

**VetAgro Sup**

Mémoire de fin d'études d'ingénieur

Study of the economic  
impacts of Geographical  
Indications:  
The case of Café de  
Colombia

Paulo Van Der Ven  
Option Agronomie, Productions Végétales et  
Environnement  
Promotion 2012-2015





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## Study of the economic impacts of Geographical Indications: The case of Café de Colombia

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Promotion 2012-2015

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## Abstract

Geographical Indications (GIs) are considered as an intellectual property right used to ensure and protect the origin, the quality, the collective efforts and to create the reputation of food products.

Even if GIs are well-known in Europe, due to the largely use on cheese, wine and other regional products, this approach is still new for developing countries.

The Food and Agriculture Organization of the United Nations (FAO) and different international partners, have implemented a common methodology to study the economic impacts of GIs.

Café de Colombia, was the first non-EU Protected Geographical Indication (PGI) to be registered in the European Union. This product has been chosen to be studied in a global project involving 9 other products, in different regions of the world.

The study showed the importance of representative institutions to reduce transaction costs, by implementing different strategies, allowing to keep competitive advantages. The influence of the Colombian Coffee Growers Federation (FNC) and the State on the Colombian coffee value chain, has allowed to reach product differentiation and reputation.

The “decomodification” strategy of Colombian coffee growers through the FNC, have not allowed coffee growers to increase the empowerment to manage the coffee price volatility.

Finally, the GIs protection have shown positive impacts on local development by protecting a socio-economic system.

## Résumé

Les Indications Géographiques (IG) sont considérées comme un droit de propriété intellectuelle, utilisées pour assurer la protection de l'origine, la qualité, des efforts collectifs et pour créer une réputation des produits alimentaires.

Même si les IG sont bien connues en Europe, de par la grande utilisation sur des produits comme les fromages, les vins et autres, cette notion reste relativement nouvelle dans les pays en développement.

L'Organisation des Nations Unies pour l'Agriculture et l'Alimentation (FAO), en collaboration avec des partenaires internationaux, ont développé une méthodologie commune permettant d'étudier l'impact économique des IG.

Café de Colombia, la première Indication Géographique Protégée (IGP) en dehors de l'Union Européenne à être reconnue au sein des pays membres, a été choisi pour être étudié dans un projet global impliquant l'étude de 9 autres cas d'étude, dans différentes régions du monde.

L'étude a montré l'importance de la représentativité institutionnelle pour réduire les coûts de transaction, en développant des stratégies, permettant de garder un avantage concurrentiel sur le marché. L'influence de la Fédération Nationale des Producteurs de Café de Colombie (FNC) et de l'Etat, tout au long de la chaîne de valeur a permis d'atteindre une différenciation et une réputation du produit.

La stratégie de « decomodification » des producteurs colombiens, au travers de la FNC, n'a pas permis, aux producteurs colombiens d'augmenter leur pouvoir de négociation, leur permettant de faire face à la volatilité des prix du café.

Finalement, la protection de l'IG a montré des impacts positifs dans le développement local, par la protection d'un système socio-économique.

**Key words: Coffee; Geographical Indications; value chain; economic impacts**





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## **List of acronyms**

**CoP:** Code of practice

**EU:** European Union

**FAO:** Food and Agriculture Organization of the United Nations

**FNC:** Federacion Nacional de Cafeteros de Colombia

**FoNC:** Fondo Nacional del Café

**GIs:** Geographical Indications

**ICA:** International Coffee Agreement

**ICO:** International Coffee Organization

**Kg:** Kilograms

**NYBT:** New York Board of Trade

**PDO:** Protected Denomination of Origin

**PGI:** Protected Geographical Indication

**SIC:** Superintendencia de Industria y Comercio

**US\$:** United States of America dollar

**USDA:** United States Department of Agriculture

**WIPO:** World International Property Organization

**WTO:** World Trade Organization

**°C:** Degree Celsius



# Introduction

Nowadays we are witnessing the globalization of food, as for the industry, the tourism, and the global markets.

Food products cover thousands of kilometres from the producer before reaching the consumer. Nevertheless specific products characterized by their high quality, by the conditions in which they are produced, by the characteristics of the local resources themselves, are considered as differentiated and special.

The reputation of those products such as Champagne, Parmigiano-Reggiano, Kona coffee or Café de Colombia could be usurped, copied or used as generic products in order to benefit from their reputation, to create individual benefits by misleading the consumer. Geographical Indications (GIs) may be considered as an intellectual property right used to ensure and protect the origin, the quality and the collective efforts to create the reputation of the product.

GIs have been used in Europe for decades with specific products for which the quality is directly linked to the characteristics of the origin, the traditional know-how and the capacity of value chain actors to promote those specificities and protect the reputation. The protection of GIs has been largely debated into the World Trade Organisation (WTO) discussing whether protections should be considered as *sui generis* or trademarks must be beneficial to all the actors of the value chain.

Even if GIs are well known and have been widely studied, this concept is still new for emerging economies. In fact, developing countries seem to be more and more interested in protecting their collective efforts and the reputation of their products all around the world.

In a food globalization context, GIs should be seen as a tool to decommodify largely worldwide-marketed products as coffee.

Nevertheless, there is a lack of studies on the economic benefits of the implementation of GIs, particularly on emerging economies. In fact it is difficult to distinguish the impacts of legal protection from other factors.

Additionally, because of the diversity of food systems, of the contexts and the access to quantitative data, there are no generalized studies on GIs economical impacts. There is a higher demand by public institutions for the implementation of this concept in other regions of the world.

Furthermore, GIs is a complex research topic as different relevant perspectives have to be taken into account when studying them; economical, social and environmental. Not only the market orientation has to guide the researches but also other positive or negative externalities of the GI protection such as social empowerment, rural development or social stability.

The Food and Agricultural Organization of the United Nations (FAO) has developed, with other international partners a common proposal in order to study the economic impacts of protecting Geographical Indications, through 10 case studies in different regions of the world.

Because there are no generalized assessments due to the diversity of the cases studied, a common methodology involving economic, social and environmental impacts, is difficult to implement.

In 2007, Café de Colombia was the first non-European Union (EU) food product to be legally protected, in the EU countries, with a Protected Geographical Indication (PGI). This protection was possible to the specificities of the Café de Colombia product, strongly linked



to the origin and his cultural know-how, but also to the well structured governance of the coffee sector.

Café de Colombia is being working on GIs for more than four decades, in where the quality of the product and the collective efforts by all actors involved where promoted by a strong marketing campaign.

Hence, the economic impact of the protection of a well-known product and worldwide marketed such as Café de Colombia is an interesting case to be studied.

The objective of this study is to assess *For a well known product as Café de Colombia, what is the economic effectiveness of the PGI tool used to protect collective efforts and its reputation.*

The guiding research questions are (i) is there an added value creation with GI legal protection? (ii) Is the added value fairly distributed throughout the value chain? (iii) What are the impacts of the GI protection on local development?.

This document begins by presenting the context of the rising of Geographical Indications and the collective “decomodification” strategy of Colombian coffee growers (Part I). It follows by presenting the study methodology, adapted from the common steering committee proposal (Part II). Finally the document assesses in depth the results and the discussions (Part III), to finish with the conclusions.



# Part 1. Context and issue

## I. FAO request on the economic impact of Geographical Indications

The Food and Agriculture Organization of the United Nations (FAO) supports the development of GIs as development tools that allow a better recognition of products, the boosting of producers' organizations and their power in negotiations within the value chain. However, donors and other partners often require economic data relating to the development of GIs. Unfortunately, although such data exists regarding individual cases, little work has been done to collate and generalize them. The analysis of the economic impacts of GIs as a whole has not in general resulted in any clear-cut conclusions. In addition, although the economic impacts of GIs have been well documented by various researchers, empirical demonstration of the net benefits of GIs is relatively sparse, especially in countries where GI procedures are more recent (outside Europe). One of the reasons is that GIs concept is still relatively recent in developing countries. There has not been enough time to obtain relevant information for the analysis of major impacts.

As with any tool, results depend on how it is used, and it is thus important to evaluate the impact of GIs that have been implemented according to clearly defined elements that are considered as respecting the conditions for success: i.e. an established link with the "terroir", a heritage and collective dimension, and a potential for differentiation on markets with the support of protection.

For this reason the FAO and partners institutions; ESA Group, The Swiss Federal Institute of Technology (ETH), Montpellier SupAgro and Vet-Agro-Sup hev developed a common methodoly evaluation for the study of the impacts of Geographical Indications, based on 10 case studies in different regions of the world (table 1).

*Table 1: Project case studies*

<b>Specific product</b>	<b>Country</b>
Kona Coffee	Hawaii
Manchego cheese	Spain
Ryukyu Awamori	Japan
Darjeeling tea	India
Penja pepper	Cameroun
Taliouine saffron	Marocco
Café de Colombia	Colombia
Tête de moine cheese	Switzerland
Futog cabbage	Serbia
Vale dos Vinhedos wine	Brazil





The objectives of this study is to assess the economic impacts of instituting a GI as a protective mechanism or tool, through the analysis of the cases studies announced above, by 10 international students.

It was my mission to study the Café de Colombia case and the impact of the legal registration as a PGI in Europe in 2007.

According to the steering committee the analyze has to be focused on (i) the competitiveness of the value chain of the origin-linked product, (ii) on the system resilience and (iii) on a macro level concerning the impact on the territory.

## **II. The rise of Geographical Indications as a differentiation strategy**

Nowadays, there is a globalization of food in the same way as there is in the industry, the tourism sector, and the global market.

With the globalization and the standardization of products, food goods tend to travel thousands of kilometres between the producer and the consumer.

In this context, Geographical Indications must be considered as a tool to differentiate agri-food products by their quality, linked to the origin.

The legal protection of GIs occurs as a result of the enhancement of commercial transactions and the standardization of agri-food products. According to Sylvander and *al.* (2006), during the 19th century only long-life products as wine, tea or coffee were traded between long distances. The origin of those products was used as a quality reference.

The protection interest of GI emerged with the arrival of standards, allowing the mixture of different provenances.

In the case of coffee, during 1980s and 1990s, this good was produced by a large scale farmers and was sold separately in the London market. The marketing of each coffee origin was made by the reputation of each big coffee farm (Galtier and *al.*, 2013).

With futures markets development and the emergence of small family farms, the coffee market was completely changed. In fact, since 1930, green coffee has been marketed as a commodity<sup>1</sup> good.

Globalization also involves some risks for the commercialization of agricultural products because of the disloyal competition between producers and traders and the misleading to the final customer.

The reputation of niche products linked to a specific origin as Champagne, Parmigiano Regianno, Kona coffee or Café de Colombia could be usurped, copied or used as generic product in order to benefit from their reputation, creating individual benefits by misleading consumers.

In this context Geographical Indications (GIs) may be considered as an intellectual property right used to guarantee and protect the origin, the quality and the collective efforts made by the value chain actors to create the reputation of the product (Vandecandelaere, 2009).

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<sup>1</sup> According to Galtier and *al.*, 2013; a commodity is defined as a standardised good of homogeneous quality. By this way green coffee commodity must be considered as a standardized good resulting from the mixture of different origins in order to produce a homogenous quality by few transnational roasters.

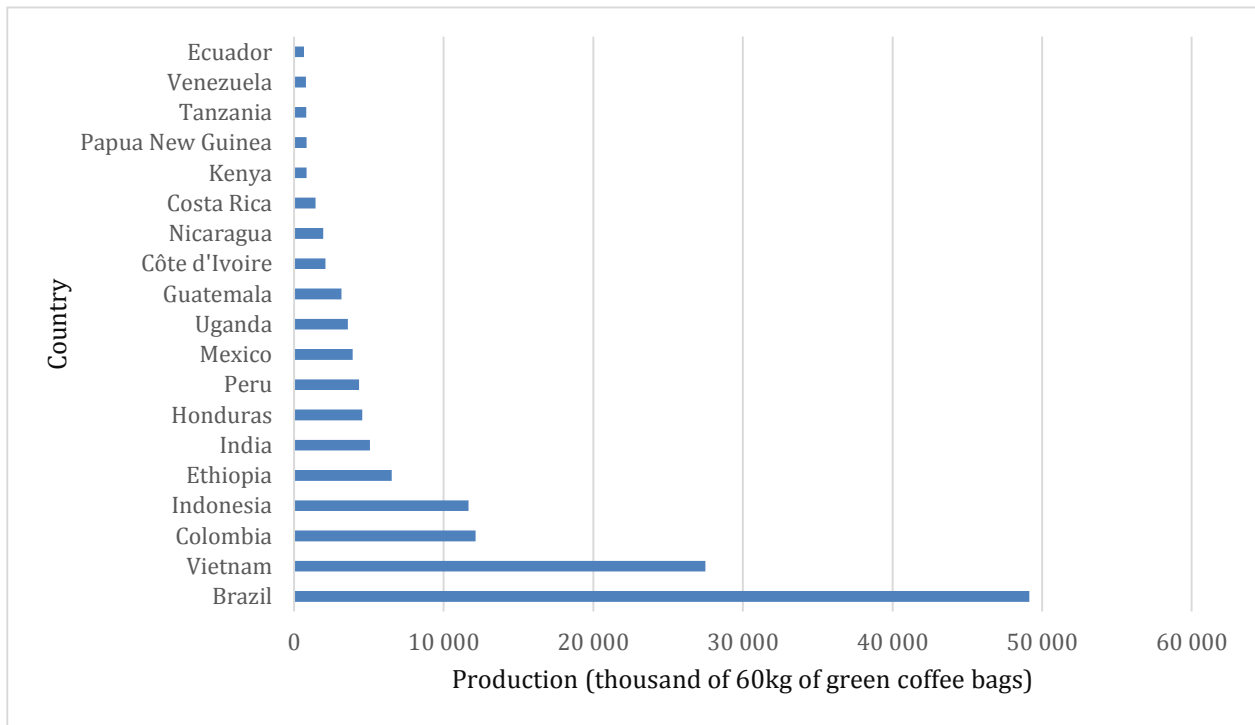


Figure 1: Top 10 coffee producer countries in 2014 (source: ICO)

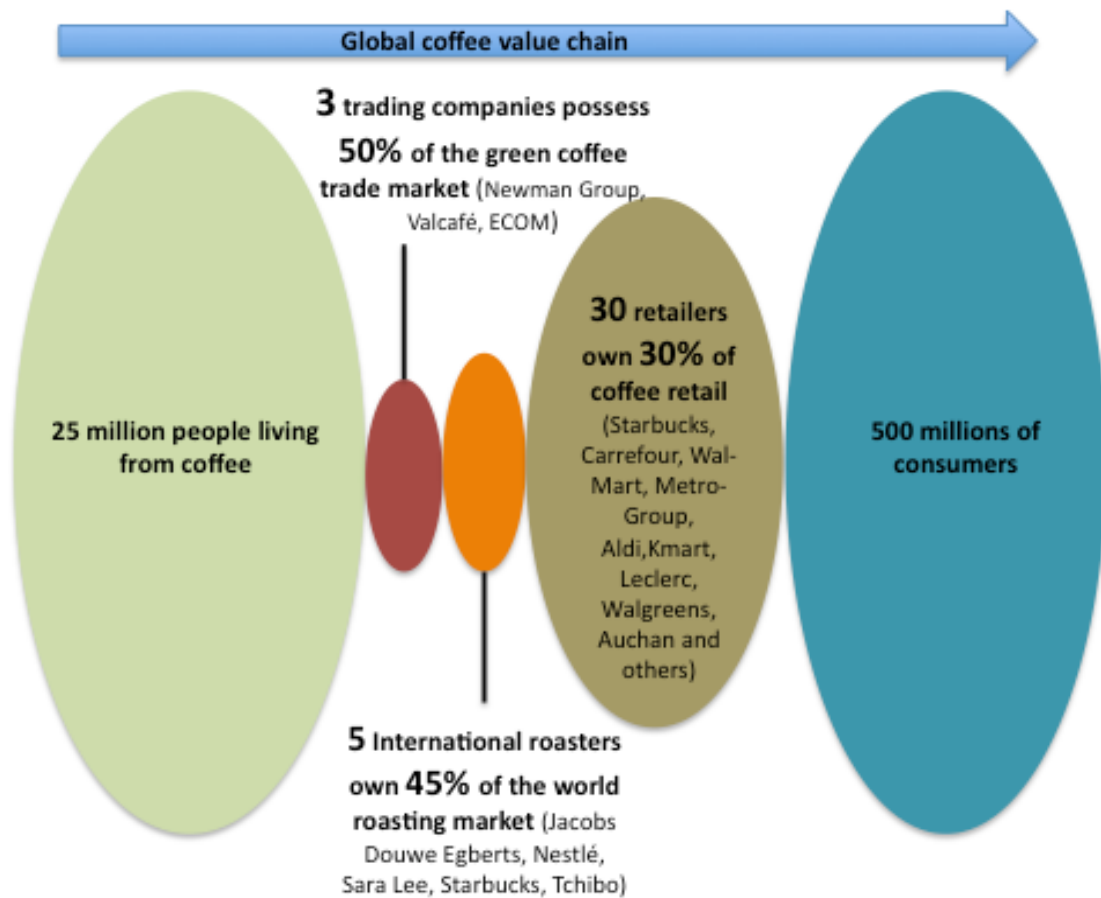


Figure 2: World coffee actors (Source: adapted from Charvet and Levasseur, 2012)

Rules have emerged in order to protect, on national and international markets, the origin of specific products, by international organizations as the World Intellectual Property Organization (WIPO) or World Trade Organization (WTO), throughout bilateral agreements. Nevertheless, the protection of GIs has been largely debated by those members to highlight *sui generis*<sup>2</sup> or trademarks “protection” which could be beneficial for all the actors of the value chain.

### **III. The case of Café de Colombia: a strategy to keep coffee differentiation**

#### **III.1. A small history of coffee flows**

Although coffee is a globalized agri-food product, largely traded around the world, the flows of this good is not new.

The coffee exploitation may have begun at least 1 500 years ago in south-western Ethiopia. Then arabica coffee plants could have been introduced to Yemen (Bertrand and *al.*, 2012).

Few seeds of coffee were sent to Amsterdam to be planted at the green houses. The coffee plant arrived in Colombia around the beginning of 1800 from Surinam (formerly the Dutch Guyana). During the middle of the XIX century, USA became the first consumer of the beverage and also starts to be a profitable market for coffee exportation. The Colombian coffee production was developed all around the country and more specifically on the Andes Cordillera region.

Nowadays the commercial coffee production is based on two coffee species growing around the world: *Coffea arabica* that represents 70% of the world coffee market and *Coffea canephora* (also known as Robusta) representing 30% of the coffee market (Bertrand and *al.*, 2012). The better cup quality is associated with the *Coffea arabica*, which has its primary centre of diversity in the south-western Ethiopia highlands, the Boma Plateau of Soudan and Mount Marsabit of Kenya (Anthony and *al.*, 2002).

#### **III.2. The global coffee market**

Coffee cultivation involve more than 25 million farming families, representing a very important source of economy and labour around the world.

A high proportion of the world coffee is grown by small farmers in high altitude regions in, Latin America and Africa for the arabicas and in low altitudes concerning robustas.

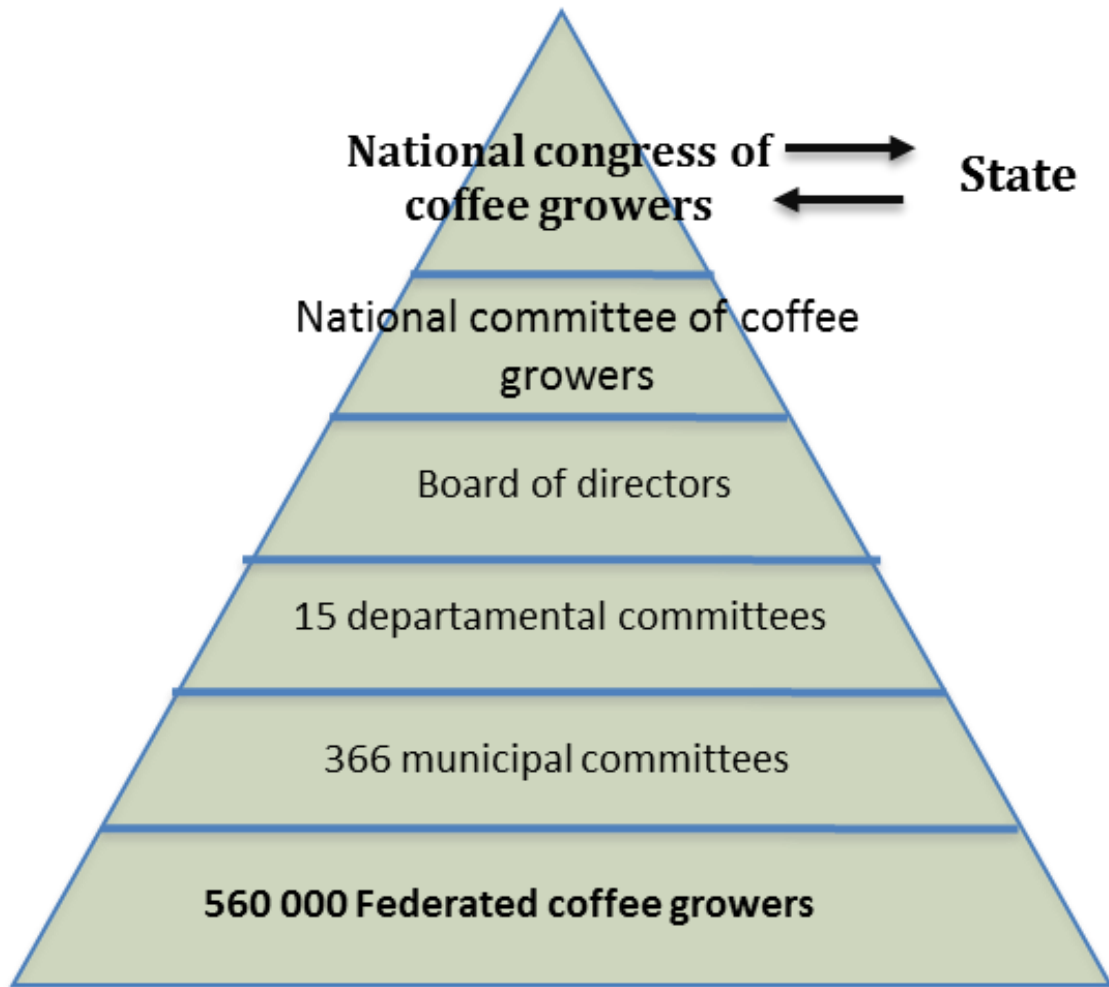
The total land covered with coffee trees around the world represents 10,5 million hectares.

Brazil is historically the most important coffee producer (arabica and robusta), followed by Vietnam (robusta essentially) and Colombia (arabica). The unit to measure the green coffee exportation is a bag of 60 kg. In 2014, Brazilian production was 49 million of green coffee bags, while Vietnam and Colombia has produced 27,5 and 12 million respectively (figure 1).

Nowadays, the world coffee market is dominated by three large transnational trading companies. As showed on the figure 2 those three companies buy 50% of the world green

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<sup>2</sup> “*sui generis*” refers to a special form of intellectual property right protection regarding a “special” or “unique” product.



*Figure 3: The National Federation of Colombian Coffee Growers structure (Source: adapted from FNC)*

coffee to world producers. The green coffee is roasted by a small number of roasters companies dominated by 5 international groups.

Thus, the current coffee market must be characterized as being highly concentrated and dominated by a small number of international firms.

The market concentration is partly responsible of a high volatility of coffee prices provoking sustainability constraints for coffee growers and a lack of transparency on information for consumers.

Those prices are daily fixed on the New-Board of Trade, in New York for the arabica specie and at the LIFFE in London for robusta.

The volatility of coffee prices was not only due to the global coffee supply and demand but also by the increase in speculative activity through the futures markets.

In 1662, the International Coffee Agreement (ICA) was signed between 14 coffee producers countries in order to rise coffee prices through export quotas for coffee.

In 1989, the ICA agreement collapsed to let the market deciding the prices by supply and demand. It was followed by an immediately increase of coffee exports by producer countries and was the beginning of prices volatility (Daviron and Ponte, 2005).

In general, small-scale coffee growers are not well organized. They have few market information and no power of negotiation to discuss coffee prices. In terms of value, coffee exportations represent US\$ 33,4 billion while sales on the retail sector reach to US\$ 100 billion. In this way, coffee producers receive a small share of the final product value. It was named by Daviron and Ponte (2005) as the “coffee paradox”, meaning that while on the coffee consuming countries, coffee price remain high, the coffee producers suffer from price volatility.

This phenomenon has strong consequences on rural dynamics, breaking up millions of families and communities who are directly coffee dependent.

In this context, Colombia has developed a “decommodification strategy” in order to differentiate his coffee based on (i) a strong co-managed institutionality and (ii) a strong marketing campaign working on Geographical Indication.

### **III.3. The importance of the local institutions for the growth of Colombian coffee reputation**

Colombia has a long coffee tradition, since the introduction of the first coffee seeds at the beginning of 1800s.

Coffee is one of the main Colombian export goods and due to its historical and economical relevance, is also part of the Colombian identity. The Registration process of the Café de Colombia PDO at the national level in 2004 and PGI at the European Union level in 2007, was possible due to the long coffee tradition and the existing institutional framework of the federally organised coffee growers (Quiñones-Ruiz and al., 2015). Indeed, in 1927, was created the National Federation of Colombian Coffee Growers (FNC), in order to survey the international coffee market and to protect the interests of coffee growers. Today, the FNC is a large coffee association representing more than 500,000 coffee growers (figure 3). This institution represents a powerful entity that, by having the State support in terms of coffee policy, controls the Colombian coffee sector and. It has even been considered a State inside the State (Montagnon, 2003).



Figure 4: Juan Valdez; the Colombian coffee grower icon (source: FNC)



Figure 5: Café de Colombia ingredient brand; a sign of quality to secure the consumer (source: FNC).

Since 1932, quality standards have been developed and modified for quality export coffees with the idea of obtaining the best coffee quality in the world. This product was strongly promoted worldwide in order to be differentiated on the international market.

### **III.4 The coffee “decommodification” strategy: from Juan Valdez icon to the PGI registration**

During the 60s in a context in which coffee prices were low due to coffee oversupply on the international market, an important campaign to promote the Colombian coffee was built. While costs-competition between coffee producer countries characterized the new commodity coffee market context, the differentiation by the origin, to generate competitiveness and extra value was an essential tool. The marketing had, in this case, an important role to play to reach this coffee differentiation.

#### ***III.4.1. Creating the coffee quality***

The differentiation strategy started with a strong quality and control policy, applied both at the production level and at the export harbours. The quality objectives were set for the obtention of the highest quality coffee standard. The building of a regulation system, allowed quality competition to keep extra value for Colombian coffee (Gast H and al., 2013). This first step of the differentiation strategy, based on the quality implementation, enhanced to obtain 0,21US\$/pound in 13 years (Samper, 2007a). According to FNC interviews, an increase of 0,01US\$/pound on coffee exportation, represents 13US\$ millions in an annual Colombian coffee production year.

With a high quality product it was essential for the FNC to position Colombian coffee on international markets (Samper, 2007a).

#### ***III.4.2. Marketing campaign***

A strong marketing campaign started in 1960 with the creation of Juan Valdez; the symbol of a traditional Colombian coffee grower, promoting the Colombian coffee all around the world (Samper, 2007a) (figure 4). This marketing strategy was an important step for the coffee differentiation.

Juan Valdez has been created as a communication tool to relate the origin and the history behind a Colombian cup of coffee. For the first time, producers see coffee origin and the qualities of their product communicated directly to the consumers. In fact, at this period numerous brands only offered products composed of coffee blends.

According to the FNC the main message exported with Juan Valdez was that “only extraordinary efforts must produce an extraordinary coffee” (Samper, 2007a).

At the beginning of the 1980s, the first Colombian coffee brand was created as an ingredient branding. As other brands used to attest for the product’s quality (figure 5), the Café de Colombia brand started to be used by a large number of firms to take advantage of the already reputed Colombian coffee, to guarantee the quality of their product.

By working on the origin, a segmented market was created for the Colombian coffee, used by different roasters as 100% Colombian coffee

The Café de Colombia brand was then worldwide promoted by the FNC with their marketing strategy.

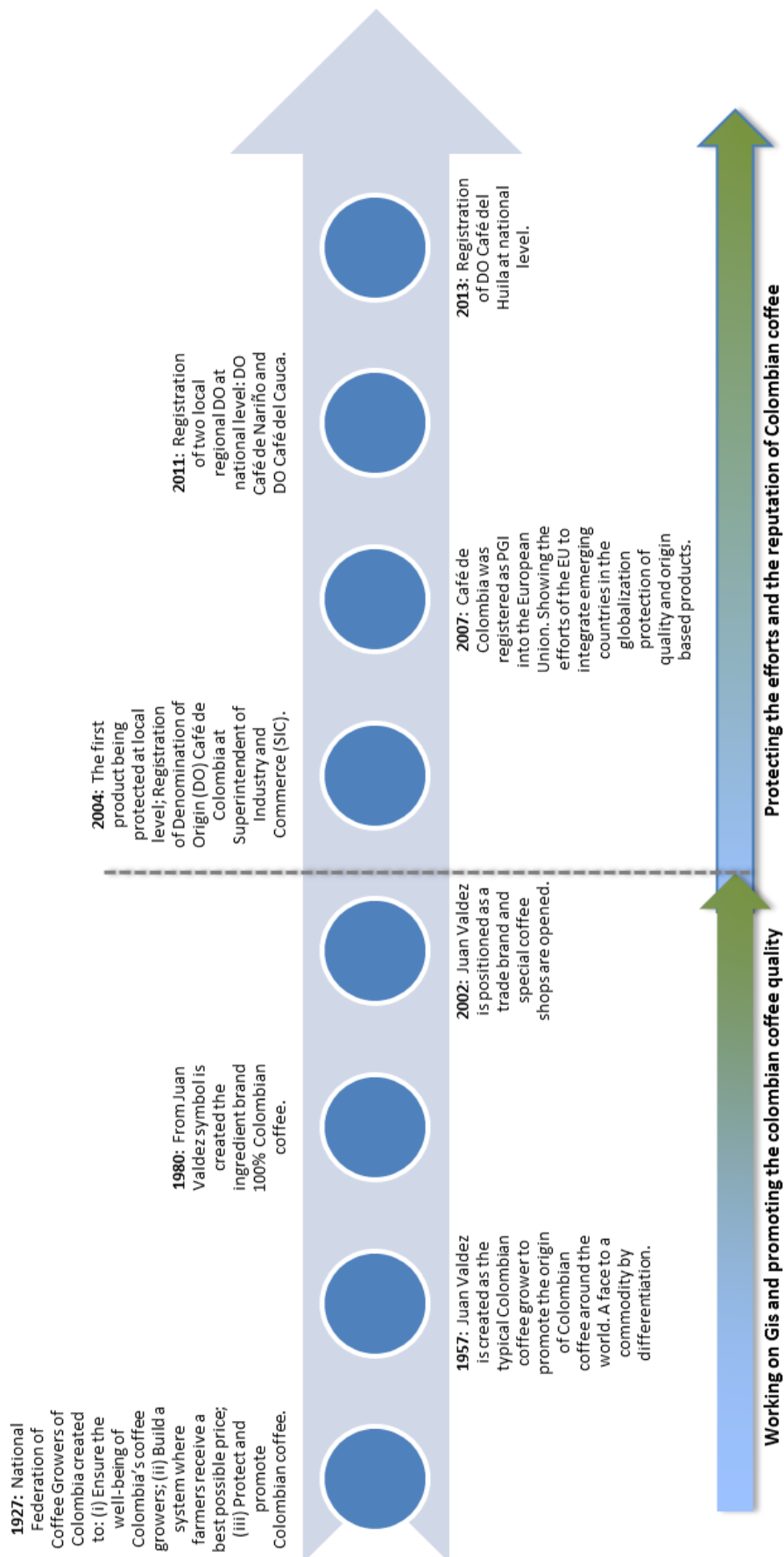


Figure 6: Main steps of the Colombian coffee differentiation strategy (source: personal)



### ***III.4.3. The brand globalization***

The use of international sports competitions was responsible of the Café de Colombia brand globalization. In fact, international competitions of skiing, cycling, tennis and others, worldwide watched, were a cheaper way to attend the consumer in different regions of the world. Figure 6 illustrates some examples of the Café de Colombia brand sponsoring the coffee consumption in those competitions. In this way, by the beginning of the 1990s, the FNC strategy was well structured: a product reputation built, a symbol recognized, a demanded brand and world partners that collaborated with the distribution.

This differentiation strategy and marketing campaign allowed, in the American market, the Juan Valdez stamp to be known by 53% of citizens, in 2000 (Lozano, 2002). Moreover, the recognition of Colombian coffee as the best of the world, had increased from 4% to 84% between the 1960s and 1990s. It also have permitted a rising of the Colombian coffee price by 0,05US\$/pound (FNC).

At the beginning of the 2000s, the competitiveness scene of the world coffee industry made an important change. Roasters implemented roasting technologies. It allowed them to substitute one origin from another at the blending process. Moreover, new niche markets appeared for specialty coffees and new presentations has been created (pods, capsules). In this context, the FNC has created a new strategy for entering those arising markets through the creation of their own trademark: Juan Valdez Café.

Furthermore, as the well recognized special coffee shops, FNC opened his first Juan Valdez coffee shop in Bogota's Airport. Today is has 300 shops in 9 different countries.

As a conclusion, the “decommodification strategy” described before, may be separated into two steps: (i) a first stage that goes, from the 1960s to the beginning of the 2000s, characterized by a quality, a reputation construction and an origin promotion. (ii) A second stage, from 2004 to the present, based on the reputation and collective protection efforts by using protected origin signs as Protected Geographical Indications (PGI) (figure 6).

### **III.5. Denomination of Origin and Protected Geographical Indication, tools to protect a collective effort**

In a context in which consumers have more and more interest on the traceability of the product consumed; in which new niche markets were developed by the consumers demand, in which origin is playing an important role on differentiation, the efforts made by the FNC to protect the origin and differentiation, was an important step to ensure and to keep the market position of Café de Colombia.

In fact, different coffee sellers have even started to use the Colombian coffee reputation to sell a product that has no links to the real origin of the product.

The trademark “Café de Colombia” was not protected against misleading words as “Colombian Brand” or “Colombian type” that could delude to consumer. By using this kind of information the coffee quality and the reputation of Colombian coffee would probably be threatened.

The protection of Café de Colombia with the Denomination of Origin was considered by the FNC as the more efficient tool to protect their collective efforts (Samper, 2007a).



The first condition to register a product as a PGI into the European Union, is that a legal protection of the product exists in their country of origin (European Union, 2012).

The Andean community, on the article 201 of the Cartagena accord signed in 2000, requires all members to develop local frameworks to protect legally the products based on the origin (Superintendencia de Industria y Comercio, 2004).

The Colombian government has designed the Superintendencia de Industria y Comercio (SIC) as the entity in charge to applicate this article, regarding intellectual property and Geographical Indications.

The FNC has received the protection of Café de Colombia as a PDO on the national level in 2004. The registration process into the SIC is illustrated in the annexe 1

To progress into the origin protection, Café de Colombia, became, in June 2005, the first agricultural product from a non-EU member to apply for the Protected Geographical Indication recognition to the EU.

In September 2007, Café de Colombia was recognized as a PGI into the EU through the Commission Regulation (EC) No 1050/2007 (European Commission, 2007).

The PGI registration was successful due to the long coffee tradition and the well- established collective arrangements and institutional framework of the FNC. The design of the rules governing the use of the PGI formally started in 2005 and were based on the quality standards developed over decades in the past for quality export coffees (Quiñones-Ruiz and al., 2015). According to this author, 90 coffee producers have represented more than 500 000 national coffee growers at the Congreso Nacional Cafetero (Coffee National summit). During this event, taking place every year, the Colombian government and the FNC define the global coffee policy and study the difficulties of the Colombian coffee sector.

The product specification by scientist analysis was made between the FNC, the national coffee research center (Cenicafé) on about 13 000 coffee farms.

The FNC, by being in charge to achieve the PGI registration and acting as a “micro institution”<sup>6</sup>, permit to reduce transactions costs, by representing the global coffee growers.

Not only the PGI registration was possible because the institutional framework set but also by the specificity of the product, the well delimited zone; between pre-defined altitudes and longitudes in where coffee trees row with optimal conditions in terms of soils and climatic conditions. Also the link to the specific origin, the cultural know-how and the market, have allowed the PGI recognition.

Nevertheless, during the PGI registration industrial processors as roasters, exporters, traders, retailers, were not taken into account when creating the “rules of the game” (Quiñones-Ruiz and al., 2015). The task of convincing the actors from the value chain to implement the PGI Café de Colombia, must be one of the main challenges for Colombian coffee growers.

In a context where emerging economies see GIs as a form of protecting collective efforts and global reputation, the case of Café de Colombia is interested to be studied. Indeed, in terms of the impacts of the legal registration of a worldwide already well-known product, Café de Colombia should give some examples and perspectives for other protection cases, particularly for developing countries, where this concept is still new.

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<sup>6</sup> In opposite to “macro-institutions” as the national State.



#### **IV. The main issue**

The literature review and the FAO demand showed that there is a lack of studies on the economic impacts of GIs and more precisely on the PGI registration impacts. More of the assessments were done with a subjective approach and quantitative data is still rare in this type of studies.

The case of Café de Colombia has been selected for the global study of the FAO, as there exist specific characteristics linked to the “terroir” of the Andean cordillera and to the socio-cultural tradition of producing and processing coffee. Also because there is a strong governance that has been promoting the Colombian coffee around the world. Moreover, the fact that Café de Colombia is the first non-EU PGI was also important on the FAO selection process.

The main properties of Café de Colombia is that Colombian coffee growers have been working on GIs from more than four decades, to differentiate and decommoify their coffee, in a context in which coffee was saw as a row material, representing a “coffee paradox”. Even if product registration, product specification and the worldwide controls, represent important levels of investments, not only the extra value has to be considered on the study of the economic impacts.

In fact, the PDO and the PGI registration, also have to be considered as a way to protect collective efforts from the usurpation. Moreover, other kinds of economic impacts have to be taken into account to identify the effectiveness of the GIs, as the positive or negative externalities.

From the 1990s, the FNC and the Colombian coffee growers in general, have decided, from the 1960s to differentiate their product working on the quality and the promotion of the origin. They achieved a world reputation and have increased the value of the Colombian coffee on the international market. Then PDO and PGI were used as tools to protect those efforts.

According to this context, the main question regarding this study is to know;

***For a well-known product as Café de Colombia, what is the economic effectiveness of the PGI tool, used to protect collective efforts of a co-managed value chain?***



## **Part 2. Material and methods**

The case of Café de Colombia, as being part of a global study in which 10 cases, has to be adapted to the common methodology framework, in order to allow the comparison of the cases studied.

The study of the economic impacts of GIs is not an easy exercise, due to the particularities of the case studies, to the context, to the data access, but also to the divergence on study approaches. Thus, it is important to implement common frameworks with a common approaches to identify the effects of the PGI registration in different contexts.

For this reason, the common framework was adapted to this case study in order to respond to the question mentioned on the previous chapter. In the attempt to answer the main question, empirical investigations were taken to address the hypothesis regarding the issue of the study.

### **I. A common study methodology**

The international partners of the steering committee built a common methodology in order to study the economic impacts of the implementation of GIs as valorising and protecting local resources tool.

The common methodology is based on 4 stages:

- Description of the GI product and the value chain
- What are the economic impacts of the GI protection tool
- What are the causal relations explaining those impacts
- What is the stakeholders' perception on the global analysis

#### **Stage 1: Description of the GI product and the value chain**

This first stage aims to define the case study system. It consists in collecting global information on general documents such as code of practices and key people interviews. It should highlight the specificity and the characteristics of the product. Also, this information must enable a better understanding of the structure and the actor's links into the value chain.

#### **Stage 2: What are the economic impacts of the GI protection tool?**

The general purpose of this stage is to identify the economic impact of the GI protection throughout collecting quantitative data as much as possible (prices, quantities sold, number of actors, costs) during long-term series (10-15 years).

It must allow measuring the creation of economic value due to the GI protection. It also must permit to analyse the resilience<sup>8</sup> of the GI system.

#### **Stage 3: What are the causal relations that can explain the impacts observed?**

The common methodology seeks identify causal relations explaining the impact of the GI protection by 5 main steps:

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<sup>8</sup> According to the project steering committee the resilience must allow to see the capacity of the PGI Café de Colombia system to absorb shocks.





- Identifying the structure and the flux inside the value chain
- Identifying the mechanism allowing to create, or not price surplus (specific resources or process method, stakeholders organization, capacity to reduce transaction costs)
- Mechanisms explaining the value added distribution through the value chain
- The collective regulation allowing to keep competitive advantages regarding substitutes products
- The mode of governance explaining changes on the governance.

#### **Stage 4: What is the stakeholders' perception?**

The final stage concerns the perception of the value chain actors regarding the economic impact of the GI protection tool.

External actors point of view regarding the product studied and regarding GIs in general, must give explicative information of the impacts and on the methodology. Other value chains actors, political players and support institutions must represent potential actors to be involved into the study.

The common methodology built by the steering committee allows to orientate each case study and have comparative results.

Specific details concerning the common methodology are exposed on the annexe 2.

A specific methodology was built, taking into account the common methodology guidance, to study the economic impact of GIs in the case of Café de Colombia PGI.

## **II. An adapted case study methodology**

The common steering committee methodology was adapted to the case study of Café de Colombia with a proposal described in different steps.

### **II.1. The literature revision concerning the economic impacts of GIs studied**

#### ***Main results already achieved on GIs economic impacts***

The first step to adapt the common methodology to the Café de Colombia case study was an exploration on the literature about GIs impact studies already done. It allowed to identify what kind of impacts have been identified as; the stimulation of rural economy (Rangnekar, 2004), improving market access (Bramley and al., 2009), product differentiation and high value protection (Babcock and Clemens, 2004), resituate higher benefits for producers (Desbois and Néfussi, 2007); concerning positive impacts.

Constraints and impacts conditions were also identified as; product differentiation must be reached if consumer recognize the product value (Bramley and al., 2009); constraints during the code of practice (CoP) establishment allows ineffective actions on GI systems (Galtier et al., 2013), the chances of success for a GIs will be increased by collective marketing and the capacity to minimize transaction cost (Barjolle and Chappuis, 2000).



### ***A world coffee market literature revision***

A coffee market literature was necessary in order to adapt the methodology used for GIs impact already studied to a product exclusively produced in emerging economies and consumed in industrialized countries.

It allowed to better understand a complex coffee context characterized by a world coffee demand increase ((Fitter and Kaplinsky, 2001; USDA, 2014), an unfair distribution of the coffee value between consuming and producers countries (Daviron and Ponte, 2005), a climate change influencing on the coffee supply (USDA, 2014), new ways to “decommodify” coffee (Galtier et al., 2008). The literature revision document is presented on the annexe 3.

### ***An overview on assesses done on the case of GI Café de Colombia***

Some studies have already been done in the case of Café de Colombia. Most of them were focused on the product differentiation strategy and protecting origin steps (Gallego Gomez,

2008), on the use of a collective common efforts by coffee growers to protect intellectual property right (Quiñones-Ruiz et al., 2015) and the potential of regionally GIs (Giovannucci et al., 2009).

Nevertheless, it seems to be a lack of studies based on quantitative data collected at different level of the value chain allowing identifying the economic benefits of the legal protection of PGI Café de Colombia.

The literature revision allowed let a global vision of the subject in order define hypothesis to be confirmed or rejected with data collection during the fieldwork

## **II.2. The elaboration of the main hypothesis of the Café de Colombia case**

The literature revision allows identifying three main hypothesis to study the PGI Café de Colombia case. For each hypothesis, under assumptions were also identified to orientate the main hypothesis. It concerns:

- ***Hypothesis 1:*** *The GI registration of Colombian coffee will be expected to generate added value through the supply chain due to the typicality of the production system and his regulation.*
  - *Value chain coordination and governance*
  - *The system capacity to control and keep product quality*
  - *Evolution on the number of firms*
- ***Hypothesis 2:*** *The added value of the GI coffee must be fairly distributed through the supply chain actors*
  - *Changes on the governance and price control by growers*
  - *Price stability*
  - *A fairly shared final coffee value distribution*
  - *There is other kinds of value added distribution*
- ***Hypothesis 3:*** *GI Café de Colombia may have positive economic impacts on national development*
  - *Must have an impact on other local products protection: viewed as an example*

Table 2: Actors encountered during the fieldwork (source: personal)

Actors	Farmers	Coopeatives/Associations	Municipal committees	National federation of Coffee growers	Cenicafé	State entities	Education actors	Exportes	Traders/Roasters	Supermarket	Other experts
Quantities of samples	25 (V+I) 2 (FG)	3 V(+I)	4 (V+I)	2 (V+I)	1 (V+I)	2 (I)	1 (I)	4 (V+I)	6 (V+I)	5 (V+I)	7 (I)
Other data source	International Coffee Organization (ICO); CE DOOR; PGI Café de Colombia conditions terms; Scientist publications.										

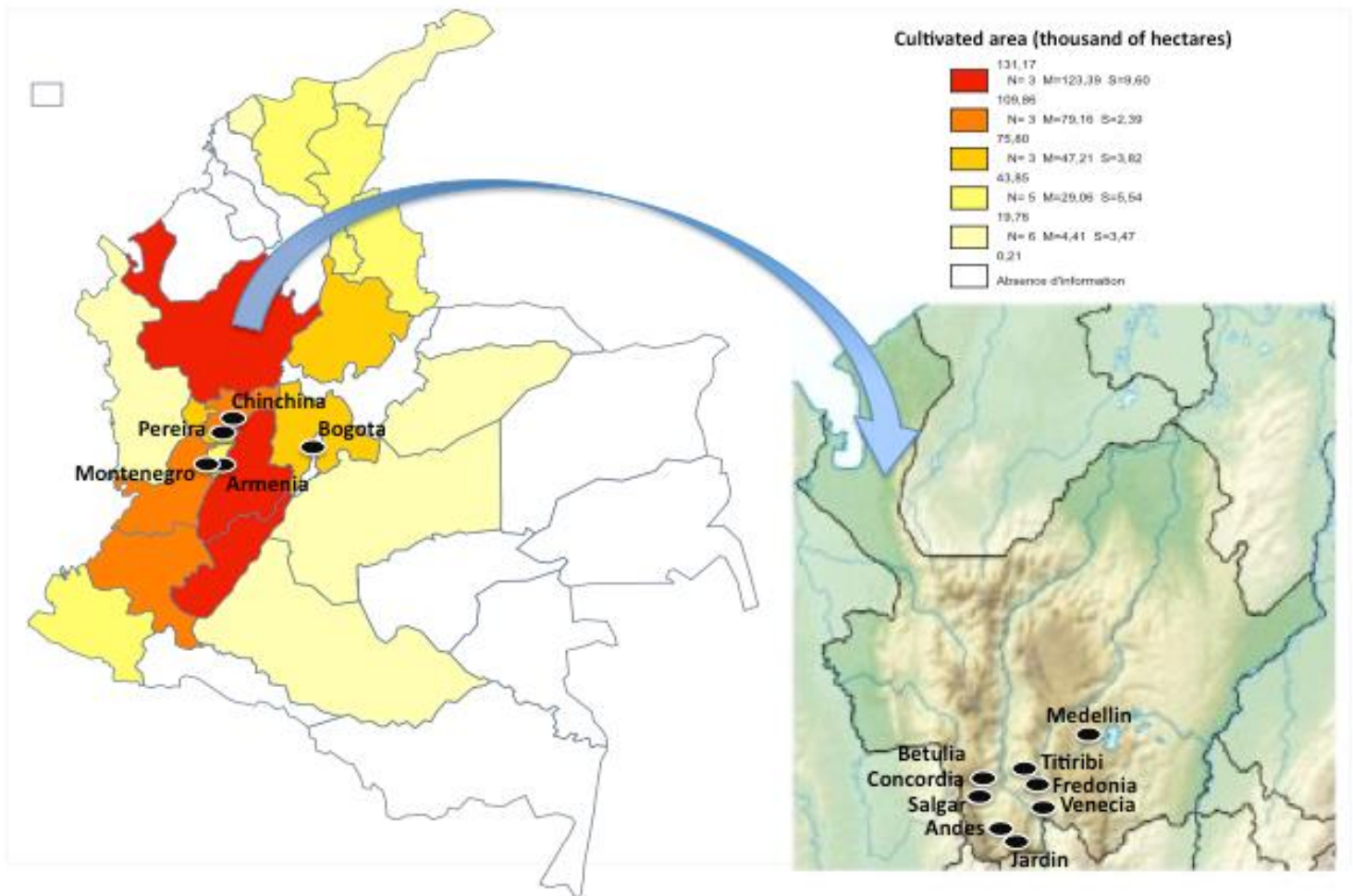


Figure 7: Field work coffee regions visited, with a farm focus on the Antioquia region (source: adapted from SIC)

*Participate on the rural and coffee regions development allowing social stability*

- *Participate in the construction of a national brand: change the “bad picture” of the country*

### **II.3. The field work and actors identification to test the hypothesis**

A fieldwork was conducted in Colombia from April to the end of July to accept or refute the study hypothesis.

The “filière” approach was used in order to have a global vision of the PGI Café de Colombia system. Actors at different levels were visited and/or interviewed to collect quantitative and qualitative data.

According to the common methodology, an objective way, based on quantitative data was used: added value evolution, price and costs evolution, changes on the code of practise, volumes and sales evolution.

Moreover an objective way was also used, based on qualitative data, in order to explain the causal of the impacts identified: benchmarking, key actors interview.

The table 2 presents the actors encountered during the fieldwork and the sample for each actor.

Those actors where identified after have done a first value chain schema. The size of the sample for each actor was not clearly defined before starting the fieldwork because it depended on the information access.

The Colombian coffee growers federation was identified as the first stakeholder to visit and to interview. In fact we considered important to understand firstly the main objectives of the PGI Café de Colombia registration by the GI owner.

A presentation of the GI project was made at the FNC head quarters in order discuss our external vision of the PGI and the main hypothesis we considered interesting to study.

Other actors and institutions encountered allowed understanding their point of view regarding the PGI and the impact on this part of the value chain. Quantitative data as production costs, selling prices, volumes where collected.

Nevertheless, difficulties were encountered, specially regarding quantitative data collection. Essentially exporters, traders and supermarkets, considered this information as confidential and strategic. For this reason the size sample of each actor was not as expected.

Pre-structured questionnaires were established in order to keep the quantitative and the qualitative data during the visits and/or the interviews (Annexe 4).

### **II.4. Study zone justification**

The fieldwork took place essentially on the Antioquia region. Considering the vast area of café de Colombia PGI and the time to encounter all the value chain actors, this region was selected because it is one of the largest coffee production; in terms of number of coffee growers and in coffee hectares planted with coffee (figure 7).



Other actors were encountered in different regions and cities as :

- Bogota : FNC head quarters ; Exporters
- Pereira : Education actors of the cultural coffee landscape
- Armenia : Regional chamber of commerce and tourism
- Montenegro : National coffee park
- Chinchina : National research coffee center (Cenicafé)

## II.5. Data analysis

The quantitative data collected was treated as homogenous as possible in order to facilitate the value chain distribution comprehension.

Economic data as prices and costs were systematically converted from Colombian peso to US dollar according to the yearly mean exchange rate announced by the FNC.

In the local context of the fieldwork, coffee quantities are used with different measurement units (table 3). To homogenize the information a conversion to kg has been done by the equivalences conversion from FNC.

*Table 3: Coffee measurement units and the equivalences in kg (source: personal)*

Unit	Concerns	Equivalent in kg
"Arroba" or @	Producers and cooperatives	12,5
"Carga"	Producers and cooperatives	125
Green coffee bag	Exporters, traders, roasters	60
Pound	Esporters, traders, roasters	0,453

The quantitative data was analysed on temporal series as much as possible and by identifying important critical events affecting the coffee sector, in order to see the dependence of the coffee sector to those kind of events and the system resilience.

The data concerning coffee growers were analysed with analyse of variance tests, using statistical "R" program, in order to identify if there is any differences in terms of impacts depending on the size of the producer farm.

Finally, qualitative data was interpreted to explain quantitative results. In fact, by combining the two type of data, it provides explanations and enriches interpretation of results (Belletti and al., 2011).

The expected results will be presented with a value chain diagram in order to illustrate the value chain operation. Temporal charts will allow to release impact evolutions. Finally typical cases will be presented to understand the farm performances.

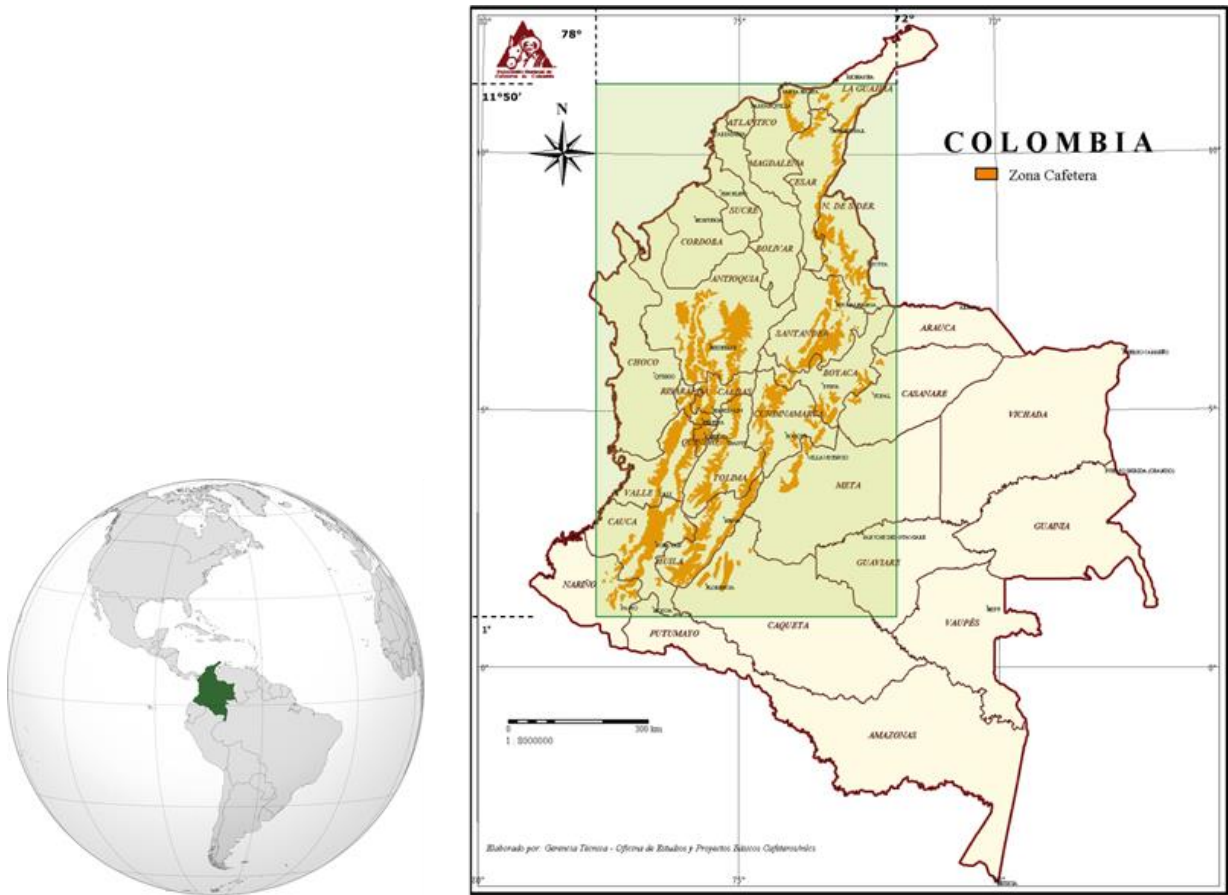


Figure 8: Geographical delimitation of PGI Café de Colombia (source: FNC)

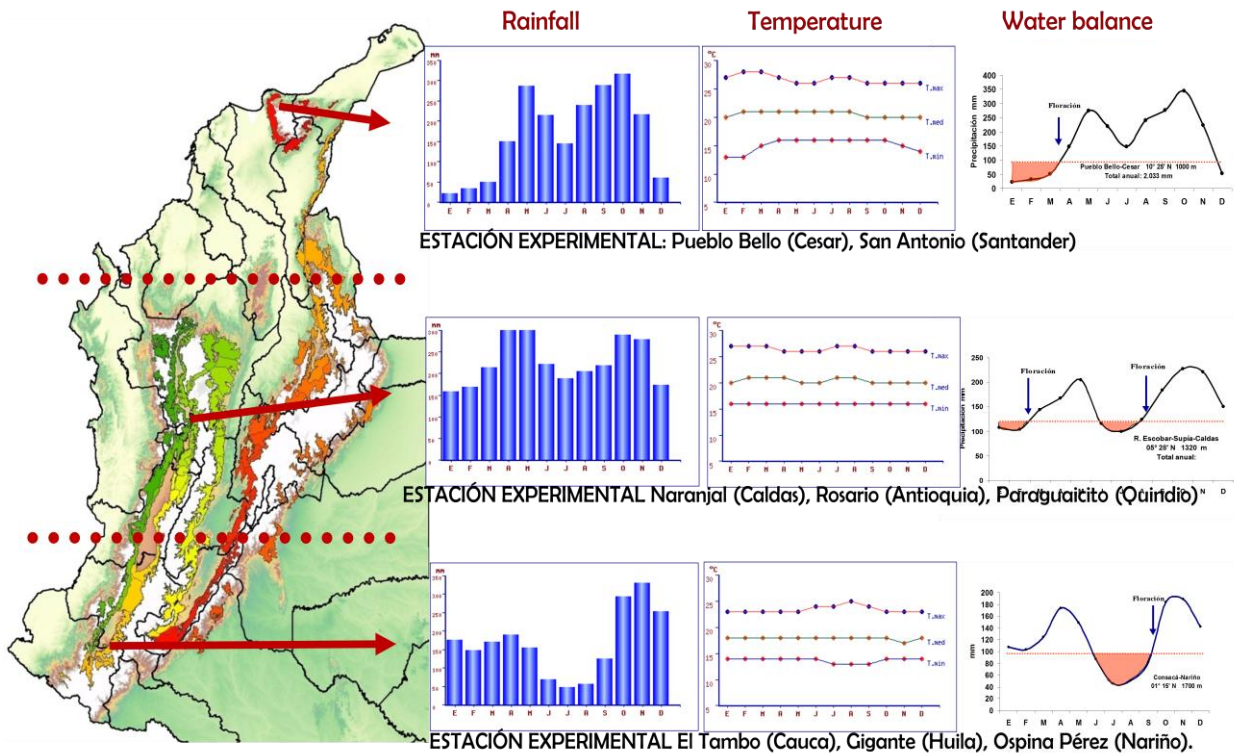


Figure 9: Rainfall distribution through the coffee-growing region (source: adapted from Cenicafé)



## **Part 3. Results and discussions**

### **I. The product and the Café de Colombia value chain**

Café de Colombia was successfully registered into the European Union as a PGI due to the specificity of the product, the well-delimited production area, a strong link between the product and the origin but also due to the well organized institutional entities.

According to the common methodology it is important to identify those specificities that have allowed a non-EU food product been legally protected in the EU.

#### **I.1. Café de Colombia, a product with distinctive characteristics**

The Café de Colombia PGI concerns a coffee exclusively from the arabica specie. The quality, the reputation and the characteristics come from the cultural know-how and the local resources from the delimited coffee-growing area, also known as “Zona cafetera colombiana”.

This coffee must be only produced with PGI Café de Colombia varieties as Caturra, Typica, Bourbon, Maragogipe, Tabi, Castillo, San Bernarndo, Colombia.

The Café de Colombia PGI concerns green and roasted coffee. Their characteristics are enounced on the annexe 5. The product can be described as smooth baverage, with medieum/high acidity and pronounced aromas. Those characteristics are strongly linked to the origin and the local knowhow

#### **I.2. A well delimited PGI production zone**

The PGI geographical zone covers 3,6 million hectares, distributed throughout the Andean cordillera (figure 8). Actually, the cultivation and harvesting of coffee cover 921 000 hectares<sup>9</sup> and 588 municipalities from out of 1 100 in Colombia. That reflects the importance of coffee into the Colombian nation.

The PGI delimitation zone is composed of 22 Colombian departements (Antioquia, Arauca, Boyaca, Caldas, Caqueta ,Casanare, Cauca, Cesar, Choco, Cordoba, Cundinamarca, La Guajira, Huila, Magdalena, Meta, Nariño, Norte de Santander, Tolima and Valle). Into those departments only the zones located between 400 and 2 500 meters over the sea level (m.o.s.l); between the latitudes 1°-11° and the longitude 72°-78° are comprising in the PGI Zone. In fact there is a strong correlation between the altitude and the coffee quality. According to Joët and al., 2010, the more the coffee is produced in high altitudes, the more the slowly coffee cherry ripeness allow the production of coffee aromas.

The influence of the Atlantic and Pacific Oceans, the Amozonia, and the volcanic soils of the Andean cordillera, gives to the coffee-growing area, optimal conditions for the production of a high quality product, in where the annual temperatures average rize between 18 and 22°C Moreover, due to this geographical situation the coffee-growing area benefits from a well rainfall distribution, allowing the production of fresh coffee throughout the year (figure 9)

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<sup>9</sup> The National Federation of Colombian Coffee Growers considers that coffee should be produced throughout the 3,6 million hectares defined into the PGI registration.



Figure 10: Specific PGI Café de Colombia dispulping process (source: personal)

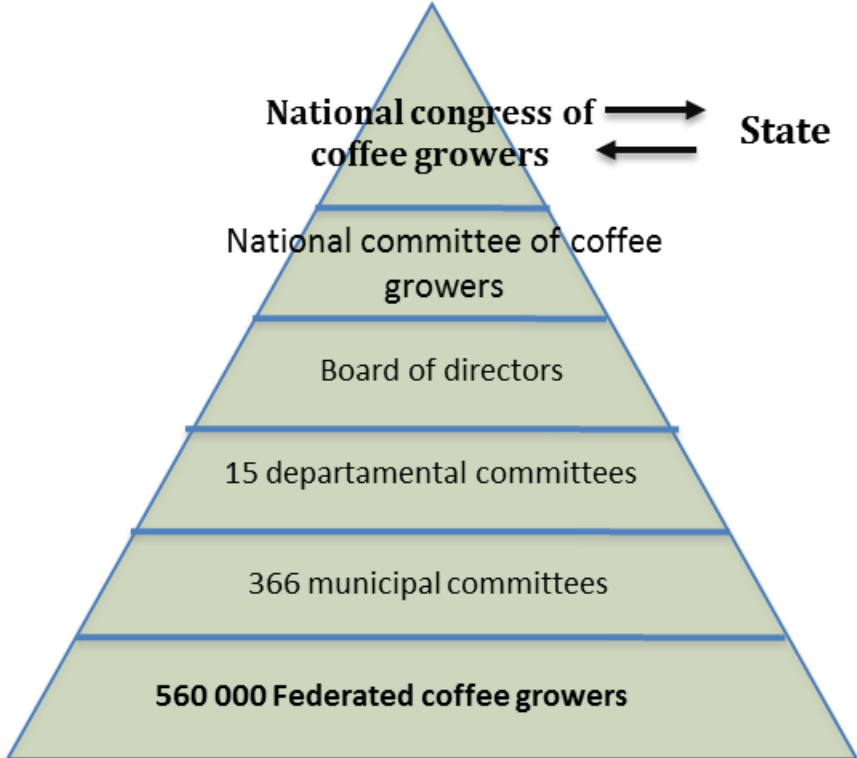


Figure 11: The National federation of Coffee Growers structure (source: adapted from FNC)

### **I.3. Links between the product and the specific origin**

The link of Café de Colombia to the specific origin is not only due to the pedo-climatic conditions on the coffee-growing area but also to the human and cultural methods during the process.

The human factors are characterized by the traditional know-how of Colombian coffee growers. In fact, one of the specificities of the code of practise (CoP), is the manual harvesting of the ripe coffee cherries. This ripped fruit selection has a direct influence on coffee drink characteristics, in terms of aromas and acidity, contrary to under ripped fruits that can disrupt the standard coffee quality.

Another human factor involved into the coffee production process is the wet method of processing coffee. This method began by a mechanic pulping at farm, followed by coffee beans water washing, in order to remove the impurities.

The coffee beans are sun dried to attend 12% of humidity. Generally, the coffee grower makes a post processing selection to remove malformed beans or pest (figure 10).

This collecting and processing coffee methods has been traditionally used by coffee growers from the beginning of coffee production in Colombia.

### **I.4. A well structured governance:**

An important specificity of the Café de Colombia case, is that the PGI registration was allowed, partly, due to the well-organized institutional entity, that represent all the Colombian coffee growers.

The FNC, acts as the PGI owner and have received the “delegación de facultad” from the Superintendent of Industry and Commerce (SIC). It means that the FNC is the legal institution, able to accept or refuse coffee actors registration as PGI users. Also, there is the responsibility of the FNC to control usurpation cases and the promotion of the PGI Café de Colombia.

The co-management institutionality of the FNC and the State represents a well-structured governance of the PGI.

The Colombian coffee sector is a “co-managed” system in where each element of the coffee sector – producers (federated by the FNC) and government institutions – participate into the negotiations to define the national coffee policy.

Actually the FNC is composed of the National committee of coffee growers that yearly defined the national coffee policy with the state representatives, into the National congress of coffee growers. The political plans are executed at the local level by 15 departmental and 366 municipal committees, through more than 1 500 extension staff (figure 11).



The FNC has also developed other institutions for the Colombian coffee sector:

- The National Research and Development Coffee Center (Cenicafé) was created in 1938 to develop new coffee varieties and to implement the competitiveness and sustainability of coffee practices. Today this institution is world recognized by the scientist community. In fact main researches are based on different disciplines concerning coffee: plant science; phytopathology; entomology; soil science; physiology; genetics; natural resources management; quality and experimentation (Cenicafé (I)).



Figure 12: The National Coffee Found resources distribution (source: adapted from FNC)

Table 4: Different forms of Café de Colombia origin protection (source: adapted from FNC)

Type of protection	Sign	Territory
Protected Denomination of Origin (PDO) Café de Colombia		Countries of the Andean community (Bolivia, Colombia, Ecuador y Peru)
Protected Geographical Indication (PGI) Café de Colombia		Countries of the European Union
Ingredient brand 100% Colombian coffee		International

- A network of 58 cooperatives covering 605 coffee purchasing points.
- Almacafé (Almacenes Generales de Deposito de Café), a logistic entity that has the capacity to stock more than 16 millions of 60 kg coffee bags (more than an annual harvest), in 90 stock establishments.
- The Inspection desks (oficinas de inspeccion Almacafé) that is charged to control the coffee quality at different levels of the coffee value chain: milling and local roasting companies but also at export harbours, in order to control the export coffee quality standards.
- The Manuel Mejia foundation contributes to the coffee growers education regarding the new technologies, to enhance the competitiveness and the sustainability in rural areas.
- The National Coffee Found (FoNC) was created in 1940 when 14 coffee producer countries signed a quota pact (ICA agreement) in order to control the coffee supply and stabilize coffee prices. The role of this institution is to buy and export part of the coffee harvest. The main financial source come from a coffee parafiscal contribution paid by coffee growers: 0,06 US\$ per coffee pound exported. This value is shared as 2,7% to department committees, that have used part of it to finance public projects in coffee regions (roads, electrification, schools and others); 2,7% to the National Coffee Found; 2% to the government budget. It shares the resources into the branches of the sector (figure 12).

The FoNC have rapidly accumulated important quantity of capital that allowed the FNC to invest into the industrial sector and took part in a large number of companies during the 1980s. Moreover the coffee founds allowed to subsidize the strong marketing campaign to reach the strategy of Café de Colombia differentiation.

This well-organized “micro-institution”, defending the interests of the national coffee growers was one of the most important conditions that has enabled the registration of the Café de Colombia as a PGI in the EU.

Actually, Café de Colombia has three legally forms to protect the origin and the collective efforts made by coffee growers (Table 4).

According to the FNC, *“by having different forms to protect collective efforts, the quality and the reputation of the Colombian coffee, it allow to generate confidence to the consumer in terms of the origin but also it gives the possibility for coffee growers to defend their own efforts”* (FNC (I)).

Nevertheless, due to the number of the actors involved into the value chain, all the stakeholders were not taken into account during the PGI registration process. It should generate transactions risks while the FNC has to communicate and convince the value chain agents to implement the already fixed “rules of the game” (Quiñones-Ruiz et al., 2015). In fact, Café de Colombia value chain, even if it is well-structured, there is a complexity due to the dependence from the international market.

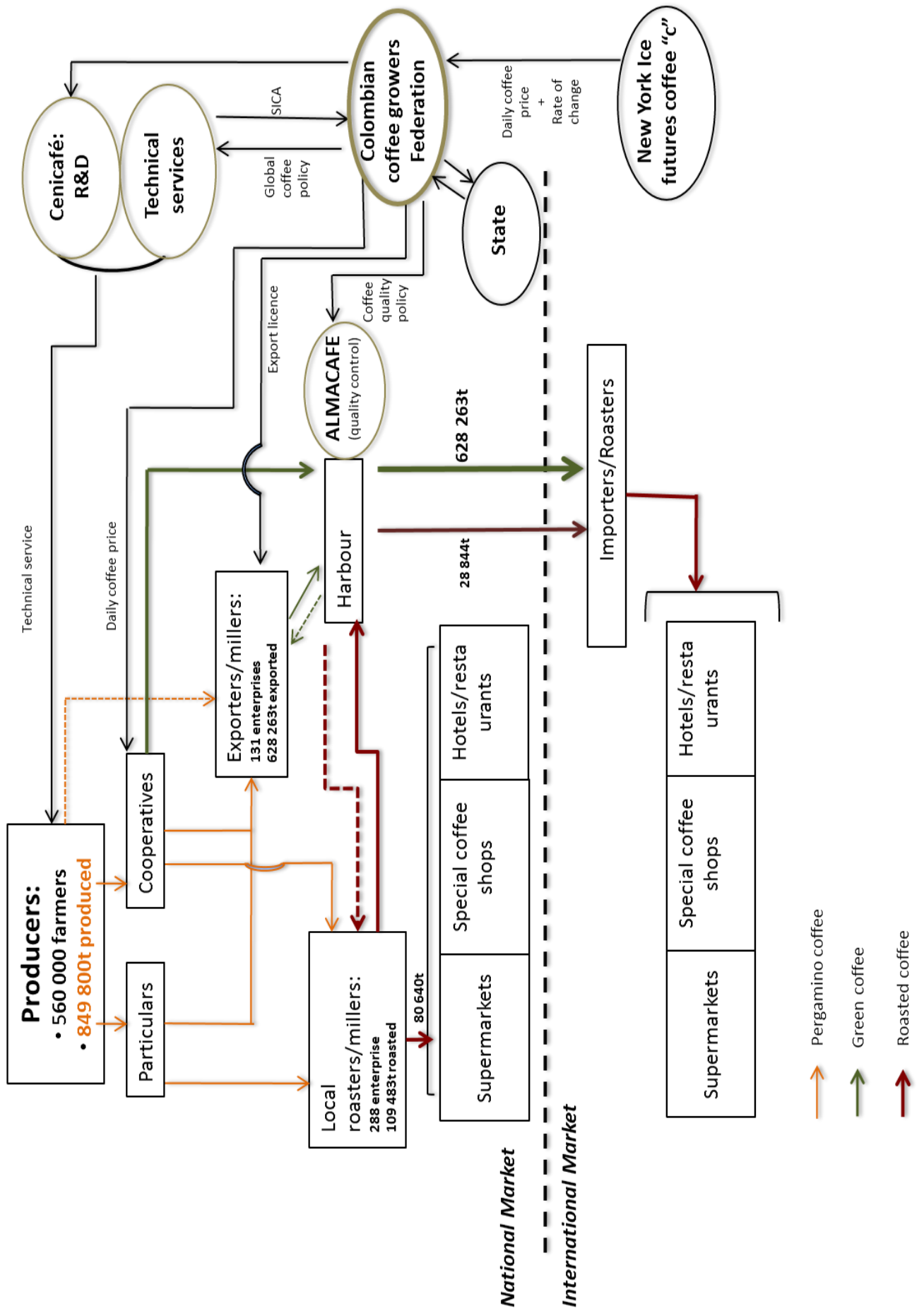


Figure 13: Café de Colombia value chain (Source: personal)

## **I.5. A well structured top-down value chain**

By encountering the actors at different levels of the value chain it was possible to build a “filière” (or value chain) schema in order to identify the flows and the control mechanisms acting on the system. The figure 13 shows the complexity of the flows between the actors on the Colombian coffee sector.

The success of the PGI registration depends on the well harmonization and collective product implementation between the coffee growers, the purchasers, the exporters, the well-recognized national institutions and the international market actors.

Today the Café de Colombia value chain must be considered as still buyer-driven in where transnational companies and the international market, in general, still have strong power in terms of governance. Moreover the system is supervised, at different levels, by the institutions of the FNC, acting as a controller, as a product promoter but also as a product distributor.

In 2014, Colombian coffee growers has produced 850 000 tons of “pergamino coffee” (dry parchment coffee). They were more than 560 000 during this year. According to the FNC, the number of coffee growers has increased from 511 000 in 2007 to 560 000 in 2014. That is reflected in a global increase of the coffee-growing area from 877 000 hectares to 948 000 hectares during the same period.

This “pergamino coffee” was purchased partly by the 58 national cooperatives at the 605 purchasing coffee points and partly by particulars that play the role of intermediate; between farmers and local roasters or exporters.

In 2014, the pergamino coffee, sold by the cooperatives and intermediates was destined essentially to the 131 exporting firms, that has exported 628 263 tons of green coffee (or the equivalent of 10,5 million of 60 kg of green coffee bags). The participation of the FNC on the total coffee exportations was 22%. National and international private coffee companies exported the other part.

Overall, 90% of the Colombian coffee production is exported as green coffee. Those quantities exported seems to be correlated to the national production and has fluctuated between 10 to 12 million of green coffee bags from 1995 to 2014 (figure 14). The important quantity of coffee exported every year, highlights the underuse of the stock potential of the FNC.

During 2009 and 2012, the Colombian coffee production has considerably decreased due to the renewal coffee trees program implemented by the FNC, in order to enhance the productivity and to substitute old coffee varieties to “technified” ones, considered as being rust resistant. From 2008 to 2013, the renewal program allowed to renew 30% of the growing-coffee area (figure 15).

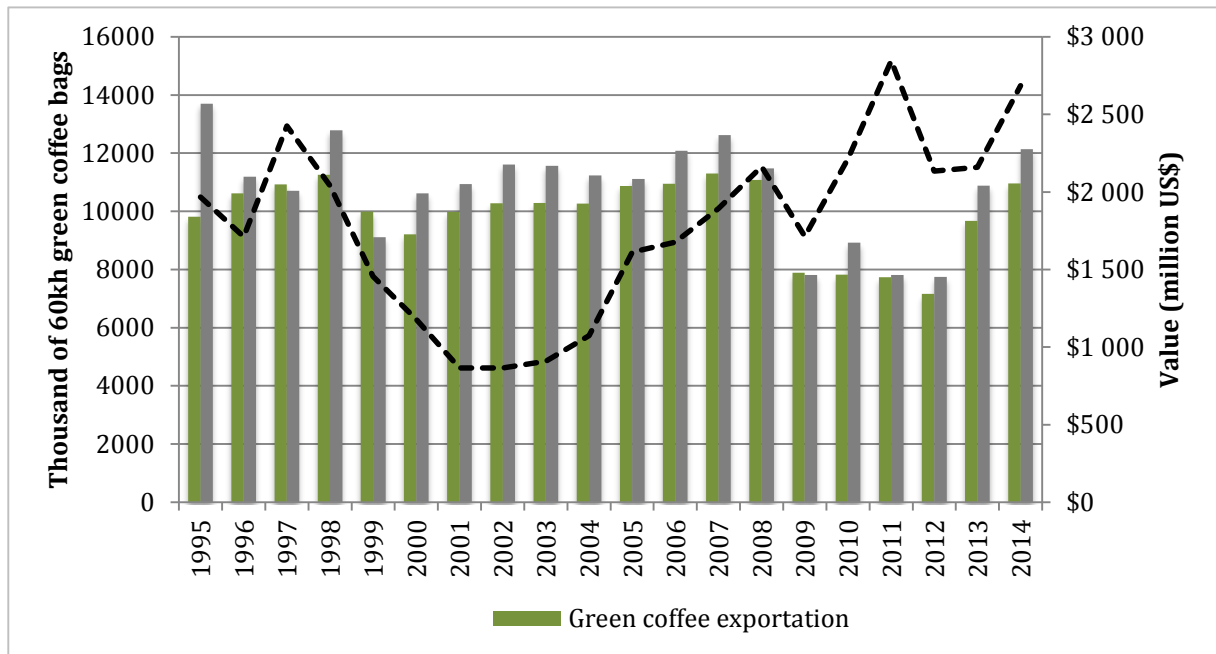


Figure 14: Evolution of the Colombian coffee exportation (Source: adapted from FNC)

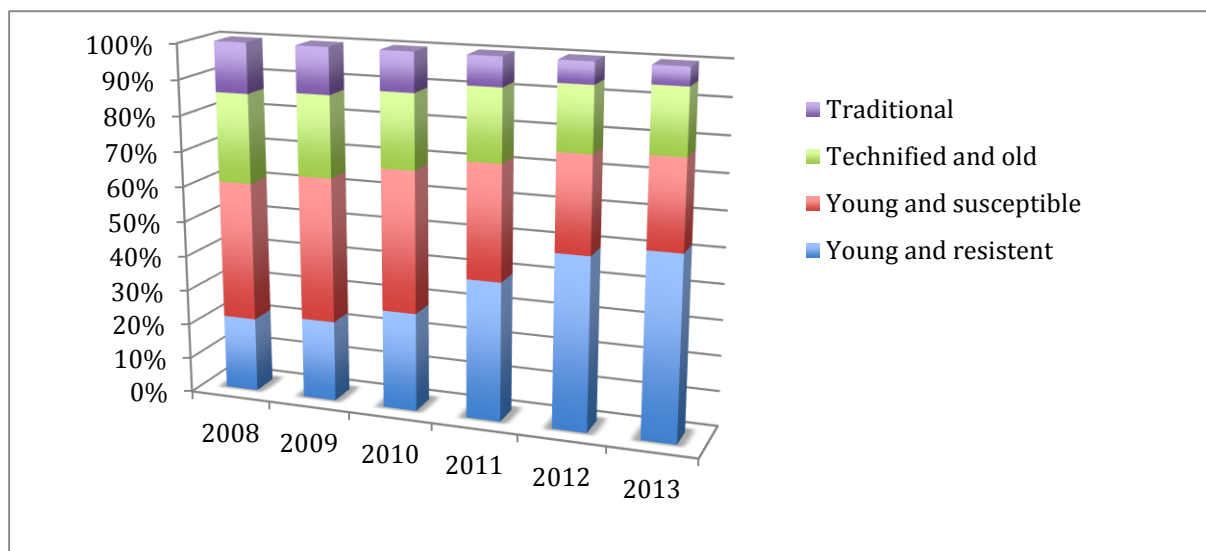


Figure 15: Main results of the renewal coffee trees program (source: adapted from FNC)

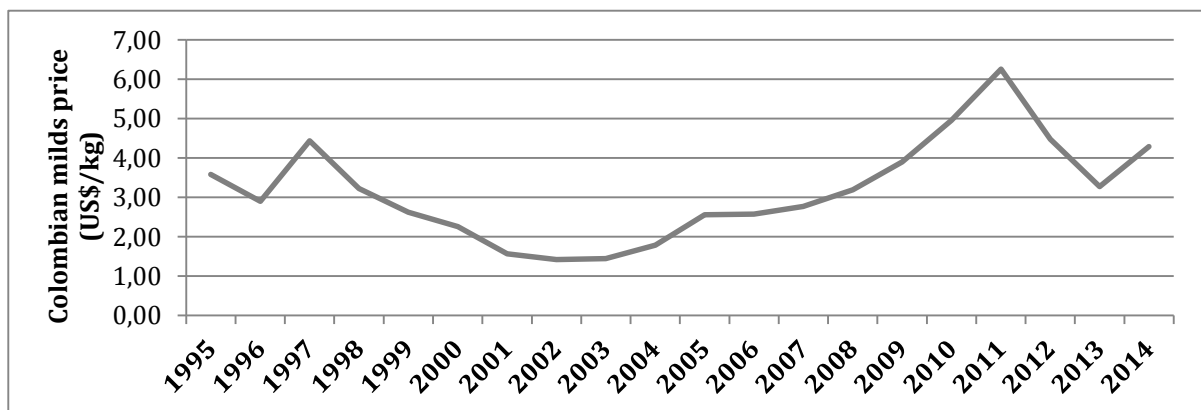


Figure 16: Evolution of the Colombian coffee price on the international market (source: adapted from FNC)



The time to recover the usually production, explain the strong decrease of Colombian coffee production.

Moreover, the national production, also depends on the global coffee prices. Coffee production must be considered as a “cycle” in where, *“when coffee prices are high, it incentivize farmers to fertilize their coffee plantation. Those practises will increase the national coffee supply during the next campaign and plunged down the global price”* (farmers (I)).

The strong dependency of the value chain on the international market, must be showed by the value of coffee exportations and his evolution. Even if in 2014 this value reached 2,5 billion US\$, the record from the last two decades was reached in 2011, while the national production was at the lowest level and the Colombian coffee price reached 4,48US\$/kg, compared to 1,44US\$/kg in 2003 (figure 16). It shows the strongly dependence of the Café de Colombia system on the international coffee market.

According to the International coffee Organization (ICO) the coffee national consumption in Colombia for 2014 was 1,6 million of 60 kg of green coffee bags, the equivalent of 86 640 tons of roasted coffee. In addition the FNC data collected, showed that for the same year the total of roasted coffee exported by local roasters was the equivalent of 28 844tons of roasted coffee. It correspond to 0,8% of global Colombian coffee exportations.

Another characteristic of the Café de Colombia value chain is the role of the institutional and well-recognized coffee growers federation.

By being close to the Colombian government as mentioned above, the FNC control the national coffee production by acting as a control agent at different levels of the system (purchasing points, millers, exporters and harbours). Moreover, being the most important Colombian coffee exporter, the FNC has an important role on the national coffee distribution and on the founding new markets.

Finally, this institution leads the national coffee policy by implementing technical programs throughout the extensional service but also by a world wide recognized coffee research center.

The PGI Café de Colombia has successfully been registered as a PGI, PDO and as a ingredient brand due to the product characteristics, the strong link to “terroir” and his cultural context, but also due to the strong governance of the value chain in where the FNC must be characterized as the central regulatory agent. The role of the state has also played an important role on the PGI registration by creating at the Superintendent of the Industry and Commerce (SIC), the national legal framework to protect origin products.

As showed on the “filière” schema, the Café de Colombia value chain is well structured, in where a large number of actors play important roles through the large scale delimited PGI area.

Nevertheless, the PGI registration has not changed the governance of the value chain, generally characterized as a top-down system in where coffee growers still depend on the international coffee price and his fluctuations, even if they have successfully reached a differentiated product.



## II. The economic impacts of the GI Café de Colombia protection

According to the common proposal of the steering committee, the second step of the common methodology, concerning the economic impact of the GI protection was based on the identification of the mechanisms allowing to create the added value due to the legal protection and the causality that explain those impacts.

To respond to this demand, the adapted methodology of the Café de Colombia case is based on (i) The mechanisms allowing the creation of the added value (hypothesis 1). (ii) The distribution of the added value (hypothesis 2). For this reasons, those two different points are treated separately on the main results.

### II.1. Different ways to create different forms of added value

The creation of the added value for the Café de Colombia case is allowed by different strategies implemented by the FNC. Those strategies concern the quality control, the purchase guarantee, the marketing, the supply control and the access to new markets. Nevertheless not only positive impacts in terms of the creation of added value were showed by studying the case.

#### *II.1.1 The system capacity to control and keep product quality*

As showed on the “filière” schema, the FNC is strongly present at different levels of the value chain, in where one of the main roles is to control the quality at different levels and in different actors.

The control quality at the harbour level, by Almacafé entity allows maintaining the Colombian coffee exportation quality standards. *“It is important to keep the strategy differentiation on the global market. By controlling the quality supply, there is possible to obtain an extra price for the product”* (FNC (I)).

The growers opinion differs from the FNC staff in such coffee growers see this as *“a commercial barrier and a dependency on the insitutionality”* (farmers (I)).

Must of them consider that *“if an international costumer is interested on his own coffee quality for a particular market abroad, the coffee won’t be exported if the quality don’t correspond to FNC standards. In this case the container is refused at the harbour and the coffee must be sold on the national market”* (farmers (I)).

Those testimonies have to be considered with care and merit to be discussed. The grower’s point of view concerns the market liberalization and often takes the Brazilian example in where the producers and producers groups must negotiate directly with international companies without mattering the coffee quality. This situation should increase transaction costs in where farmers are focused not only on the production activity but also they have to manage the coffee commercialization.

The FNC point of view is that it is important to control the coffee quality for the exportation in order to keep the abroad reputation of high quality coffee and to secure the costumer confidence with product homogeneous quality.

The Almacafé exportation controls at the harbour level are based on a sample of each exported lot in where the physical characteristics of the bean are measured (size, defects, insufficiently dried). Moreover the sensorial attributes are measured by cupping the coffee sample by experienced professionals.

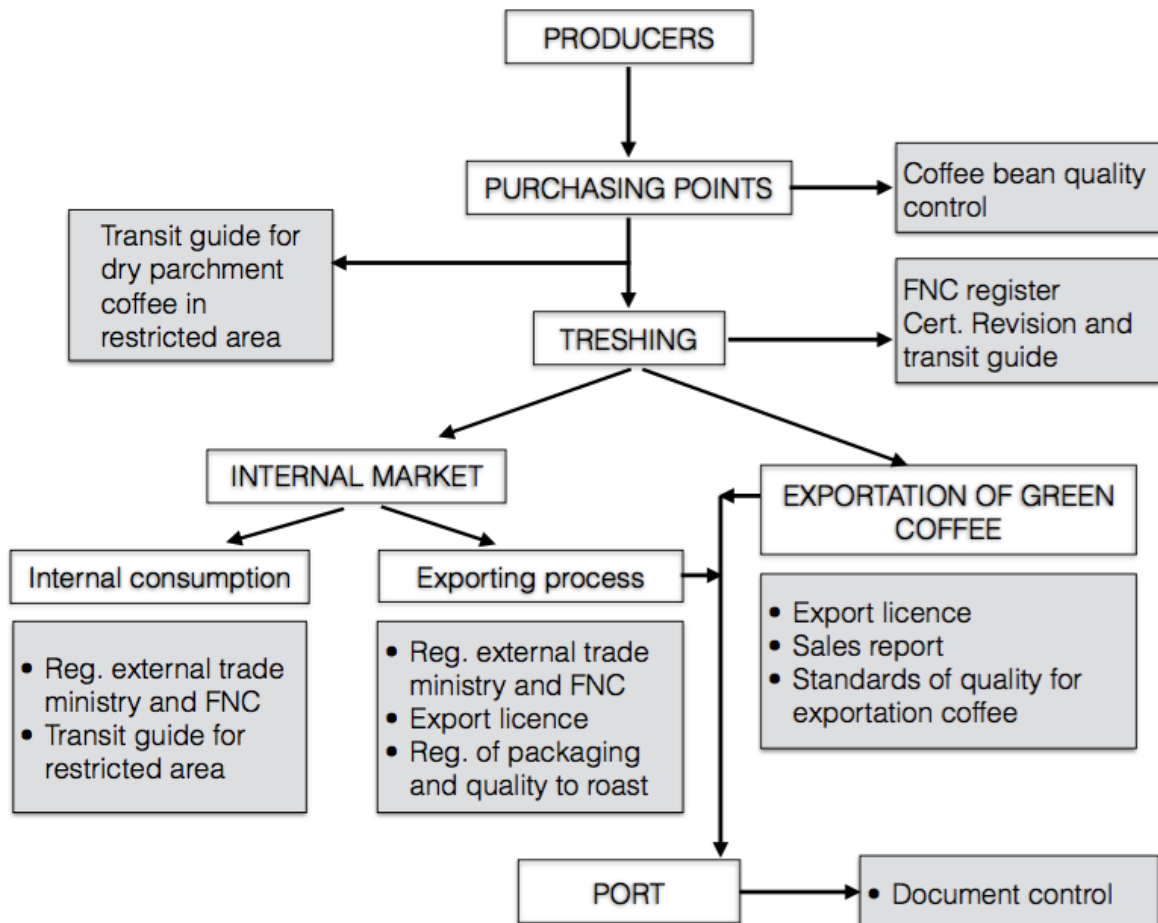


Figure 17: Documentary framework ensuring the control and the traceability of the PGI café de Colombia (source: adapted from FNC)

Moreover the NIRS technology (Near-infrared spectroscopy), which allows characterising the coffee beans spectral print, has been deployed in Colombia's harbours. This technology was adapted by Cenicafé, to control the coffee origin and prevent other origin to be used as Colombian coffee, for the exportation. In fact, according to the Cenicafé interviews *"the Nirs technology allows us to evitate that exporter companies use the coffee reputation for exporting other origin products (Cenicafé (I))."*

Not only at harbour level the coffee quality is controlled. At each purchasing point a control quality take place on pergamino coffee *"to incentive coffee growers to enhance the quality of the product and keep competitive advantages on the market"* (FNC (I)).

At the purchasing point the daily basic price must raise depending on the coffee beans quality and the results of the control at the purchasing point<sup>10</sup>.

Moreover the local roasters involved in roasted coffee exportation, also receive a *"final product control, to guarantee that the coffee used on roasting process is 100% Colombian coffee"* (exporters (I)).

Finally, different samples from different Café de Colombia retail points, based all around the world, are analyzed each trimester.

According to the FNC, more than 1700 samples are analyzed every year by Almacafé and two other laboratories based on United States of America and Spain. In fact *"It is important, after having receive the PGI protection, to use it by controlling the Café de Colombia all around the world, even if it represent an important quantity of coffee"* (FNC (I)).

The product quality control implemented by the FNC to protect the coffee reputation is one of the control strategies to create added value on the product, by reducing transaction costs in where the costumer must be satisfied and where the usurpation is rapidly identified.

Moreover, all the local actors involved on the value chain are strongly controlled and registered into the FNC database in order to ensure the traceability of the product through the value chain (figure 17)

### ***II.1.2. A supply control strategy***

The quality control implemented by the coffee federation also aims to control the Café de Colombia supply. In fact, by selecting and keeping a high quality of the product, allows controlling the exportation supply. In fact the "non-quality", meaning to the coffee that don't correspond to the exportation standards stay on the local market.

According to the FNC *"if we wanted to export all the Colombian coffee, without taking into account our export standards, we must loose the differentiation reached from more than four decades"* (FNC (I)).

The coffee supply is also allowed by the stock potential of the Almacafé entity, by having the capacity to stock more than 16 million of green coffee bags.

Actually this potential is not fully used. In fact, as announced above, Colombia exports almost 90% of the yearly production.

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<sup>10</sup> It is measured the percentage of "clean coffee beans" from a sample of 250g. According to the FNC the Excelso Colombian coffee for the exportation must should contain at minimum of 75% of "clean coffee beans" from the 250g coffee sample. A sample composed by 84% of "clean beans" will receive an increment of 0,20US\$/kg of coffee (cooperatives (I)).



Figure 18: Coffee prices announced at purchasing points in Jardin, Antioquia (source: personal)

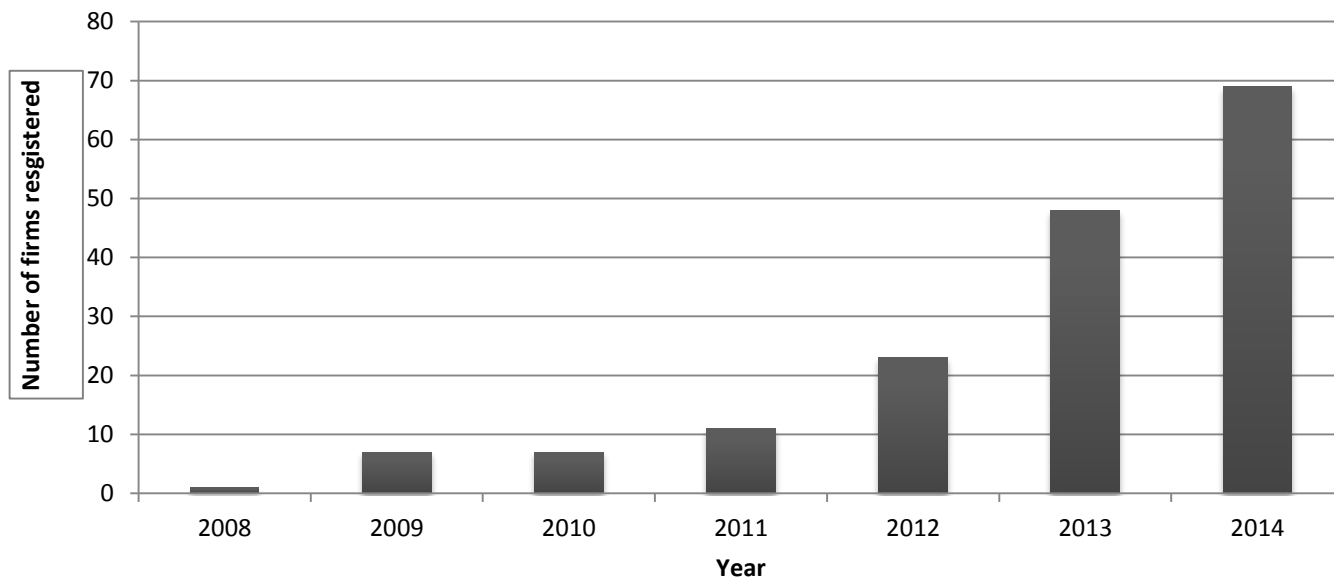


Figure 19: Evolution of PGI Café de Colombia registered firms (source: FNC)

### ***II.1.3. The purchase guarantee, a security for coffee growers***

Colombian coffee growers benefit from one of the most important role of their federated institution. The purchasing guarantee managed by the FNC aims to give the possibility for all the 560 000 coffee growers to sell their coffee each day of the year, at the 605 purchasing points. This policy, implemented by the FNC must be seen as a form of added value by reducing transaction costs for coffee growers. In fact, it allows to evitate that particular purchasers propose daily prices lower that one announced by the FNC.

Moreover, coffee certifications for sustainability as Rainforest Alliance give to coffee growers an extra price per kg based on the FNC basic price. The extra price may vary from the equivalent of 0,08US\$/kg for Rainforest Alliance certification farms, to 0,2US\$/kg for quality programs as Nespresso AAA (figure 18)

Nevertheless all producers interviewed declared that those *“international certifications must represent constraints. The efforts at farm level to enhance an environmental friendly production system and coffee beans quality selection are made constantly throughout the year but the extra price paid for coffee, fluctuate depending on the coffee supply”* (farmers (I)).

### ***II.1.4. A marketing campaign in order to implement the PGI use***

Even if all the actors of the value chain were not taken into account during the PGI registration process, as announced on the section before, the FNC is convincing the stakeholders to implement the PGI and to adopt already established “rules of the game”. According to different actors interviews, more and more information arrives to the actors in order to use the PGI Café de Colombia logo on the packaging, in order to make known the legal protection to the final consumer. In fact most of the roasters interviewed announced that they *“frequently receive information from the FNC, concerning the benefits of use the PGI logo on the packaging. It should allow obtaining consumer confidence and differentiating the Colombian coffee from other 100% origin products”* (roasters (I)). According to the FNC *“if the PGI logo is implemented, we must benefit, in the future, from an extra price paid by the final consumer due to the traceability and the origin guarantee of the product”* (FNC (I)).

Moreover, the FNC seems to enforce stakeholders to be registered as PGI Café de Colombia user to be allowed to keep delivering Colombian coffee on their brands. *“Even If we use the Colombian coffee with the ingredient brand Café de Colombia, we have to be registered as PGI user”* (Roasters (I)).

This enforcement from the FNC, have reached an incrementation of the number of users of PGI Café de Colombia (cooperatives, roasters) from 1 in 2008 to 69 in 2014 (figure 19).

The interest on the PGI still diverges from different actors of the value chain. For the FNC, as mentioned above, *“the main objective of the PGI registration was to protect the Colombian coffee reputation and collective efforts”* (FNC (I)).

For the national roasters encountered, the interests was not directly linked to the main FNC objectives but rather as a marketing tool, to *“tell a coffee history to the consumer, as must of the international certifications as Rainforest Alliance or FairTrade”* (roasters (I)).

Considering the PGI logo as a marketing tool, in a context where the consumer do not recognize it, must have the opposite effect. In fact more and more brand packaging, at the local market, are using the PGI Café de Colombia as a differentiation logo in the middle of



Figure 20: The use of PGI Café de Colombia in the local market (source: personal)

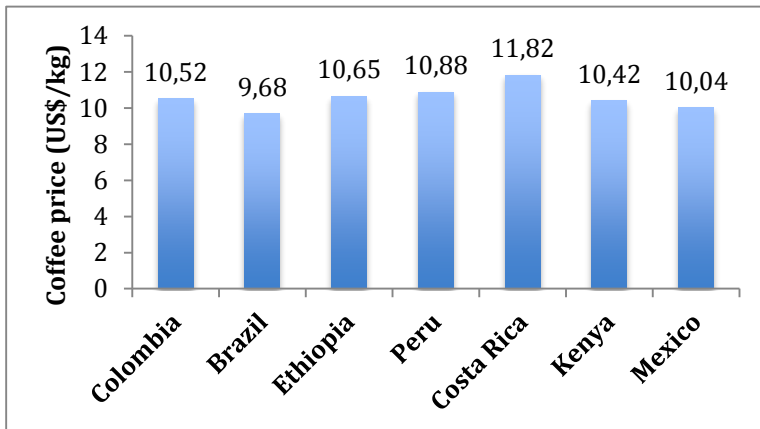


Figure 21: PGI Café de Colombia logo used in French supermarkets (source: personal)

Figure 22: French supermarket retail coffee price in 2015 (source: personal)

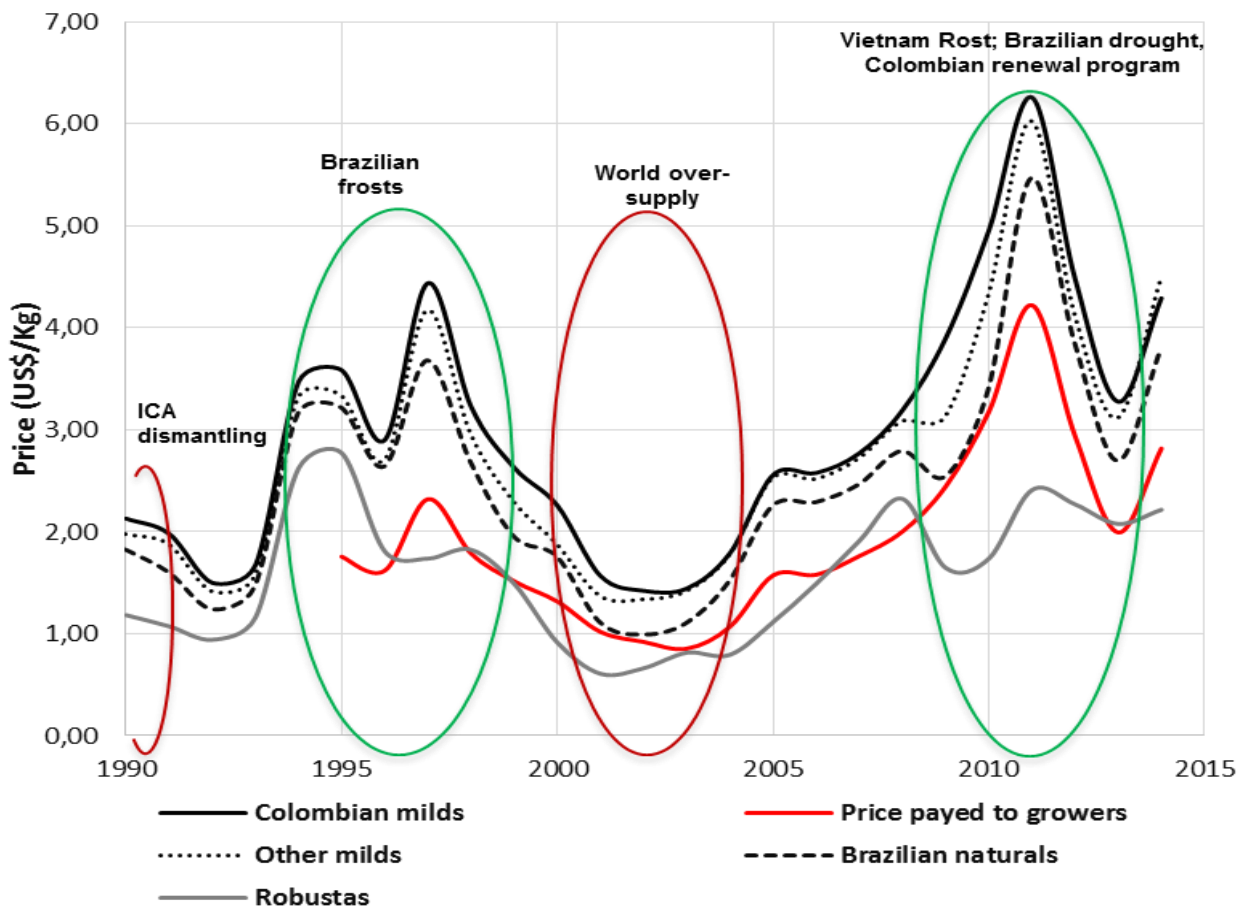


Figure 23: Arabica coffee price evolution between 1990 and 2014 (source: adapted from FNC)



other certification ones (figure 20). This situation may confuse the consumer provoking an increase of transaction costs for the consumer “education” regarding GIs.

However, differences have been seen on the European market concerning the use of the PGI logo. European brands use the logo “*not as a marketing strategy but as a form of communication with the consumer. The use of the logo, as in other protected products allow to guarantee the origin*” (supermarkets (I)) (figure 21).

Even if the number of PGI users throughout the FNC enforcement and the level of use of the PGI logo as a marketing strategy has increase, the Colombian coffee have not shown and increase of the final price since the PGI registration.

The price of Colombian coffee at the sample supermarkets visited during this study is not as higher as expected, comparing to other coffee origin (figure 22).

#### ***II.1.5. The added value still commodity market dependent***

Café de Colombia daily price is still strongly dependent on the international market.

The PGI Café de Colombia, which basic price are fixed on the New York Board of Trade, follows the same price volatility than other non-“decommodified” coffees as Brazilian naturals (figure 23).

There is a cyclical coffee supply than is still strongly dependent on the most important producers’ countries internal factors. It will influence the general coffee market and still the PGI Café de Colombia basic price (figure 23).

During the middle of 90s, a prolonged Brazilian frosts, caused a decrease of coffee supply provoking an increase on coffee prices; contrary to the over-supply period during the beginning of 2000s. In 2011 international coffee prices mean have reached 2,83US\$/coffee pound (6,26US\$/kg) contrarily to 2002 when coffee prices have dropped to 0,64USD\$/pound (1,42US\$/kg) and where 0,92US\$/kg was paid to growers.

This quantitative data shows the fragility of the system by being strongly dependent on the commodity market. It is possible to imagine that if there is an extra supply, caused by an increase of Brazilian production, for example, by having a return of good production weather conditions (as actually), it must have a negative impact on the Colombian coffee growers.

Nevertheless it is possible to see that by working on GIs from the 60s, Café de Colombia and the FNC has reached an extra price with a “decommodification” strategy.

The differentiation strategy allowed positioning and differentiating the Colombian coffee on new-segmented markets.

The results of the visits, and interviews with different actors of the Café de Colombia value chain, has allowed to identify the main strategies to create added value from the PGI registration.

Those strategies show how the legal protection of the GI has economic impacts on the actors involved in the supply chain. The qualitative data and the diversity of the actors encountered can give some causalities that explain those kind of impacts.

The main causalities regarding the added value creation are presented on the table 5 below.

Tableau 5: The main causalities regarding the added value creation

Impact	Causality
Quality control	<ul style="list-style-type: none"> <li>- A well organized representative institution.</li> <li>- Co-management of coffee sector between the FNC and the State.</li> </ul>
Supply control	<ul style="list-style-type: none"> <li>- A well organized representative institution.</li> <li>- A strong quality control system</li> <li>- Traceability of the product through the value chain</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>- FNC empowerment</li> <li>- FNC worldwide recognition</li> </ul>
Buyer driven value chain	<ul style="list-style-type: none"> <li>- Mass strategy implemented by the FNC to profit all Colombian coffee growers</li> </ul>

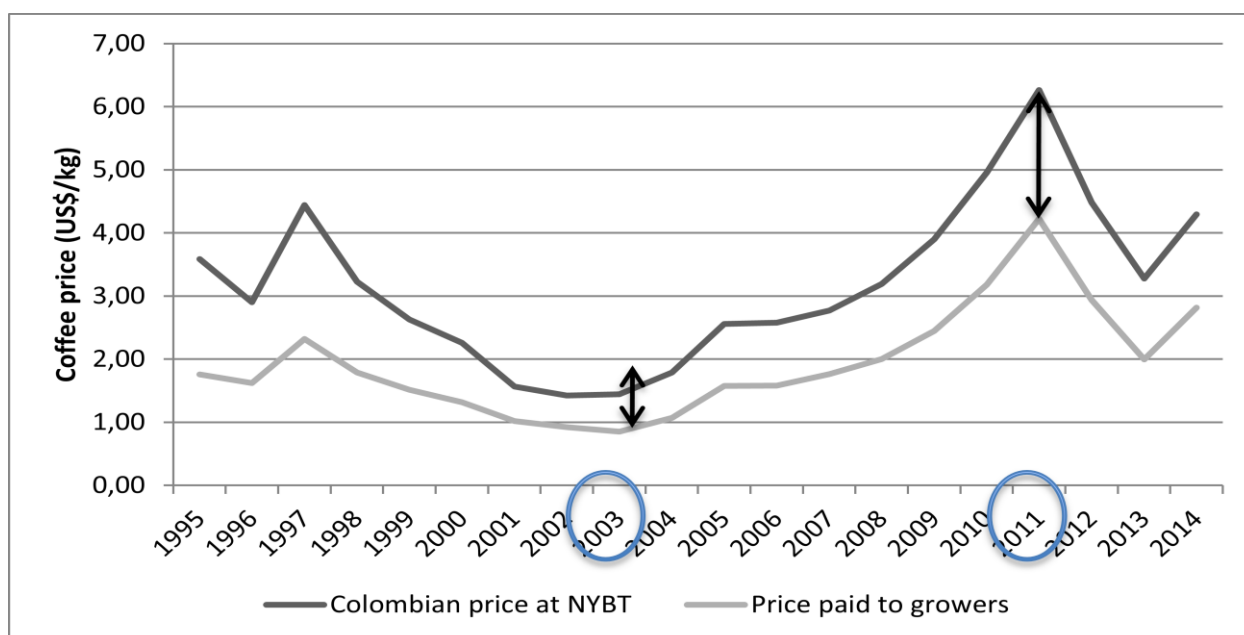


Figure 24: Comparing the coffee price paid to producers to the NYBT Colombian coffee prices (source: adapted from FNC)

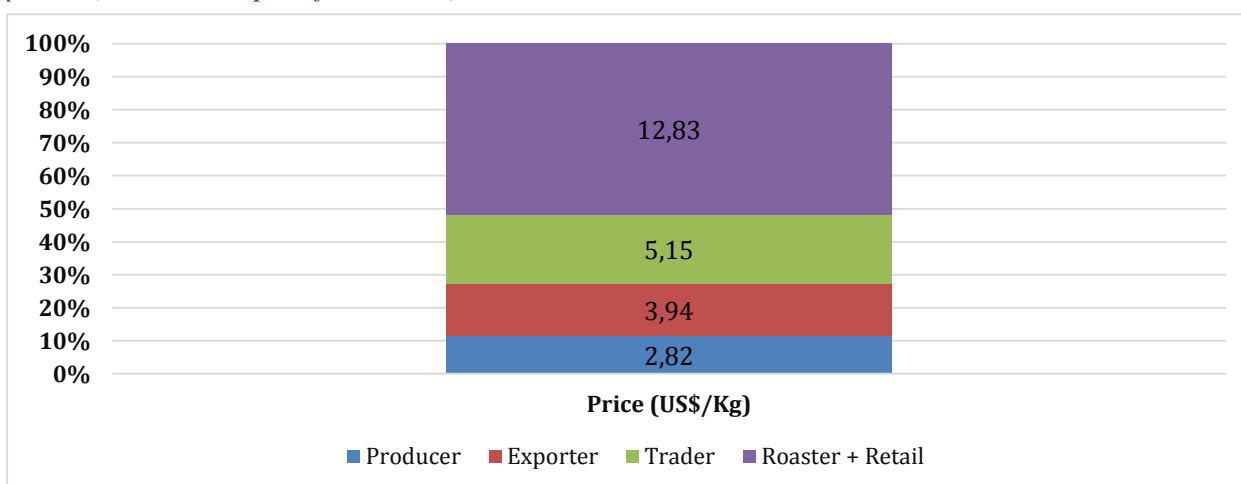


Figure 25: The final Colombian coffee price distribution through the value chain actors (source: quantitative data)

## **II.2. The added value distribution**

The study of the economic impacts is not only based on the strategies developed by the actors to create value added. According to the second hypothesis concerning a fairly distribution of value added, the results presented below, aims to show (i) How coffee price is built (ii) How the final price is distributed through the value chain (iii) what is the actual situation of Colombian coffee growers (iv) Other forms of added value distribution.

### ***II.2.1. The price construction***

In 2014, the main price paid to the study sample growers, was 2,62 US\$/kg of “pergamino coffee” (dry parchment coffee), while Colombian coffee price on the international market was 4,29US\$/kg of green coffee.

The daily coffee price is displayed at the entry of each purchasing point. Actually the daily coffee price depend on the New York Ice Futures Board of Trade, that announce the this price for the different coffee qualities; Colombian milds, Other milds and Brazilians naturals. The FNC transmit the daily internal coffee price to the cooperatives, after a re-calculation of the global coffee price in where (i) daily exchange rate, (ii) the coffee contribution or coffee tax paid by growers, (iii) the function costs of the FNC, are taken into account on the price calculation (FNC (I)). The part of the price paid to growers varies from 58% to 67% of the international Colombian coffee price (figure 24).

It means that the price construction is NYBT driven. Also, other factors as the exchange rate and his fluctuations, influence the portion of the price given to the producer. This factor depends on the context of the national economy and the State capacity to be competitive on the international market.

For this reason, the added value distribution in terms of price construction is totally independent from coffee growers. They haven't reached any empowerment to negotiate or to control the coffee price fluctuations. It also means that the FNC operations have important costs for the producers, that partly subsidize (by paying the “coffee contribution”) the activities of their own entity.

### ***II.2.2. The final coffee price decomposition***

Thanks to the quantitative data collected during the fieldwork, at different levels of the value chain, it was possible to build the final coffee price decomposition. It could give an idea of the fairly level of added value distribution through the actors. Nevertheless, those prices don't take into account the shipping and roasting costs. Only data for 2014 could have been collected. Even if there is no possible to see the evolution of the final price distribution through the years, it gives an idea of the actual situation.

In 2014, the average ground Colombian coffee price at 5 French supermarkets, was of 12,83 US\$/kg (figure 25). The same year the main Colombian green coffee price at the traders level was 5,15 US\$/kg. Concerning exporters and producers level, the main price was 3,94 and 2,82 US\$/kg respectively. It means that even having a PGI protection, 50% of the final value still remains on the consumer countries. It concerns roasters and retailers.

Even if the Colombian coffee reputation was born from a “decommodification” strategy and even if this reputation is actually legally protected, Café de Colombia seems to be still considered as a raw material. The coffee grower receives only 10% of the final value distribution.

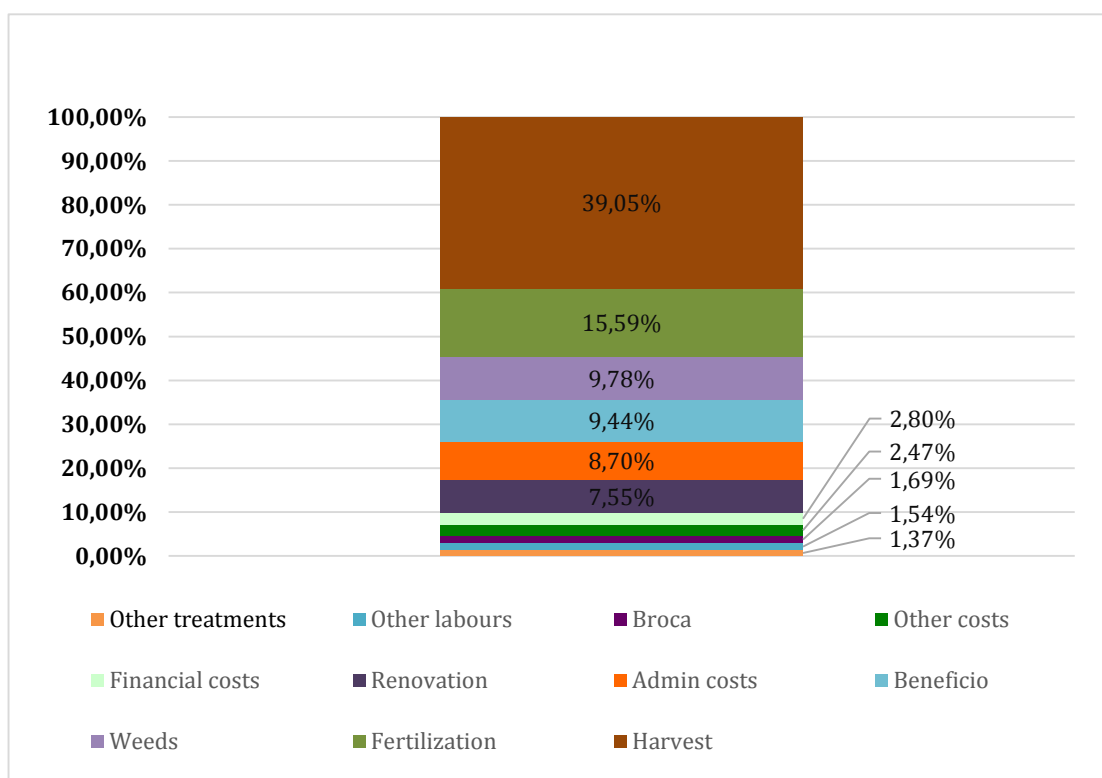


Figure 26: Farmers sample production costs (source: farms visits)

Table 6: Production costs evolution between 2009 and 2014 (source: adapted from FNC)

	2009		2014	
	Detail	Proportion (%)	Detail	Proportion (%)
Productivity (kg/ha)		2112		2225
Harvest	0,65	33%	1,12	41%
Beneficio	0,14	7%	0,18	7%
Fertilizers	0,48	24%	0,36	13%
Broca	0,12	6%	0,11	4%
Renovation	0,06	3%	0,14	5%
Weeds	0,13	7%	0,16	6%
Other labors	0,11	6%	0,07	3%
Direct costs (US\$/kg)	1,69	85%	2,14	78%
Administrative costs	0,28	14%	0,45	16%
Financial costs	0,01	1%	0,16	6%
Total costs (US\$/kg)	1,98	100%	2,75	100%
Price paid to harvester (US\$/kg)		0,13		0,22
Price paid to growers (US\$/Kg)		2,6		3,04

The lack capacity to participate into the price construction, reveal no changes concerning the producer empowerment. Moreover, the small part of the final price received by the coffee grower, could represent fragility for the Colombian coffee production systems.

In fact, while Café de Colombia prices still fluctuate depending on the international market, the main production costs tend to increase at farm level.

### ***II.2.3. A fragile situation for Colombian coffee growers***

The Colombian coffee value chain is strongly dependent on the international coffee prices, provoking uncertain benefits for coffee growers in where the production costs have increase.

The lack of labour and high fertilizers prices is the main constraints in terms of production costs for Colombian farmers. It represents, together more than 50% of production costs at farm level (figure 26).

The average production costs of farmers sample was 2,14US\$/kg, independently from the coffee farm size. In fact quantitative data collected at farm level was differentiated by the farm size; small (<5ha), medium (5-20 ha) and large scale farms (>20ha).

The main objective was to make a typically of Colombian coffee growers by type of producer. Nevertheless no significant difference was detected with an Anova analysis test (Analyse of variance), concerning production costs by type of producer (P-value= 0,58). The high level of variability inside the sample must be due to the sample size.

In fact difficult was encountered during the quantitative data collection. Considering that the main size of Colombian coffee farms measure 1,6 hectares, most of Colombian coffee growers are small producers (<5ha).

Apart from few large-scale producers (having more than 20ha), “*Colombian coffee growers do not considers their production structure as an enterprise, in which costs records are well identified and registered*” (FNC (I)). It was demonstrated during the farm visits throughout the fieldwork.

To manage this lack of information, FNC through the extension service, started, in 2010, the “*Business Management Program*”, in order to collect specific production costs at each farm. The objective of the program aims to “*give to Colombian coffee growers a business vision on their production system*” (FNC (I)).

This program is still new and has to be adopted by a large number of small-scale producers. For this reason it was difficult to collect quantitative data in a bigger sample size, that could have allowed to reduce the data variability.

Independently from the farm size, the main production costs, in 2014, was 2,14US\$/kg.

Those result where compared with a global regional costs study made by the FNC extensional service in 2009 and in 2014. Data were collected in 16 different municipalities. A total of 102 coffee farms where visited and production costs recorded.

This FNC costs study showed close results to our quantitative data collected. Indeed, manual harvesting and fertilizers represents 44% and 12% of production costs respectively, compared to 39% and 15,5% for our case.

Coffee harvesting costs has been increased from 31% to 44% between 2009 and 2014 (table 6). This cost increase is directly associated to the labour scarcity and higher prices paid to harvesters, which has increased from 0,13US\$/kg, to 0,22US\$/kg of coffee cherry harvested.

This price increase represents serious constraints for small and medium coffee growers that, contrarily to large scale ones, depends on coffee production, to cover all productions costs.



Figure 27: Regionally coffee characterized and protected (source: Cenicafé)

By being coffee dependent, the way to “extra pay” the coffee harvesters is managed by getting bank credits. It can be reflected on an increase of financial costs that moved from 1% in 2009 to 6% in 2014 (table 6).

Improvements were done in terms of fertilizers costs. The technical service of the FNC has implemented programs as making soils analysis at the farm level. *“It allows economies at farm, by increasing the efficiency of the inputs use”* (farmers (I)).

The coffee price fluctuation and the increasing of the production costs, due to the lack of labour in the rural areas, reflect the currently fragile situation of Colombian coffee growers.

#### ***II.2.4. Other forms of added value distribution***

It is important not to consider value added as just being an extra price of the product. In fact there is other kinds of added value distribution that must be considered into the impact study.

By working on GIs differentiation from more than four decades, Colombian coffee growers have received an international recognition all around the world for their high coffee quality production efforts. Also, this international reputation has led to personal recognition in where producers *“are proud to be responsible for the production of one of the best coffees, due to our collective efforts. It is good for a country worldwide sow as a dangerous place”* (farmers (I)).

Working on GIs and reaching global differentiation on the market, allowed to maintain and improve the well organized coffee growers institution. It gave back to growers a constant technical support and personal follow-up through all Colombian coffee regions (FNC (I)). The extensional service of the FNC that guarantee this value added distribution is essential to adapt traditional production systems to climate change and new challenges for the sector (FNC (I)). Additionally, the Cenicafé center represents other forms of added value distribution by implementing new technologies and researches for Colombian coffee growers.

It is also important to see the FNC implementation regarding other coffee GIs registration, since the legal protection of Café de Colombia. Indeed, according to Cenicafé and FNC interviews, they have characterized the specificities of 5 regional coffees (Nariño, Cauca, Huila, Santander and Sierra Nevada) (figure 27). Actually, four of those GIs are legally protected at the Superintendent of Industry and Commerce as a PDO. In fact, *“to go deep into the GIs protection, we have taken the example of France and his wines. It is important for the Colombian coffee to promote the specific terroirs and to protect them”* (FNC (I)).

Moreover, the purchase guarantee from the FNC is another form to distribute the value to coffee growers. Indeed, this guarantee allows reducing transactions costs for coffee growers. In addition, it must represent a barrier for intermediates to do not fail down coffee prices and a form of coffee growers protection.

Those other forms of added value distributed to coffee growers have to be taken into account the economic impact study. Even if the system shows fragilities in terms of price volatility and increasing production costs, the protection of common efforts, allowed to keep some other forms of added value.

Table 7: Causalities explaining the added value distribution:

Impact	Causality
<i>Price construction</i>	<ul style="list-style-type: none"> <li>- Strongly dependent to the international coffee market. New York Board of Trade driven.</li> <li>- No changes in terms of producers empowerment to participate on the price creation</li> </ul>
<i>Final price distribution</i>	<ul style="list-style-type: none"> <li>- Green coffee is still a row material</li> <li>- No empowerment</li> </ul>
<i>Fragile situation</i>	<ul style="list-style-type: none"> <li>- A lack of labour due to local perturbations: rural depopulation</li> </ul>
<i>Other forms of added value distribution</i>	<ul style="list-style-type: none"> <li>- The PGI registration allow to protect a fragile system</li> <li>- Well recognition of the FNC and empowerment to negotiate with other stakeholders</li> <li>- Improving the GIs approach</li> </ul>



Figure 28: Colombian origin products registered as PDO (source: SIC)



As showed above, the distribution of the added value allowed by the GIs protection, is not always positive because of the numerous factors influencing the creation of this value.

The subjective way also used during study, by collecting qualitative data can give some explanations of the impacts observed in terms of value distribution. Those causalities are strongly linked to the value creation causalities (table7).

### **II.3. Impacts on local development**

According to the third hypothesis implemented to respond the main question of the study, the impact of the GI protection on local development was also studied. Indeed it is important to know what are the externalities of implementing the protection of the origin. In the case of Café de Colombia, those externalities are particularly important in a context of the country transition regarding the internal conflict. Moreover the impacts of protecting the Café de Colombia origin on the local development concerns (i) The positive externalities on protecting new products (ii) The engine for rural development (iii) The construction of a country brand (iv) A way for the post-conflict.

#### ***II.3.1. The positive externalities on other value chains***

The registration of Café de Colombia as a local PDO, has incentive national government and other local product value chains to protect the origin (state entities (I)). Indeed Café de Colombia, by being the first product to be legally protected, allowed, by being took as an example, to protect 22 other products strongly linked to their origine (figure 28).

Those products not only concerns agri-food goods, but also traditional crafts. In deed, *“some ethnic products as the Wayuu crafts, maid manually by the aboriginals from La Guajira, were imitated and sold as Wayuu products in different cities and even in Europe”* (State entities (I)). Moreover *“the example of Café de Colombia PDO registration gave us the initiative to protect other specific locally products”* (State entities (I)).

According to the SIC, *“Café de Colombia registration was an important step to start protecting foreign protected products. Actually, 116 products coming from other countries are locally protected as PDO”* (State entities (I)). Parmigiano Reggiano, Gorgonzola, Roquefort, Champagne, are few examples of those protected products.

#### ***II.3.2. Rural development driver***

The impact on local development of protecting GIs as Café de Colombia, can be expressed by taking the example of the importance of coffee for producer regions. The « Coffee axis » or « Eje cafetero » is one of those examples.

The coffee axis is a geographical, cultural and economical region of Colombia that concerns five Colombian departments; Valle del Cauca, Quindío, Risaralda, Caldas and Tolima. According to State entities interviews, those departments have seen from the coffee, the source of progress, employment and internalisation on the national economy. Indeed coffee established links between different regions due to his global commercialization.

By having taken the coffee as the common resource for development, those departments found the way to transform, with the coffee surplus, a geographical remote region into a dynamic axis, in where road networks, ealth and education were developed.

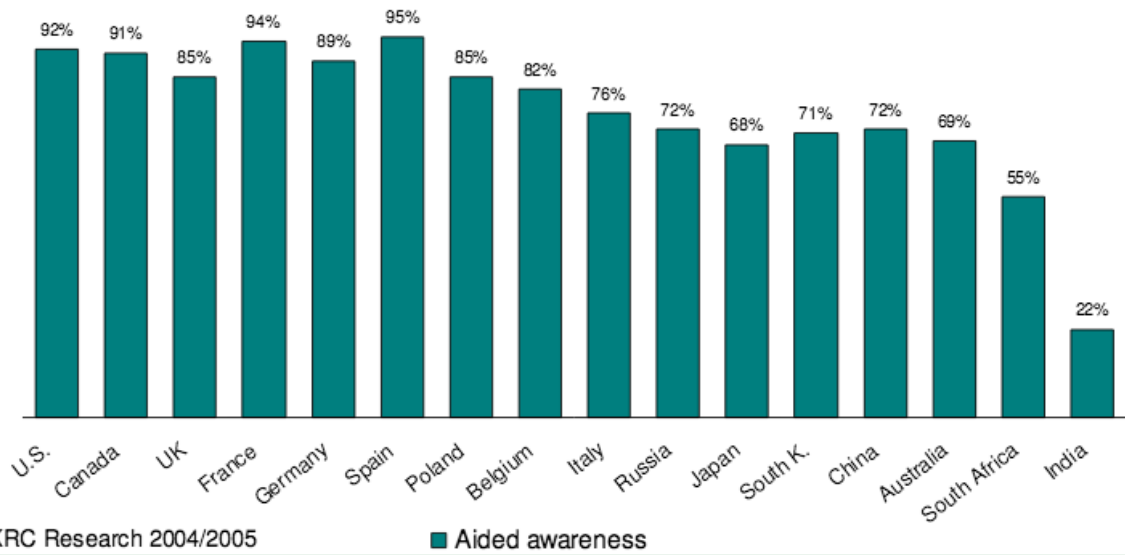


Figure 29: Level of awareness of Colombia as a coffee producer country (source: FNC)



Figure 30: Coffee cultural landscape protected by UNESCO (source: personal)

According to the Chamber of Commerce and Industry of Quindio, nowadays, the Coffee axis department account less persons haven't access to drinking water than the national average: 8,2% and 17,2% respectively. Moreover the poverty index mean of the Coffee axis is also below the national average: 41% for the Coffee Axis compared to 49% at the national average.

The creation of the coffee axis is a "city-region" project (or ciudad-region). According to education actors, encountered on this region, "allowed the communication between the capitals of the Coffee Axis departments. It had permitted the young people from remote areas to have access to the 12 universities present through the Coffee axis. At the result the number of the university inscriptions have increased from 22,7% of the total region habitants, in 2002, to 55,5% in 2009 (Education actors (I)).

Coffee also is a source of tourism development. In deed the culture, the know-how of coffee production attract a large number of national but also international tourists. In X was created the National Coffee Park in the Coffee Axis. This thematic site is one of the most important in Colombia, in where people can appreciate, the architecture, the culture and the process of coffee production. The number of tourist visiting the park increase from X to X between X and X (Coffee National Park (I)). Moreover by being an important source of tourism, it allowed the diversification of coffee farms proposing tourism farm.

Even if the coffee culture and the promotion of his origin has allowed other sectors development on the coffee regions, It also provoke a decrease of coffee production in those regions from 30% to 20% of the national production. It seems to be normal in developing process, in where the primary sector tend to decrease while the industry and the services increase. This situation has to be taken into account on the sustainability of coffee production on those regions.

### ***II.3.3. The construction of a country brand***

Colombia has been worldwide known as a violent country and under-visited.

More and more Colombia tends to be opened to the world by promoting his culture, the local landscapes and the quality of people (State entities (I)).

The FNC strategy promoting Colombian coffee has been considered as a success story. Coffee gave to the world another vision of Colombia than violence and drugs. By promoting the coffee origin, people have recognized Colombia as a coffee producer country (figure 29).

According to the Chamber of commerce and industry of Quindío, Colombia starts promoting the culture and the local resources to attract foreign visitors. This strategy can be seen as a way to promote a bundle of products, where coffee is the lead product.

Moreover, to go deep in the country brand strategy, the FNC and the national government have reached the recognition of the National Cultural Coffee Landscape (Paisaje Cultural Cafetero) by the UNESCO. This recognition is due to the local culture, the landscapes modulated by the coffee activity, of the coffee regions.

*Table 8: Causalities explaining the impact on local development*

<b>Impact</b>	<b>Causality</b>
<i>Externalities on other products</i>	<ul style="list-style-type: none"> <li>- Well recognized product</li> <li>- Success of protect registration</li> <li>- Marketing campaigns</li> <li>- State more and more involved on GIs protection</li> </ul>
<i>Rural development</i>	<ul style="list-style-type: none"> <li>- Source of economic activities</li> <li>- A large protected region</li> <li>- Concerns 560 000 producers</li> </ul>
<i>Country brand</i>	<ul style="list-style-type: none"> <li>- The key product</li> <li>- Coffee promotion campaign</li> <li>- Valorize a product</li> </ul>
<i>A way for the post conflict</i>	<ul style="list-style-type: none"> <li>- Large protected area</li> <li>- Large number of people involved</li> <li>- Source of labour</li> <li>- Remote coffee regions</li> </ul>

#### *II.3.4. A way for the post conflict*

The coffee activity has always been considered as a social issue for the country. As enounced on the sections before, the PGI Café de Colombia concerns a large part of the country and more than 560 000 coffee growers.

By been placed on remote regions, the coffee activity represents a source of local economy for the half municipalities of Colombia.

The keeping economic activity in those remote regions, coffee acts as a social stability tool. For this reason, the coffee sector protection also means a social stability insurance for Colombia.

In a post-conflict context, coffee plays an important role for sustainable peace. Indeed, by working on specialty coffee programs, based on protecting regional origins, the FNC and the government see coffee as the post-conflict tool (FNC (I)).

As shown, protecting coffee origin and collective efforts has numerous impacts on local development. Those impacts can be explained by few main causalities (



### III. Discussions and perspectives

#### III.1. Regarding the PGI product and the value chain governance

The product Café de Colombia should be considered as having specific characteristics, strongly dependent to the well-defined growing-area, in where the weather conditions and pedo-climatic context show the link to the terroir. For those specificities and due to the well-organized institutions representing the coffee growers, the PGI was successfully registered and has been seen as a unique case on developing countries (Quiñones-Ruiz and *al.*, 2015).

The strong organizational structures should be one of the success key for a GI protection (Giovannucci et *al.*, 2009). Indeed, a well-organized structure as the FNC concerning the Café de Colombia case can explain the success of the registration as the first non-EU GI to be protected. Moreover the Colombian coffee reputation, obtained from a differentiation strategy, was also identified as an important point for the PGI registration (Barjolle and Chappuis, 2000).

The code of practice concerning Café de Colombia was well identified during the registration process. Also, the well-defined code of practice must rise transaction costs, due to the product quality, corresponding to the consumer expectations (Barjolle and Jeanneaux, 2012). Thus the well implementation of the code of practice for the PGI Café de Colombia (growing-area, specific altitudes, varieties, process), is also a success condition.

Indeed, GIs registration are not viable if the product does not have distinctive characteristics, specified on the code of practice (Giovannucci and *al.*, 2009). For this reason the PGI Café de Colombia registration seems to be successfully, by responding to all the PGI requirements.

For some producers, being on the borders of the growing-area delimitation, the code of practice seems to be a constraint. As enounced by a producer placed on low growing altitudes, *“the climate change and the increase of global temperatures are excluding me from the Café de Colombia growing-area”* (farmers (i)).

By having temperatures more and more elevated, this producer has been seeing his farm excluded from the PGI area. This situation must increase transactions costs and create conflicts between the actors (Giovannucci and *al.*, 2009).

For this reason some interrogations should be discussed as how flexible the code of practice has to be to allow sustainable relationships between the actors? It is necessary to adapt and renew the already registered code of practice during the years? Indeed, in the case of biological products, as coffee, strongly influenced by the climate conditions and his changes, it is difficult to implement an invariable code of practice, without taking into account pedo-climatic evolutions.

Another characteristic concerning Café de Colombia registration is the large size of the PGI production area. All regional coffee origins are protected behind the same umbrella. This situation should be interpreted as a contradiction with the “terroir” diversity notion. By homogenizing all the regional coffee under the same code of practice and quality characteristics, must be sown as a form of standardization.

In terms of value chain dynamics, Café de Colombia case was characterized by having well-structured governance, in where the FNC plays an important, by controlling, promoting and exporting Colombian coffee. The study showed that there is important to have one representative institution as the FNC, in order to facilitate negotiations and save transaction





costs (Barjolle and Chappuis, 2000). However the Café de Colombia value chain is strongly buyer-driven. The producer has low capacity to negotiate and to keep control on the coffee price. In deed the field work allowed to understand that there is few conflicts between part of the producers and the headquarters of the FNC. Producers consider that the funding of the National Coffee Found (FoC) is not well managed. Actually there is no price guarantee for coffee growers even if the FoC was essentially created to ensure a minimum coffee price when international prices collapse. The conflict between the actors can be seen has a kind of system fragility.

### **III.2. Regarding the economic impacts.**

The first main hypothesis implemented to respond the main issue of the study concerned the capacity of the GI protection to generate extra value. This first hypothesis cannot be accepted up to now. In deed even if the PGI owner (FNC) has implemented different ways to create added value, the study have shown that in terms of extra price, the PGI registration have not allowed a real differentiation.

The study showed different strategies implemented by the FNC to keep competitive advantages as a form of value added creation. The control quality through the value chain and the supply can be seen as a form of market regulation.

Nevertheless, even the collective institution make efforts to keep the added value reached by the long promotion campaign, the study has no identify, up to now, economic extra value generated by the GI protection. Colombian coffee price are still strongly dependent to external and local factors. For the one side, the production fluctuation in other countries as Brazil or Vietnam, has direct impacts on the international coffee price, thus on the Colombian price. Actually it is possible to see that even the decomodification strategy been implemented for more than four decades, Colombian coffee is still commodity market distributed. For this reason coffee grower suffer from the daily coffee price fluctuations. It was also shown by the main results of the study that even if being legally protected with a differentiation sign as PDO or PGI, the final coffee value is not fairly distributed through the value chain.

The under assumption regarding the capacity of the PGI Café de Colombia registration to develop new markets cannot be confirmed for the moment.

In fact, one of the main ideas behind this under assumption was that by having a well-known protection tool for the European market, the demand by consumers and thus the exportations will increased for this region.

The evolution of the exportations by region shows that the American market is still the more demanding region for Colombian coffee. It must be associated with the marketing campaign during the 80s that allowed the recognition of Café de Colombia and Juan Valdez trademark by 85% of citizens in this region (Samper, 2007b). Also because USA is the larger coffee consumer with 27,5 million of 60kg green coffee bags per year followed by Germany with 21,7 million and Italy with 8,8 million bags (OIC, 2013).

The EU coffee consumption; representing 72,2 million of 60kg of green coffee bags per year; could be seen as a big opportunity to profit of the PGI Café de Colombia potential. It will depend if the legal protection is well communicated to final value chain actors and consumers.



Regarding the final price of Colombian coffee in 2015, the study have showed that the PGI registration has no reflect yet an impact on the retail price in a 100% origin competitive coffee market.

Even if pricing of differentiated food products depends on quality attributes and reputation (Donnet and Weatherspoon, 2006), the final price is also dependent on the scarcity of the product and their exclusivity (Teuber, 2010). Ethiopia and Costa Rica that have produced 3,1 and 1,2 million of 60kg of green coffee bags respectively, in 2014 (ICO) seems to benefits of those pricing variables.

Regionals coffee origin in Colombia that already benefits from the PDO protection on the national level and on the Andean community, must have the reputation and the exclusivity to compete into this 100% origin competitive coffee market.

In terms of value added it seems to be early to see a real increment of the Colombian coffee price regarding the legal protection. The lack of participative concertation to build the “rules of the game” between all the agents of the value chain must represent an obstacle to reach an extra price for the PGI Café de Colombia.

In fact the chances of success for a specialty product will be increased by a collective marketing strategy and the capacity to minimize transaction costs (Barjolle and Chappuis, 2000).

This is reflected, on the one hand, throughout a complex value chain in where the actors have not established common objectives to benefit from the potential of the PGI. On the other hand, the lack of communication to consumers regarding the legal protection of Colombian coffee since 2007, reflect final prices still below compared to other non PGI protected similar coffees.

A larger proportion of the price paid by consumers ended up in consuming countries in the conventional coffee chain (Daviron and Ponte, 2005; Valkila and al., 2010). It seems to be the case of PGI Café de Colombia value added distribution.

Production cots:

Production costs must be important to be considered regarding the expected value added distribution allowed by the PGI Café de Colombia registration.

As shown on the results section, even if the legal origin protection have not reflected an extra added value for Colombian coffee up to now, production costs tend to increase

General labour availability tend to decrease in Colombian rural areas.

Those changes and human flows may impact the sustainability of Colombian coffee sector.

In fact, Colombian coffee quality, based essentially on a manual selected harvest needs important quantities of labour during the harvest period.

The large-scale coffee farmers, having financial capacity to pay higher prices to coffee harvesters tend to attract the very few labour to their structures, disadvantaging small scale farmers.

In response to this situation, small-scale coffee farmers are forced to also increase the harvest price paid to harvesters. In fact if the ripe coffee cherries are not harvested at time, it must cause agronomic constraints for the next harvest period. The coffee berry borer (CBB) or Broca (*Hypothenemus hampei*), the most important coffee pest in Colombia, remains on the overripe fruits fallen to the grown. It causes important pest infestation for the next wear. This situation is difficult to manage in “a country in where chemical inputs are one of the highest priced in Latin America” (farmers (I)).

In fact, in 2012, “coffee growers have organized the most important agricultural strike in the country to contest the low coffee price and the high inputs price” (other experts (I)).



Even if the family is the primary source of labor on small scale coffee farms (Bacon, 2005), in a context on where the family labor becomes scarce and the farm transmission is not ensured, external manpower have to be found.

A diversification at the farm level should be an opportunity for small scale coffee growers to prevent the vulnerability of their structure system in a context in where coffee value prices are still not fairly distributed and continually fluctuate.

**III.3. Regarding local development**

The study have shown positives impacts in terms of local development. The capacity of the GI protection to have positive externalities have been accepted. Those externalities concerns the positive impacts on protecting other value chain products. Indeed, the protection of regional products, in where craft products are also taken into account. It reflect the capacity of this initiative to have a domino effect on other local products.

Protecting the well-known GI Café de Colombia also means maintaining and protecting local resources, local coffee activity and local landscape. By protecting the coffee system, it allows the protection of other economic activities as tourism and services located on the coffee regions.

Also, the coffee system protection means protecting a social stability on remote coffee areas. The resent work implemented by the FNC to protect regional coffee origins is must be a way to implement specialty coffee programs, based on promoting “Regional Indications”. Those programs could represent a source of people integration in a post-conflict context.

	Helpful	Harmful
Internal	<p><b>Strenghts:</b></p> <ul style="list-style-type: none"> <li>- A success story regarding Café de Colombia differentiation</li> <li>- A well structured organization representing coffee growers interests</li> <li>- The PGI registration was successfully achieved</li> <li>- Quality control throughout the coffee process</li> <li>- State involvement</li> </ul>	<p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>- All actors were not took into account for the PGI registration</li> <li>- A lack of common stakeholders objectives</li> <li>- Coffee price strongly dependent on de international market and commodity supply</li> <li>- A large number of actors involved into the value chain</li> <li>- Coffee growers not directly concerned by the PGI</li> </ul>
External	<p><b>Oportunities</b></p> <ul style="list-style-type: none"> <li>- An increase of the numbers of PGI users</li> <li>- Regional Indication already registered is a new segmented market</li> <li>- A big market for a PGI well-known regions</li> <li>- Reduce transaction costs by using the PGI logo</li> <li>- Post-conflict issue</li> </ul>	<p><b>Threats</b></p> <ul style="list-style-type: none"> <li>- A value chain still dependent on commodity market</li> <li>- A buyer driven governance</li> <li>- A 100% origin competitive market</li> <li>- A global market monopolized by few international firms</li> <li>- Climate change</li> <li>- Expensive procedure</li> </ul>



### **III.4. Limits of the study**

Some results on the impacts of Geographical Indication protections have been obtained from the study of Café de Colombia.

Generally, GIs is a difficult concept to be studied, where economic, social and environmental impacts have to be more and more taken into account.

A first limit of this study must be my proper lack of knowledge concerning GIs and their impact study. Indeed it is an economist discipline. Nevertheless my agronomy approach and the system vision can give some different ways to abord this evaluation.

Another limit concerning the study, should be the diversity of the case studies in terms of product but also in terms of regional context. A common mythology is difficult to be used in this kind of situation. The steps of the common proposal are not always adapted for all the cases. For this reason each student had to adapt the global methodology to the specific case study.

Moreover, in some value chains assessments quantitative data seems to be easier to obtain because of the well organization of the producers. In the case of Café de Colombia, it was difficult to have relevant information due to the cultural context and to the producers' vision. Indeed small farmers don't have a traceability of their practices (sales, volumes). It should be the same situation in other case studies. The lack of information is important to be taken into account when studying the impacts on emerging economies.

Finally, a large panel of actors were encountered in few months. Considering the large number of Café de Colombia value chain actors, it could be more relevant to focus the study on a specific part of the supply chain, due to the short time for a global study. Moreover the general Café de Colombia PGI was studied. It could have been also relevant to focus the study on one of the regional coffee PDO, in order to see the impacts of the protection in a specified region.

### **III. 5. Perspectives**

Colombian coffee growers have been working on GI for decades allowing to position their coffee on the world market as one of the best coffees in the world.

The DO/PGI registration must be seeing as a simple tool to protect those efforts and maintain the quality and the differentiation strategy.

The concept of protecting origin and "terroir" is still new in Colombia. Consumers and value chain actors have to be educated to reach the potential of the legal protection. Indeed if GIs protection have positive economic impacts on several European products as cheese or wine, partly of those impacts should be explained by the consumer recognition and the actors marketing implementation.

In the case of Café de Colombia PGI, all the actors have to be involved to implement, in a participative way, the impact of the PGI and to generate economic added value throughout retail marketing campaign. In fact the reach of an extra price is important in a context in where fluctuated coffee price and higher costs must threaten the Colombian coffee sector





sustainability. An added value have to be achieved soon in order to cover the registration, the control costs and a future extra price paid to growers.

Kona coffee and his capacity to generate premium price must be taken as an example. Partly of this premium price is due to the segmented market in which the product is involved.

Colombia cannot be compared with Kona production, because there is two different strategies.

Nevertheless by implementing the specialty coffee and regional origin market, new segments must be reached for Colombian coffee.

Coffee farmers must be registered as producer of a specific (regional) origin and receive an extra price regarding the quality of the regional DO/PGI. As is the case of some milk farmers involved in a cheese PDO value chain.



## Conclusion

The registration of Café de Colombia as the first non-EU food product to be protected with a PGI was essentially due to its specificities insured by the well-established code of practice. The link to the socio-environmental context and the representativeness of coffee growers, through the Colombian Coffee Growers Federation (FNC), was also determinant for the PGI registration.

Today, the Colombian coffee value chain is complex, in where many actors are involved. The co-management between the local government and the FNC, as the key actors, allow them to control the coffee sector and the “rules of the game” regarding the PGI Café de Colombia.

This top-down management value chain, allow to implement strategies in order to keep added value differentiation and market competitiveness. Quality and supply control but also marketing promotion are few examples.

The importance of having a well-organized representative institutions, when protecting the origin, can be shown as the capacity of those actors to reduce transactions costs regarding the promotion and the property right control activities.

Nevertheless, this form of governance has not always positive economic impacts on all the actors considered. For this reason, even if Colombian coffee growers benefit from other forms of added value distribution since the origin protection, they don't have reached any empowerment to control the price fluctuations and the high production costs increase.

Café de Colombia has developed a mass strategy by protecting a large coffee growing area, in order to attend the totality of coffee growers families. It represents more than 560 000 families benefiting from the international recognition and the legally protection on the international market. Additionally, to go deep on the GI initiative, Colombian coffee growers, through the FNC, have already protected different regional coffee origins. It seems to be the way to reach new segmented markets and coffee price premium.

The case of Café de Colombia has to be taken as an example where, GIs has been used as a tool to protect collective efforts and the product reputation.

Protecting those efforts means protecting a system in where coffee is the key piece. This system seems to be crucial for local development and for national social stability.

Regarding the actual debate concerning local products protection, this study highlights the positive and negatives impacts of protecting GIs. Moreover it reveals the importance of protecting local resources on the emerging countries. In this case GIs can be seen as another form of development, in where local actors promote local resources for the collective welfare.

Thus, it is questionable to know how GIs must be considered as a tool for implement the sustainability of rural development by taking into account the main objectives of food security.



## Bibliography

- Anthony, F., Combes, M., Astorga, C., Bertrand, B., Graziosi, G., Lashermes, P., 2002. The origin of cultivated *Coffea arabica* L. varieties revealed by AFLP and SSR markers. *TAG Theoretical and Applied Genetics* 104, 894–900.
- Babcock, B.A., Clemens, R.L., 2004. Geographical indications and property rights: protecting value-added agricultural products. *Citeseer*.
- Bacon, C., 2005. Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World Development* 33, 497–511. doi:10.1016/j.worlddev.2004.10.002
- Barjolle, D., Chappuis, J.M., 2000. Transaction costs and artisanal food products. *Actas de la*
- Barjolle, D., Jeanneaux, P., 2012. Raising rivals' costs strategy and localised agro-food systems in Europe. *International Journal on Food System Dynamics* 3, 11–21.
- Belletti, G., Marescotti, A., Paus, M., Reviron, S., Deppeler, A., Stamm, H., Thévenod-Mottet, E., 2011. The Effects of Protecting Geographical Indicators: Ways and Means of Their Evaluation. Eidgenössisches Institut für Geistiges Eigentum.
- Bertrand, B., Montagnon, C., Georget, F., Charmetant, P., Etienne, H., 2012. Creation and dissemination of Arabica coffee varieties: What varietal innovations? *CAHIERS AGRICULTURES* 21, 77–88.
- Bramley, C., Biénabe, E., Kirsten, J., 2009. The economics of Geographical Indications: Towards a conceptual framework for Geographical Indication research in developing countries, in: *The Economics of Intellectual Property*. World Intellectual Property Organisation, pp. 109–137.
- Daviron, B., Ponte, S., 2005. The Coffe Paradox.
- Desbois, D., Néfussi, J., 2007. Signes de qualité: quels résultats économiques pour le producteur. *Demeter* 2008, 49–96.
- Donnet, M.L., Weatherspoon, D.D., 2006. Effect of Sensory and Reputation Quality Attributes on Specialty Coffee Prices, in: *Selected Paper Prepared for Presentation at the American Agricultural Economics Association Annual Meeting, Long Beach, California*.
- European Commission, 2007. Commission Regulation (EC)No1050/2007. *Official Journal of the European Union*.
- European Union, 2012. Règlement (UE) N°1151/2012 du parlement européen et du conseil relatif aux systèmes de qualité applicables aux produits agricoles et aux denrées alimentaires. *Journal officiel de l'Union Européenne* 3–4.



- Fitter, R., Kaplinsky, R., 2001. Can an agricultural 'commodity' be de-commodified, and if so who is to gain? Institute of Development Studies.
- Gallego Gomez, J.C., 2008. Caso 4: Café de Colombia, in: *Calidad de los alimentos vinculada al origen y las tradiciones en America Latina: Estudio de casos*. FAO-IICA, Tegucigalpa.
- Galtier, F., Belletti, G., Marescotti, A., 2013. Factors Constraining Building Effective and Fair Geographical Indications for Coffee: Insights from a Dominican Case Study. *Development Policy Review* 597–615.
- Galtier, F., Belletti, G., Marescotti, A., 2008. Are Geographical Indications a way to “decommodify” the coffee market, in: *12th Congress of the European Association of Agricultural Economists*. p. 15.
- Gast H, F., Benavides M, P., Sanz U, J.R., Herrera P, J.C., Ramirez V, V.H., Cristancho A, M.A., Marin L, S.M., 2013. *Manual del cafetero colombiano: Investigacion y tecnologia para la sostenibilidad de la caficultura*. Toma 1. Cenicafé, Chinchina, Colombia.
- Giovannucci, D., Josling, T.E., Kerr, W., O'Connor, B., Yeung, M.T., 2009. *Guide to Geographical Indications: Linking products and their origins*. International Trade Centre.
- Joët, T., Laffargue, A., Descroix, F., Doulebeau, S., Bertrand, B., Kochko, A. de, Dussert, S., 2010. Influence of environmental factors, wet processing and their interactions on the biochemical composition of green Arabica coffee beans. *Food Chemistry* 118, 693–701. doi:10.1016/j.foodchem.2009.05.048
- Lozano, N., 2002. *La prima de Colombia en el café verde*. Documento de Trabajo.
- Montagnon, C., 2003. *Cafés: terroirs et qualités*. Editions Quae.
- Quiñones-Ruiz, X., Penker, M., Vogl, C., Samper, L.F., 2015. Can origin labels re-shape relationships along international supply chains? – The case of Café de Colombia. *International Journal of the Commons* 416–439.
- Rangnekar, D., 2004. *The socio-economics of geographical indications*. UNCTAD-ICTSD Project on IPRs and Sustainable Development, Issue Paper.
- Samper, L.F., 2007a. *Sostenibilidad en Accion*, Universidad de Bogota Jorge Toledo Lozano.
- Samper, L.F., 2007b. *Café de Colombia: protecting and promoting a well-known origin*. Superintendencia de Industria y Comercio, 2004. *Denominaciones de Origen en la Comunidad Andina*.





Sylvander, B., Allaire, G., Barjolle, D., Thevenod-Mottet, E., Belletti, G., Marecotti, A., Tregear, A., 2006. Qualité, origine et globalisation: Justifications générales et contextes nationaux, le cas des Indications Géographiques. *Canadian Journal of Regional Science* 43–54.

Teuber, R., 2010. Geographical Indications of Origin as a Tool of Product Differentiation: The Case of Coffee. *Journal of International Food & Agribusiness Marketing* 22, 277–298. doi:10.1080/08974431003641612

USDA, 2014. *Coffee: World Markets and Trade*. Annual report.

Valkila, J., Haaparanta, P., Niemi, N., 2010. Empowering Coffee Traders? The Coffee Value Chain from Nicaraguan Fair Trade Farmers to Finnish Consumers. *Journal of Business Ethics* 97, 257–270. doi:10.1007/s10551-010-0508-z

Vandecandelaere, E., 2009. *Linking people, places and products: a guide for promoting quality linked to geographical origin and sustainable geographical indications*. FAO, Roma.

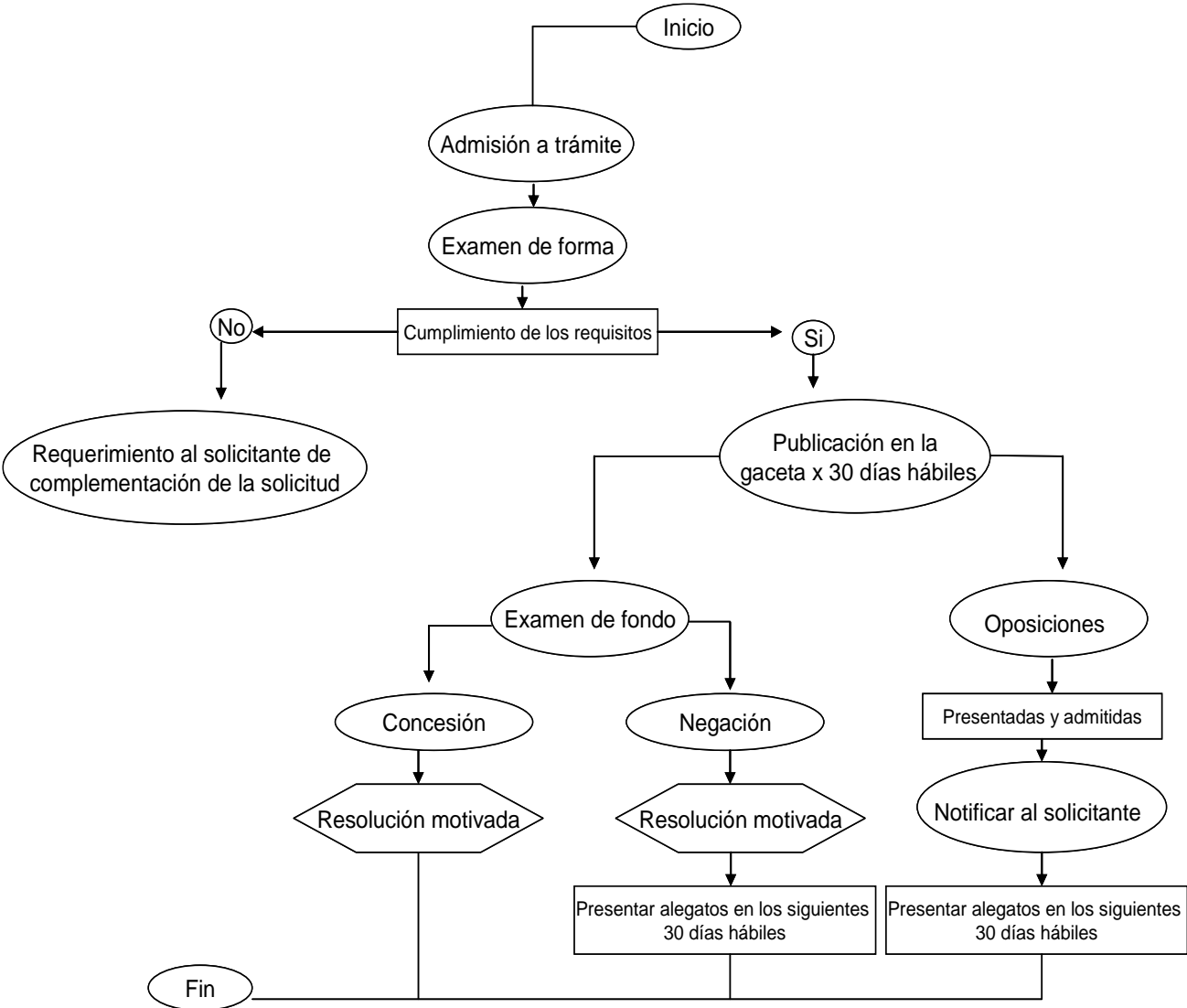


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**Annexe 1: PDO registration procedure at SIC of Colombia (source: SIC)**



# Study of the economic impacts of geographical indications

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**Framework paper – 26 January 2015**

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## 1 INTRODUCTION

Geographical indications (GIs) may be considered as tools for the development of sustainable food systems, thanks to the territorial anchoring of GI products and the collective strategy of producers to promote, guarantee or protect their origin-linked quality product and preserve their local resources.

GIs supply intellectual property rights for agricultural and food products,<sup>1</sup> especially for small-scale producers who can draw on few forms of intellectual property protection such as patents or commercial brands.

The anticipated effect of GIs is an increase in producers' income through a better selling price, greater competitiveness (differentiation strategy) and commercial advantages (reserved use of the name) (Jena and Grote, 2010). The definition of specific origin-linked characteristics (i.e. connected to natural and cultural resources) is moreover a way of preserving the local heritage linked to this production.

In this context, FAO supports the development of GIs as development tools that allow better recognition of products, the boosting of producers' organizations and their power in negotiations within the value chain, and improved market access, as a number of technical assistance projects have shown. However, donors and other partners often require economic data relating to the development of GIs. And unfortunately, although such data exist regarding individual cases, little work has been done to collate and generalize them, and analysis of the economic impacts of GIs as a whole has not in general resulted in any clear-cut conclusions. In addition, although the economic impacts of GIs have been well documented by various researchers (Moschini *et al.*, 2008; Josling, 2006; Dinopoulos and West, 2005, Colinet *et al.*, 2006; Rangnekar, 2004; Jena and Grote, 2010), empirical demonstration of the net benefits of GIs is relatively sparse, especially in countries where GI procedures are more recent (outside Europe).

The main reason is the difficulty of distinguishing the impacts of the legal protection of GIs from other factors such as the organization of the value chain and power relations, the marketing strategy or producers' skills. Another reason lies in the relatively recent development of GIs, especially in developing countries or those in transition, so that there has not been enough time to obtain the full picture needed for analysis of major impacts.

Moreover, more general studies with the analysis of several cases do not on the whole allow any significant conclusion to be drawn regarding effects, because of the wide diversity of systems studied (Aragrande, 2013) and hence the complexity of the effects of the particular context as against the causal relations that the study is seeking to isolate.

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<sup>1</sup> Including forest, fishery and fish-farming products.

This diversity of GI systems partly concerns the ways GIs are implemented, which do not always take account of the actual concept of GI, particularly its justification (an origin-linked quality or reputation), its heritage and collective dimension (its management by a group of producers) and its economic character (as a tool for differentiation and protection on a market). As with any tool, results depend on how it is used, and it is thus important to evaluate the impact of GIs that have been put in place according to clearly defined elements that are considered as respecting the conditions for success: i.e. an established link with the *terroir*, a heritage and collective dimension, and a potential for differentiation on markets with the support of protection.

## 2 OBJECTIVES OF THE RESEARCH

The purpose of this study is to assess the economic impacts of instituting a GI as a protective mechanism or tool, through the analysis of ten case studies of products in various regions of the world that have GI recognition and meet the specified conditions in terms of justification, heritage and collective dimensions, and potential for differentiation. It is a matter of measuring the capacity of the GI as a protective tool to generate economic effects in terms of price, income for producers (and hence redistribution of value down to the first link in the chain) and market access, while noting its impact in terms of resilience.

We propose to analyse the impact of GIs on:

- (i) the competitiveness of the value chain of the origin-linked product;
- (ii) the enterprises in the GI product value chain (farms and processors);
- (iii) the resilience of the production/processing/distribution system.

The fourth area of analysis concerns territory (the meso or even macro level). It will not be considered in the present work, but may be so on a subsequent occasion. This work should lay the foundations for a methodology that can be replicated in the context of a wider study – if the results justify such action.

## 3 FRAMEWORK OF THE RESEARCH

### 3.1 General organization

This research is supervised and conducted by the following partners:

FAO, Investment Centre (TCI) and Quality&Origin Programme;  
ETH Zurich, Agricultural Economics Group;  
VetAgroSup, Clermont Ferrand;  
School of Agricultural Studies of Angers (ESA Group) within the specific framework of the Food Identity MSc;  
MontpellierSupAgro (MSA).

The members of the steering committee are:

Emilie Vandecandelaere, FAO, AGS/TCI;  
Catherine Teyssier, FAO, AGS/Quality&Origin Programme;  
Dominique Barjolle, Teaching and Research Professor, ETH Zurich;  
Philippe Jeanneaux, Professor, VetAgroSup Clermont Ferrand;  
Olivier Beucherie, Director, Olivier Beucherie Conseil/ESA.  
Stéphane Fournier, Lecturer and Researcher, MontpellierSupAgro (MSA).

The research will be carried out in three stages:

1. Selection of cases, identification of students (taking account of the language and culture of each country) and design of a methodology for each case (preparation of fieldwork). A kick-off meeting may be held before leaving for the field (February 2015).
2. Collection of the necessary data and evaluation of impacts in each case, carried out by a student as part of his or her master's degree work. The student carries out surveys and investigations, then analyses the resulting data and writes a report for his or her master's degree. He or she will be jointly supervised by the supervisor designated by his or her training structure and an expert from the steering committee.
3. Comparison and synthesis of the collected evaluations by the expert committee of the study. All the results will be pooled at a seminar bringing together the steering committee and the students. The steering committee will carry out the task of comparative analysis and synthesis. A synthesis document will be drawn up by FAO with contributions from the committee members, to be presented at a seminar (type of seminar yet to be confirmed: an internal seminar or an FAO regional seminar).

### 3.2 Anticipated role of students

Fine-tuning on the basis of the present paper may be organized before the students depart for the field. They are expected to organize:

- adaptation of the methodology devised by the steering committee to their respective fields;
- carrying out of field surveys to collect the necessary data as defined by the steering committee;
- collation of the collected data for their respective fields;
- for each of their fields, analysis of data common to all the case studies, using an outline to be provided by the steering committee;
- participation in a first level of transversal analysis of data with other cases, according to instructions received from the co-supervisors;
- participation in a wrap-up meeting with the steering committee.

### 3.3 Selection of cases

In a first stage, criteria should be defined to allow the selection of case studies. The three major groups of factors to be considered are as follows (note that these criteria refer to the conditions for establishing GIs, not to the situation at the time of measuring the impacts):

- (i) **Specific character linked to *terroir*: origin-linked quality or reputation** (since this is what justifies registration of the GI as an intellectual property right).  
The criterion here is the link to origin, which must be sufficiently strong and hence the major specific feature (**justification dimension**).
- (ii) **Governance regarding the GI** (code of practice, monitoring, collective promotion of the GI as a sign of quality): the producers involved in producing or processing the GI product and the sign of quality are at the heart of the process. As the heirs and guardians of the specific quality (link to know-how and use of natural resources), they are the people in a position to define the production and processing criteria in the code of practice and will logically apply the voluntary standards they have set themselves; management of the GI requires a local association of the stakeholders in the value chain who are involved in the GI (with regard to the criteria in the code of practice) (**heritage and collective dimension**).



The criterion here is the existence of a form of organization (formal or informal) that collectively decides aspects relating to the GI (at the least those linked to production, but maybe also to marketing) and brings together all those involved in the value chain.

**(iii) Market: the GI as a tool for protection or marketing, or both; establishment of the GI takes the market into account.**

The criterion here is the existence of a collective strategy for promoting products with a GI (market placement) and hence the involvement of all those involved in marketing (**economic dimension**).

## 4 METHODOLOGY

### Stage 1: Description of the GI product and the value chain

This analytical presentation of the context is important, inasmuch as it will provide the framework for the study and the basis for comparisons.

The following stages consist of an analysis with three focuses. Only the first is absolutely essential in order to make cross analyses based on comparable data. The other two focuses require adaptation depending on the context, the student's speciality and the available data and resources.

### Stage 2: What are the economic impacts of the GI protection tool?

This priority focus is common to all the case studies. Analysis of the economic impacts will be carried out in the three fields mentioned above (markets, enterprises in the GI product value chain and resilience) and will be preceded by a description of the case and its particular context, in order to assemble the elements to be used in the cross analysis of cases.

In order to explain the differences in economic performance among GIs themselves, and between GIs and their substitute products, we propose an approach detailing the influence of various factors (focus 2) and then a comparison of the results of the analysis with the stakeholders involved (focus 3).

### Stage 3: What are the causal relations that can explain the impacts observed?

The search for causes that would explain the impacts observed may be one aspect of the in-depth study undertaken by the students in their master's degree work. This second focus will be adapted during definition of the research questions and the hypotheses for each master's degree work; this definition will be reached by the student in discussion with his or her co-supervisors.

### Stage 4: What is the stakeholders' perception?

Do the impacts correspond to their initial objectives or are the effects not those anticipated?

Stages 1 and 2 are required for all the case studies, whereas stages 3 and 4 will be explored depending on the case, the available data and the capacity of the student and his or her co-supervisors.

#### 4.1 Stage 1: Description of the context

##### 4.1.1 The product

Each student needs to identify the characteristics of the product that give it its special quality and are the basis for consumers' recognition of a level of specific quality.

The FAO guide for carrying out inventories of origin-linked quality products sets out the link to the *terroir* and its components (Grid 1).

The information is collected from such documents as the specifications or the code of practice drawn up for the product. This information can be filled out through interviews with key people selected for their good knowledge of the product. The grid in Table 1 shows the kind of information expected.

**Table 1: Indicators of the specific quality of the product and quality criteria**  
(cf. FAO inventory methodology)

Specific quality of the product	Production conditions under GI	Specific soil and climate conditions etc. affecting the quality of the GI product  Livestock breed, insofar as it enhances a specific resource and gives a quality to the product  Farming techniques, e.g. livestock management (stocking rate, feed etc.), insofar as they enhance the expression of origin-linked specific qualities
	Processing conditions	Traditional tools  Local know-how  Technological content (prepacked, culinary capacity)
Characteristics of the end product	Official signs of quality (public standard)	Specific to the GI product  Added at the moment of sale
	Characterization	Mode of production (raw/pasteurized milk)  Age  Compatibility with maturation time (if relevant)  Format  Chemical composition

#### 4.1.2 The value chain

This point concerns the productive structure of the value chain. The number of links in the production chain, their importance and the way they are coordinated will influence transaction and information costs, as well as the strategic choices made by the stakeholders, who, as Perrier-Cornet and Sylvander (2000) state, are interdependent and work together to monitor specific advantages, but retain their autonomy and property rights.

The way GI value chains are organized varies widely, with some being fairly integrated (with varying degrees of formality), while others operate in a less “managed” manner.

The role of each link in differentiating the product and in building up the end product must be identified: What service is performed? What attributes are contributed (conservation capacity, sensory diversity, diversity of *cru*, stock financing capacity)? How is what is produced by one link in the chain exploited (or not exploited) by other links?

The task here is to describe the dynamics of the system, then to determine the role of each link, the relations connecting the operators to each other and how these relations can increase the market value of the product for consumers.

**Table 2: Indicators of the value chain dynamics and modes of coordination**

Value chain dynamics	Links	Number and nature Relative importance (volumes produced/processed/sold) Role in building up the origin-linked specific quality
	Flows	Strength of connection among links Distribution channels (nature, relative quantitative and qualitative importance)
	Dynamics	Evolution in trends of each link over a long period Various pressures exerted on the links (economic, social, environmental)
Modes of coordination	Degree of vertical integration	Identification of the degree of vertical integration within the GI product value chain
	Informal integration	Loyalty to suppliers, long-term relationships, written or oral contract Standard contracts
	Market relations	Quality-based pricing mechanisms

#### 4.2 Stage 2: Economic impact evaluation

The bases for comparison are the GI product and a substitute product.

The three fields of economic impact evaluation are markets, value chain and resilience.

Economic impact indicators may be presented in varying ways, depending on each field and available data.

Quantitative data are given priority for each indicator. In the absence of figures, however, qualitative information will be collected. So far as possible, such qualitative information will be collected from a representative number of stakeholders (or experts) in such a way that they can be converted onto scales (for example, the Likert scale).

Analysis of long-term series (over 20 years, for example) is interesting because it allows a discussion of price transmission, market power transmission, market stability and the control of volatility, an essential point in stabilizing stakeholders' expectations. In general, data for at least five years must be obtained.

#### 4.2.1 Creation of economic value

The distribution of wealth to the various levels in the chain is measured by analysing data on prices at various purchase and sale points, from raw and intermediary agricultural products up to the end consumers.

##### Box 1: Various modes of price formation

In the case of an institutionalized setting (i.e. mode of formation) of prices (i.e. with an organization playing a central role in pricing), they may either be set with the aid of a grid that monitors general situational data or be linked to the real value given to the finished product on the market.

A reference price negotiated within the GI management body (as the minimum tacitly accepted by all the members of the body) may in some cases be established following negotiations.

In addition to these mechanisms, an equalization fund or specific premiums may be set up in order to redistribute wealth among operators, without a direct link to the economic value achieved by a given operator on the end market.

In cases where pricing is not institutionalized (i.e. no mechanism to set the price exists within an established organization), the price of the agricultural raw material may also be set by farmers who organize themselves in order to negotiate it collectively. Processing costs are then added in order to establish a minimum price for the end product on the market.

If pricing is not institutionalized and producers do not agree among themselves on the selling price of their agricultural raw material, the price is set "by the market". In this case, a description must be given of how the price is set according to the power relations that can be observed among the economic players involved in the purchase. In the case of centralized steering by an economic concentration mechanism (a monopoly effect), the lead company (or organization) generally imposes the price of the GI product and will in practice distribute the wealth generated. This may be described in terms of the number and size of the various purchasers at the various points in the value chain.

Apart from collecting data on prices at different points in the value chain, information should also be assembled on the way prices are set at the various points. The objective here is to find out if the distribution of wealth is carried out freely or is steered in an institutionalized manner, by studying the following indicators (Table 3).

**Table 3: Price formation indicators**

Method of payment	Method of payment for the agricultural raw material	Payment for quantity/quality Deposit/full payment at the end of the growing season
Institutionalized steering of prices	Formation of prices by the GI management body	Minimum reference price set institutionally Product price based on the real value given to the end item on the market Standard contracts
	Other institutional mechanisms	Equalization fund Security fund Voluntary contributions, which may be made compulsory by a mechanism for state recognition of interprofessional agreements Direct payments/premiums
Absence of institutional steering of prices	Situational data	Price of the end product based on market conditions Absence of a link between the real market value and the price of the raw material

The preferred approach will be vertical, with the transmission of prices among the stakeholders in the value chain (prices at different points in the chain): How does the composition of prices develop from producer to consumer? The part played by each link in the chain must be expressed in the same unit – for example, a kilogram of coffee or cheese or a litre of milk. This approach of course requires the application of processing coefficients that must be known (for example, the yield needed to move from milk to fresh cheese to mature cheese to grated cheese).

Depending on the availability of analytical accounting data, it may also be helpful to reconstruct another form of price composition. The composition of the selling price to the consumer can in this case be divided into three categories, measured after the fact:

- a category covering the cost of the basic components of the product;
- a category covering the costs of brand promotion and possible residual margins and the costs of distribution to consumers;
- a more minor quality effect category (a combination of the return on the quality effort and the effect of GI protection).

After this, the analysis focuses on the sharing of economic value among the various stakeholders in the system. This depends on relations of economic dependence and power among those involved in the chain (with “locking” effects, for example through exclusive contracts).

### Box 2: Examples of steering the distribution of value

The distribution of economic value may be steered institutionally by the interprofession (a protection and management body) in charge of the GI or “privately” by a single link in the chain that is powerful enough to carry out “regional” regulation of production (for example, enterprises that organize production depending on the market: “You make blue if there’s too much Cantal”, said the director of the largest dairy cooperative in the Auvergne). Thus, in the case of the Comté or Parmigiano-Reggiano PDOs, for example, milk prices are fairly advantageous to producers, while in the case of other CAO products, such as Cantal, the price paid to milk producers is equivalent to that on the standard market or even that of milk powder (Barjolle *et al.*, 2007; Forray, 2010; Jeanneaux and Perrier-Cornet, 2011).

#### 4.2.2 The resilience of markets and enterprises with GI products

In these circumstances, the differences from the initial situation [and the “recovery” time] are analysed. Data over a period of time are needed.

There are two dimensions to be considered:

- the resilience of companies: measurement of their capacity to reconstitute their profit margin and their productive and structural characteristics from before the shock;
- the resilience of GI markets compared with substitute markets: measurement of the capacities of GIs to absorb shocks (market-, climate- or health-related shocks etc.).

Resource people must first be questioned on the crises or shocks of the past 20 years, placing these on a precise temporal axis.

Then, with the help of data on prices and additional information obtained through interviews with enterprises on their profit margins (or margin levels if data on profit margins are too hard to obtain), the following indicators may be calculated:

- time needed to recover the initial price following a shock (markets);
- time needed to recover the initial profit margin following a shock (enterprises).

#### 4.3 Stage 3: Causal relations

To explore the causality effects connected with governance – an essential dimension and one often described as the most important – the following research question is posed: How does the way stakeholders collaborate and organize themselves (their mode of governance) play a role in building up and protecting a comparative advantage, which is a source of economic development, this advantage being linked to the formation, distribution and protection of an economic surplus?

Using the same model, causal relations other than those of governance may be studied, such as the link to *terroir* or the placement of the product on its reference market.

The questions to be asked are as follows: How is the economic surplus produced? How is this surplus divided among the stakeholders? How is the competitive advantage protected? How is the system governed?

The work to be carried out in each field is to define and describe the production system (stakeholders, flows of materials and money etc.), then to define the creation of the surplus, the distribution of the surplus, the protection of the competitive advantage and the governance of the system.

#### 4.3.1 Identification of the structure and working of the value chain

The first step is to identify the shape of the value chain and its stakeholders, operations and flows of materials and capital, and carry out a functional analysis.

It would be useful to make a map of stakeholders in the wider sense, that is, the economic players directly involved in upstream and downstream exchanges of the reference product (the GI studied) and also the institutional players or organizations that have a role in its development (product union, research, agricultural development etc.).

Several methodologies may be used, especially value chain analysis (cf. Fabre, 1994) and the FAO software tool Easypol<sup>2</sup> derived from it. On this point, see details of the method in the document *EASYPol*, Module 43: "Functional analysis and flow chart".

#### 4.3.2 Surplus creation mechanisms

The starting point can be the hypothesis that there are four main elements in the mechanism to generate and reproduce economic surplus:

- The first concerns the optimization of specific resources (Mollard, 2001), referring to the notion of income from territorial quality. The research questions include: What are the territorial attributes that are optimized and recognized by the consumer? What are the intrinsic quality criteria for the product (local, fair, reliable practices, respect for a specific mode of production etc.)?
- The second concerns the commercial strategy, or the marketing and communication policy that seeks to encourage the consumer to pay more or simply to choose this product rather than another.
- The third concerns the way in which the stakeholders organize themselves to manage scarcity (supply control) and non-quality (Barjolle and Jeanneaux, 2012).
- The fourth concerns relations among stakeholders within the system and their capacity to limit transaction and information costs (Barjolle and Chappuis, 2000a).

##### 4.3.2.1 Promotion and communication policy (marketing)

The commercial strategy and especially the marketing and communication policy are aimed at encouraging the consumer either to pay more or simply to choose this product rather than another, and to foster customer loyalty.

It is very hard to measure reputation within the framework of complex assets (assets whose quality, even in retrospect, is hard or even impossible for the beginner to assess) (Gergaud and Vignes, 2000).

However, it is this reputation, as a reflection of intrinsic quality, that should suffice to justify the price level of the item concerned. Agricultural and food products, especially in terms of their environmental components (origin, production methods), are good examples of items for which most users struggle to put a value on intrinsic quality, leading to a climate of uncertainty over the evaluation of the item, as has been apparent for a long time (Akerlof, 1970).

Analysis should focus on distinguishing among the factors involved in the cost of building or maintaining and strengthening reputation, if the fact that the product bears a GI is a factor in reducing marketing expenses or mobilizing such expenditure differently from that for a product without a GI. In this analysis, consideration of the effects of co-branding (labelling with both the

<sup>2</sup>[http://www.fao.org/docs/up/easypol/433/value-chain\\_analysis\\_fao\\_vca\\_tool\\_manual-074en.pdf](http://www.fao.org/docs/up/easypol/433/value-chain_analysis_fao_vca_tool_manual-074en.pdf)

commercial brand and the GI) is helpful. In addition to the indication that the product bears a GI, the consumer may be sensitive to the brand of a large group (for example the “Roquefort” Company by Lactalis) or a distributor (for example “Reflets de France” of the large French distributor Carrefour).

**Box 3: Example of a private brand**

The case of Saint-Agur (blue cheese made from cow’s milk) is interesting from this point of view. It is a cheese with a private brand that vaguely evokes a religious context (the image of a monk making typical cheese of the *terroir* is not far off) but that is not a PDO product. Investment in marketing has enabled the image of a *terroir* product, anchored to a specific area, to be built up, based solely on a very strong communication strategy. It is presented as a substitute for PDO Roquefort or more possibly Bleu des Causses, but it is a cow’s milk blue cheese, which is milder, creamier and more expensive. The price of a kilogram of Saint-Agur is about €20 (€5 more than PDO Roquefort and almost €10 more than Bleu des Causses. The portions are 130 grams as against 150 grams for Roquefort, which means that between a 130-gram portion of Saint-Agur at €2.60 and a 150-gram portion of Roquefort at €2.30, the difference is only €0.30 for a portion that may seem identical.

Here we are seeking to identify the creation of the surplus inherent in the image built up thanks to commercial expenditure (publicity, promotion etc.) and expenditure on intangibles (staff training, company culture, patent on a technology, registered brand) as compared to the specific investments made for the GI in terms of collective promotion, strengthening of the territorial anchoring (existence of a tourist product route or local fairs focusing on the product) (cf. Table 4). The evolution over time of the messages used in promotion and also of marketing strategy is an interesting aspect for analysis in order to take into account the ability of the GI governance structure to develop the marketing strategy and tools.

**Table 4: Indicators of promotion and communication costs**

Commercial branding expenditure specific to enterprises	Relative importance of the “private” budget in enterprises’ publicity
Expenditure on the intangible assets of enterprises	Patent Registered brand
GI promotion expenditure	Relative importance of the GI management body’s expenditure
GI protection expenditure	Market monitoring costs Legal costs of ensuring respect for the GI
Expenses incurred for the joint promotion of several GIs	Possibly, the contribution of national or international GI protection and promotion bodies (National Association of GIs, OriGin, AREPO etc.)



#### 4.3.2.2 Capacity to control supply and non-quality

A third point concerns the concept of supply control. In order to control price volatility and optimize the quality and value of production, the production system must limit periods of overproduction (and underproduction) so as to balance supply and demand (Barjolle and Jeanneaux, 2012). The analysis will seek to identify the levers brought into play by each value chain to manage supply (cf. Table 5).

**Table 5: Indicators of the control of supply and non-quality**

Supply control	Quota system for production <ul style="list-style-type: none"> <li>- internal (quota or quantum – sliding scale of prices per reference volume)</li> <li>- external (dairy quotas)</li> </ul>
	Control of market opening (growing season plan approved by a national or regional public authority)
	Territorial control of production (dynamics of reducing or expanding the GI zone)
	Financing the release of production surpluses onto standard product markets
	Implementation of support for exports
	Storage
Non-quality control	Steering of quality by grading
	Existence of a processing value chain for poorer quality products

#### 4.3.3 Mechanisms explaining distribution of the surplus

Here it is hypothesized that the social division of tasks, and hence the relations of dependence and power among the stakeholders in the GI value chain, influence distribution of the surplus: in a production system such as GI value chains, several stakeholders or links in the chain are involved in preparing the end product. The division of wealth among the various production factors (capital, labour) is linked to power relations and the extent to which tasks are outsourced (Jeanneaux and Meyer, 2010). This social division of tasks is developed to varying degrees depending on the value chain and the type of production.

The task here is to measure the power relation, which may be defined on the basis of various indicators (cf. Table 6) in order to show who controls the social bloc. Some attention will be given to the way in which the interprofession is run (rotating chair, attribution, theoretical/exercised skills, governance etc.).

**Table 6: Indicators of the social and technical division of tasks**

Evolution in the procedure for determining the prices of the agricultural raw material and/or the end product	Modification of criteria used in calculating the prices of the agricultural raw material and/or the end product
	Communication of volumes and prices of the item and/or the agricultural raw material to the interprofession by value chain operators (dissemination of reference prices, existence of a product exchange etc.)
Measurement of price differences between the GI and its substitutes	Comparison of the prices of the items
	Comparison of the prices of the agricultural raw material
Organization of power relations	Analysis of the organization of the value chain and its long-term evolution: Who does what? Vertical integration trend? Horizontal integration trend?
	Nature, composition and working of the protection and management body: representation of all links, rotating chair, governance, existence and role of a leader, etc.

Protection of the competitive advantage of the system linked to methods of collective regulation  
The signs identifying quality and origin have a character of collective intellectual property. Their management is thus usually entrusted to a GI management body (i.e. a group of representative stakeholders from the GI value chain). Since this is one of the criteria for selecting cases, all the products studied had to meet this requirement.

The task here is to examine how regulation is monitored by the stakeholders in the system. This monitoring plays a major role in protecting the GI system and the competitive advantage created by those operating the system. On the one hand, the rules of the game established by the stakeholders are common to all and define market rules and local, fair and reliable practices applied by all those who want to be part of the productive system. They guarantee protection of the surplus against companies that would otherwise seek to apply their own rules. On the other hand, the way the value chain is managed (governance) also plays a role in the way the stakeholders will organize themselves in order to create and protect the surplus, as will be seen in detail in the next section.

The hypothesis here is that, in order to protect their collective advantage, the stakeholders in the value chain organize themselves to establish “entry barriers” that allow members of the GI to “enjoy advantages denied to non-members”, as Torre (2002) says, comparing PDOs to clubs, i.e. “voluntary groups of individuals who derive mutual benefits from sharing such elements as production costs, characteristics of members or assets, marked by properties of exclusion from benefits”. In this way they protect the system against companies seeking to modify it. This is not to say that the barriers are insurmountable, inasmuch as any enterprise wishing to enter the production system is authorized to do so, so long as it respects the code of practice. In choosing a strategy of differentiation through a GI, it is a question not of protecting a product or recipe but of protecting use of a name, linked to a geographical zone and an objective codification of the method of obtaining the item. The involvement of the state (or the administrative department responsible for local affairs) also has some importance (total disengagement, renewable management mandate etc.).

Large industrial groups generally develop a strategy of domination through costs, by means of economies of scale (scaling up, modernization, substitution of capital for labour) (Porter, 1985), with

the aim of increasing productivity by lowering average costs. Economies of scale are achieved thanks to the distribution of fixed prices over long production runs. In addition, economies of information and transaction costs can be achieved through a strategy of vertically integrating value chain stakeholders. “The implementation of these strategies constitutes massive competition attacks that result in eliminating competitors that do not succeed in developing alternative strategies” (Barjolle and Jeanneaux, 2012).

In the same work, Barjolle and Jeanneaux showed that other strategies were possible. They used a theory initially proposed by Salop and Scheffman (1983) and Scheffman and Higgins (2003), according to which PDO value chains do not seek market power by reducing their production costs (economies of scale, usually applied by large industrial groups) and transaction costs (Coase, 1937; Williamson, 1985), but by raising rivals’ costs. This strategy is initially based on a company’s taking control of its competitors’ suppliers, so that it can then become its competitors’ supplier and thus impose higher supply costs in order to weaken them. In the sector of agricultural and food systems under GI, this consists of imposing common rules (through a code of practice), corresponding to the “traditional” practices for the system. These common rules impose the same processes and thus the same production costs on competitors. They can serve as a barrier to the entry of competitors and reduce their possibilities of imposing a model of the organization of production based on a strategy of domination through costs.

The task here consists of focusing on the factors explaining this strategy within the framework of each case study, together with the indicators that show the intention of the interprofession to ensure collective, territorialized control of the rules of production: the predominance of artisanal production structures, a commercial strategy of differentiation, restrictive production conditions, higher production costs in general etc.

The rules of the code of practice that are specific to the local stakeholders and are different from classical practices must be identified (cf. Table 7).

**Table 7: Indicators of “entry barriers” to competitors**

Limitations/Bans	Limitation of collection zones	Are all stages in the value chain involved?
	Limitation of use of installations	
Bans on practices		
Evolution of rules	What innovations?	
	Nature and rhythm of evolution	
Institutional distribution of added value	Difference between basic product price under GI and standard price	
	Existence of a value distribution mechanism controlled by those who control the code of practice	

#### 4.3.4 Modes of governance to explain variations in performance

The hypothesis here is that the performance level of a system under GI depends not only on the mode of governance, but also on the “capacity of the parties involved to formally and collectively establish power relations among stakeholders, the means and the formal and informal operating rules for relations among stakeholders” (Barjolle and Jeanneaux, 2012; Jeanneaux and Meyer, 2010).

Inasmuch as the protection and management body appointed by the state (in certain cases) is responsible for formal management of the value chain, analysis of how it is organized will enable us to assess the nature of the governance. Study will therefore focus on the statutes of the interprofession (or protection and management body), its tasks, powers, the means it can draw on (administrative apparatus, budget) and the way it will use them, the working of commissions etc. Once this preliminary assessment of governance of the value chain has been carried out, the work of Perrier-Cornet and Sylvander (2000) will enable a typology of such governance to be identified. These authors contrast territorial governance, “the effect of cooperation among stakeholders within a localized production network”, with sectoral governance, “the result of cooperation based on the field of activity itself”. They highlight the wide variations in value chains under PDO, thanks to an analysis using three criteria: standardization procedures, relations among enterprises and the type of competition. Barjolle and Jeanneaux (2012) extend this analysis by proposing a grid of governance that intersects the theory of territorial and sectoral modes of governance with the analytical grid of the economic performance of cheese value chains; the proposed grid is presented here in Table 8 (value creation, value distribution, protection of competitive advantage, regulation of the production system).

Indicators linked to the construction of a competitive advantage and the collective protection of this advantage can be drawn up for each type of governance. In a system under sectoral governance, value will thus be created through technological differentiation and the internal control of supply by each enterprise, whereas in a system under territorial governance, value will be created through the optimization of specific local resources and the control of supply by the institutional organization of scarcity (Barjolle and Jeanneaux, 2012). The rest of the analytical framework and the variables to be reported are given in greater detail in Table 8 below.

**Table 8: Types of sectoral and territorial system according to the regulation criteria for cheese production systems (based on Barjolle and Jeanneaux, 2012)**

	Sectoral governance	Territorial governance
Value creation	<p>Technological differentiation</p> <p>Internal supply control by each industrial company (multi-product, multi-site levers)</p> <p>Publicity, marketing</p> <p>Common control mechanism (storage, intervention)</p>	<p>Optimization of specific local resources</p> <p>Supply control through management of scarcity: definition of the production zone, quota system, exclusion of low quality and segmentation by quality grading (taxation on cheeses)</p>
Value distribution	<p>Negotiation through mutual agreements between producers and the industry</p> <p>National price grid</p> <p>Absence of relation between the real selling price of the end product and the payment for milk</p>	<p>Institutional price-setting mechanism based on quality</p> <p>Standard contract</p> <p>Price transparency (monitoring, cheese exchange)</p> <p>Equalization fund</p>

Protection of competitive advantage	Cost domination strategy Individual branding policy Vertical integration of suppliers Horizontal integration of competitors Geographical disintegration	Differentiation strategy based on the link to <i>terroir</i> Barriers against entry of competitors by controlling code of practice Imposition of costs on competitors
Regulation of the production system	Production system controlled by leading national groups (oligopoly)	Power relations set up within a protection and management body The state gives power of attorney to the body

#### 4.4 Stage 4: Discussion with the stakeholders

The point here is to see what the advantages of these systems are from the stakeholders' point of view, and also their perception of the levers of economic and territorial development. The stakeholders to be included are those directly involved in the value chain, but also, more broadly, other players who may have a connection with the GI, including players from other economic sectors (such as tourism) or such political players as local communities or support institutions (bodies involved in research, agricultural advice, regional development).

The objective of this stage is threefold:

- First, to discuss the results. A priority here will be a discussion of the analysis of economic and territorial impacts, based on the views of experts and other stakeholders in the system. This discussion may be filled out with analysis of the specific contributions of each case, compared with the results found in various bibliographical references. This will allow the students to validate their analysis and, if need be, propose new GI performance indicators.
- Second, each student will have the chance to carry out in-depth exploration of a specific topic of his or her own choice.
- Third, critical analysis of the process will be carried out.

## 5 COMPARISON AND SYNTHESIS OF DATA

Using this methodology, each student will apply at least Stages 1 and 2 to his or her case study, while Stages 3 and 4 will be explored depending on the case. The student will carry out his or her investigations and then analyse the data and write up a report for a master's degree.

All the results offered in the reports will be pooled at a seminar gathering together the steering committee and the students. This seminar will result in an overview paper.

The steering committee will then undertake the task of comparative analysis and synthesis. A synthesis document will be drafted by FAO with contributions from the committee members and then presented at an FAO seminar (the type of seminar – internal seminar or FAO regional seminar – is yet to be confirmed).

## Annexe 3 : Literature revision on the GIs impacts and the global coffee market

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VetAgro Sup

# SYNTHÈSE BIBLIOGRAPHIQUE

*What could be the expected benefits by protecting a largely traded product as coffee by a largely debated tool as Geographical Indication ?*

**Tuteur : Philippe Jeanneaux**

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## INTRODUCTION

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Now days we assist to a globalization of food as the same way than the industry, the tourism, and the global market.

Food products browse thousands of kilometres to reach from the producer to the consumer.

Nevertheless specific products characterized by the High quality, by the conditions in which it was produced, by the local resources used into the fabrication process or the origin, are considered as differentiated and special.

The reputation of those products as Champagne, Parmigiano regianno, or Café de Colombia should be usurped, copied or used as generic products in order to benefit from their reputation to create individual benefits by misleading the Customer.

Geographical Indications (GIs) may be considered as an intellectual property right used to guarantee and protect the origin, the quality and the collective efforts to create the reputation of the product.

GIs has being used in Europe since decades with specific products in which the quality is directly linked to the characteristics of the origin, the traditional know-how and the capacity of value chain actors to promote those specificities and protect the reputation.

The protection of GIs has being largely debated into the World Trade Organisation (WTO) to highlight if protections as *sui generis* or trademarks must be beneficial for all the actors of the value chain.

Emerging economies have already entered into the debate due to the recently development of GIs in developing countries as the protection of Café de Colombia in the European Union.

The question that has emerging here is ***what could be the expected benefits by protecting a largely traded product as coffee by a largely debated tool as Geographical Indication ?***

In this work I will try to understand how GIs must be protected and how important is it for the protection of a largely traded product as coffee.

TO answer this question we will have an overview of the modes of GI protection that are debated. Then we will approach the importance of the protection of GI and few expected impacts. Finally we will see the global coffee market in order to identify how GIs must play a key role on this globalized market.



## **| Protecting geographical indications; A debated initiative for an alternative of generic globalized market.**

### **1.1 Geographical Indications developed by buyer awareness**

In a globalization context, more specifically in a agro-food globalization, different kind of initiatives has being developed in order to maintain specific and high quality localized agro-food systems (Barjolle and Chappuis, 2000).

Form more than five decades, Geographical Indications (GIs) has being considered as a collective Intellectual Property Right in Europe and more recently in developing countries (Jena and Grote, 2012).

According to Bramley and *al.* (2009) from more than twenty years, agro-food systems have seen a strong shift towards differentiated markets by product quality and origin. This differentiation has being described by Allaire (2003) as being the result of the awareness from consumer regarding the environmental health.

In this way we are assisting to an enhancing of volunteer norms allowing the differentiation of food products with attempts as FairTrade, Organic and more recently Geographical Indications in developing economies (Babcock and Clemens, 2004) (Bacon, 2005) (Belletti and *al.*, 2011).

In addition consumers tend to give more and more importance to the product quality and to the geographical origin of the good purchased (DeCarlo and *al.*, 2005).

### **1.2 Defining Geographical indications as a property right**

The World Intellectual Property Organization (WIPO) has being defining GIs as being “ *the geographical denomination of a country, a region, or a locality allowing to designate a product being from this region and which quality and characteristics are exclusively related to the geographical delimited zone*” (WIPO, 1966).

Another definition is provided by the World Trade Organizations’ Trade Related Intellectual Property Rights (TRIPS) Agreement on the article 22 that considers GI as :

*“Indications which identify a good as originating in the territory of a member, or a region or locality in that territory, where a given quality, reputation or other characteristics of the good is essentially attributable to its geographical origin”.*  
(WTO, 1994).

By this way different definitions of GIs are mentioned but the common point remain the link between the geographical origin and the quality of the product.

According to Belletti and *al.*, (2011) the protection of Geographical Indications allows to resolve two failures on the global market concerning agri-food products : the first one is the asymmetric information between sellers and buyers concerning quality. The second one is the fact that GIs must be considered as a public good. In different regions of the world, anyone could use the name of a well known region to establish a marketing campaign for a product even though there is any link between the good and the name of the geographical zone mentioned by the seller.

Although the protection of Geographical Indications has been well developed in industrialized countries and more and more in developing economies, this protection is not fairly engaged by all countries because there is not a strong bilateral protection law.

### **1.3 A multilateral protection to be implemented**

Exploring the literature, it is possible to see that Indications of Origin is not new and has been considered as an intellectual property from the end of the 1800s. The Paris Convention for the Protection of Intellectual Property not only considers the Indications of Origin for the industry and commerce but also for agriculture and extractive industry. (Paris Convention, 1883).

Then efforts were improved to protect Geographical Indications in a multilateral level with the adoption of the Madrid Agreement in 1891. This agreement aims that all members of the Madrid agreement should protect their marks registered in the country of origin (Madrid Agreement, 1891).

Not only the Madrid agreement has shown the efforts to protect food products based on Geographical Indication. The international registration of the Lisbon Agreement for the protection of Appellations of Origin, aims to the protection of Appellations of Origin from all members in each country applied to the agreement (Lisbon Agreement, 1967).

In 1995, the latest common efforts to protect Geographical Indications made by the World Trade Organization (WTO) gave rise to the trade-Related Aspects of Intellectual Property (TRIPs). That requires all WTO members to develop a national framework to protect and use GI names (TRIPS Agreement, 1995), in which some countries have established legal instruments to protect GI products: PGI for the European Union, or Certification and trademarks for the United States.

Although the TRIPs agreement must be the most multilateral agreement able to protect the origin of products, there is any obligation for each country to adopt a specific way in order to guarantee the protection of the goods. Each member of the WTO must decide the way to adopt the agreement, provoking a large debate around GI protection into the WTO.

### **1.4 Trade marks and GIs; a debate on the WTO to protect the origin.**

Now days, there are different ways to protect property rights for agro-food products. Those protections differ from one country to another. The philosophy regarding this protection is different between the European Union and the United States that causes discussions and debates into the WTO members.

The European Union has a legal framework to protect intellectual property rights based on a collective *sui generis* system that could be used only by producers who are able to respect a collective designed Code of Practice (CoP) (Vandecastelaere, 2009). From this point of view, GI is strongly linked to the geographical place and is not allowed to be sold or transferable to private companies.

As is shown by Giovannucci and *al.*, (2009) this approach is viewed as a mean of quality recognition for traditional products, the culture and the know-how of a delimited region. From

1992, the European Union introduced two legal tools to protect Geographical Indications extended to all food products:

- **Protected Designation of Origin (PDO)** : in which all phases of the production chain should be inside the borders of the geographical delimitation. It means that all product characteristics are due to the geographical origin.
- **Protected Geographical Indication (PGI)** : in which at least one of the stage of the production process should be based on the geographical origin area. All final product characteristics are not due to the geographical origin.

Although there is some differences between PDO and PGI definitions, both tools benefit from the same protection on the European Union through the CE/510/2006 agreement.

The United states considers the GI as a tool to increase the competitiveness of companies and producers associations in which rural development and traditional systems are not considered (Giovannucci and *al.*, 2009). GIs are protected under trademark, certifications marks or collective marks.

In contrast to the European philosophy, a trademark is a differentiating sign used by firms in order to identify a product by the consumer (Vandecandelaere, 2009). This type of protection does not refer to generic terms. They not protect against the use of terms that could confuse the consumer as the word “type”, commonly used for products under a trademark referring to a geographical area (e.g type parmigiano regarding to the Parmigiano Reggiano from Italy). Accordingly a product protected by a trademark can be produced anywhere within indicated location.

In this way the WTO members debate is organized in two groups. One group of countries tends to propose a strong legal framework to protect local producers and benefits from the advantage competitiveness: European Union, Kenya, India, Sri Lanka, Switzerland, and Thailand. On the other side a group of WTO members has being considered as less ambitious regarding the GIs protection; United States, Argentina, Australia, Canada, Chile, Costa Rica, Japan and China (Newfarmer, 2006).

This debate has to be considered as an important issue for the world trade due to the importance of GI products marketed around the world.

## **II The importance of Geographical Indications and the expected impacts**

### ***II.1 Economic value of GIs: a big market for differentiated products***

According to Giovannucci and *al.*, (2009), the largest part of Geographical Indication products are found on the OECD countries. In fact, from 10 300 products protected by GI, 86% are located on the industrialized countries. Out of these countries, the European Union possess 6 000 protected products which means that products differentiation by GIs are well developed in this region of the world. Products as PDO Comté in France, PDO Parmigiano Reggiano in Italy or PDO Gruyere in Switzerland are few examples of successfully GIs protection in the European region.

Few studies have shown the weight of GIs exportations by country. In France GIs sales to foreign countries represents € 20 milliards (Sylvander and Allaire, 2007), whether 42% of all exportations of the agro-food sector during the same year (FranceAgriMer, 2011).

In developing economies GIs are being more and more used to reduce the asymmetry of information between producers and consumers (Belletti and *al.*, 2011). Products like Basmati rice, Darjeeling tea and other 118 GIs have being registered in India between 2004 and 2010 (Gautman and Bahl, 2010).

In some cases developing countries see on the GIs registration the possibility to enhance the reputation of a product and protect the incomes of producers, specially regarding to exported products as coffee (Galtier and *al.*, 2008a). In this study the author shows the potential of the GI to develop the reputation and the high quality potential of Pico Duarte coffee in Dominican Republic.

GIs are also seeing, in those countries, as the possibility to differentiate their products from generic goods that are largely exported. It could also be considered as a way to increase the economic results for value chain actors and as a tool to promote rural development (Belletti and *al.*, 2011). The collective efforts made by the actors of the value chain in order to enhance the quality and the reputation of their product must be protected in order to benefit from all the advantages of the GI. The case of Café de Colombia can be an example of collective efforts protection. Quiñones-Ruiz and *al.*, (2015) used the Ostrom principles and the concept of common pool resources to explain producers' collective actions to protect the Café de Colombia abroad. The authors showed the capacity to manage local resources and common know-how in order to preserve the quality of the product.

Other the value of GIs products and the importance of protecting specific products in order to be differentiated from similar ones, other impacts has being expected on the literature.

## ***II.2 Expected results from GI protection: not only a positive picture***

According to Vandecandelaere (2009), different benefits must be expected by protecting Geographical Indications as increasing producers' income through a better selling price, greater competitiveness (differentiation strategy) and commercial advantages (reserved use of the name).

Concerning rural development, GIs must enhance local employment through the supply chain because of the link between the product and the region of origin.

Also it allows maintaining traditional farming systems and the culture related to the product based on local resources and traditional know-how.

Other authors consider GIs as a bridge between the market and the regions or between buyers and producers (Ramírez, 2007). Using GIs, the gap between the consumer and the place where the product is originated from must be shortened. The author also considers few economical expected results, as being a potential to create added value due to the quality characteristics of the product. This differentiated quality must also allows the access to new segmented markets, called niche markets (Bramley and *al.*, 2009).

Others authors shown the potential of GIs to enhance the recognition of another product from the same region, taking advantage of the protected product reputation and the recognition of the region. (Giovannucci and *al.*, 2009).

Not only positive results are expected by protecting Geographical Indications. Few authors consider that GIs registration must create constraints for producers if the “rules of the game” (delimitation region, marketing strategy, quality policy) are not well defined by all actors that has to be involved in the registration process. According to Galtier and *al.* (2013) the result of an unplanned collective initiative should cause conflicts and negative results for value chain actors.

For Giovannucci and *al.* (2009), GIs are not self-sustainable if the product protected do not have special characteristics that can differentiate the product from another one. In this way, additional costs must be engaged to develop the reputation of a product that will not guarantee an added value and higher incomes for producers.

The poor structuration of the GI protection must represent an opportunity for a small number of enterprises or actors to control the value chain and exclude a large number of agents.

Finally the author announces also the exclusion of agents that are not able to attain the quality product criteria that can also represent conflicts and disrupt the value chain structure.

By seeing the positive and negative impacts expected for the protection of Geographical Indications, it must be interesting to have an overview of assesses already done regarding the economical impact of the GIs protection but also the methodology used for the study.

### ***11.3 Some economic impacts of GIs have already being studied***

According with Belletti and *al.*, (2011) many research studies based their assessment on objective methods. This objective approach to study the impact of GIs should be based on diachronic evaluations as the transaction costs theory, statistics on volumes and sales, the value chain analysis or the evolution of added value. Also, this approach should be based on synchronic evaluation (with/without GI) as the comparison between a PDO and a non-PDO supply chain or a benchmarking between different PDOs.

Moreover some research studies based their approach on subjective methods that consist to ask key actors their perception of the impact of the GI adoption.

According to Giovannucci and *al.*, (2009) studies based on the capacity of the GI to make premium value are largely documented. Nevertheless, studies on the net benefits for producers including GI adoption and marketing costs are rare.

It must be interesting to evaluate at different stages of the value chain, the real income for each actor by the methodology of the *typical* farm that aims to compare an GI actor with a non-GI one in terms of quantity product sold, price per unit sold, different levels of costs and the net benefit.

Some studies have shown the capacity of GIs to have positive impacts at different levels of the product value chain.

The collective efforts made by the agents involved in specific agri-food products allows to create collective monopolies, to develop the access to new niche markets, based on quality differentiation. It gives the opportunity to enhance the product reputation and to transform the value added into an economic rent (Bramley and *al.*, 2009). According to the author, the competitive advantage on these new-segmented markets will increase when the product protected by Geographical Indications has specific characteristics and is considered as indigenous products, compared to a large commercialized product. For this reason those results provides a justification for the protection of geographical indications in emerging

economies, where most of agri-food products involve indigenous people and has to be protected from usurpation on the international market.

The competitiveness of artisanal products on a globalised market is a real challenge for producers to survive and to preserve the benefits. Barjolle and Chappuis, (2000) analyzed the strategies of artisanal enterprises as PDO Gruyere to improve their chances of success. They shown that the common marketing strategy to promote the specificity of the product, based on a common code of practice allows a strong competitive advantage. Moreover they have shown that the collective decisions taken by the interprofesional body must influence positively the relations between the operators on those new niche markets.

Moschini and *al.*, (2008) have developed a model considering GIs as an effective tool to certificate high quality products and to illustrate the problem encountered by consumer when there is no signs to identify the quality of the product during the purchasing. The model shows that there is possible to have competitive advantage based on certifying high quality products with Geographical Indication. This advantage is possible du to the sharing costs of the certification by producers and other actors. However the model shows that although there is a competitive advantage by certifying high quality products, there is economies of scale on the generic product industry that must have fail-off the competitive equilibrium and threaten the future of high quality product system.

Other authors have studied the potential of GIs to raise rival costs on the market to keep competitive advantage. Barjolle and Jeanneaux (2012), have developed two analytical grid to illustrate this phenomenon, based on a comparison of two cheese value chain; Cantal and Gruyere PDO. The first grid allows to highlight the capacity of GIs to create added value on the product, the distribution of this added value through value chain actors and the protection of reputation around the product. The second analytical grid aims to show the governance modes of the supply chain allowed by GI protection.

The paper show that the collective organization developed in order to control production requirements, impact the price mechanisms by supply control, resulting on a higher price of milk in both PDO cases compared to industrial similar product.

Desbois and Néfussi (2007), Also, have shown that official signs of quality as AOC in Europe, allows to offset the gap of costs between small scale dairy farms and industrial production, by giving a premium price for AOC milk.

Although the economic impacts of GIs have been well documented by various researchers and shown positives impacts on rural development, on access to new markets and on the protection of high quality agri-food systems, the studies of products from emerging economies are still rare.

The main reason is the difficulty of distinguishing the impacts of the legal protection of GIs from other factors such as the organization of the value chain and power relations between the actors, or the marketing strategy. Another reason lies in the relatively recent development of GIs, especially in developing countries, so that there has not been enough time to obtain the full picture needed for analysis of major impacts.

Moreover, more general studies with the analysis of several cases do not allow any significant conclusion to be drawn regarding effects, because of the wide diversity of systems studied, the complexity of the effects of the particular context as against the causal relations that the study is seeking to isolate.

Nevertheless few studies have already shown the potential of GIs protection on developing countries.

The case study of the Basmati rice in India is one of those fields. Jena and Grote (2012) compared one sample of Basmati rice producers with a control sample of nonBasmati producers. The study shows that Basmati rice is more profitable than nonBasmati and allows the increase of net incomes for producers. The interesting point of this field is that Basmati rice was not protected by GI in 2012 but already had a worldwide reputation. This reputation has been constructed from the collective efforts of producers to make a quality differentiation on the market. The authors refer that the GI registration for Basmati rice won't increase its price or its reputation but will prevent the usurpation by non-allowed users. Also, it must give assurance to the consumer that the good their purchase is not a failure. The reputation of Basmati rice and the collective efforts must be protected by the GI registration. However, GI registration in emerging countries, where it is still new, must represent several constraints if the "rules of the game" are not well defined by all actors involved on the value chain (Galtier and *al.*, 2013).

The positive impact of Basmati rice should be also expected for similar high quality and reputed products largely consumed around the world, in particular coming from developing countries. Indeed, developing economies tend to produce higher value goods that can be marketed in a special niche market. In those regions, GIs must be considered as suitable to preserve cultural heritage, landscape and biodiversity, the promotion of sustainable agricultural practices and the protection of traditional knowledge (Belletti and *al.*, 2011).

In addition, the origin of a product worldwide marketed and largely consumed in industrialized countries but produced in developing economies, as has being the coffee beverage, must be protected in order to allow the differentiation of those than can be distinguished from others due to the high quality and the collective efforts made by producers. Being the second beverage consumed around the world, after water, the protection of differentiated single origin coffee, as Kona coffee from Hawaii, Blue Mountain from Jamaica or Café de Colombia must represent a way to keep competitive advantage in a largely traded market.

Geographical Indications must be a chance to protect specialty coffees from the commodity coffee that is considered as a simple row material. In this way GIs and other volunteer initiatives as Organic, FairTrade must be a way to "decommodify" coffee (Galtier and *al.*, 2008b).

### **III The world coffee market: in a decommodification way in order to protect small scale farmers**

#### **III.1 Generalities on coffee production**

Commercial coffee production is based on two coffee species growing around the world, *coffea arabica* that's represents 70% of the world coffee market and *coffea canephora* attending for 30% of the coffee market (Bertrand and *al.*, 2012).

Coffee cultivation involve more than 25 million farming families and more than 100 million in production and processing sector.

In 2013 the world coffee production attend the record crop with 145 million 60-kg bags of green coffee (Panhuysen and Pierrot, 2014).

A high proportion of the world coffee is grown by small farmers in high altitude regions in Latin America and Africa for the arabicas and in low altitudes concerning Robustas. The total land covered with coffee trees around the world represents 10,5 million hectares.

### ***III.2 The production influenced by large number of factors***

Now a days the world coffee market is characterized by a global coffee production decrease, from 153 to 148 millions of 60kg coffee bags (USDA, 2014).

According to the annual coffee trade report of United States Department of Agriculture, the decrease on coffee production is due to climatic constraints as prolonged drought in Brazil (1<sup>st</sup> world coffee producer), excessive rain in Indonesia (4<sup>th</sup> world coffee producer), but also due to diseases attacks as the coffee rust in Vietnam (2<sup>nd</sup> world coffee producer).

Unlike, in some countries the production has increase as Colombia (3<sup>rd</sup> world coffee producer) du to the renovation coffee trees project or due to resistant rust trees program and yields improvements in other countries of Central America. But the increasing production in those countries is not enough to maintain the coffee production decline in other countries.

### ***III.3 The volatility of prices represents a danger for producers***

The volatility of green coffee prices is a characteristic of this commodity largely traded.

This volatility must be considered as a result of different factors as the periods of unproductiveness, climate crisis and speculative trading. This volatility of coffee prices influence the coffee production. In fact, while prices are high, producers tend to plant more surfaces and use a high quantity of fertilizers in order to increase the productivity. Then te oversupply tend to fell down the price as of coffee than can arise a price below the production costs as occurred in 2012-2013. The coffee price fell to 119,50 US cents/lb in 2013 compared to 156,34 US cents/lb and 210,40 US cents/lb in 2010 (Panhuisen & Pierrot 2014).

In general the small-scale coffee growers are not organized and have few market information and any power of negotiation to discuss the price. Over than 80 percent of coffee is traded internationally by multinational companies that know the coffee market and fixed the dairy coffee price. In terms of value, those exportations represent US\$ 33,4 billion and sales on retail sector arise US\$ 100 billion.

In this way, coffee producers receive a small share of the final product value and reduce the efforts to grow a very high quality coffee.

This phenomenon have consequences on rural workers and small farmers; it break up of families and communities and rural population tend to migrate to the cities.

Now a days the world coffee market is dominated by three large transnational roasters companies: Nestlé, Mondelez and DE Masters Blenders. Those roasters tend to rely coffee trading companies to obtain their supplies of green coffee. The most important trading companies that buy coffee all around the world and sell it to the large scale roasters. Those companies are the Neumann Group from Germany, Volcafé from Switzerland and ECOM also from Switzerland, whose trade 50% of world's green coffee.

An issue to this commodity coffee market has being the development of voluntary standards systems (VSS). The major coffee production standards are well known around the world: Fairtrade (FLO), Organic, Rainforest Alliance and UTZ.



Those certifications are used by coffee producers to improve their production system, to improve productivity, to reduce costs and to increase quality. Also some private rosters has been implementing sustainable programs to keep high quality coffee largely demanded by consumers. Starbucks has implemented the C.A.F.E Practices that can encourage coffee producers to have good practices into the farms; regarding environmental practices. The Nespresso AAA program is focused on buying special coffee in specific regions in the world, directly to the cooperatives. Those companies advise farmers on how to implement better farming practices This private initiative must be a way to keep added value for differentiated producers of high quality and environmental friendly coffee production.

#### ***III.4 The coffee demand tend to increase considerably***

Additional to the decrease of coffee production in 2014, the world coffee consumption is growing around 2,5% per year. Producer's countries began to be "consumer countries" as the example of Brazil or the increasing Chinese market. In this way the demand is expected to reach 165 million bags in 2020 (Panhuysen and Pierrot, 2014). That means that the world production must increase 15 percent in 5 years, not by increasing the coffee area planted but by stimulating and motivating coffee producers to implement better farming practices.

Moreover consumers tend to be more and more demander of specialty coffee and are looking for an environmental friendly, fair traded and more and more single origins coffees. This demand made by the end of the supply chain must encourage the promotion of single origin coffee that must be differentiated from a traditional green commodity coffee. Those origins and the efforts made by local producers in order to produce a very high quality should be protected by Geographical Indications.

In the case of Colombian coffee it has being the first non-European product to be protected as an intellectual property right inside the European Union.

This case must be studied to identify the protection impacts of a largely traded and consumed product as coffee The results must be useful to promote this initiative in other regions of the world and to participate on the WTO debate regarding GI protection.

## CONCLUSION

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Geographical Indications has being well used in several products in industrialized countries.

The protection of those GIs is being debated into the WTO in which the United States tend to considers Geographical Indications as being trademarks than can be tradable or sold to other agents in order to make profits. On the other side the European Union tend to have a stronger point of view regarding the GIs protection, where the local resources, the traditional know-how, and the link to the origin must be considered.

It has being shown in this work that there is different positives impacts already demonstrated by different case studies; the capacity of GIs to create premium value for some specific products and the capacity of distribute the added value through different actors of the value chain. Also some studies have shown that GIs must restructurate the organisation of some value chains. It can be considered as a «bridge» between the producer and the consumer. It is particularly interesting for a internationally traded product as coffee in which the production is concentrated in emerging economies and the consumption in industrialized countries.

In a context where coffee production tend to decrease due to climate change, diseases and volatility of coffee prices GIs must be considered as a way to segmentation the coffee market even though it has being strongly debated. The protection of specific coffee origins to prevent the usurpation with low quality commodity coffee must be a way to give the chance to small holders to keep advantages for their efforts to promote a High quality product. Moreover with a global coffee demand increasing, with costumers that give more and more importance to the signs of quality and origin, the use of GI must represent the access to new niche markets to respond the demand of the costumer.

Finally the capacity of GI to restructurate the value chain and give more power to producers to negotiate with other actors is an important point for a sector where the share of the final product value is largely unfair.

Methodologies by combining diachronic and synchronic approach but also quantitative and qualitative data must be a interesting way to evaluate some impacts of the GI registration.

Those results must be used on the WTO debate and promote hoses examples in other regions of the world.

## BIBLIOGRAPHY

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- Allaire, G., 2003. Quality in Economics, a Cognitive Perspective. *Theoretical Approaches to Food Quality*. Available at:  
[http://books.google.com.co/books?hl=fr&lr=&id=4xzCKAiys\\_sC&oi=fnd&pg=PA61&dq=Allaire,+G.,+%E2%80%98Quality+in+Economics,+a+Cognitive+Perspective&ots=\\_I7fBRztdU&sig=gHzEqIqRgsSTX43G5tEYYTMlyr0&redir\\_esc=y#v=onepage&q=Allaire%2C%20G.%2C%20%E2%80%98Quality%20in%20Economics%20a%20Cognitive%20Perspective&f=false](http://books.google.com.co/books?hl=fr&lr=&id=4xzCKAiys_sC&oi=fnd&pg=PA61&dq=Allaire,+G.,+%E2%80%98Quality+in+Economics,+a+Cognitive+Perspective&ots=_I7fBRztdU&sig=gHzEqIqRgsSTX43G5tEYYTMlyr0&redir_esc=y#v=onepage&q=Allaire%2C%20G.%2C%20%E2%80%98Quality%20in%20Economics%20a%20Cognitive%20Perspective&f=false) [Consulté le mai 12, 2015].
- Babcock, B.A. & Clemens, R.L., 2004. *Geographical indications and property rights: protecting value-added agricultural products*, Citeseer. Available at:  
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.352.4480&rep=rep1&type=pdf> [Consulté le avril 16, 2015].
- Bacon, C., 2005. Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World Development*, 33(3), p.497- 511.
- Barjolle, D. & Chappuis, J.M., 2000. Transaction costs and artisanal food products. Available at:  
<https://we.riseup.net/assets/1929/distribution%20costs%20farmers%20gro ups.pdf> [Consulté le mai 19, 2015].
- Barjolle, D. & Jeanneaux, P., 2012. Raising rivals' costs strategy and localised agro-food systems in Europe. *International Journal on Food System Dynamics*, 3(1), p.11-21.
- Belletti, G. et al., 2011. *The Effects of Protecting Geographical Indicators: Ways and Means of Their Evaluation*, Eidgenössisches Institut für Geistiges Eigentum. Available at:  
[https://www.ipi.ch/fileadmin/user\\_upload/Juristische\\_Infos/e/publication\\_no\\_7\\_2nd\\_ed\\_Effects-of-Protecting-Geographical-Indications.pdf](https://www.ipi.ch/fileadmin/user_upload/Juristische_Infos/e/publication_no_7_2nd_ed_Effects-of-Protecting-Geographical-Indications.pdf) [Consulté le mai 15, 2015].
- Bertrand, B. et al., 2012. Creation and dissemination of Arabica coffee varieties: What varietal innovations? *CAHIERS AGRICULTURES*, 21(2-3), p.77-88.
- Bramley, C., Biénabe, E. & Kirsten, J., 2009. The economics of Geographical Indications: Towards a conceptual framework for Geographical Indication

## BIBLIOGRAPHY

---

- Allaire, G., 2003. Quality in Economics, a Cognitive Perspective. *Theoretical Approaches to Food Quality*. Available at:  
[http://books.google.com.co/books?hl=fr&lr=&id=4xzCKAiys\\_sC&oi=fn&pg=PA61&dq=Allaire,+G.,+%E2%80%98Quality+in+Economics,+a+Cognitive+Perspective&ots=\\_I7fBRztdU&sig=gHzEqIqRgsSTX43G5tEYYTMlyr0&redir\\_esc=y#v=onepage&q=Allaire%2C%20G.%2C%20%E2%80%98Quality%20in%20Economics%20a%20Cognitive%20Perspective&f=false](http://books.google.com.co/books?hl=fr&lr=&id=4xzCKAiys_sC&oi=fn&pg=PA61&dq=Allaire,+G.,+%E2%80%98Quality+in+Economics,+a+Cognitive+Perspective&ots=_I7fBRztdU&sig=gHzEqIqRgsSTX43G5tEYYTMlyr0&redir_esc=y#v=onepage&q=Allaire%2C%20G.%2C%20%E2%80%98Quality%20in%20Economics%20a%20Cognitive%20Perspective&f=false) [Consulté le mai 12, 2015].
- Babcock, B.A. & Clemens, R.L., 2004. *Geographical indications and property rights: protecting value-added agricultural products*, Citeseer. Available at:  
<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.352.4480&rep=rep1&type=pdf> [Consulté le avril 16, 2015].
- Bacon, C., 2005. Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua? *World Development*, 33(3), p.497- 511.
- Barjolle, D. & Chappuis, J.M., 2000. Transaction costs and artisanal food products. Available at:  
<https://we.riseup.net/assets/1929/distribution%20costs%20farmers%20gro ups.pdf> [Consulté le mai 19, 2015].
- Barjolle, D. & Jeanneaux, P., 2012. Raising rivals' costs strategy and localised agro-food systems in Europe. *International Journal on Food System Dynamics*, 3(1), p.11-21.
- Belletti, G. et al., 2011. *The Effects of Protecting Geographical Indicators: Ways and Means of Their Evaluation*, Eidgenössisches Institut für Geistiges Eigentum. Available at:  
[https://www.ipi.ch/fileadmin/user\\_upload/Juristische\\_Infos/e/publication\\_no\\_7\\_2nd\\_ed\\_Effects-of-Protecting-Geographical-Indications.pdf](https://www.ipi.ch/fileadmin/user_upload/Juristische_Infos/e/publication_no_7_2nd_ed_Effects-of-Protecting-Geographical-Indications.pdf) [Consulté le mai 15, 2015].
- Bertrand, B. et al., 2012. Creation and dissemination of Arabica coffee varieties: What varietal innovations? *CAHIERS AGRICULTURES*, 21(2-3), p.77-88.
- Bramley, C., Biénabe, E. & Kirsten, J., 2009. The economics of Geographical Indications: Towards a conceptual framework for Geographical Indication

- research in developing countries. In *The economics of intellectual property*. World Intellectual Property Organisation, p. 109-137. Available at: [http://www.wipo.int/export/sites/www/ip-development/en/economics/pdf/wo\\_1012\\_e.pdf](http://www.wipo.int/export/sites/www/ip-development/en/economics/pdf/wo_1012_e.pdf) [Consulté le avril 9, 2015].
- DeCarlo, T.E., Jean Franck, V. & Pirog, R., 2005. *Consumer perceptions of place-based foods, food chain profit distribution, and family farms (MSP04-05)*, Available at: <https://www.leopold.iastate.edu/sites/default/files/pubs-and-papers/2005-10-consumer-perceptions-place-based-foods-food-chain-profit-distribution-and-family-farms.pdf> [Consulté le mai 19, 2015].
- Desbois, D. & Néfussi, J., 2007. Signes de qualité: quels résultats économiques pour le producteur. *Demeter*, 2008, p.49–96.
- FranceAgriMer, 2011. Panorama des échages extérieurs du secteur agroalimentaire en 2011. Available at: <http://www.franceagrimer.fr/content/download/13153/94179/file/2012echanges-exterieursweb.pdf> [Consulté le mai 15, 2015].
- Galtier, F., Belletti, G. & Marescotti, A., 2008a. Are Geographical Indications a way to « decommodify » the coffee market? In *12th Congress of the European Association of Agricultural Economists*. p. 15. Available at: <http://ageconsearch.umn.edu/bitstream/43834/2/508.pdf> [Consulté le mai 15, 2015].
- Galtier, F., Belletti, G. & Marescotti, A., 2008b. Are Geographical Indications a way to « decommodify » the coffee market. In *12th Congress of the European Association of Agricultural Economists*. p. 15. Available at: <http://ageconsearch.umn.edu/bitstream/43834/2/508.pdf> [Consulté le juin 27, 2015].
- Galtier, F., Belletti, G. & Marescotti, A., 2013. Factors Constraining Building Effective and Fair Geographical Indications for Coffee: Insights from a Dominican Case Study. *Development Policy Review*, (31), p.597-615.
- Gautman, K. & Bahl, N., 2010. Geographical Indications of India, Socio-Economics and Development Issues. Available at: <http://www.aiacaonline.org/pdf/policy-briefs-geographical-indications-india-socio-economic-development-issues.pdf> [Consulté le mai 15, 2015].
- Giovanucci, D. et al., 2009. *Guide to Geographical Indications: Linking products and their origins*, International Trade Centre. Available at:

- <http://core.ac.uk/download/pdf/6668248.pdf> [Consulté le février 22, 2015].
- Jena, P.R. & Grote, U., 2012. Impact Evaluation of Traditional Basmati Rice Cultivation in Uttarakhand State of Northern India: What Implications Does It Hold for Geographical Indications? *World Development*, 40(9), p.1895- 1907.
- Lisbon Agreement, 1967. WIPO-Administered Treaties: Lisbon Agreement for the Protection of Appellations of Origin and their International Registration. Available at: [http://www.wipo.int/treaties/en/text.jsp?file\\_id=285856](http://www.wipo.int/treaties/en/text.jsp?file_id=285856) [Consulté le mai 20, 2015].
- Madrid Agreement, 1891. WIPO-Administered Treaties: Madrid Agreement Concerning the International Registration of Marks. Available at: [http://www.wipo.int/treaties/en/text.jsp?file\\_id=283530](http://www.wipo.int/treaties/en/text.jsp?file_id=283530) [Consulté le mai 20, 2015].
- Moschini, G., Menapace, L. & Pick, D., 2008. Geographical indications and the competitive provision of quality in agricultural markets. *American Journal of Agricultural Economics*, 90(3), p.794–812.
- Newfarmer, R.S. éd., 2006. *Trade, Doha, and development: a window into the issues*, Washington, D.C: World Bank.
- Panhuyzen, S. & Pierrot, 2014. *coffee Barometer 2014*, Available at: [https://hivos.org/sites/default/files/coffee\\_barometer\\_2014\\_report\\_1.pdf](https://hivos.org/sites/default/files/coffee_barometer_2014_report_1.pdf) [Consulté le juin 16, 2015].
- Paris Convention, 1883. WIPO-Administered Treaties: Paris Convention for the Protection of Industrial Property. Available at: [http://www.wipo.int/treaties/en/text.jsp?file\\_id=288514](http://www.wipo.int/treaties/en/text.jsp?file_id=288514) [Consulté le mai 19, 2015].
- Quiñones-Ruiz, X. et al., 2015. Can origin labels re-shape relationships along international supply chains? – The case of Café de Colombia. *International Journal of the Commons*, p.416- 439.
- Ramírez, E., 2007. La identidad como elemento dinamizador de la economía territorial. *Revista Opera*, (7), p.55–68.
- Sylvander, B. & Allaire, G., 2007. WP3 REPORT D3-Conceptual synthesis Task1. *SINER-GI*, p.69.

**Formulario para productores de café**

**Coordenadas :**

Código productor :.....  
Nombre.....Apellido.....  
Finca :.....  
Municipio :.....Vereda :.....  
Teléfono :..... e-mail:.....

**Histórico :**

Origen de la finca : Compra arriendo herencia sociedad Otros :.....

Fecha ingreso en la finca :.....  
Numero de familiares : .....Niños :..... Nivel de estudio.....  
Tamaño total finca :..... (Ha)  
Altitud :.....  
Producciones :  
- ...../.....Ha - ...../.....Ha  
- ...../.....Ha - ...../.....Ha  
- ...../.....Ha

Cuales son las nuevas actividades :  
.....  
Porque esta nueva actividad ?.....

Personal fijo : Si No Cantidad :.....

**Sistema productivo del café :**

Ha en café :.....Ha  
Árboles de café :.....  
Edad promedia de cafetales :.....  
Sombrío : No Si % sombrío :... Ha :..... Pleno sol : No Si Ha :.....  
Variedades :  
- ...../Ha - ...../Ha  
- ...../Ha - ...../Ha

Criterio de selección de variedad :  
Conocimiento propio Vecinos Servicio técnico Precio

Origen de las plantas :..... Certificadas : No Si Organismo :.....

**Plantío :**

Como están seleccionadas las zonas de plantación y los nuevos lotes ?  
.....  
.....

Análisis de suelo  Si  No Organismo :.....  
Como lo utiliza ? .....

Preparación de suelo : .....

Densidad de siembra : .....

Cada cuanto siembra : .....

Tipo de soque :..... Cada.....años.

Fertilización siembra

- Tipo de fertilizante..... Cantidad :.....Kg/ha Momento de aplicación.....

Fertilización resto-

- Tipo de fertilizante..... Cantidad :.....Kg/ha Momento de aplicación.....

### Manejo de plagas

Que tipo de plagas y enfermedades tiene en su finca ?

.....  
.....

Como controla las plagas ?

Preventivo  Boletín de alerta  Consejo técnico  Grado de ataque en campo

Productos utilizado :

Para :..... Producto :..... Cantidad/ha :.....

Para :..... Producto :..... Cantidad/ha :.....

Para :..... Producto :..... Cantidad/ha :.....

Donde se provee en insumos ?

.....  
.....

Tiene usted un soporte técnico ?

No Si Organismo :..... Precio :.....

Frecuencia de visitas :.....

### Cosecha

Distribución de cosechas en el año (Cantidades de sacos por mes)

Cuanto personal tiene usted para la cosecha ?.....

Alojamiento y seguro social ?.....

Es obligatorio ?  Si  No

Alguna inversión para alojamientos y comidas ? :.....

Proveniencia mano de obra :.....



Tiene usted dificultad para encontrar mano de obra ?

Si  No

Debido a que ?.....  
.....

**Pos-cosecha :**

Tipo de beneficio

Húmedo  Seco

El beneficio es

Propiedad  Colectivo  Arriendo

Si es propiedad que tipo de recursos y costo del beneficio :

Costo :..... Recursos :.....

Si benéfico húmedo, origen del agua : .....

Tiempo de fermentación :..... Como escogió ese tiempo :.....

Problemas por falta de agua :  Si  No

Destino del agua después de uso :.....

Secado, Células, sol :.....

Inversiones para secado :.....

**Producción café :**

**Tipo de comprador : (cooperativa, intermediario, exportador)**

**% vendido a cada comprador**

**Cetificacion: (FLO, Practise, Rainforest)**

**Calidad por comprador**

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	1995
Cooperativa											
Particular											
Exportador											
Transformación											
TOTAL											

	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	1995
Café Cereza (sacos)											
Café											

## Annex 5: Café de Colombia characteristics

<b>Nombre Común</b>	Café		
<b>Nombre Científico</b>	<i>Coffea arabica</i>		
<b>Familia</b>	Rubiaceae		
<b>Variedades</b>	Típica, Caturra, Colombia, Borbón, Maragogype y Tabi		
<b>Características botánicas</b>	Arbustos de hojas opuestas; flores blancas, fruto rojo cuya semilla es el café.		
<b>Parte de la planta que se aprovecha</b>	Semilla		
<b>Ciclo Vital</b>	Perenne		
<b>Cosecha</b>	Dos cosechas (Principal y mitaca)		
	<b>Departamento</b>	<b>Cosecha Principal</b>	<b>Mitaca</b>
	Antioquia	Oct-Nov-Dic	Mar-Abr-May
	Boyacá	Oct-Nov-Dic-Ene	Abr-May
	Caldas	Oct-Nov-Dic	Abr-May-Jun
	Cauca	Abr-May-Jun	No existe graneo
	Cundinamarca	Abr-May-Jun	Oct-Nov-Dic
	Huila	Abr-May-Jun	Oct-Nov-Dic
	Magdalena, Cesar y Guajira	Nov-Dic-Ene	No existe graneo
	Nariño	May-Jun	Ene-Feb
	Norte de Santander	Mar-Abr-May	Oct-Nov-Dic
	Quindío	Mar-Abr-May	Oct-Nov-Dic
	Risaralda	Oct-Nov-Dic	Abr-May-Jun
	Santander	Ago-Sep-Oct	No existe graneo
	Tolima	Mar-Abr-May-Jun	Nov-Dic-Ene
Valle	Mar-Abr-May	Nov-Dic-Ene	
<b>Rendimiento</b>	Promedio nacional: 535 Kg./h Promedio Potencial: 600 – 1200 Kg/Ha		
<b>Altitud</b>	400 a 2.500 metros sobre el nivel del mar (m.s.n.m)		
<b>Latitud</b>	Norte 1° a 11°15'		
<b>Longitud</b>	Oeste de 72° a 78°		
<b>Principales plagas</b>	<i>Leucoptera coffella</i> (minador de la hoja) <i>Hypothenemus hampei</i> (broca del café) <i>Coccus viridis</i> (queresa)		
<b>Principales Enfermedades</b>	<i>Roya del café o roya amarilla</i> ( <i>Hemileia vastatrix</i> ) Ojo de gallo ( <i>Mycena citricolor</i> (Berk. & Curtis) Sacc) Mal de hilachas o araño ( <i>Pellicularia koleroga</i> Cooke) Mancha de hierro o Cercospora ( <i>Mycosphaerella coffeicola</i> ) Antracnosis ( <i>Colletotrichum coffeanum</i> )		
<b>Aroma</b>	Pronunciado y completo		
<b>Acidez</b>	Medio/alto		
<b>Cuerpo</b>	Medio/alto		
<b>Sabor</b>	Suave/amargo moderado		
<b>Peso</b>	0.21 gr. +/- 0.02		
<b>Tamaño</b>	Excelso de exportación: malla 14 con máx. 1.5% hasta malla 12		
	Caracol: Malla 12, 10% grano plano		
	Premium: Malla 12 con máx. 5% hasta malla 14		
	Supremo: Malla 17 con máx. 5% hasta malla 14		
	Extra: Malla 16 con máx. 5% hasta malla 14		
	Meragogipe: Sin caracol. Malla 17 con máx. 5% hasta malla 14		
<b>Color</b>	Verde		
<b>Humedad</b>	10-12% (<12%) 105° C, perdida por secado		
<b>Apariencia</b>	Homogénea	< 2/500 granos defectuosos 1er grupo	
		< 4/500 granos defectuosos 2do grupo	
		< 140 granos ligeramente brocados 3er grupo	
<b>Composición química del café verde (%)</b>		<b>Mínimo</b>	<b>Máximo</b>
	Agua	8	12
	Cafeína	0.8	12



VetAgro Sup

VAN DER VEN, Paulo, 2015, Study of the economic impacts of Geographical Indications : the case of Café de Colombia, 37, mémoire de fin d'études, VetAgro-Sup, 2015.

**STRUCTURE D'ACCUEIL ET INSTITUTIONS ASSOCIEES:**

- ◆ Food and Agriculture Organization of the United Nations (FAO)

**ENCADRANTS :**

- ◆ Maître de stage : VANDECANDELAERE, Emilie (FAO)
- ◆ Tuteur pédagogique : JEANNEAUX, Philippe

**OPTION : Agronomie Productions Végétales et Environnement**

## **RESUMÉ**

Geographical Indications (GIs) are considered as an intellectual property right used to ensure and protect the origin, the quality, collective efforts and to create the reputation of food products.

Even if GIs are well-known in Europe, due to the largely use on cheese, wine and other regional products, this approach is still new for developing countries, that have already started to be interested on it.

The Food and Agriculture Organization of the United Nations (FAO) and different international partners have implemented a common methodology to study the economic impacts of GIs.

Café de Colombia, was the first non-EU PGI to be registered in the European Union. This product has been chosen to be studied in a global project involving 9 other products, in different regions of the world.

The study showed the importance of representative institutions to reduce transaction costs, by implementing different strategies, allowing keeping competitive advantages. The influence of the Colombian Coffee Growers Federation (FNC) and the State on the Colombian coffee value chain, has allowed reaching product differentiation and reputation.

The “decomodification” strategy of Colombian coffee growers through the FNC, have not allowed coffee growers to increase the empowerment to manage the coffee price volatility.

Finally, the GIs protection has shown positive impacts on local development by protecting a socio-economic system.

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**Mots clés : Café de Colombia ; Geographical Indications ; Value chain ; Economic impacts.**









