014-2017. Source: Basic*

A comparison at 20-year intervals of the value generated by downstream stakeholders in the chain (roasters and distributors) to the value received by upstream players (producers and traders) over two 4-year periods **shows the profound inequality of industry changes in France**:
While **roasters and distributors have created 1,177 billion euros in additional value between the two periods** via coffee sales**, producers and traders have received only 64 million euros of additional value**, barely 4% of the gain realised by downstream stakeholders (this increase is only apparent, since it does not take into account inflation in the producing country, which is usually much higher).

> Between 2014 and 2017, upstream producers and traders received only 16% of the total value generated in the French market over the last four years, compared to 24% twenty years earlier.

**While the value created downstream continues to grow, the share that goes to producers is becoming smaller.**
A detailed analysis of value chains from Peru, Colombia and Ethiopia to France confirms this trend.

- **In Peru and Ethiopia,** prices paid to producers were flat over the long term (excluding high inflation in those countries); in 2017 producers received no more than about 10% of the consumer's average coffee retail price. In contrast, production costs have risen sharply, particularly in Peru, thereby reducing the income available to producers.
- **In Colombia**, prices rose slightly due to government intervention. However, even in this case producers received only 16% of the consumer's average retail price of coffee in 2017 (all formats combined). At the same time, costs have also risen sharply, thus erasing the price increase received by coffee growers.

A more detailed study by format shows that **the share of value accruing to producers is much lower in portioned coffee:**

Although producers received from **11.6%** (in Peru) **to 24.1%** (in Colombia) **of the retail price of a packet of ground coffee,** they received **only 2.7%** (in Peru) **to 4.8%** (in Colombia and Ethiopia) **of the retail price for portioned coffee.**

# PRODUCERS ENJOY A CUP

## Under-remuneration and lack of cash

In addition to regular price decreases,[35] **coffee growers have had to cope with increased production costs for more than 20 years** (increasing price of labour and chemicals). Low margins discourage investment, leading to lower yields and quality that *in the end* impact the prices they get for their coffee[36]. **In this context, the most vulnerable producers are often the least collectively organised**: weak bargaining power, lack of integration into the first processing step that would help control quality and obtain higher prices, etc.[37]

> Only a minority of producers benefit from the value of Arabica[38]. For the others, the economic situation is not viable[39]. Isolated and dependent on their buyers, farmers also suffer from a critical lack of access to financing.

Without sufficient means to maintain their plots and sometimes even to harvest all of their coffee, forced into debt to meet their basic needs, many of them find themselves trapped in poverty." Finally, in many regions, the vocation of coffee grower continues to lose its attractiveness and younger generations are turning away.


*Figure 7. Changes in income of Peruvian, Ethiopian and Colombian coffee farmers and comparison with the poverty line. Source: Basic*

Our estimates show that in Peru and Ethiopia**, coffee growers generated income (from their coffee business) well below the poverty line** (except in 2011) **and in 2017 had a 20% lower income than in 2005**.

In Colombia, although coffee growers on average manage to rise above the poverty line, they only rarely achieved a decent standard of living in 2011 and 2016.

## Endemic precariousness

Families who grow coffee often suffer **from malnutrition and high rates of illiteracy; their impoverishment fuels migration and drug trafficking**[40]. In some countries (Kenya, Honduras, etc.), **child labour is sometimes used to contain costs** in the light of rising agricultural wages and difficulties finding workers[41]. **Children endure precarious working conditions and very often live below the poverty line with wages sometimes 40% lower than decent wages**. At the same time, they are exposed to many risks: respiratory diseases, deficiencies caused by unprotected exposure to chemicals, **etc.[42]. Finally, it is documented that women are the most affected by inequality in the sector.** While they perform nearly 70% of maintenance on coffee plots and the harvest, they are usually less well paid and very rarely owners.[43]

## Increasing environmental impact and deforestation

Another issue is **environmental pollution related to the use of chemicals to increase yield and combat the upsurge in coffee bush diseases,** especially due to climate change. Although their use is (very) limited in countries such as Peru and Ethiopia because they are still too expensive for producers, they are used more and more in other countries such as Colombia, due to incentive policies promoted by public institutions.

**Coffee production also has an increasing impact on deforestation** resulting from both the expansion of coffee growing and the trend towards modernising farms. On top of this: the felling of trees that offer shade and the loss of the associated ecosystem benefits that they provide (climate regulation, erosion control, maintenance of soil moisture and fertility, etc.).[44]

Changes in production models disrupt agroforestry practices and lean towards **single-crop coffee farming systems, without shade, yielding more significant per-hectare coffee production**. These systems rely on hybrid, fast-growth coffee varieties that require the increased use of synthetic chemicals, resulting in higher production costs, negative effects on soil and water quality, a loss of biodiversity, etc.[45]

## The effects of climate change

As coffee farming requires very specific climate conditions, **especially when it comes to the Arabica bean[46], we can see that climate change is already having a big impact on the industry**: coffee blight in Colombia in 2011, and the following year in Central America (which has affected nearly 55% of the total plantation area), extreme drought in Brazil in 2014[47] and even the spread of insecticide-resistant pests, etc. [48]

The general increase in temperatures and periods of intense rain caused by climate change make for uncertain harvests. **Crop yields and the quality of harvests are affected, with an increase in production costs that can significantly reduce income for coffee producers**. The effects of climate change on income further aggravate the existing issues of food security, access to water and the quantities produced. Producers who depend on their small coffee plantations to survive, and who have little or no additional sources of income, are the most vulnerable. For many, **the effect of climate change is already too much for them to handle, and there are few proven solutions today to deal with this phenomenon in the coffee sector.**[49]

Based on evidence from recent decades, a significant increase in temperature in the tropics is predicted by 2050, as well as an increase in precipitation and prolonged dry seasons[50]. Extreme weather events are also expected to become more frequent, notably through the intensification of the El Nino/La Nina phenomena, which proliferate diseases and pest attacks in coffee-growing areas[51]. These kinds of changes could result in a decrease of 20% in crop yields by 2050[52] and reduce the overall quality of coffee.[53]

> On a global scale, about 50% of the surface area currently being used for coffee farming may no longer be suitable by the year 2050[54] [55].

Inversely, **it is predicted that there will be a sustained increase in coffee consumption** by 2050 (especially high-quality coffee[56]) due to population growth, changes in consumer behaviour and the development of emerging economies. To meet this forecasted growth, **the current surface area available for coffee farming needs to increase 2.5 times[57]. Coffee production, therefore, faces increased pressure, likely resulting in market volatility and increased prices**. New coffee-producing areas that have been developed especially to respond to this increasing demand will potentially escalate the already observed problem of deforestation, with a significant negative impact on ecosystems and biodiversity[58].

However, one of the most popular strategies employed to combat the effects of climate change at present seems to be the modernisation of farms (as seen in Brazil), which has a significant impact on the environment due to the increased use of synthetic inputs.[59]

## Societal costs that emphasise the unsustainability of the coffee sector

A lack of cash flow among coffee producers, remoteness and imbalance of power between exporters and traders, the increasing incentive to use chemical inputs to fight coffee plant diseases in the context of climate change, etc. In general, none of the three countries included in our case studies seems to have found the means to ensure the resilience of its coffee sector by itself, as each is caught up in the dynamics of the liberalised world market from which it cannot withdraw.

To demonstrate the magnitude of the social and environmental impact of coffee production in these countries, we have estimated the corresponding "societal costs", **that is, all losses and expenses that are carried over to third parties and the community, and that are quantifiable from publicly available data** (see below).

| Causes | Consequences | Estimate of associated societal costs | | |
|---|---|---|---|---|
| | | Ethiopia | Colombia | Peru |
| Compensation paid to producers does not cover the minimum cost of healthy and adequate food, housing, education for children, care, clothing and transport | Need other financial sources to achieve the necessary level of income | $477 million | $471 million | $414 million |
| Insufficient taxes levied on the stakeholders in the sector to meet public service needs (education, health, social affairs, water/electricity, transport, environmental protection, etc.) | Deficit in the State's budget for essential public services in coffee plantation areas | $203 million | $236 million | $189 million |
| GHG emissions throughout the life cycle of the coffee plants | Climate change, for which the associated costs are borne by society | $56 million | $259 million | $73 million |
| Pollution caused by chemical inputs (fertilisers, pesticides) | Water treatment costs borne by society | | $162 million | |
| **TOTAL SOCIETAL COSTS** | | **$736 million** | **$1,128 million** | **$676 million** |
| By way of comparison, societal costs as a percentage of the total amount of taxes (excluding VAT) in each country | | 70% | 8.5% | 6% |

*Figure 8. Summary table of societal costs estimated in 2017 in the Peru-France, Colombia-France and Ethiopia-France sectors. Source: Basic*

**The vast majority of societal costs are related to social issues**: shortfall in coffee producers' income in order to meet the basic needs of their families, and a lack of state resources to finance basic public services in the coffee-producing provinces. These two components account for 63% of societal costs in Colombia, 89% in Peru and 92% in Ethiopia. The total amount – which fluctuates between 600 and 700 million dollars per year in each of the countries surveyed – demonstrates the extent of the poverty that affects the coffee-producing communities and the heavy burden on Governments. Despite the differing contexts, the fact that the vast scale is so similar across the case studies is testament **to the systematic social issues that are deeply rooted in the coffee value chain**.

**On the environmental front, differences are more apparent among the case studies.** In Colombia, coffee production generates the highest level of greenhouse gas emissions (per kg of coffee produced), as well as significant water nitrate pollution. The resulting societal costs are due to the production model adopted by the country, which is based on the heavy use of synthetic fertilisers and pesticides. In comparison, the environmental costs are far less in Peru and Ethiopia, which are (still) characterised primarily by agroforestry systems that use low levels of chemical inputs because the price is too high for the majority of producers.

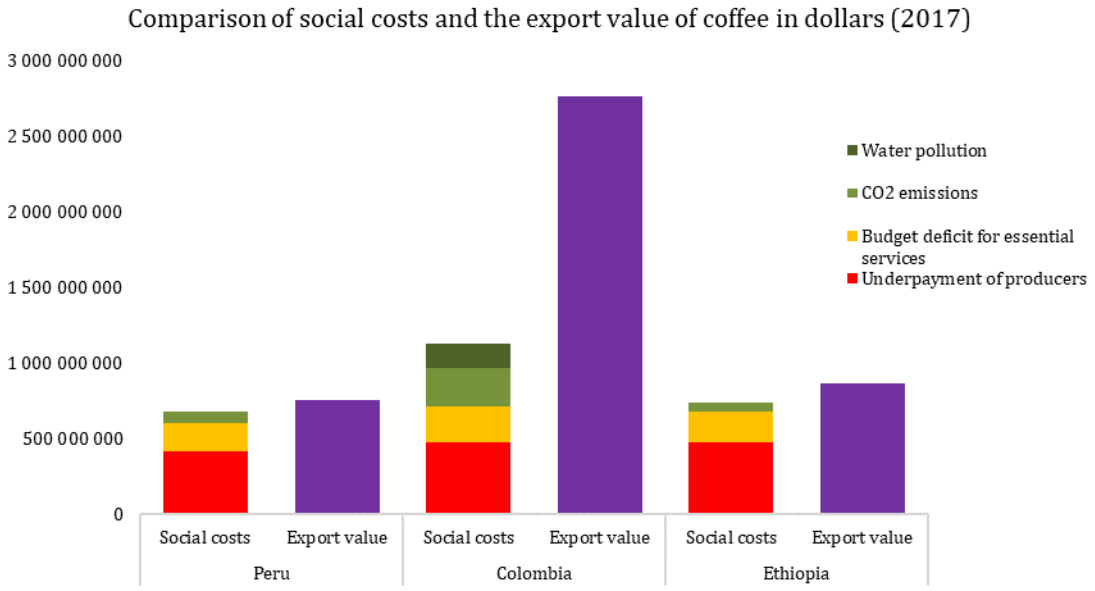



*Figure 9. Comparison of social costs and the export value of coffee in 2017 in the Peru-France, Colombia-France and Ethiopia-France sectors. Source: Basic*

The total societal costs weigh heavily on the value generated by the coffee sector in these coffee-producing countries.

**In the case of Peru and Ethiopia, for every dollar generated by coffee exports in 2017, the societal costs incurred by these countries and their citizens was 90 cents and 86 cents respectively.**

In Colombia for the same year, the societal costs were only 41 cents per dollar of coffee exports. In fact, although the total societal costs are higher than in the other two countries, the value of exported coffee is also far higher, which lowers the societal cost ratio.

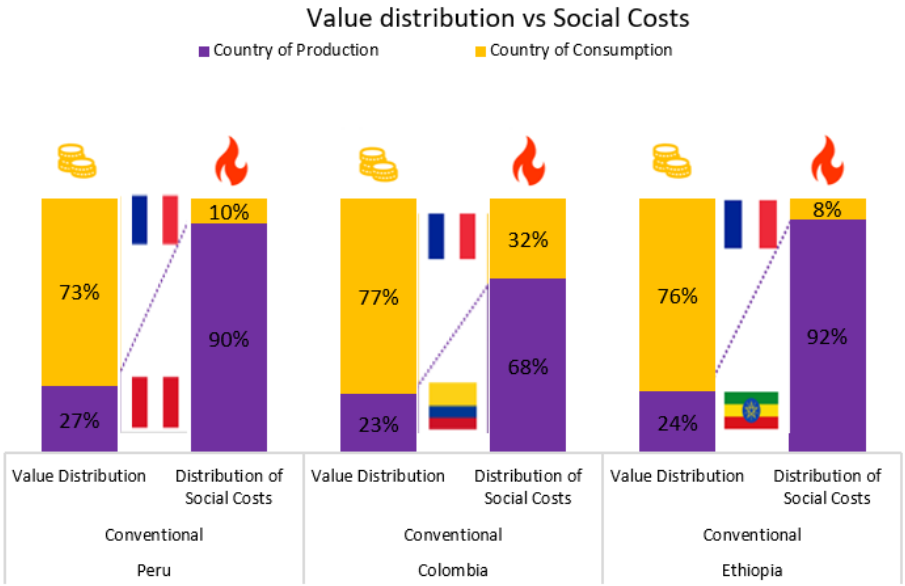



*Figure 10. Comparison of the distribution of societal costs and value generated between producer and consumer countries in the Peru-France, Colombia-France and Ethiopia-France sectors. Source: Basic*

Another important analysis: **Although the coffee-producing countries on average receive just 23%–27% of the value generated by the coffee value chain, they bear between 68% and 92% of the associated societal costs**.

> The coffee-producing countries recuperate only a small portion of the value generated by the sector, even though they suffer the main social and environmental effects of it.

# COFFEE: RAW MATERIAL FOR FINDING ALTERNATIVE SOLUTIONS

In the coffee sector, the main social and/or environmental production specifications (or standards) are organic farming, fair trade (the main system being that run by Fairtrade International) and "sustainable" labels developed by the Rainforest Alliance and UTZ Certified (who merged in 2018)[60]. There are also internal private standards set by companies, such as 4C's code of conduct, Nespresso's AAA programme or Starbucks' C.A.F.E. practices[61].
As it stands, there is much more academic literature and many more independent impact studies relating to fair trade practices, mainly by Fairtrade International, than there are for "sustainable" labels and internal systems. This poses the question of transparency for these two alternative solutions.

## Fairtrade coffees

Fair trade is based on the actions of sector stakeholders in promising producers and workers that they will be able to earn a living from the work they do and in investing as a group for the long term.
More precisely, its basic principles consist of the following:

- **By organising themselves as a group and in a democratic way**, producers and workers can get more of a say when it comes to management and trade.
- **A minimum price guarantee** is implemented to act as a "security net" for producers.
- **The fair trade premium** – the use of which is decided jointly by the producer and worker organisations. It acts as a **specific premium** to help producers **move towards organic farming**
- **Respecting the conventions of the ILO** (International Labour Organisation) and **the reduction of environmental impact** by adopting good farming practices.
- Across all of **their information and awareness campaigns**, fair trade movements encourage consumers to think about where the products they are buying come from, and the social and environmental conditions in which they are manufactured.

**In 2018, Fairtrade/Max Havelaar – a pioneer in the mass distribution of fair trade labelling initiatives – is most prevalent in the coffee sector in terms of the number of certified organisations as well as in terms of volume sold.** It has been followed for a few years by other labels ("Símbolo de los Pequeños Productores," "Fair For Life," Bio Partenaire, World Fair Trade Organisation, etc.).
In 2017, coffee was the best-selling fair trade product in France, with 51% of sales in value[62], representing a turnover of around 300 million euros[63]. 745 coffee products are certified fair trade in France, of which 532 are also certified as organic[64]. The Fairtrade/Max Havelaar label represents 654 coffee products, of which 442 are also certified as organic. It should be noted that outside the home, some of the coffees sold by Starbucks are certified Fairtrade[65].
The main countries that supply the certified fair trade coffee sold in France are Peru, Mexico, Guatemala, Colombia, Ethiopia and Indonesia.

## "Sustainable" coffee

In response to consumer expectations concerning ethics and sustainability, several other certification initiatives have been launched in partnership with industry leaders (in particular UTZ Certified and Rainforest Alliance, who have now merged). As a result, coffee is one of the first agricultural products to be marketed in so-called "ethical" sectors[66].
These approaches share several common principles with fair trade labels:

- The reduction of environmental impact and the protection of biodiversity through the adoption of good agricultural practices
- Respect for the core conventions of the ILO (the right to join a union, no forced child labour, non-discrimination ...)

**However, they differ from fair trade in their approach to economic issues**; despite sharing the view that farmers are underpaid, they consider that increased productivity can allow producers to earn a better living. **As a consequence, they do not require price regulation nor the strengthening of producers' bargaining power** by their collective organisation. Nevertheless, they do provide a non-systematic "quality bonus" which is 3 to 4 times lower than the fair trade premium.
Although these "sustainable" certifications are fairly widespread in France's coffee market, **there is little-consolidated information about them**. Rainforest Alliance certification is, for example, visible in major supermarkets on certain Lavazza products[67]. In France, the UTZ Certified label works with JDE, Lavazza[68] and Café Royal, even in a new range of cold drinks[69]. Outside the home, the coffee sold in McCafés and McDonald's bears the certification label,[70] as do certain products available in Selecta Vending vending machines[71]. Forty per cent of the coffee used in Nespresso capsules is Rainforest Alliance certified[72].
UTZ certification is mainly established in the larger producing countries (Brazil, Vietnam) because it is primarily driven by the main manufacturers in the sector. Rainforest Alliance certification has a slightly different distribution, with a larger share of the volume produced on the African continent.

## Roasters' internal procedures

In addition to the aforementioned steps, for several years the biggest coffee-roasters have also had codes of conduct and internal specifications, which are intended to improve their purchasing and procurement practices. The most important are the 4C Code, jointly developed by the main manufacturers in the sector; the Nespresso AAA Sustainable Quality Programme; Starbucks C.A.F.E. Practices; and Lavazza's "Voix de la terre" (Voice of the Earth)[73].

The main objective of these internal procedures is to ensure the required quality of coffee, at acceptable costs, through improved yields by producers. These technical requirements are often supplemented by criteria adhering to the ILO conventions and the adoption of good agricultural practices, on which these "sustainable" and fair trade certifications are based.

These procedures differ from previous certifications, in terms of **their approaches to risk management and continuous improvement, having reduced requirements of mandatory criteria, and omitting external audits of their commitments** (except in the case of Starbucks).

## Large Corporations' Commitments

Consumers' societal expectations are mainly concentrated in the so-called mature markets (Europe and North America account for more than 85% of sales), where average purchasing power is higher[74]. They have influenced the current major coffee brands, who make use of various certifications and/or have implemented their own internal sustainability programs[75].

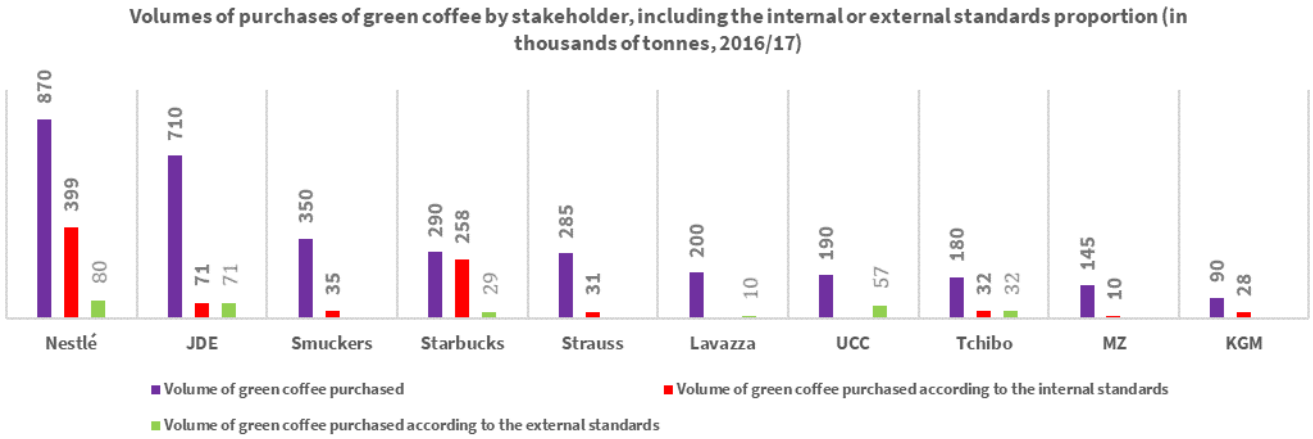



*Figure 11. Comparison of purchase volumes of total green coffee and certified green coffee. Source: BASIC, based on Hivos 2018 data*

For example, almost all of the coffee purchased by Starbucks in 2017 was audited; 90% through its internal C.A.F.E. Practices programme and about 7% by the fair trade certification Fairtrade[76].

As for Nestlé, 75% of its audited coffee was done so in accordance with the 4C Code of Conduct, 25% followed its internal AAA standard (of which slightly over half was also certified by Rainforest), and 1% was certified by Fairtrade. Lastly, 50% of JDE procurement followed the 4C Code of Conduct in 2014. The other half was certified UTZ or Rainforest (making JDE the first customer to use both of these certifications).[77]

# THE IMPORTANCE OF LOCAL CONTEXTS

## In Peru: significant positive impact generated by fair trade and organic sectors, not documented by "sustainable" certifications

**Development of alternatives**

In 2016, more than 47,000 tons of coffee were exported from Peru under Fairtrade fair trade conditions, representing 25% of the country's total exports[78]. Most producers' organisations are certified Fairtrade and they unite 44,800 of the country's 224,000 producers, in contrast to around 11,800 UTZ-certified producers and 8,750 Rainforest-certified. **Fairtrade is no longer a niche market and associated organisations have reached a threshold effect, allowing them to influence the sector more broadly.**

**Principal focuses of impact identified**

Fairtrade - first and foremost certified Fairtrade - has been an essential lever for developing cooperatives: protection in times of crisis (guaranteed minimum price) and additional cash flow **thanks to a price 16% higher, on average, than that of conventional channels in 2017; and the development bonus and easier access to pre-financing**. Cooperatives have been able to implement a quality strategy within a more stable business relationship.

Linked to organic certification for 70% of volumes, **it allowed organisations to strengthen Peru's traditional agroforestry model of coffee cultivation** while ensuring physical traceability of their production. Thanks to fair trade's additional premium for organic production, producers have been able to make their transition to organic farming profitable (receiving a price 50% higher than the conventional in 2017) and earn a better income from their coffee production.

**As for the UTZ and Rainforest systems, their specific impacts have not yet been documented.** In Peru, their development is limited due to the producers' perception that the quality premium is low compared to compliance costs. Apart from producer organisations already certified fair trade, most are implemented by more intensive producers (i.e. those using more inputs) even before their certification.

**Value chain**

**In the Fairtrade system, producers receive a larger share of the total value: 16.1% versus 11.6% in the conventional system.** When exporting, Fairtrade-certified cooperatives receive a larger share of value (18.8% as opposed to 12.4% for conventional coffee exporters). For Fairtrade-organic double certification, the share returned to cooperatives is slightly lower (compared to Fairtrade alone) because the sales prices of the corresponding products are higher.

Due to lack of sufficient information, we were unable to analyse UTZ- or Rainforest-certified coffees containing Peruvian coffee.

**Societal costs**

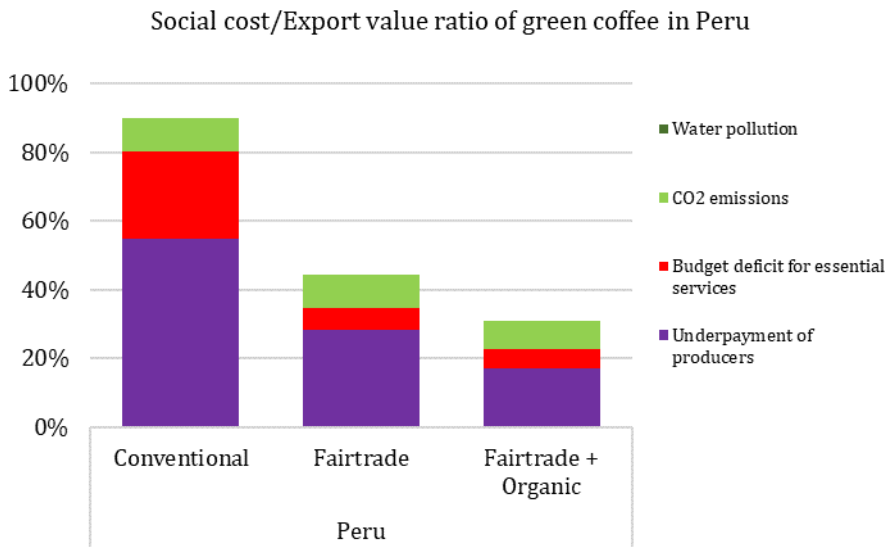



*Figure 12. Comparison of societal costs in Peru-France sectors. Source: Basic*

The differences in impact are reflected in terms of societal costs: while conventional coffee sectors generate 90 cents of societal costs for every dollar of green coffee export value, **these are reduced to 44 cents for Fairtrade-certified sectors and 31 cents for joint Fairtrade-Bio certification.**

**Limits**

Since 2013, the combination of the coffee rust epidemic and the rising power of large private exporters within the Fairtrade system have strongly weakened a number of cooperatives, who saw their autonomy reduced and their base eroded.

The implementation of the UTZ and Rainforest labels by larger and more intensive producers seems to contribute to the increase in the use of synthetic inputs, a problematic trend to confront the need to protect the Peruvian agroforestry model in the context of climate change.

## In Colombia: there is significant positive impact when fair trade certification is combined with organic farming, a higher impact than UTZ

### Development of alternatives

The volumes sold under fair trade conditions represent 2.5% of the country's exports in 2017, of which around a quarter is certified organic.

67,000 producers are members of Fairtrade-certified cooperatives, compared with about 10,000 for Rainforest and 6,400 for UTZ (their weak development is explained, as in the case of Peru, by the low premiums offered in comparison to implementation costs for producers).

### Principal focuses of impact identified

Fairtrade trade was a lever for more isolated producers, using **agroforestry systems** and eager to escape the control of the national federation. They were able to organise themselves and become autonomous by creating associations and making contacts with buyers prepared to value the quality of their coffee.

While organic farming is very weakly established in Colombia, **its association with the fair trade approach has helped it to generate significant impact**; **20% increase in income** for producers and, above all, **the development of an agroforestry and organic** model, providing an alternative to combat the effects of climate change in relation to the system promoted by the country's authorities.

The UTZ and RFA approaches are mainly implemented **by more productive/intensive plantations of above average size**, selected by the national federation. As a result, the impact of these certifications on producers' income is inseparable from the support provided by the authorities. Moreover, they generate a use of chemical fertilizers that is twice the conventional and is the cause of increased nitrate pollution, a critical issue for the sector in Colombia.

### Value chain

We have not been able to identify the effect of fair trade certification on the drop in price of coffee of pure Colombian origin (the percentage differences are mainly explained by company sizes and marketing positioning of the coffees traded).

On the other hand, in terms of the association between fair trade and organic certification, our records show that the share received by producers is slightly higher, increasing from 24% (in the conventional system) to 26% (for Fairtrade-organic).

Regarding "sustainable" labels, available information was not sufficient to estimate the associated value cut.

### Societal costs

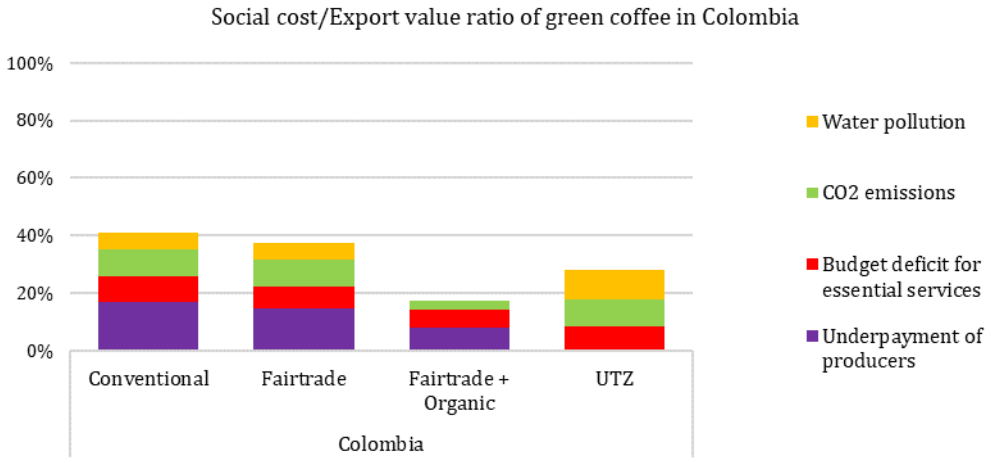
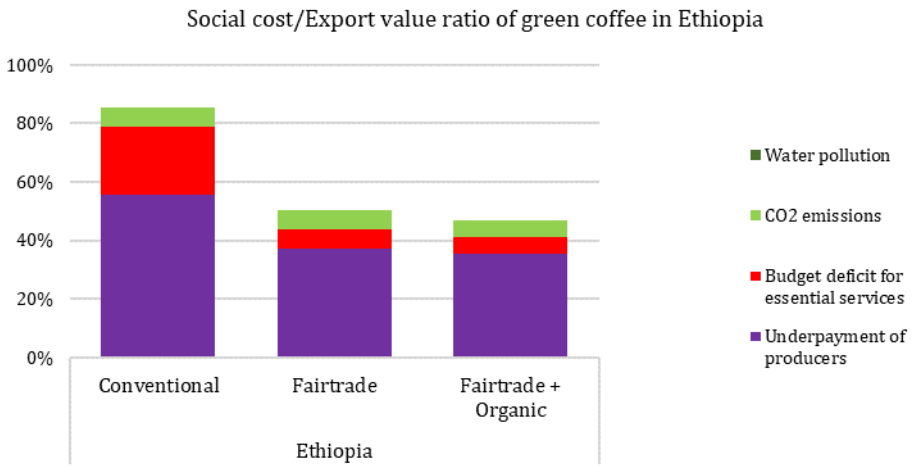



*Figure 13. Comparison of societal costs in Colombia-France sectors. Source: Basic*

We estimated that there are 41 cents of societal costs for each dollar of export value for Colombian coffee. These costs **are reduced to 37 cents in the case of Fairtrade-certified chains, 17 cents with Fairtrade and Organic double certification, and 28 cents in the case of UTZ certification.**

| | |
|---|---|
| **Limits** | In a context defined by the heavy use of chemicals, **the fair trade system frees some producers to develop an organic agroforestry model. It remains to be seen how much it can influence most coffee growers** "caught" in the single model promoted by the Colombian Coffee Growers Federation.<br><br>The "sustainable" label, on the other hand, seems to strengthen producers operating within this intensive model, and impact significantly in certain other ways, as well. |

## In Ethiopia: the relative improvement of the situation for producers, held back by the the cooperatives' lack of internal dynamism

| | |
|---|---|
| **Development of alternatives** | As in the other two cases examined, fair trade is better established in the coffee industry in Ethiopia than the UTZ and Rainforest initiatives: in 2017, **29% of Ethiopian coopératives were certified Fairtrade** (about 150,000 producers)**, 27% were certified as organic agriculture and 2% by UTZ and Rainforest** (23,000 and 3600 producers respectively). |
| **Principal impacts identified** | The most obvious positive effect of fair trade can be seen among the **cooperatives who were able to leverage it successfully in order to grow, create collective capital and invest in community infrastructure (education and health)**. In contrast, the effect on the producers' standard of living is weaker than in other countries, due in part to the minor share coffee has in their revenues and to the use of most of the premium by the cooperatives for internal organisation.<br><br>**Most Ethiopian coffee production is naturally organic** and a large part is doubly certified Fairtrade and organic. When associated with fair trade, certification **has 10% more impact on producers' revenues and especially on the preservation of the traditional Ethiopian agroforestry model** for coffee production that helps fight the effects of climate change (hot winds, heavy rains and longer dry seasons).<br><br>In comparison, the **Rainforest and particularly the UTZ** schemes appear to have been implemented primarily by **coffee farms which were already specialized and larger than the country average and fair-trade supply chains**. The only available impact study on Rainforest does not identify these specific impacts, which derive from the producers' pre-certification characteristics. |
| **Value chain** | Like in Peru, producers receive a larger share of the total value for Fairtrade-certified products: 20% for a 250 g pack of single-origin ground coffee from Ethiopia, versus 17.4% for the conventional product. Moreover, certified cooperatives obtain a greater share of the value (20.3% compared to 13.4% for exporters of conventional coffee). For Fairtrade and organic double certification, producers make an even greater share: 23.7% of the final price of a 250 g pack of ground coffee. In contrast, this difference is far less marked when coffee is sold in capsule form: 4.8% when doubly certified compared to 4.1% for conventional coffee.<br><br>For UTZ and Rainforest, our reports did not identify products certified as single origin from Ethiopia. |
| **Societal costs** |  <br>*Figure 14. Comparison of societal costs in the Ethiopia-France supply chains. Source: Basic*<br><br>In conventional Ethiopian coffee supply chains, 86 cents worth of societal costs are generated for each export value dollar of unroasted/green coffee. These costs **drop to 50 cents for Fairtrade-certified supply chains and 47 cents for those with Fairtrade and organic double certification.** |

| | |
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| **Limits** | The relatively slight impact of Fairtrade on producers' revenues (in comparison with Peru and Ethiopia) is related to the producers' limited participation in the cooperatives and the weak competition between them: a general issue in the Ethiopian coffee sector that extends beyond fair trade, but which the latter has apparently not yet overcome.<br><br>Rainforest and especially UTZ are primarily associated with the large(est) employer producers specializing in coffee, who are contributing to the destabilization of the traditional Ethiopian agroforestry model (field assessments would be required to measure the social and environmental impact). |

# SOME ALTERNATIVES TO THE VARIABLE RESULTS

The disparities between the results of the three countries are explained primarily by their different contexts (the history of the industry, the dynamics of producer organisations, the application of government regulations, traditional production models, etc.). **Beyond these disparities, the case studies nevertheless help us understand the differences between the alternatives analyzed.**

## A lack of information on "sustainable" certifications

**"Sustainable" certifications like Rainforest and UTZ – now merged – have been subject to** very few independent studies, making it difficult to measure their impact**.** Their vision of economic sustainability for producers is centred on increasing their yields **to improve profitability and income**[79] **.** The idea is that there is no need to regulate the market as a means of resolving the industry's social and environmental problems if downstream businesses are provided with criteria to do so, which is far from being demonstrated by the study**. In actuality, these form of certification are generally associated with larger farms that use more inputs and above-average amounts of resources and support.**

The available impact studies have only allowed us to estimate the societal costs in Colombia, where **the effects of UTZ certification appear to be less pronounced than the double Fairtrade and organic labelling because of the increased use of chemical fertilizers**.

## Fairtrade: a tool that works...

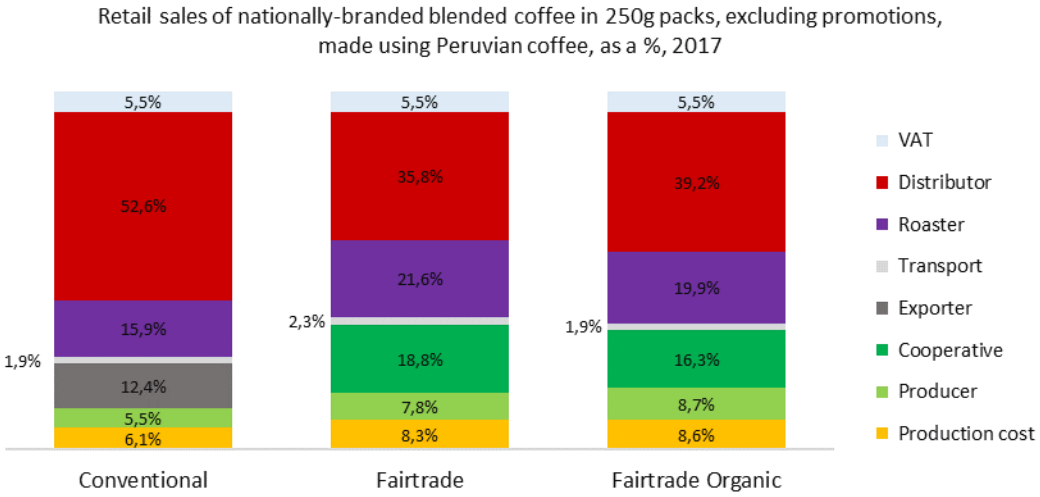


*Figure 15. Comparison of the breakdown in value of 250 g packs of ground between conventional and fair-trade supply chains between Peru and France. Source: Basic*

In comparison, **there are more studies and publications on fair trade, which make is possible to evaluate its effects**[80]. These all converge on the point that this system improves the situation of coffee producers:

- **By making the collectivization of producers a prerequisite to establishing a fair-trade supply chain, so that they are no longer isolated and their bargaining power is stronger**. The success of these organisations is related to the development of autonomous strategies that have been decided collectively and have enhanced the value of their members' coffee all the way to the consumer. For example, in 2017, Peruvian producers of coffee labelled Fairtrade/Max Havelaar retained 16.1% of the value of the coffee sold in 250 g packs compared to 11.6% in conventional supply chains, while certified cooperatives retained 18.8%.

- **By offering a safety net (minimum price)** in an environment of volatile prices and regular drops below production costs, as well as a collective premium and pre-financing facilities that meet the cash needs of producers and their organisations; on average, Peruvian producers earned 24% more in fair-trade supply chains than in the conventional supply chain.

- **By associating with organic agriculture in order to preserve agroforestry production models free from synthetic fertilizer and pesticides** (especially via the Fairtrade/Max Havelaar organic premium, which helps compensate for losses in yield and reach a sufficiently profitable threshold).

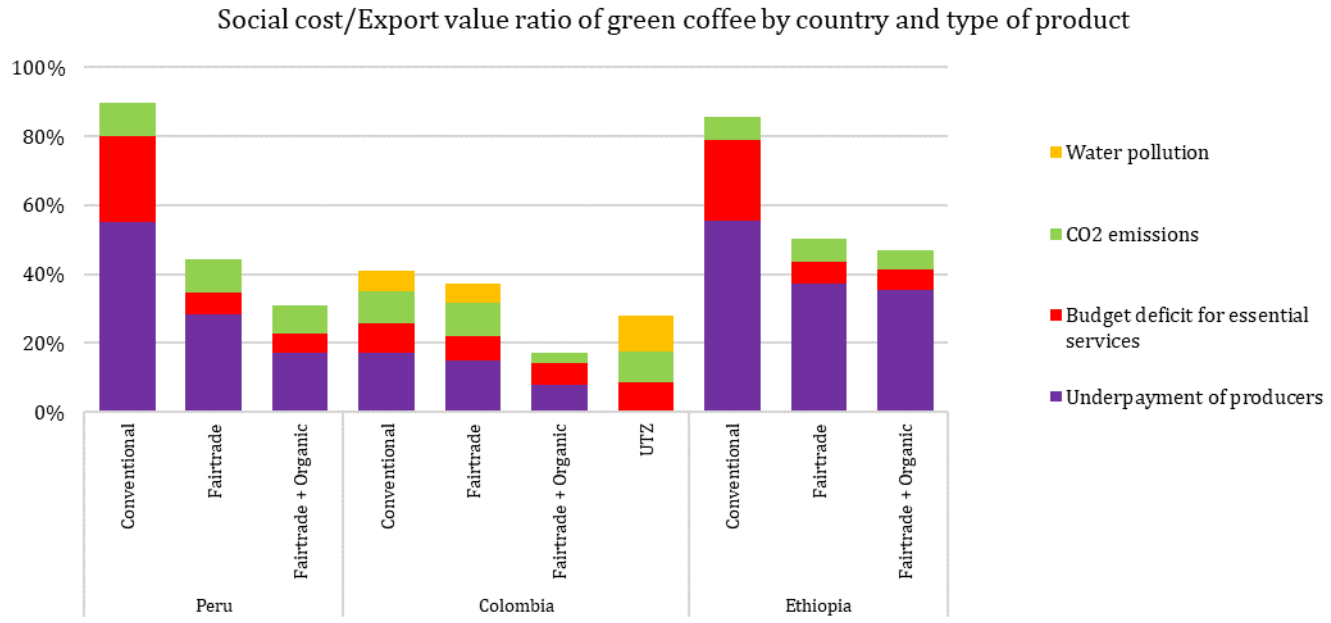


*Figure 16. Comparison of societal costs in the Peru-France, Colombia-France and Ethiopia-France supply chains. Source: Basic.*

Furthermore, **the fair trade and organic double label was found to deliver the best results**, as shown in the calculation of hidden costs paid by society: for each dollar linked to coffee exports, societal costs are reduced by 45% in Ethiopia, 58% in Columbia and 66% in Peru. **Organic agroforestry production** by doubly-certified producer organisations – especially in Peru and Colombia – appears to be **a model of resilience and sustainability to be developed in the coffee industry, at this time of increasing uncertainty due to climate change**.

In any case, Fairtrade and organic double certification is the most effective mode for reducing impact, measured in terms of associated societal costs i.e. the losses and expenses attributed to the collective (government, etc.) and the population in general.

## …..but it alone is not an adequate solution to the challenges

**Free trade leverage is necessary because it works on key points at the source of the problems in the supply chain**: unequal bargaining power on the part of the producers, the need for price regulation, insufficient funding, and encouragement to use synthetic fertilizers and pesticides. **Nevertheless, certain limits** to the impact of fair trade have been shown in various case studies.

First, **its effectiveness depends on the volume of coffee sold by cooperatives under fair trade conditions** – these are often too low relative to total sales – and on respective regional contexts: producer involvement in their cooperatives, cash needs and production costs can vary greatly from country to country.

The existing mechanisms do not seem sufficient to respond autonomously:

- **to the need to redefine power relations** that currently favour the principal buyers in the sector and the resultant unfair business practices;
- **to the question of the distribution of value throughout the supply chain** : while fair trade permits producers to retain a larger share of the final price of coffee when it is sold in 250 g packs (up to 23.7% in Ethiopia and 26.7% in Colombia), this trend is drastically reversed in the case of capsules, where 85%-90% of the final price goes to the roasters and distributors.

**Finally, it seems the relationship between existing fair trade certification procedures - supply chain approaches - and government regulations in both the producing and consuming countries - territorial approaches - must respond to current challenges and secure the resilience of the coffee sector.**

# LEVERS FOR CHANGE AND RECOMMENDATIONS

## Key factors for change

**The value created by the roasters and distributors is strongest in conventional supply chains, in which producers retain less value and societal costs are highest**.

These results confirm **that the key challenge lies in redistributing the profits generated downstream in the coffee value chain**, especially in France where they have never been higher, **at a time when the producers have never been more in need,** both to ensure their labour enables them to live a dignified life and to adapt to the growing impact of climate change.

In addition, **three levers, in particular, appear essential to combat the negative impacts engendered** in the producing countries:

- ***Sector regulation and the ability to add value to coffee on the market***
  In Colombia, which has the broadest regulation system - one that combines price intervention, added value through the use of quality indicators, the reinvestment of taxes on exports and the regulation of exporters - the revenue made by producers is closest to a decent level than anywhere else. By comparison, in Peru, which has totally liberalized its coffee industry, the poverty levels among coffee growers are the highest. Ethiopia falls between the two, with its liberal-inspired regulations less advanced than those of Colombia.

- ***The degree of organisation and autonomy of producers***
  Revenue improvement is the strongest in Colombia, where it stems largely from the strong structuring of producers for several decades; however, it seems counterbalanced by their weak individual autonomy (dependent on a system controlled by the FNC at national level). In Ethiopia, the weakness of the cooperative unions' internal dynamics (as a result of the limited participation of members and the low involvement of management teams to improve the situation) is a major obstacle to improving income.

- ***The existence of an agroforestry model with a low use of inputs***
  Ethiopia and Peru, countries in which coffee growing is based on a mostly agroforestry system, have significantly reduced environmental impacts - water pollution, greenhouse gas emissions, disappearance of biodiversity. In contrast, Colombia, which has opted for high-yield, capital-intensive production, generates higher levels of pollution.

It is on this basis that the following recommendations have been made to allow the emergence of a truly sustainable coffee sector.

## Our recommendations according to major targets

To ensure sustainability in the coffee value chain from producers to consumers, at an international level and at the level of individual countries, it is necessary to operate simultaneously a number of levers that are detailed below (by category of stakeholders for which they are intended):

### In consumer countries: create a favourable and motivational framework for alternatives that have a proven impact

1. **Raise awareness about the inequality of value distribution in the coffee industry**
2. **Create an obligation for transparency towards consumers (origins, distribution of value, etc.)**
3. **Implement a duty of care (especially by paying decent incomes and wages)**
4. **Create a polluter-pays tax on the packaging of coffee pods, based on their composition and impact**
5. **Regulate the VAT rate for coffee products, based on their socio-environmental impact**

### For stakeholders of the sector: commit to and ensure transparency across their networks

1. **Commit to paying prices that will guarantee decent incomes and wages (multi-party agreements/contracts on coffee supply)**
2. **Develop pre-financing tools tailored to the needs of producers and their organisations, based on their degree of autonomy and vertical integration**
3. **Ensure transparency about the percentage of value that goes to producers**
4. **Ensure transparency about origin for mass/standardised coffees**

### In producing countries: support the collective structuring of grassroots producers and the development of diversified agroforestry models

1. **Improve access to financing for producers and their organisations**
2. **Support producer and worker organisations in their development and their internal democracy**
3. **Document and disseminate knowledge about alternative models of agroforestry/organic coffee production**
4. **Develop specific programmes for information and training on the inequalities suffered by women in the coffee industry, and bring about the necessary reforms to resolve them (land, for example)**

### FOR institutional stakeholders: better regulation and understanding of the current issues

1. **Create a permanent observatory on the sustainability of the coffee industry that starts by publishing annual estimates on prices and margins in the sector**
2. **Fund new field studies on decent incomes/wages in coffee-producing areas and include the results in the observatory**
3. **Promote agroforestry and organic systems as a response to the challenges of climate change in the coffee sector**
4. **Fund studies on deforestation in coffee-producing areas and include the results in the observatory**
5. **Create new management tools to monitor price volatility internationally**

# Notes

[1] Potts, J. et al., The state of sustainability initiatives review, 2014
[2] Hivos, Coffee Barometer, 2014
[3] The calculation formula is as follows: value added created in France = total value of sales of coffee for consumption at home (Euromonitor 2017 data) - total value of coffee imported into France (Comtrade 2017 data)
[4] International Coffee Organisation, Data on the Global Coffee Trade, http://www.ico.org/new_historical.asp
[5] International Coffee Organisation, Data on the Global Coffee Trade, http://www.ico.org/new_historical.asp
[6] International Coffee Organisation, Data on the Global Coffee Trade, http://www.ico.org/new_historical.asp
[7] The Climate Institute, A Brewing Storm: The climate change risks to coffee, 2016
[8] The Climate Institute, A Brewing Storm: The climate change risks to coffee, 2016
[9] Potts, J. et al., The state of sustainability initiatives review, 2014
[10] ICO, Le commerce mondial du Café 1960-2013, February 2014
[11] Hivos 2018
[12] ICO, Le commerce mondial du Café 1960-2013, February 2014
[13] Euromonitor 2018
[14] Syndicat FR Café 2015
[15] far behind the Scandinavian countries, which reach 12kg/year/ person
[16] WIPO, Le capital immatériel dans les chaînes de valeur mondiales, 2017
[17] http://www.scanews.coffee/2017/11/28/2017-western-european-coffee-market-size-report/ consulted on 05/07/2018
[18] See Xerfi 2017 The enthusiasm of consumers for this new format can be explained mainly by the fact that the capsules or pods are more practical and less demanding in terms of preparation
[19] Accurate sales figures are not available internationally due to the lack of publicly available data, particularly from Nespresso, which does not publish any annual accounting data.
[20] Xerfi 2017
[21] Xerfi 2017, Euromonitor 2018
[22] LSA, "L'enjeu clé du café du matin", September 28, 2016, consulted online on June 18, 2018, https://www.lsa-conso.fr/l-enjeu-cle-du-cafe-du-matin,245478
[23] Coffee consumed at home is bought from the following channels: supermarkets and hypermarkets, convenience and specialised stores, the Internet
[24] According to Euromonitor 2018 data
[25] JDE, the historical owner of Carte Noire, was forced by the French competition authority to sell this brand for abuse of dominant position following the merger of Mondelez and Douwe Egberts coffee operations
[26] Daviron B. and Ponte S., *Le paradoxe du café*, 2007 and WIPO, Le capital immatériel dans les chaînes de valeur mondiales, 2017
[27] World Bank Group, *Overview of the Global Coffee Sector Supply Chain,* 2014
[28] USDA, 2018
[29] USDA, 2018 and ICO, 2018
[30] ICO 2013
[31] B. Daviron and S. Ponte, The Coffee Paradox: Global Markets, Commodity Trade & the Elusive Promise of Development, 2005
[32] All of the natural and artificial obstacles that make it very difficult for new companies to enter into a market because present companies have levers that their competitors (find it hard to) reproduce, for example, significant economies of scale that would require heavy investment to be made by other companies who are unable to do so.
[33] Ibid.
[34] Ibid.
[35] B. Daviron and S. Ponte, 2005, op. cit.
[36] Hivos, Coffee Barometer, 2014
[37] Oxfam, Poverty in your Cup, 2002
[38] HIVOS, Coffee Barometer, 2018; BioScience, Evolution Coffee Production Systems and Market, 2014; Oxfam, Poverty in your Cup, 2002
[39] ICO, 6th consultative forum on sustainability in the coffee sector, 2017
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[41] University of Connecticut, The Coffee Bean: A Value Chain and Sustainability Initiatives Analysis, 2014
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[52] Earth Institute, Evaluating impacts of climate change on coffee, 2015
[53] CJAR, Projected Shifts in Coffea Arabica Suitability, 2015
[54] Climate Institute, A Brewing Storm, 2016
[55] Coffee, barometer, 2018
[56] Coffee, barometer, 2018
[57] AJAR, Impact Climate Change Ethiopian Coffee, 2017
[58] Coffee, barometer, 2018
[59] ICO, 75th-review-studies-climate-change, 2017
[60] In June 2017, Rainforest Alliance and UTZ Certified announced their merger under the Rainforest Alliance. A new certification programme is being developed, open to public consultation, with finalisation scheduled for 2019 (https://www.rainforest-alliance.org/faqs/rainforest-utz-merger#new-program, consulted online on June 4, 2018).
[61] Hivos 2018
[62] Commerce Équitable France, *op. cit.*
[63] It should be noted that consumer sales figures are notably comprised of distributor margins (Commerce Équitable France internal data).
[64] Commerce Équitable France internal data.
[65] Lentschner K., "Starbucks converting to fair trade coffee", March 2, 2010, consulted online on June 17, 2018, http://www.lefigaro.fr/societes/2010/03/02/04015-20100302ARTFIG00010-starbucks-se-convertit-au-cafe-equitable-.php
[66] Hivos, Coffee Barometer, 2018
[67] Le Monde, "Dans la jungle des labels", February 6, 2007, consulted online on 17 June 2018 https://abonnes.lemonde.fr/a-la-une/article/2007/02/06/dans-la-jungle-des-labels, 864179, 3208.html; Rainforest Alliance website https://www.rainforest-alliance.org/lang/fr/shopthefrog?country=100 & category = 178 & subcategory = 185
[68] UTZ, "Faire la différence au quotidien. C'est mieux." 2017
[69] UTZ Certified website https://utz.org/better-business-hub/marketing-sustainable-products/new-on-the-shelves-5/
[70] Coffee sold in McCafé and McDonald's outlets is Jacques Vabre (SOURCE) coffee.
[71] Rainforest Alliance website https://www.rainforest-alliance.org/lang/fr/shopthefrog?country=100 & category = 178 & subcategory = 185
[72] Rainforest Alliance website https://www.rainforest-alliance.org/find-certified/nespresso
[73] Hivos, Coffee Barometer, 2018
[74] Calculations based on Ecobank's certified coffee demand figures and graph figures from section 1 of global coffee consumption in 2007 (130,000,000 bags or 7,800,000 tons) and 2011 (140,000,000 bags or 8,400,000 tons).
[75] Hivos, Coffee Barometer, 2018
[76] Hivos, Coffee Barometer, 2014
[77] Estimates based on data from Hivos, Coffee Barometer, 2014 and Hivos, Coffee Barometer, 2018
[78] Fairtrade/Max Havelaar data
[79] B. Daviron and I. Vagneron, Le café dans la jungle des standards de durabilité sociale et environnementale, 2012
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