

國立政治大學亞太研究英語碩士學位學程
International Master's Program in Asia-Pacific Studies
College of Social Sciences
National Chengchi University

碩士論文

Master's Thesis

咖啡，來自茶的故鄉：
為何外來農產品在普洱茶的發源地蓬勃發展

Coffee from the Land of Tea:
Why a Foreign Cash Crop is Flourishing in the Home of Pu'er Tea

Student: Julia Simancas Ortiz de Zárate

Advisor: Tang, Ching-Ping

中華民國 103 年 7 月

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Abstract

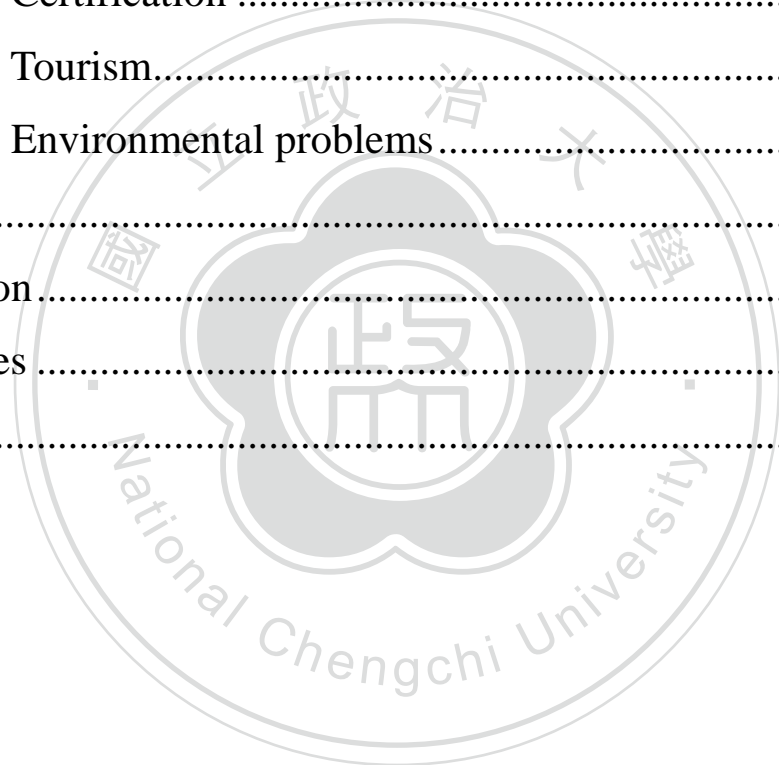
In the land of Pu'er tea, coffee growing is emerging as a powerful industry. The fast development of coffee production in the past five years is a reflection of the efficient role of the local government in policy formulation, attraction of investment and support. Nevertheless, the economic impact of coffee in Pu'er is not significant enough to explain the government's efforts to develop this industry. Increasingly more farmers and entrepreneurs are entering the business motivated by stories of success. This study aims to understand the current organizational structure of coffee production in Pu'er, the role that government officials, companies and farmers play in the development of the industry, and the real motivations behind such coordinated effort. This research is based on qualitative data gathered on site through interviews and participatory observation. Due to the lack of previous research on Yunnan coffee, this study aims to provide a general notion of the current situation and future development of coffee industry in Pu'er, with a focus on strategies employed and motivations. It concludes by suggesting that the achievements in local coffee business can be almost entirely attributed to the involvement of Pu'er government in the development of this industry. They want to create an exclusive product to boost domestic sales and improve the image of Yunnan in China and the world. Finally, this research will examine the potential future repercussions of such fast growth, particularly the environmental impact of intensive coffee cultivation.

Keywords: Yunnan, Pu'er, coffee, agriculture, local government, environment

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1. Introduction

1.1. Introduction and overview

1.1.1. Coffee in the global economy and China

According to legend, the word “coffee” may have originated in the Ethiopian region of Kaffa, known as the birthplace of coffee. While it is believed that the Arabs began its cultivation and use as early as the nineteenth century, coffee did not make its way to Europe until the early seventeenth century. Since then, coffee has become the number one beverage in the world in terms of production, consumption and economic value. Currently, one fourth of the world’s total population consumes almost 2 billion cups of coffee every day. Coffee is also the second most valuable commodity exported by developing countries and an important generator of rural employment and income. The world’s total area for coffee cultivation is around 11 to 13 million hectares, the average total production is 8.82 million tons, and sales reach up to US\$ 30 billion; the global coffee industry employs over 250 million people (Fairtrade, 2012; & Pu’er city, Coffee Industry Development Office [Pu’er Coffee Office], 2013).

Coffee is grown in the tropical region that spans the globe 23 degrees north and south of the equator, comprising around 80 countries in South and Central America, Africa, and Asia. The world leaders in production of green coffee beans are Brazil, Vietnam, Colombia, Indonesia and Ethiopia. Traditionally, Latin America has been considered the main coffee producing region in the world. In the last years, coffee production seems to be shifting towards Asia. In 2010, Vietnam surpassed Colombia as the world’s second exporter.

Simultaneously, for over two decades coffee consumption in Asia has experienced the most dynamic development in the world, growing a 4.9 percent since 2000 (International Coffee Organization, 2014). Along with lifestyle changes and improved economic standards, coffee consumption has successfully entered markets that were traditionally exclusive to tea consumption, such as China.

Currently, Asia is a market of increasing potential for coffee growers, producers and consumers. In light of these developments, China has also decided to jump on the coffee bandwagon. In the past five years, coffee production in Yunnan province grew at spectacular

speed, becoming China's main coffee producing region and potentially emerging as one of Asia's main areas of cultivation, processing and branding. The combined effort of government policies and leadership, international investment and assistance, and farmer motivation is the key for the creation of a specialty coffee industry in Yunnan that aims to provide for the increasing domestic market and to serve as an effective tool for poverty alleviation.

Although coffee is grown in other provinces of China, Yunnan is undoubtedly the main producing region in the country. Located in China's Southwest border, Yunnan is endowed with the perfect conditions to grow coffee. It is one of the northernmost coffee regions in the world (Blackmore & Keeley, 2012, p. 94). Yunnan's main growing areas are located in southern and southwestern Yunnan, in the regions of Pu'er, Xishuangbanna, Wenshan, Baoshan, Lancang and Dehong, among others. This study will focus on the development of coffee industry in China's largest coffee producing area and trading centre: Pu'er city.

1.1.2. Pu'er overview

Also known as Simao from 1950 to 2007, Pu'er city is located in Yunnan's southern region, at a relatively short distance from the borders with Myanmar, Laos, and Vietnam. It is a prefecture-level city¹ made up of nine autonomous counties and one district. It spans approximately 45,385 square kilometers, the equivalent to one eighth of the total area of Yunnan, making it the biggest prefecture-city in Yunnan. It has a population of around 2.57 million, out of which ethnic minorities account for 61 percent of the total. Pu'er city is home to 26 different ethnic groups, of which 14 have inhabited the land for generations.

Located in northern latitudes between 22 and 24 degrees, the Tropic of Cancer runs through Pu'er, endowing the region with a humid subtropical warm climate all year-round. It has over 28 percent of Yunnan's total tropical area. Temperatures are between 15 and 20 degrees Celsius; the average annual total precipitation ranges from 1,100 to 2,780 millimeters; and every year there is an average of 1,873 to 2,206 hours of sunlight. Current forest density in Pu'er ranges between 67 percent (Zhu, 2012, p.4) and 70 percent (S01; & G02, March 18, 2014). These distinctive natural attributes, along with an average altitude of 1,400 meters

¹ This study will follow the denominations used in the region. The terms "prefecture" or "Pu'er" refer to Pu'er city as a prefecture, and "city" or "Simao" is used to indicate the province capital (Simao district).

above sea level, are perfect for the production of quality coffee. Moreover, according to official data, Pu'er still conserves enough natural land resources —more than 10 hectares available for coffee cultivation— to continue with this fast development of coffee industry (Pu'er Coffee Office, 2013).

In 2012, the gross domestic product (GDP) of Pu'er amounted to CNY 36.69 billion, of which 30.8 percent belonged to primary industry, 36.4 percent to secondary industry, and 32.8 percent to tertiary industry; per capita GDP was a mere CNY 14,286. These numbers rank very low in comparison with the rest of the country and also for Yunnan; in fact, in terms of per capita GDP, Pu'er is positioned in the lower rank of all regions in Yunnan. Tea, forest products, electricity and mining are the major industries of the prefecture, accounting for over 70 percent of the total output value of the manufacturing sector (Pu'er Economic and Social Development Report, 2012). While still rather insignificant in economic terms, the fast development of coffee production currently taking place in Pu'er will transform this industry into a powerful engine for the region.

1.1.3. Pu'er coffee development

Coffee was first introduced in Yunnan in 1892, when French missionaries brought seeds of Arabica coffee and successfully cultivated them in different counties of Yunnan province, including Lancang and Jiangcheng counties in Pu'er. For several decades, coffee was grown in Yunnan only for self-consumption. It was not until the 1950s that coffee was cultivated in a bigger scale and considered a tradable commodity. In the mid-1990s, Yunnan became China's largest producer of coffee, and it has continued growing at a rapid speed ever since. In 2012, coffee growing in Yunnan reached over 66,000 hectares of area, accounting for over 70 percent of the national area for coffee cultivation, and 83 percent for China's total production (Zhu, 2012, p.3). Pu'er is the largest coffee producer in Yunnan and hence the main coffee factory of China. There are four distinctive periods in the development of coffee industry in Pu'er (Pu'er Coffee Office, 2013, pp.7-8): experimental cultivation from the mid-1950s to the mid-1980s, large-scale cultivation from the mid-1980s to the end of the twentieth century, production shrinking from 1999 to 2007, and fast development from 2007 until now.

In 1956, Pu'er city introduced coffee grown in Hainan, and planted 225 kilograms in Jiangcheng, Simao, Menglian and Jingdong as trial. In Jiangcheng they also constructed a

coffee farm and planted over 16 hectares of coffee. In 1961 they harvested one thousand kilograms of coffee beans. However, shortly after, coffee production stagnated due to pests and diseases, lack of technology, and poor management skills. In spite of that, during the Cold War years Pu'er and Yunnan served as providers of coffee for countries in the Soviet Block that were avid consumers of the drink but could not grow coffee themselves or buy it due to sanctions and embargo from the West (G02, March 18, 2014). This small-scale coffee supply was nevertheless insignificant for the development of the industry.

Deng Xiaoping's 1978 Reform and Opening Up policy switched focus in the country from hard labor to economic profitability. Farmers were now encouraged to develop the economy to improve their lives and eradicate poverty. In Pu'er, the government targeted coffee as one of the main crops that could help farmers increase their incomes and escape poverty. In order to push that industry, in 1987 the local government contacted the factory of Nestlé in Dongguan (Guangdong) to establish economic cooperation, and to attract technology and financial investment. After negotiations with the government, Nescafé (Nestlé's coffee brand), along with the United Nations Development Program (UNDP), agreed to help Pu'er grow quality coffee and in 1988 a large-scale coffee plantation was inaugurated. One year later, Nescafé formally commenced to experiment with coffee cultivation; they brought seeds for trial, foreign experts to train farmers and control quality standards, new technologies, pesticides and fertilizers, and, most importantly, they set up a protective price of CNY 12 per kilogram (G02, March 18, 2014). Owing to the success of these measures, Nescafé concluded a long-term sales agreement with Pu'er city that would help develop this industry at a faster speed. To complement these measures, several coffee institutions were established for the management and organization of coffee development. Only ten years after those measures were set, the total area of coffee cultivation expanded from little over 1,050 hectares to 12,134 hectares.

Unfortunately, an intense frost that hit Pu'er in 1999 severely affected coffee trees and production. Additionally, world coffee prices decreased dramatically, reaching lows of CNY 8 per kilogram. Not surprisingly, the combination of a natural disaster and price drop led to the loss of motivation from farmers and companies in the region. Many farmers decided to cut down their coffee trees and grow other crops like tea instead (G02, March 18, 2014). Consequently, the area of cultivation suffered a drastic decrease. The lowest was reached in 2006, with only 7,800 hectares of coffee.

After 2007, when international coffee prices started to gradually rise, Pu'er authorities declared coffee an important specialty industry fostered by the government. Moreover, in 2010, the government included coffee as one of the “Three Treasures of Pu'er”, along with Pu'er tea and the *noble dendrobium* orchid. These measures were aimed at increasing motivation among farmers and entrepreneurs to resume the fast development of the coffee industry. The response to this campaign resulted in an increase of over 4.5 times of the area cultivated from 2007 to 2010. Due to the growing government involvement, in 2012 Pu'er set up government institutions for the management of the coffee industry—the Pu'er City Coffee Industry Development Office—both in Simao district and in every county in Pu'er city. These offices play an important role in the development of new guidelines and projects, the training in new techniques, and the promotion of local coffee.

Thanks to successful measures and government involvement, Pu'er is now the provincial and national leader in coffee production. In 2012, the total area cultivated in Pu'er surpassed 43,000 hectares, which accounted for Yunnan's 47.18 percent and a 47.03 percent of the national total area. In terms of production, in 2012 Pu'er amounted for Yunnan's 38.4 percent and China's 38.28 percent. Most importantly, in terms of production value, Pu'er is responsible for Yunnan's 50.42 percent and China's 50.27 percent, more than half of the total output in both cases. By 2013, there were 118 registered coffee companies in Pu'er city, of which 12 were licensed to export. There were 153 peeling factories, 42 hulling factories and 3 secondary processing factories. The most famous local brands for coffee beans are Beigui, Arabica, Manlao River, Kefei and Livesun. For secondary processing coffee, the main brands are Aini, Beigui and Manya. Pu'er has even attracted two main Fortune 500 multinationals like Nestlé and Starbucks to establish permanent procurement stations and contribute to the development of coffee cultivation. Pu'er coffee industry employed a total of 247,500 people, of whom 244,000 are farmers and the remaining are workers in processing, purchasing and services (Pu'er Coffee Office, 2013, p. 9).

By identifying coffee as a unique local industry and with the support of new policies, funding and human capital training, Pu'er government has paved the road for the development of coffee production. The number of new coffee-related companies and factories is increasingly growing and more entrepreneurs are looking at coffee for new business opportunities. Additionally, increasing numbers of farmers are entering the coffee market as a means to

generate higher profits and provide a more stable source of income. Nevertheless, the rationale behind this fast development and the predictions for the future success of this industry are still undefined.

1.2. Purpose of research

For many decades, Pu'er has been known internationally for its famous tea. Such a unique local product gave popularity to the region and helped improve the lives of the farmers. While Chinese coffee is yet far from achieving international recognition, this crop is increasingly significant for the local economy. If the fast growth of the past five years is sustained, it is plausible to presume that locally produced coffee will gain recognition and boost sales significantly. Considering that coffee production in Yunnan remains rather underdeveloped, an early analysis of this specialty industry could potentially help tackle the most problematic areas and identify the key elements for the successful take off of coffee growing, processing and branding in Pu'er. What is more, the early study of this booming business will help foresee the potential repercussions of an uncontrolled development of the coffee industry.

The aim of this study is to put in perspective and to analyze the different actors involved in the development of the coffee business in Pu'er. Through personal observation and extensive research, the following chapters will examine the motivations and interests of all actors involved—government, farmers, domestic companies and multinationals—, their goals and strategies, their role in the local coffee chain, and the potential setbacks they may encounter in the next years. The role and intentions of the government on fostering this industry will be the focus of attention.

The goal of this descriptive research is to set a solid base for future studies on coffee in the region, particularly from a social sciences perspective. By identifying and dissecting the main agents of development, this study will ease the task of allocating specific responsibilities and goals to each actor for the correct development of the coffee industry. This research will attempt to foresee areas of success, aspects in need of improvement, and potential threats to the environment and the industry. But most importantly, this research will serve as a significant English language source for the presentation and promotion of a challenging new industry in a region with great investment potential.

1.3. Literature review

From the tree to the cup, the long journey that each bean takes is a reflection of the socioeconomic and political implications of the coffee trade. This path, the “coffee value chain”, is the basic unit of study for the analysis of this business, including the actors involved, the value added to the beans along the way, and the marketing strategies used to expand or shorten this chain. Thus, most literature on coffee economics and social impact makes use of the coffee chain as the axis of argumentation (Oxfam, 2002; Talbot, 2004; Petit, 2007; Tucker, 2011; Garza Treviño, 2014).

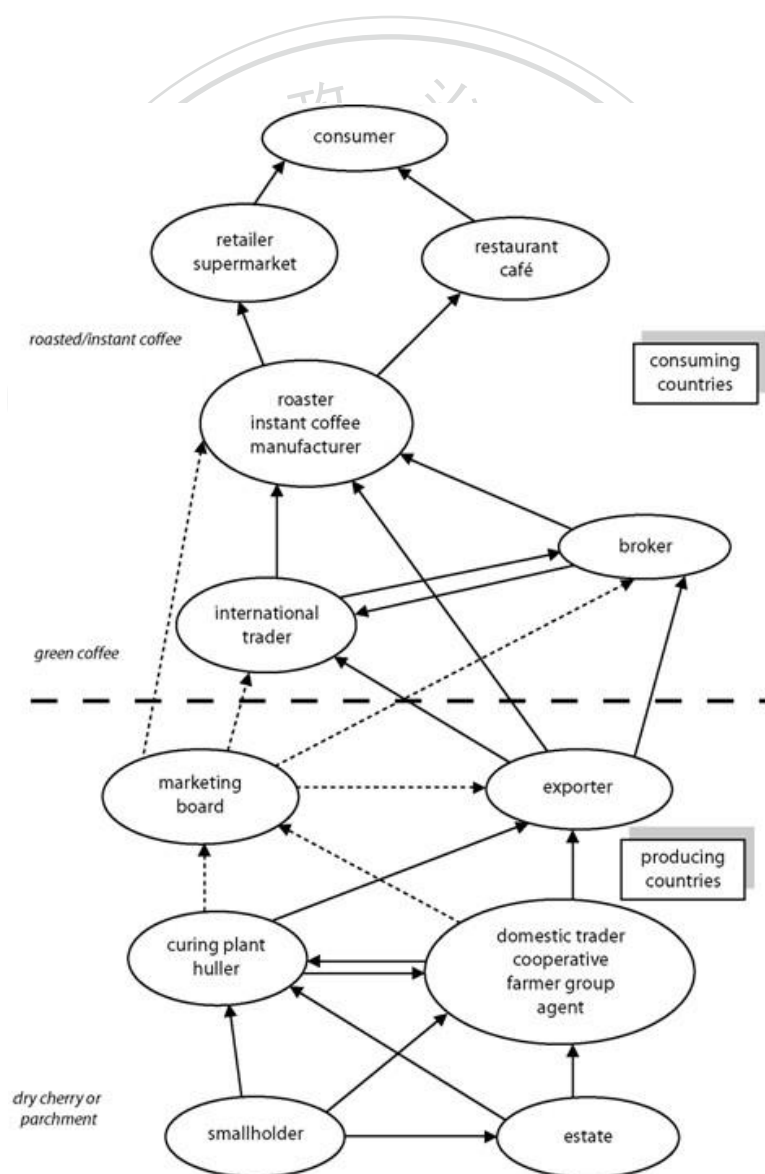


FIGURE 1: General structure of the global coffee-marketing chain.
SOURCE: Ponte, 2002.

Talbot reviews different approaches to the structure of the commodity chain (2004, pp. 7-11). Earlier, the chain was depicted as a dual unit that reflects both the hierarchical geographical structure of other commodity chains —poor peripheral countries that deal with coffee growing and initial processing— and the specific nation-state structure of the chain. Thus, this approach suggested that coffee trade is regulated within the producing countries, but under the limitations imposed by other nations located on the other end of the chain. A later review of the commodity chain distinguishes three dimensions: an input-output structure; a geographic distribution and a distribution among firms; and a governance structure. On the whole, the coffee value chain is a geographically differentiated process in which the role of all the states, firms, markets and consumers involved in the coffee trade determine the value, length and directionality of the chain.

Probably the main focus of analysis in recent studies is the new developments and changes in the traditional coffee value chain. These variations can be due to new demand or offer (specialty coffee, fair trade, organic), government intervention, or market and power forces. Undoubtedly, for many decades now the main problem in the coffee value chain is the unequal distribution of incomes, reflecting the “asymmetrical character of power in the global coffee value chain” (Petit, 2007, p. 230). In other words, the traditional knowledge that coffee cultivation can help reduce poverty and improve the economies of the South has been challenged by recent changes in policy, market and technology, along with the constant risk of the coffee price cycle. It is in this new set of circumstances that farmers of developing countries become the weakest link of the chain, while importers, traders and consumers benefit from the change of balance (Oxfam, 2002; Talbot, 2004; Petit, 2007; Tucker, 2011). Producing companies are now earning less than half of what they used to receive a decade ago; on the contrary, the value of sales in consuming countries in the early 2000s exceeded twice the value in the 1980s (Petit, 2007, pp. 230-231).

In the two decades between the 1960s and the 1980s, coffee saw a booming period. Authors indicate that the drastic removal of the quota system from the International Coffee Agreements (ICA) in 1989 resulted in the current instability (Talbot, 2004; Neilson, 2007; Garza Treviño, 2014). Without the support of the ICA to raise and stabilize coffee prices, the market dropped and it led to the current status of instability and uncertainty due to continuous price cycles. Unequal distribution of incomes is the main root of this “paradox of coffee

production” (Tucker, 2011, pp. 95-97). Although coffee is a relatively good source of income for farmers in many developing countries —or at least in comparison with other less profitable cash crops—, its price instability and unfair profit distribution generates a system in which farmers can not escape poverty, but neither can they abandon coffee for another crop after years of hard work and dedication. Some of the poorest and most inequitable countries in the world heavily depend on coffee trade. It could be then argued that coffee dependency, instead of providing a source of income and investment, is an anchor that impedes poor countries from further developing their economies through coffee export.

The high degree of volatility of this commodity manifests in the coffee cycle. These cycles are characterized by long periods of low prices followed by a shorter booming period. Tucker argues that this phenomenon is mainly caused by two factors: unforeseeable changes in coffee supply and the difficulty to match supply and demand (2011, p. 114). Demand and supply are difficult to match because farmers that plant new coffee trees motivated by growing demand and high prices will not harvest the cherries after at least three years. Unless external forces control the market, oversupply leads to the fall of prices, coffee surplus, and a loss of the capital invested by growers. Considering that prices tend to remain low for several years, farmers may encounter difficulties to repay loans and keep their land; eventually, they will cease the cultivation of coffee, leading to a massive decrease in supply and subsequent higher prices (Talbot, 2004, pp. 35-37). The impact of coffee cycles greatly depends on factors such as political strategies in producing and consuming countries, weather conditions, and social stability.

Finally, along with the unequal distribution of profits and the price cycle, coffee growers also face a decrease in coffee prices caused by the battle of prices among companies. In an attempt to lower costs while maintaining a consistent taste, coffee multinationals searched the market for cheaper suppliers that, undoubtedly, offered a product of lower quality. Farmers lowered the quality of their coffee in order to attract purchasers from all over the world. As a result, the general quality of coffee decreased considerably, reaching alarming lows in the 1960s (Talbot, 2004, p. 198).

Considering the aforementioned obstacles for coffee growers, in the past decades the industry has focused on shifting the coffee value chain, either changing the course of interaction between stages, adding new links, or removing old ones. Neilson argues that “product

differentiation has allowed lead actors in the supply chain to construct entry barriers to protect their profit streams, shaping a new institutional environment, particularly with regard to the governance of quality” (Neilson, 2007, p. 189). The bulk of the current research on coffee industry explores these different alternatives to traditional coffee production that aim at improving the lives of farmers, reaching higher quality standards, and protecting the natural and social environment (see Taylor, 2002; Neilson, 2007; Petit, 2007; Bacon, Ernesto Mendez, Gomez, Stuart, & Flores, 2008; Garza Treviño, 2014). Talbot refers to this phenomenon as “forward integration” (2004, p.12): taking control over one of the links in the chain and increasing the share of profit in a stage by improving the quality and value in that stage. Among these innovations, it is worth mentioning the addition of new technologies, the production of new forms of coffee (selling green beans, roasted, grinded or instant coffee instead of just parchment), the focus on high quality specialty coffee, the promotion of brands and place-quality associations, and the introduction of new forms of cultivation that protect the environment and the rights of farmers.

It should be noted that many authors emphasize the importance of what Neilson refers to as “turn to quality” (Neilson, 2007, p. 189). In other words, the current focus is to upgrade the standards of coffee and to create geographical associations to quality coffee. Brand and geographical association to quality are two main strategies to increase sales and ensure a steady supply. Product identity through “romantic place imagery” (Neilson, 2007, p. 189) or catchy slogans, product differentiation and product innovation are the main “rents” —profits resulting from changes in the chain— in the current coffee industry (Talbot, 2004, p.19). After the coffee crisis and the sharp decrease in quality, many coffee consumers are willing to pay higher prices to drink coffee of higher quality. It is thus argued that this turn to quality and the production of specialty coffee are excellent ways to impulse the coffee industry. However, not all authors agree with specialization. While most authors advocate specialty, fair trade and organic coffee as the means to raise prices, Petit (2007, pp. 254-255) argues that those alternatives present several limitations and, while they can be potentially successful in smaller quantities, the majority of coffee sold will still consist of non-differentiated coffee. Therefore, in order to obtain greater profits in the sale of regular coffee, it is necessary to raise quality standards and consistency.

Fair trade and environmental-friendly coffees are the latest trends in adjustments of the value chain. While development agencies, NGOs and governments actively support the growth of

these types of coffee, the opinions of scholars are divided. On the one hand, these sustainable initiatives are beneficial for aspects like environmental protection and health safety; increased incomes; improved education, health, and competitive skills “to face adversities presented in the current capitalist model” (Garza Treviño, 2014, p. 281); better infrastructure; management of production, storage and transportation; access to credit and networks; and increased self-esteem (Taylor, 2002). On the other hand, authors also show concern about the limitations of these practices and their potential to tackle social problems. The most raised question is that of certification (Taylor, 2002; Sick, 2008; Tucker, 2011). While certification ensures minimum prices and premiums, the process to obtain it can be very costly and time consuming, and certification can be revocable. Another problem is that fair trade and organic coffee is considered a niche product sold at very high prices, and thus it is targeted for upscale buyers. The global market share of certified coffee was only around 1 percent in 2010 (Garza Treviño, 2014, p. 282), a reflection of this “yuppie syndrome” (Talbot, 2004, p. 207). Moreover, authors like Taylor, Garza Treviño and Talbot indicate that currently the supply of certified coffee far surpasses the demand (which mainly comes from Europe and the United States), and thus over 80 percent of the total production is sold under regular terms instead of under certification privileges. All in all, studies like the one conducted by Bacon et al. (2008) in Nicaragua prove that certification programs are good strategies to confront the coffee crisis and put in practice the targets established by the United Nations Millennium Development goals for 2015. The correct implementation of these programs translates into improved livelihoods and decreased vulnerability. The involvement of governments can greatly improve the success of fair trade and organic strategies.

A final aspect of this discussion is the role of governments in the promotion, protection and improvement of coffee industry. The degree of market liberalization varies in each country, but most of the nations enjoy a relatively free coffee market. Some degree of state control is nonetheless necessary. For Petit’s study in Ethiopia (2007), state regulation is vital for quality control, environmental protection and improved export capabilities. Additionally, government support is needed for new infrastructures and services, financial and technological assistance, and research. The role of the state also extends to prioritizing those sectors that are most cost-effective and demanded by the market. The research conducted in Papua New Guinea by Orlegge (2010) illustrates the role of the government in the creation of a national coffee industry, and how the lack of state involvement can also lead to the failure of industry expansion and diversification. Government agencies for coffee promotion are in charge of

taking the lead in the development and revitalization of this industry; they “must not become white elephants but be assisted to implement their plans and programs for the sector and attain their objectives” (Orlegge, 2010, p.125).

Whereas research on coffee production is relatively prolific, the issue of coffee production in China has hardly been studied. The majority of research on Yunnan coffee deals with the agronomic aspects of the plant, and most of those articles have been published in Chinese journals of small impact factor. Some articles address the development of coffee industry in Yunnan and Pu'er (see Li, Li, & Luo, 2011, and Zhu, 2012), but their contribution is rather descriptive instead of analytical. Moreover, these articles, all written in Chinese language, tend to be written following a similar narrative —sometimes different texts use identical expressions—, and their length does not exceed 5 pages on average.

Recently, an increasing number of reports on the environmental aspects of coffee growing in Yunnan have been written for journals, online magazines and forums. The majority of these articles address the importance of shade trees in coffee plantations (Zhang, Zhou, Li, Yang, Bai, & Xiao, 2010) or general environmental issues related to intensive coffee farming (Du, 2007; Dong, 2011; Craves, 2013, Gibson, 2013). Gibson focuses on the “Four D’s of Yunnan’s Water-Energy-Food Choke Points”: Drought, Dams, Development, and Deforestation. His analysis is an attempt to link the current boom of coffee production in Pu'er with environmental problems that are taking place now or may take place in the near future. Gibson explains that Yunnan’s long annual droughts can affect agriculture production and daily water consumption. Meanwhile, increased cultivation of coffee —a water intensive crop— is draining the remaining reserves of water. Changing from sun to shade-grown coffee would reduce the amount of water used for the cultivation and processing of coffee, which in turn would mean more water for public use and other crops, especially during droughts. But most importantly, it would prevent total reliance on and proliferation of dams. Aside from the construction of dams and other infrastructures, the massive cultivation of eucalyptus and rubber trees and the rampant production of coffee of the past years are clearing forests, deteriorating the soil, and leaving the region more prone to droughts, landslides and decreased biodiversity. Gibson recommends ecological farming and certification as the solution to maintain this booming coffee industry while preserving the environment of Pu'er.

2. Research model

2.1. Research framework

Given that the current literature available on Yunnan coffee is scarce and superficial, the main question that this research attempts to address is the individual and collective role and motivations of all actors involved in the coffee business in Pu'er, and how their interactions have led to the current fast development. Moreover, this study will explore the impact that government, farmers and investors have on other actors, and the division of power. Based on previous literature, the present study will focus on issues of poverty alleviation, quality control, foreign investment and, most importantly, the role of the government in the development and promotion of this industry.

The variables involved in the fast development of coffee in Pu'er are summarized in three: actors, strategies and motivations. The qualitative analysis of each variable, explained from the different perspectives of each of the actors involved, provides an understanding of the functioning of the coffee production system in Pu'er. First, this research will examine the role of each party involved in the coffee industry, including their individual contributions and motivations. Next, the focus will move on to the global strategies developed by the government and implemented in cooperation with companies and farmers. These are the main strategies known to have generated the fast development of the last years and expected to produce further growth in the future. Finally, the study will analyze what factors serve as motivation for officials, entrepreneurs and farmers to combine efforts for the development of coffee industry. Based on existing literature and the interviews conducted during the field research, those driving forces will be further categorized as “official” and real motivations.

2.2. Methodology

This study is based upon four main methods of research: literature review, quantitative data, interviews, and participatory observation, the last three obtained during the fieldwork in Yunnan. Since the production of coffee in Yunnan is a rather unknown and fairly recent phenomenon, hardly any literature has been written on the issue, especially in the social sciences. In the past five years there has been a gradual increase in the information available

on Yunnan coffee, mostly in newspapers, coffee blogs, and short journal articles written by local scholars. This study will use some of these formal and informal sources as general reference. Considering the absence of quality information, the aim of this research was to gather all the knowledge necessary for a first in-depth analysis of the current situation and future development of coffee industry in Pu'er. Quantitative data is scarce and cannot alone reflect the current reality. While some numerical data will be analyzed, the bulk of this study is based on qualitative data gathered on site. In order to answer the research question, this study opted for a very comprehensive, in-depth, participatory involvement in the data collection, and aimed at understanding the issue from all angles. Consequently, the types and sources of the data, as well as the actors involved, were selected to be as heterogeneous as possible, within the target established in the research question.

2.2.1. Fieldwork

Field research in Yunnan, including interviews, data collection and participatory observation, was conducted from March 11 to 31 in Kunming and Pu'er.

The research began in the province capital, Kunming, where the main offices for coffee companies and government branches are. The first destination was the office of the Coffee Association of Yunnan (CAYN), located in the heart of the city: the Green Lake. The formal semi-structured interview with members of the CAYN proved very helpful to envision a general picture of this industry for the first time, as well as to obtain references and contacts to expand the research. In the following days, formal semi-structured interviews were conducted with members of Aini Garden and Manlao River Coffee in Kunming. In addition to the interviews, more information about coffee culture and knowledge of local coffee was obtained through several informal conversations in coffee shops near Wenhua Alley, Kunming "foreigners' street".

Following the first incursion in Yunnan coffee through the capital city, the next and main destination was Pu'er. The region is home to a wide variety of coffee farms and factories, companies and procurement centers, universities with coffee studies and, most importantly, the main government office for coffee development in the area. Government officials in the Pu'er Coffee Industry Development Office not only agreed to an extensive interview and tour around the premises, but also provided a wide range of official data that illustrates the growth

of coffee and tea industry, the measures and policies implemented by government agencies, and the prospect figures for the following years. This quantitative data is necessary to establish a reliable numerical reference to support the more subjective, observational data. The formal interviews were then followed by an informal lunch meeting in which topics like tea and coffee culture, ethnic minorities, and tourism were discussed with veteran government officials and younger office workers representing Yunnan and other regions in China. The intimate connection of the Pu'er Coffee Office and the rest of parties involved in this industry in Pu'er proved to be extremely helpful to obtain information and references of relevant contacts in the prefecture.

In the following days, several coffee companies were interviewed and factories were visited. This research includes semi-structured interviews with local companies like Beigui, Arabica and Aini; foreign purchasers like the giants Starbucks and Nestlé; and individuals like the owners of Yicun Coffee who, pushed by his passion for coffee, opened a small processing store where you can sit and taste coffees from all over Yunnan. The hours of interviews, coffees drunk and factories visited are the main source of information for this research. Although in less number due to language barriers —many farmers only speak local dialect—, this study also includes impressions from conversations with some farmers met in procurement stations and private farms.

Since the growth of the industry is followed by an increasing demand of trained professionals, this research also conducted in-depth interviews with professors of the coffee major in the Yunnan Vocational College of Tropical Crops, and informal interviews with some of the students in this new specialty. Luckily, it was also possible to assist to actual classes in two of their newest and original classrooms: the coffee shop and the processing-cupping classrooms.

To summarize, the research in Pu'er delivered great amounts of information from very different sources and diverse methods, ranging from formal interviews to informal conversations over a cup of coffee. While many interviewees were recommended by government officials, the majority of the people that contributed to this research were met through their connection to Kworlds Communication, an advertisement company that works in close collaboration with the government. Finally, taxi drivers and restaurant owners, hotel managers and KTV employees, they all seemed to have something to say about Pu'er coffee industry.

Back in Kunming, two more interviews were conducted to contrast and delve into questions that arose during the fieldwork in Pu'er. In order to further understand the potential environmental threats of intensive coffee production in the region, an interview was conducted with environmentalists of the non-profit organization Green Watershed. Then, a professor of the Tourism Management department in Yunnan University was contacted to provide some insight about the future of Pu'er as a destination for coffee tourism.

All formal interviews were duly taped in Chinese language and transcribed into English. Informal conversations, impressions, and other fieldnotes were recorded in writing in a field research diary.

Limitations of the study

The following research encountered several limitations that need to be addressed. First, this study was primarily limited by time and resource constrains. The span of time available for the field study and the lack of resources, especially economic, restricted the time of this research to eighteen days. Moreover, some interviews could not be conducted due to incompatibilities in schedule and location. Language barriers also limited the scope of the research, particularly when conducting interviews with farmers. Yunnan is a region with a great variety of ethnic minority groups that speak different dialects and languages; additionally, the local dialect of Pu'er can be difficult to understand for non-native Mandarin Chinese speakers. The majority of farmers lack basic levels of formal education and thus their knowledge of the standard Mandarin is scarce or nonexistent. As a consequence, some interviews with farmers could not be carried out or had to be conducted with the help of non-professional translators.

Nonetheless, the main limitation of this research originated from the interviews conducted with government officials and entrepreneurs. A general tendency observed in many interviews was that the responses of different interviewees to same questions were surprisingly similar, both in tone and choice of words. Other times, speakers used similar drawings and diagrams to illustrate what they expressed. In other words, frequently throughout the research, standard answers were provided for certain delicate topics. While there is no real evidence to confirm this affirmation, the overall impression is that these responses may have been extracted from pamphlets, books, speeches or general propaganda.

Since many sets of interviews shared numerous similarities, the reliability of the information provided by the interviewees for those questions was questioned and closely examined.

These phenomena have been taken into account for the analysis of the information. Due to the lack of literature on Yunnan coffee, this research relies on other sources to contrast the veracity of the information gathered during interviews. The data has been analyzed taking into account general literature on the development of coffee industries around the globe, the researcher's knowledge of the people and the culture and, most importantly, the observations made during the field research. In many cases, observation of the interaction between farmers and businessmen, government officials and companies was key to determine the degree of trustworthiness of the affirmations made by those same actors during the interviews.

3. Results

3.1. Introduction

Pu'er city is the coffee capital of China. The fast development of coffee industry has awarded this honor to the region, and since then it has become the prevailing slogan used by the government and other coffee promoters. In fact, the official logo designed for the promotion and branding of Pu'er coffee is often accompanied by the slogan "Pu'er — Capital of Coffee in China". This logo can be seen throughout the region and in the town of Simao. Not only it is displayed at the entrance of factories, in the packaging of local coffee products and during competitions, but it is also present in banners around the city, local television commercials, and even in coffee mugs. Local government officials welcome their guests with fresh coffee poured in a white cup with the logos "Pu'er Coffee" and "Coffee Association of Pu'er" on each side. This cup symbolizes the support of the government to the promotion of this industry. It was the local authorities that commissioned the design of an official logo to help support the branding campaign. This logo is a clear representation of the strong commitment of the local government to promote the role of Pu'er as China's coffee capital (G02, March 18, 2014).

Kworlds Communication was commissioned by the local government to design the logo and to collaborate with them in many other coffee promotion campaigns. The company focuses on several areas, ranging from media and advertisement, design and coffee promotion. This

company works in close cooperation with the government of Pu'er for the creation of promotional videos, the design of logos and other marketing strategies, print and digital media advertising, and the organization and documentation of coffee competitions, among others. Located in the outskirts of Simao city, Kworlds headquarters—they also have offices in Beijing and Tianjin—serves as an office and also as a coffee promotion center. In their warehouse they have on display samples of the main coffee brands in Pu'er and a great variety of equipment to roast, brew and serve coffee. Formerly professional photographers and graphic designers, the members of the company are now coffee connoisseurs. In the company's warehouse, they provide a basic introduction to the world of Pu'er coffee and brewing techniques. Whether they are working for the local authorities as promoters or just enjoying a cup of coffee with some friends, a visit to Kworlds' coffee promotion center is always a guarantee of a full immersion in the world of Pu'er coffee.

When the coffee boom was more and more visible, the members of Kworlds returned to Pu'er and established a business that encompassed their professional careers in media design and their passion for this drink. Since then, they have become coffee experts and a link to government officials, companies, farmers, promoters and many individuals in the coffee business in Pu'er. They are a reflection of the dynamism of this industry and the interconnections created among all participants in coffee production. Like them, more and more people are becoming coffee entrepreneurs, investing in firms, processing factories and other businesses. They are receiving the help of the government, universities and companies, which simultaneously assist each other in the improvement and promotion of growing, processing and trading.

3.2. Actors

Pu'er is now the coffee center of China. Increasingly more and more locals, outsiders, and foreigners are landing in this region to invest in this crop and become part of a trendy industry. But the success of this development can not be explained without the intimate connections among all parties involved in the coffee business. The main actors involved in the development of the coffee industry in Pu'er are the local government and coffee companies, both domestic and foreign. The role of farmers, albeit less determining, is also considered in this study.

3.2.1. Government

Different governments exert different degrees of control over the development of the industry. In post-Mao China, the previous central planning system has given way to a more competitive market economy that relies on local initiatives and management. China has evolved into a decentralized system that allows local officials to “play an entrepreneurial role” in the development of the local economy (Oi, 1995, p. 1147). In the coffee market, the involvement of the local government is necessary for the protection of this industry. Whether their role focuses on quality control, improving export capabilities, providing financial and technological assistance, or conducting research, the government of Pu’er is responsible for taking the lead in the development of coffee and the revitalization of this industry.

Indeed, the upsurge of large-scale production of coffee in Pu’er in the 1980s was the direct result of local government intervention. Government authorities and members of Nestlé in Pu’er stress the key role of the local government in the 1980s in transforming coffee growing into the prosper industry that it is today. An official in the Coffee Office explains how it was solely the government’s initiative to contact Nestlé. After negotiations with local authorities, the multinational decided to teach them how to grow coffee (G02, March 18, 2014). In Nestlé they even venture to argue that without the government’s intervention and their involvement “the industry would probably not be so big, or there would be no coffee industry at all” in Pu’er (B06).

Policies

Since then, the government has adopted a more secondary role than that of the 1980s, albeit pivotal to the expansion of coffee industry. Through the formulation of policies and guidelines, the governments of Yunnan and Pu’er aim to set a framework to promote coffee cultivation, attract investment, and encourage farmers and entrepreneurs. At the national level, in 2007 China enacted the “Special Agricultural Product Region Layout Plan” (*tese nongchanpin quyue buju guihua*) to support the development of coffee as a specialty product, followed by the 2011 document “Suggestions on the Promotion of the Development of China’s Tropical Products Industry” (*guanyu cujin woguo redai zuowu chanye fazhan de yijian*), in which coffee was considered one of the main tropical crops in the country. Regionally, the government of Yunnan formulated other coffee-related measures such as “Suggestions on the Acceleration of the Development of Coffee Industry” (*guanyu jiaokuai*

kafei chanye fazhan de yijian) and “Planning and Policy Suggestions on the Development of Yunnan Province Coffee Industry” (*Yunnan shen kafei chanye fazhan guihua ji zhengce yijian*) (Pu'er Coffee Office, 2013, p.13). These policies encouraged Pu'er government to issue the “Decision on Accelerating the Development of Coffee Industry in Pu'er City” (*guanyu Pu'er shi jiakuai kafei chanye fazhan de jueding*) (Zhu, 2012, p.4). This document has become the guiding text for the coffee industry in Pu'er, since it describes the goals, principle, ideology, priorities and tasks for the development of coffee in the next five years, and establishes a minimum government investment of 20 million renminbi per year. Nowadays, the government of Pu'er is determined to continue formulating new measures while ensuring the correct implementation of the policies currently enforced. According to a coffee scholar in Pu'er, it is the government's duty to issue measures and enact policies because “when the government sees that there is a particular industry that is influential in the market, they have to develop some policies to make it more stable” (S01).

Attraction of investment

To motivate international companies to buy coffee or establish a joint venture in Pu'er, and to encourage locals to open coffee companies, the government has developed preferential measures like the ones included in the “Decision on Accelerating the Development of Coffee Industry in Pu'er City”. For instance, depending on the scale and directionality of the investment, the government of Pu'er can offer tax redemption or reduction, economic support and other incentives (G01, June 24, 2014; & G02, June 25, 2014). The government promotes the signature of memorandum of understandings with multinationals as testimony of their support and compromise to these companies. As a direct result of government encouragement, coffee companies and factories mushroomed in the past years. Located in the outskirts of Simao, the Munaihe Industrial Park was created to manage these new companies, encourage more businesses to establish in Pu'er, and create a coffee trade center. The main coffee companies in Pu'er moved their headquarters to Munaihe: Starbucks, Aini, Arabicism and Kefei, among others, enjoy the comfort of an industrial park created to ease transportation for farmers, and to facilitate the work of potential investors and buyers.

Administrative organization

In order to control, coordinate and correctly implement these measures and strategies, the government of Pu'er has created a bureaucratic web of coffee offices around the province, and has appointed local authorities, many of which were in charge of tea promotion not long

ago. This coffee organizational framework was completed in June of 2012, when the Pu'er City Coffee Industry Development Office was established and appointed as the headquarters of coffee promotion and management for the prefecture. Additionally, each county in Pu'er city has a coffee development office. This organization in Pu'er is unique in all China (Hu, 2013), and it is argued to be one of the factors of success in comparison with other coffee producing regions in Yunnan. For members of Nestlé, this bureaucratic system marks the difference, and the progress it has achieved is very visible: "[Compared to other regions,] Pu'er is well advanced in every aspect: quality, production, productivity, marketing, organizational structure, coffee offices, and so on. It is very well organized and developed" (B06). One of the members of Nestlé who arrived in Pu'er in 2005 has been witness to the structural changes that are taking place in the region. He explains that now companies like Nestlé work in close cooperation with the Coffee Association of Yunnan and the Coffee Development Office of Pu'er. They hold regular meetings with both institutions and discuss issues "very open and transparently" (B06). The Coffee Association of Yunnan is an organization that helps inform and promote local coffee, and coordinates with local governments the correct development of the industry. It is a non-profit social organization, created by coffee businessmen and enthusiasts, and has full endorsement from the government. The Coffee Association of Yunnan was ratified by the Ministry of Civil Affairs of the People's Republic of China in 2009 (G02, June 25, 2014). Moreover, the vice-mayor of Pu'er, Peng Yuanguo, has been appointed as the head of coffee development in the region. Peng is fully committed to the management of the main issues regarding coffee in Pu'er city; he also serves as a link between growers, companies and government officials. Some people in Pu'er even refer to him as the "vice-mayor of coffee". While these agencies have largely contributed to the correct management of coffee industry in the prefecture, Zhu suggests that shortage of funds and lack of training of the personnel working on these offices are the weak points of this system. The author recommends the creation of separate departments to deal with the different aspects of coffee, such as economic organization, planning and designing, and technical training (Zhu, 2012, pp. 5-6).

Promotion

The government of Pu'er is also very active in the promotion of local coffee through advertisement, coffee competitions and branding. Local officials commissioned Kworlds to create the logo and slogan, and continue to count on their assistance and on other local companies for the organization of contests and promotional events to raise awareness and

publicize the “Pu’er coffee” brand. The government of Pu’er has also released several books, guidelines and regulations for the correct cultivation, quality control and technology research for coffee. Additionally, in order to promote coffee among Chinese citizens, they released books about the fundamentals of coffee and coffee culture in the prestigious bookstore chain Xinhua (Pu’er Coffee Office, 2013b, p.4).

Noticeably, the local government of Pu’er city serves as a guiding leader and coordinator between coffee growers, producers, companies, traders, university researchers, and every person involved in the development of coffee industry in the prefecture. They are aware of all coffee-related activities taking place in Pu’er and all the actors involved. They gather, produce and issue all the data available for this practice. They provide support and training to farmers, economic incentives to companies, cooperate with universities to improve the human resources, and encourage all actors to raise quality standards to increase demand.

3.2.2. Companies

Domestic and international companies play an increasingly important role in the development of coffee industry in Pu’er. It has not been until recently, however, that these companies have grown, diversified and taken part of the leadership. The proliferation of coffee-related companies is a fairly recent phenomenon, particularly significant in the past three years. This is consistent with the boom in coffee production and sales in that same period. In 2012, there were around 70 registered companies in Pu’er (Zhu, 2012, p. 4); in the year 2013, the number of registered companies was 118, meaning an increase of 48 enterprises in little over one year (Pu’er Coffee Office, 2013, p.9). According to one of the managers in Arabica Coffee, this sudden increment is mainly due to the mushrooming of primary processing factories (B08). Given that still most of the coffee produced in Yunnan is exported as green beans, the number of secondary processing factories and packaging companies remains low. Nonetheless, some argue that in the past years there has been an increasing interest in establishing domestic companies that produce coffee from growing to processing, packaging and marketing. There is an increasing entrepreneurial interest in coffee. Members of Beigui Coffee observe that “there are more people in the coffee business, either because of the increasing economic benefits and higher prices, or because of the government focus on the industry” (B05). Currently, coffee companies in Pu’er, especially domestic companies, are concentrated on climbing up the technology and quality ladder. This change of focus will surely lead to the

emergence of several secondary processing factories and companies that grow, produce, and sell their own products.

In Pu'er city there are international and domestic coffee enterprises. 70 percent of those companies export their beans or finished products to other countries, especially to Europe. For other companies, their business focus has shifted in the last few years from export to domestic-oriented. Nowadays, companies that only purchase beans, like Arabicism, Starbucks or Nestlé, are giving way to a new wave of coffee firms that deal with all stages of production, like Aini, Beigui, or Manlao River. The latter usually own or rent a big piece of land and hire farmers to grow their coffee in it. Some companies like Manlao River even allow their farmers to sell part of that coffee to other purchasers. The majority of firms provide a steady salary to their farmers and some extra benefits according to production, sales and other factors (B03; & B10, March 24, 2014). The former are companies that do not grow coffee but instead own procurement centers where individual farmers, households or village groups go to sell their beans according to weight and quality. The rejection rate varies depending on the type of company, their standards, and the natural conditions during the growing season. For instance, Nestlé has a rather high rejection rate, particularly among newcomers. Being a company with high quality standards, Nestlé does not purchase coffee from farmers that do not meet their criteria (B06). This year's frost and general low quality of the beans has resulted in up to a 70 percent rejection rate in the procurement center of Starbucks (B07).

Apart from economic incentives and booming sales, another reason why companies are flourishing and gaining confidence is government support. This is, nonetheless, a more recent phenomenon. Companies established in the last three to five years have received much more economic, technical and training support than those established in the mid-late 1990s. Beigui Coffee, formally established in 1998, did not receive any kind of government support because "it was early before the coffee boom" (B05). Similarly, Arabicism did not receive economic help or technical support from the government when the company was established in 1997. On the contrary, companies established in the mid-2000s, like Manlao River or Aini Coffee, received some support from the government, either technical or economic, but yet not as significant as the help provided nowadays.

The scenario is more comfortable for international firms. The government has attracted multinationals to the region with promises of lower costs and higher profitability than in other countries. But, above all, multinationals have been attracted with exclusive benefits like tax reduction. The current environment is even more positive for new settlements in the region. The 2013 report of the government of Pu'er identifies support and assistance to companies as one of the main tasks for the future development of coffee industry. Of particular relevance is the promotion of secondary processing factories to increase product value and create leading companies, all through technical assistance and training. Additionally, the government advocates for the cooperation of all firms and universities to improve in human resources (Pu'er Coffee Office, 2013, pp. 15-17).

Multinationals

Currently in Pu'er, the main international firms are Nestlé and Starbucks. Foreign investors like the American Maxwell House, the Korean Maxim, and the Japanese UCC Ueshima have a strong presence in the region, but their contribution to the development of this industry is significant in a very small scale. They only make one big purchase of coffee beans every year. They are not “directly involved in production processes but offer some support with planting techniques in order to meet quality standards” (Blackmore & Keeley, 2012, p. 96). On the contrary, firms like Nestlé and Starbucks play a decisive role in the coffee business in Pu'er. Nestlé is the engine that started this industry and that continues to upgrade production in Pu'er; the introduction of Starbucks to the region symbolizes change, the modernization of coffee industry, and represents the growing coffee culture among Chinese citizens.

Nestlé entered Yunnan 25 years ago, and they have trained farmers and worked with the local authorities ever since to improve and promote local coffee. They are the most successful multinational in the region. They do not own land, but instead engage in contract farming with growers that, due to the training and support provided by Nestlé and the high prices offered in return, remain loyal suppliers to the company. The Swiss have buying stations for the direct supply of coffee, and an experimental and demonstration farm that helps farmers and producers improve their skills. In 2013, Nestlé signed a memorandum of understanding with the government of Pu'er to invest in a Nescafé Coffee Centre in the region that will include a coffee farming institute and a consumer experience centre. Nestlé's monopoly in Pu'er has substantially decreased in the past years (S01). Nonetheless, they remain the main coffee purchaser and the most influential multinational in the region (B06). Nowadays there

are more local and international companies competing against Nestlé. However, employees in Nestlé maintain that it is a healthy and necessary competition that does not worry them because “there is enough coffee for everybody” (B06).

Contrasting the veteran Nestlé is Starbucks, a company that formally established in Pu'er only two years ago after purchasing coffee beans for a few years. In 2010, the Seattle-based coffee giant, in collaboration with the government of Pu'er city and the Yunnan Academy of Agricultural Sciences, signed two memoranda of understanding to invest in high-quality coffee in Yunnan. The agreement included the opening of the first Asia-based Starbucks Farmer Support Center, the management of a base farm to grow coffee, the creation of a demo farm for training on better farming practices, and education on Starbucks's certification scheme C.A.F.E. Practices. In 2012, Starbucks and Aini Group announced the establishment of Starbucks Aini Coffee (Yunnan) Co. Ltd. This joint venture company was designed to increase Starbucks coffee-sourcing presence in China and use Pu'er coffee for the company's global blends. According to members of both companies, the nature of this partnership is rather symbolic, since it was mostly perceived as a way to introduce Starbucks in the local production system. They insist that the two are completely independent companies (B02; B07; & B10, March 24, 2014). When Starbucks purchased 51 percent of Aini, the resulting joint venture was formed as a company independent from Aini Coffee. Starbucks borrows facilities, equipment and personnel in exchange for training courses, technology development and the use of the Starbucks Support Center, which completely belongs to Starbucks. At times, Starbucks buys coffee beans grown by Aini farmers, though they normally have a steady supply of farmers that drive to the procurement centre to sell their beans directly to them.

Domestic enterprises

Domestically, there are two main types of coffee companies in Pu'er: trading companies, and companies that grow, process and sell coffee under their own brand. Three of the companies interviewed, Manlao River, Aini and Beigui, now produce their own coffee. Not so long ago, however, they belonged to the category of companies that, like Arabicism, only purchase large amounts of green beans and export the coffee to other producers.

Aini is undoubtedly the main domestic company in Yunnan and the flagship of local coffee firms in Pu'er. Their area of cultivation is the same as the farms of Beigui and Manlao River

put together, and their annual average production is around seven times larger than theirs. 96 percent of the coffee produced by Beigui is exported to countries like Singapore, Switzerland or the United States. Manlao's sells are both domestic and international, but their production is intentionally restricted to "maintain quality, higher prices and comply with goals of poverty alleviation and environmental protection" (B03). Aini's booming sales abroad made them the number one selling coffee company in Yunnan. They have succeeded in the expansion of production and raising quality standards, gaining international and domestic recognition. As a result, the company is now focused on shifting their sales to the flourishing domestic market. They aim to reach the new Chinese consumer by combining the notions of high-quality coffee and national sentiment all in one product. Their international sales have drastically reduced in a short period of time, and already in 2014 only coffee from the joint venture with Starbuck is being exported. The totality of coffee grown and processed by Aini is now sold in the domestic market. Furthermore, starting in 2013 Aini is opening coffee stores throughout Yunnan, to help create a coffee culture and transform the concept of coffee as an instant "quick fix". On May this year, the office of Aini in Pu'er announced that they will soon be opening a new store in Shenzhen, Guangdong province (B10, May 12, 2014). For a Yunnanese coffee company, this is a clear sign of success.

Members of Kworlds and Aini met recently in a coffee competition. The media company had been hired by the Coffee Office of Pu'er to publicize and record the event. Aini was one of the companies entering the competition. In Pu'er it is frequent that the government and local companies organize cupping competitions and other events. Aini is the main company that cooperates with them for these coffee promotion activities. Whether it is at the office of the Coffee Association or the Coffee Office, Aini is present in most of their advertisement posters and coffee display stands. Their close connection and cooperation is manifest, not only in the government's support to the company, but also in common projects developed by Aini, the government and, sometimes, the universities. For instance, the government offers economic subsidies to Aini farmers that have lost their crops due to natural disasters. They also invite Aini representatives to relevant meetings to provide input on the state of coffee industry in Pu'er. Aini, in return, employs graduate students from public local universities and provides internships in the company. Aini representatives and local authorities deny that this support is due to participation of the government in the company. They emphasize the private nature of the firm and argue that the government provides this type of support to all local enterprises (B10, May 5, 2014; & G02, May 12, 2014). The government simply provides strong support

and promotion for “leading coffee companies that have proven to be successful” (B10, May 5, 2014).

3.2.3. Farmers

Farmers are often identified as the actors behind the fast development of coffee industry in Pu'er. The majority of people interviewed believe that the fast growth and success of coffee farming is largely attributed to the decision of farmers to enter the business, not to government encouragement. “Farmers are cutting down tea trees blinded by the economic benefits of coffee”, observed the owner of a roasting and processing store in Munaihe. Farmers argue that the massive change to coffee farming has been magnified in news reports, and that the changes taking place in Pu'er are not alarming, or at least not so relevant. Others observed that, even though their lives have improved significantly, coffee is a risk investment and they would not encourage other farmers to enter this business. Not surprisingly, many farmers interviewed admit that part of the motivation to grow coffee now is government encouragement and free seeds and training from companies like Nestlé, Starbucks or Aini (F01; & F02). Most farmers interviewed agreed on three main deciding factors in growing coffee: economic benefits and price transparency, reduced work load, and multi-cropping farming.

Economic incentives and price transparency

Scholars, officials and producers in Pu'er argue that economic improvement is always the most powerful reason for farmers to change crops. Nevertheless, coffee prices are not as appealing to growers as they may seem. When this interview was conducted, coffee prices per kilogram were reasonably high for local standards. Prices in Nestlé ranged from CNY 22.73 for a kilogram of green beans to CNY 23.000 for their 4C certified beans. Prices in Starbucks were slightly higher for their certified coffee. Government officials argue that these prices are lower than in previous years, albeit significantly better than the CNY 8 per kilo paid in 1999 (G02, March 18, 2014). Coffee prices are very volatile and never remain the same for more than one year or two. Table number 1 shows the average prices for Nestlé coffee beans in Pu'er in the last 9 years, from its lowest in 2004 to three times that amount in 2010.

Year	Average price (CNY / kg)
2004—2005	11.53
2005—2006	17.3
2006—2007	17.4
2007—2008	18.94
2008—2009	14.59
2009—2010	19.15
2010—2011	33.84
2011—2012	24.6
2012—2013	17.3

TABLE 1: Coffee bean prices for Nestlé (Pu'er), 2004-2013.
SOURCE: Pu'er Coffee Office, 2013

Consequently, farmers can not base their decisions solely on coffee prices being higher than other crops, because this situation can be transitional. In fact, some argue that often Pu'er tea prices are higher than coffee (B01; B08). In reality, farmers are more attracted to other monetary and non-monetary benefits, such as government incentives and subsidies, free supply or discount on materials like fertilizers (G02, March 18, 2014; & B06), premiums for organic and fair trade certifications, and the money saved growing a crop that can be more economically efficient than others. For instance, the economic and non-economic benefits offered to farmers working for Manlao River have resulted in the improvement of their incomes, savings and social standards. All their farmers can now send their children to school instead of keeping them working in the field.

Another relevant aspect is the transparency of coffee prices. According to workers in the buying stations of Nestlé and Starbucks in Pu'er (B06, B07), independent farmers in a free coffee market can sell their beans to the highest bidder whenever they consider fit according to coffee prices at the time. The lack of fixed prices for tea and other crops generates uncertainty among farmers. Since coffee is sold as a commodity, prices are set in the futures

market of the New York Board of Trade. Many coffee buyers in Pu'er display coffee prices on a weekly basis outside their procurement stations. Starbucks and Nestlé take a step further in price transparency and send farmers mobile phone text messages twice a week to inform them of current prices and other information of interest, allowing them to make informed decisions on when to buy or hold. Whereas Pu'er tea is a consolidated industry and prices offered may be known by all growers, some coffee entrepreneurs argue that coffee is a more transparent and “farmer-friendly” (B06) investment, at least for farmers working with certain big companies. In other words, some believe that coffee offers growers the possibility to obtain information about prices and the market more easily than tea, and thus consider that farmers have more tools to make better decisions.

Reduced labor

The coffee plant takes approximately three years to the first fruit production (Wintgens, 2009, p. 4). Farmers need to take into account this period of no profits before considering growing coffee. Nonetheless, once the plant is fully grown and producing the coffee cherries, maintaining the tree requires less work than with tea, corn or sugarcane. Coffee beans, unlike other cash crops, grow in a tree that can last for decades. Coffee is always a preferred choice over corn or sugarcane because it is a long-lasting crop that only requires a greater compromise in the first few years. In other words, coffee not only pays better but also requires less economic and time investment (G02, March 18, 2014; & B06). Compared to coffee, tea growing is a hard job. It requires daily maintenance and harvesting is tougher because it takes place during rainy seasons (B06). While prices for Pu'er tea are relatively higher, a great number of interviewees explained that many farmers are switching to coffee as a complementary crop to tea due to its lower labor intensity.

Multi-cropping

Coffee is a plant that can be grown together with others crops in the same plot during the same season—and, in fact, it is highly recommended to grow coffee under a canopy of trees for quality and environmental purposes. Farmers are increasingly resorting to coffee growing as a complementary activity to their regular subsistence farming. In other cases, coffee is the main crop grown, supported and complemented by fruit trees or short-growing forest trees (Wintgens, 2009, p. 210). This type of multi-cropping farming is a safe method for entering coffee business while minimizing risks. A farmer in Ning'er County grows coffee with bananas and papayas in a small plot shared by the household. They also grow tea, but in

smaller amounts. Over a cup of home-made tea —“we don’t drink coffee, it has a strange taste; we just sell it”—, the woman explains that growing fruit trees is necessary due to the “wavy” behavior of coffee prices. For her, the most valuable crops are “coffee for the money and tea for tradition” (F04). Whether as main crop or additional source of income, coffee is proving to be a successful product that improves living standards in agricultural households with less effort than other crops.

3.3. Successful strategies

Tea has always been part of the intrinsic culture and economy of the region. Coffee, on the contrary, is a drink that has no emotional, cultural or, until recently, economic link to the place. Coffee has been grown in Pu’er for decades now, but few people imagined that in 3-5 years this industry would develop as fast as it did.

Many interviewees do not agree with the affirmation that Pu’er coffee has experienced tremendous growth in the past few years. Particularly, government officials, members of the Coffee Association in Kunming, and university professors argue that this phenomenon has been developing steadily since the late 1980s. An insider of the Coffee Office explains that the growth of the coffee industry in Pu’er should be divided into two periods: industry growth and quality development, the latter being the current situation (G01, March 18, 2014). This study, however, argues that the improvements in the industry prior to the mid-late 2000s were not significant and did not generate major changes in the size, volume or profits of coffee production. This study will consider the last four years as the period of significant development of the coffee industry in Pu’er: specific policies were formulated in the late 2000s, reliable data started to be issued around the year 2004, and coffee area escalated around 2010. The fast development of the last years is a phenomenon that occurred and still occurs primarily thanks to three successful strategies: expansion of production, raising quality standards, and promotion.

3.3.1. Land expansion

Data on the expansion of coffee cultivation in Pu’er shows the fast development that took place in the past 3 to 5 years. Not only Pu’er but also the entire province of Yunnan has

experienced a booming growth of the coffee land. Table number 2 shows the increase in area cultivated in different Chinese provinces from 2008 to 2012.

Province	2008	2009	2010	2011	2012
Yunnan	24.3	30.1	43	61.31	91.86
Hainan	0.14	0.17	0.22	0.25	0.28
Sichuan	1.33	1.33	1.33	1.33	1.33
Total	25.77	31.6	44.55	62.9	93.48

TABLE 2: Coffee cultivated area in China, 2008-2012 (Unit: thousand hectares). SOURCE: Pu'er Coffee Office, 2013 (modified)

Clearly, the most dramatic increase occurred in Yunnan province, particularly from 2011 to 2012. In four years, the area cultivated in Yunnan almost quadrupled. Within Yunnan, Pu'er is the prefecture that experienced the fastest development. Table number 3 shows the area increased and the yield for each coffee-producing region in Yunnan in 2012.

Regions	New area (hectares)	Yield (tons)
Pu'er	13866	36500
Lancang	12184	3901
Dehong	2448	17062
Baoshan	521	20000
Xishuangbanna	926	16018
Honghe	----	1375
Nujiang	74	367
Wenshan	38	88
Yuxi	----	2
Total	30057	96051

TABLE 3: New area expanded and yield for coffee in Yunnan in 2012. SOURCE: Pu'er Coffee Office, 2013 (modified)

The first column shows that almost half of the total hectares of new land for coffee in Yunnan were added in Pu'er. Similarly, Pu'er was home to almost 40 percent of the total provincial output of coffee. Finally, table 4 presents the main indicators of growth for coffee industry in Pu'er in the last nine years.

Year	Area (hectares)	Yield (tons)	Exports (tons)	Foreign exchange (ten thousand USD)
2005	8805	10773	4508	1100
2006	7832	11713	7053	1603
2007	9279	12504	7789	1824
2008	11405	14052	8510	2404
2009	14539	17421	12311	3026
2010	18445	21234	13716	4160
2011	29195	27719	13900	7427
2012	43333	36500	24700	9994
2013	47751	45000	36000	7932

TABLE 4: Cultivated area, yield, exports and foreign exchange for coffee in Yunnan in 2012. SOURCE: Pu'er Coffee Office, 2013 (modified)

Up until 2009, the cultivated land in Pu'er increased at a slower rate, and even decreased in the year 2006. In the last four years, however, the area cultivated has increased more than 3 times. In total, the number of hectares cultivated in Pu'er in 8 years has expanded 5.4 times. Simultaneously, the tons of coffee exported increased almost 8 times between 2005 and 2013. Revenue from coffee in Pu'er during those years has incremented 7 times. As can be observed from the data, coffee land in Pu'er has been growing at an average rate of 1.5 times every year, contributing to the fast growth of cultivated land in the entire province of Yunnan. This, in turn, has translated into booming revenues and increased exports.

In spite of this quick development, the government of Pu'er plans to further increase the land available for coffee cultivation in the next 5 to 10 years. By 2015, the total area cultivated will reach 60,000 hectares; in 2020, this amount is expected to increase up to 66,667 hectares. While slower than in previous years, the future plans of expansion still constitute an ambitious plan for coffee in Pu'er and a confident bet of the government on this industry. The present and future growth rate is noticeably high, particularly when compared to the development of tea industry.

Year	Area (hectares)	Yield (ten thousand tons)	Output value (ten million CNY)
2008	8.62	4.29	148.9
2009	9.06	4.44	169.3
2010	9.22	4.46	217
2011	9.57	6.08	361.8
2012	9.73	7.87	603.8

TABLE 5: Area, yield and output of tea in Pu'er, 2008-2012. SOURCE: Pu'er Coffee Office, 2013 (modified)

The area cultivated for tea in Pu'er city increased only 1.1 times from 2008 to 2012, in contrast with the 3.8 times increase for coffee in the time span. Coffee production growth rate for those four years also surpassed the rate for tea in almost 1.5 times. Only tea surpassed coffee in growth of revenue, although the difference is not significant.

Given the evident increase of coffee land, it is necessary to question how this expansion was made possible. Some environmentalists and coffee experts argue that such a fast increase of land can only be possible if forests are cleared (Craves, 2013; Gibson, 2013; S02; & S03). In Pu'er, this question is viewed differently. All interviewees were asked if the expansion of the land was a gradual process and how the acquisition of new land for coffee took place, followed by more specific questions on whether they believed forests were being cleared to make room for coffee plantations. Not surprisingly, all interviewees insisted that no logging activities were taking place in Pu'er, at least as a result of coffee's economic boom, and they offered alternative explanations to this phenomenon. These explanations were surprisingly

homogeneous among all subjects. In other words, all interviewees offered almost identical explanations to the question of land expansion and logging, using similar sentences, illustrations and emphasis. It might be thus argued that there is an “official interpretation” learnt by all people in Pu’er, even those who are not directly involved in coffee production.

Logging has been banned in Yunnan since 1998. There is, however, a practice that is not penalized and that could constitute a legal alternative to clearing forests while using them. The government allows the so-called “multi-crop replacement farming” (B01; & B05), by which farmers can cut down trees in the forest as long as they are replaced by others, in this case coffee trees. This practice is legal “if the farmer receives the government’s consent” (B05).

Aside from replacement, the two methods claimed to be used in Pu’er for the expansion of land are crop change and use of rotation and wastelands. Changing the type of crop cultivated to coffee seems to be the standard answer. All interviewees named corn and sugarcane as the two types of crops that farmers are abandoning in favor of coffee. These kinds of crops require big pieces of land and also cause water and soil erosion. Substituting those short-term crops for long-term crops like tea or coffee is a good alternative for farmers, both environmentally and economically. Corn and sugarcane are low-yield crops that sell for less money than tea or coffee. The government encourages farmers to shift from extensive cultivation (big cultivated area, low yield) to intensive cultivation to increase the production of their land. The other practice encouraged is using rotation fields and reclaiming agricultural wastelands to increase output (G02, March 18, 2014; & B08). Government officials explain how this practice is related to the abundance of land resources and scarcity of labor force in the region. Pu’er city has an area of 45,385 square kilometers, bigger than, for instance, Taiwan; however, its population is one tenth that of the island. It is thus advised to plant coffee—a crop that requires less labor input—on lands that are not being used or that are regenerating. This way, farmers can use the land available without hiring external labor (G02, March 18, 2014).

No matter what method is used, it has to be done within the general guidelines for mountain farming in Pu’er. Interestingly, this explanation was presented by three different interviewees (B01; G01, March 18, 2014; & G02, March 18, 2014) using almost exactly the same words and illustration. The mountain, depicted as a triangle, is divided into several sections

according to the crops that can be cultivated in each altitude. The lowest elevations, which in Pu'er are 370 meters above sea level, correspond to lands where vegetables and fruits are grown; rubber tree is cultivated in the next section of the mountain; coffee, that requires high elevations and humidity, is grown in lands from 900 to 1,400 meters above sea level; above 1,400 meters, tea is planted. The rest, the top of the mountain, is forest that can not be used for agricultural purposes. An informant of the Coffee Association explains that “while the rest of the sections may change and mix, the part dedicated to the forest does not move” (B01). With this graphic representation, government officials attempt to emphasize that, even though coffee can be grown in higher altitudes, the rules of Pu'er local government do not allow it.

Whether it is by replacement, change of crop, or use of rotation and waste lands, the government of Pu'er has projected the fast expansion of the land available for coffee for the next decade. Some statistics suggest that currently the land cultivated with coffee represents only around 30 percent of the total area available for development (Li, Li & Luo, 2011, p. 73). This means that many resources are yet to be used, and that Pu'er can produce more coffee that would potentially satisfy a greater share of the domestic market. Yet this affirmation contrasts with environmentalist voices that insist on the depletion of resources in the Pu'er-Xishuangbanna region (S02; S03).

3.3.2. Raising quality standards

All coffee-producing countries that experienced a growth of their coffee sales took a further step into the improvement, revaluation and sophistication of their product: a turn to quality. In Pu'er, this step is fairly underdeveloped but it is now part of the main strategy of the government and companies to climb up the technological ladder and eliminate prejudicial perceptions. While many locals claim that the natural conditions of the land of Pu'er create a coffee of great aroma and high quality (Du, 2007; Li, 2009; Zhu, 2012; Pu'er Coffee Office, 2013b; G02, March 18, 2014), they also acknowledge the urgent need to reach higher standards. Sometimes, farmers mix good and bad, ripe and unripe beans due to lack of training on bean size and shape criteria (Li, 2009) or to “cash in” when coffee prices are higher (“Yunnan's Caffeine Rush”, 2012). Many lack the knowledge on basic breeding systems and pest and disease control techniques, or lack the technologies necessary to control quality and improve yield (Li, Li & Luo, 2011). In general, all authors identify three main obstacles to the development of coffee industry: backward technology and limited research,

unclear or total lack of quality standards, and primitive techniques for primary and secondary processing (Li, 2009b; Li, Li & Luo, 2011; Pu'er Coffee Office, 2013). They point out two main areas of improvement, —technology and training— to achieve the final goal of raising quality standards. With the combined efforts of government, universities and firms, and encouraged by guidelines and government assistance, the improvement of quality standards is currently one of the main strategies for success (B10, March 24, 2014).

Climbing up the technology ladder

The first task is to improve the technology used in coffee production. Broadly speaking, there are two main agents in charge of the introduction and promotion of technology in Pu'er: the local government and multinationals. For the past few years, the government of Pu'er has supported technology refinement through policies and economic subsidies to farmers, firms and universities. In order to push forward coffee cultivation techniques, the government issued the measures “Regulations for High-Yield and High-Quality Cultivation of Yunnan Arabica Coffee” (*Yunnan xiaoli zhong kafei gaochan youzhi zaipei guicheng tu*) and “Analysis and Measures to Combat Frost Damage on Coffee in the Pu'er City Area, Yunnan Province” (*Yunnan shen Pu'er shi diyu kafei hanhai fenxi yu duice*) (Pu'er Coffee Office, 2013, p. 11). The economic contribution of the government can range from the provision of basic materials like fertilizers, pesticides and new seeds, to assisting companies on the purchase of machinery, as well as funding private and university researches on seed modification and better farming techniques. For instance, the local government established a demonstration farm to research on ecological cultivation, production techniques and bio-control (Pu'er Coffee Office, 2013, p. 12). Moreover, the government has helped farmers with the technology and training necessary to prevent, control and alleviate the effects of natural disasters like frost or diseases like the coffee leaf rust. In many cases, the government channels this help through companies or universities.

Visitors that arrive to the Yunnan Vocational College of Tropical Crops through its muddy unpaved street would never imagine that inside one of those gray buildings there is a stylish coffee shop classroom and a very modern processing-cupping classroom. These facilities are part of the recently established coffee major that is proving to be very successful among the students. One of the professors in charge of this major explains how the high demand on coffee professionals led to this innovative specialty in which students learn all steps of coffee production, including seeding, cultivation, harvesting, processing, trading, cupping, serving

and even managing a coffee store. The first generation graduating from this major established only three years ago is now mostly working in Pu'er as coffee traders, cupping professionals, or agronomy consultants. Due to the collaboration of the university with companies in Pu'er, many of the students were offered internships in companies like Aini. He shows visitors the cupping room where students learn to pick only the best beans, process them and brew a fine coffee that later other classmates will taste and score. He proudly declares that this major "will make a difference in the study of coffee and in the training of future coffee professionals" (S01). The university and the government work in close cooperation. Many times after a natural catastrophe, the government commissions them to analyze the disaster and the dimension of the damage in order to calculate compensations and prepare adequate training. In turn, the government provides assistance to develop the curriculum and upgrade the facilities. Thanks to the close partnership of the government with main companies in Pu'er and with the College of Tropical Crops this degree is taking off very smoothly. This coffee major and growing university research aims to help solve the lack of a younger and well-trained labor force to operate the modern technology needed (Zhu, 2012).

Trainings and better practices

Currently in Pu'er there are three companies conducting extensive farmer trainings and quality follow-ups: Nestlé, Starbucks and Aini. Nestlé was the first coffee enterprise to arrive in the region and they are pioneers on training and quality development. In more than 25 years, the Swiss company has invested on teaching farmers how to grow coffee using more ecological, time-saving and economic techniques. Nestlé offers free technical assistance to all farmers no matter whom they intend to sell their coffee beans to. This strategy not only benefits them create a "trust relationship between Nestlé and the farmer" (B06), but also benefits the entire coffee producing community in Pu'er, that will see sales rise because of the improved product. They are constantly looking for new strategies, partnerships and services to help the farmers. At the time of this research, Nestlé was offering coffee farmers fertilizers below market price, especially for their 4C certification members. They have a team of agronomists working every day in the fields. They provide farmers with brochures and booklets containing easy-to-understand information about good and bad farming practices and hygiene. Nestlé distributes free of charge a handbook on basic coffee growing compiled by Nestlé and published in 2011 by the China Agriculture Press (Nestlé (China) Ltd., 2011). During the visits to coffee plantations, Nestlé's agronomists detect malpractices, record them and use that information for workshops held at the procurement center. In the workshops,

they point out those problems they have seen during the visits to alert farmers and teach them the correct technique. A very similar quality control training course is taught inside Starbucks-Aini's training center in Munaihe. Members of the joint-venture teach basic farming skills to coffee growers once every month or two. Starbucks and Aini's experts show farmers samples of beans of different shapes and sizes, and ask farmers which type they think is the correct for a good quality coffee bean. According to them, farmers show a lack of basic knowledge on many aspects of coffee growing (B07). Farmers consider those trainings extremely helpful, and admit to have attended other meetings organized by Nestlé and Aini. For them, it is a strategy to examine potential buyers while learning more about a plant that is new to them (F02).

Finally, another step towards quality control is the adoption of techniques on sustainable farming and certification programs (Du, 2007). This strategy is yet to be widespread in Pu'er coffee cultivation, but multinationals like Starbucks and Nestlé, or local companies like Aini, Beigui and Manlao River are becoming more and more specialized in this type of agriculture. The government is now encouraging farmers to reduce harmful pesticides, engage in multi-cropping farming, and managing water resources for a better quality coffee that also protects the environment. Manlao River, a company that only produces organic coffee, insists that the quality of coffee beans in Yunnan would increase considerably if farmers adopted ecological farming techniques and better management practices (B03).

3.3.3. Coffee promotion

Yunnan coffee is still unknown to coffee connoisseurs and the general consumer. Pu'er residents and people involved in coffee production are increasingly aware of this problem. While the news of Yunnan's coffee boom is gradually spreading in China, there is an important lack of information among Chinese and foreign consumers. Except for those involved in the coffee industry, not many people in China know that Pu'er grows this kind of product. This could be a consequence of years of exporting the majority of coffee as unlabeled raw material and the lack of promotion in the domestic market (B08). Unfortunately for Pu'er coffee industry, most foreign consumers regard products made in China as of lower quality and dubious safety; meanwhile in China, Yunnan is considered by most Chinese citizens as a poor province, very underdeveloped compared to the rest of the country. These conceptions are important obstacles to the development of coffee industry in

Yunnan and to the acknowledgement of the technical and quality advances they are achieving. To illustrate the difficulties that Yunnan coffee faces in its own country, an insider of Aini explains that some local coffees are exported and then imported back to China under a foreign name. “This happens because some people in China think imported coffee is better than local coffee. Even when the quality is good and it sells well in other countries, local people will always reject it because in their minds Yunnan is a backward region that can not excel at producing a foreign product” (B10, March 24, 2014). Officials in the Coffee Office admit that their strategy of improving quality standards is mostly aimed at attracting domestic consumers (G01, March 18, 2014; & G02, March 18, 2014). Not surprisingly, a marketing campaign to build and promote the “Pu'er Coffee” brand is one of the main strategies adopted by the local authorities and entrepreneurs. The main focus of these measures is set on branding, promotion of coffee culture and encouragement of domestic consumption.

Branding

Pu'er coffee has created a brand of its own. The trademarks “Pu'er Coffee” and “Simao coffee” are Certificates of Origin awarded by the State Administration for Industry and Commerce (SAIC) of the People's Republic of China. Moreover, the slogans “Coffee Capital of China” and “Pu'er Coffee: China's Good Coffee” are also widely used to brand and promote this drink. In their 2013 report, the Coffee Development Office stated that there is an increasing awareness, recognition and praise of the “Pu'er Coffee” brand, especially among coffee experts. They believe that growing international and domestic sales are helping improve brand recognition. Their ultimate goal is to spread the notion that Pu'er is the “Coffee Capital of China” (Pu'er Coffee Office, 2013, pp. 10-15).

Raising quality standards and participating in coffee competitions are the main strategies used now by the government and local companies to publicize Pu'er coffee. Companies — encouraged and assisted by the government— take part of different coffee exhibitions, coffee appreciation events, barista competitions and other activities to expand the visibility and recognition of the Simao Coffee brand. Since 2012, Pu'er coffee has been present in several coffee competitions and exhibitions around the country. In June 2012, the local government organized a “Pu'er Coffee” night event with the theme “Savor Pu'er Coffee, Experience the Beauty of Pu'er” to promote coffee among government officials, celebrities and the media in Beijing. In November of 2012 and 2013, Pu'er coffee participated in the Guangzhou International Coffee Fair, obtaining considerable attention from the media and coffee experts;

these fairs are a perfect opportunity for coffee producers in Pu'er to introduce their coffee, demonstrate its quality and potential, and distribute merchandising of the brand. Pu'er coffee has been present in several Barista championships and cupping competitions, and currently Pu'er city is active in organizing competitions to be held in the region. The purpose of these marketing strategies is to turn conceptions around and eliminate the notion that all Chinese and Yunnanese products are of inferior quality. Being awarded quality trademarks like "China Top Brand", "Yunnan Famous Brand", "Pu'er City Famous Brand" and "Yunnan Famous Brand Product" would help promote Pu'er coffee among skeptics (Zhu, 2012, p. 6).

Local government's focus on branding is fairly recent. Before, when coffee was not so profitable, the sole emphasis was of farming techniques, increasing yield and improving quality (G02, March 18, 2014). Nowadays, the focus is placed on promoting local companies and their brands. Aini is currently the most popular brand in Yunnan and the company with greatest domestic recognition. Nonetheless, they believe Chinese consumers need to know the brand and acknowledge the quality of the product and choose it over other foreign brands. For Aini representatives, the main objective of their company is to put all efforts on brand awareness and promotion, creating a separate image from Starbucks. According to them, "once the general public has heard about us thanks to the joint-venture with Starbucks, it is turn to let people know about Aini as a domestic quality coffee brand" (B02).

Coffee culture

Quality and branding can only be successful if accompanied by a simultaneous promotion of coffee culture. Chinese people are newcomers in the coffee business, both as producers and consumers. Many of those who drink coffee in China only consume cheap instant coffee powder of low quality. Chinese coffee drinkers have not developed a flavor of their own, nor have they acquired a taste for enjoying coffee yet. They need to define their own coffee culture so that companies can target Chinese consumers according to that "China coffee culture" (B06). Government efforts on promoting coffee culture in the past years have been focused on helping establish more companies, opening coffee shops, and holding coffee appreciation events. Although these undertakings are having an increasing visible impact in Pu'er, coffee culture needs more time to develop properly in China (B05). The fast expansion of coffee shops in China, especially in big cities, is a great vehicle to spread the culture and promote local products. This is the opposite case as in Pu'er, where there is a culture of coffee cultivation, processing and trade, but not one of consumption (S01; & G02, March 18, 2014).

Ironically, Pu'er has very few coffee shops and even less coffee stores, and they are mostly concentrated in shopping malls and the airport. Except for Aini's coffee stands, the majority of cafés in Pu'er sell artificially flavored coffees that are more appealing to the local consumer. Aini cafés are one of the few places in Pu'er where consumers can enjoy the coffee experience, learn how to brew coffee and buy different products like roasted, ground or instant coffee, coffeemakers and other utensils. One member of the staff explained that many customers go to their café because they are attracted by the "glamour" of coffee. The shop is located inside a shopping mall and the average customers are young middle-class local men and women. They not only serve coffee, but also provide advice on which type of coffee to buy and how to brew it. The coffee experience is searching for each person's own taste and learning how to make a good coffee. This growing interest in coffee brewing and roasting from regular citizens is an important motor for the growth of Pu'er coffee industry (C01).

Additionally, Pu'er is preparing for the construction of a Museum of Chinese Coffee Culture (Zhu, 2012, p. 6). The goal of this project is twofold: to spread coffee culture across Chinese citizens and to attract coffee tourism. Making use of the province's rich tourism resources and increasing publicity of Yunnan coffee would attract domestic and international tourism and help promote coffee and increase sales (Li, Li, & Luo, 2011, p. 74).

Consumption

Coffee consumption in China rose significantly along with the economic boom in the past decade. The reform and opening up unlocked the gates for foreign coffee multinationals to enter China and create a new culture.

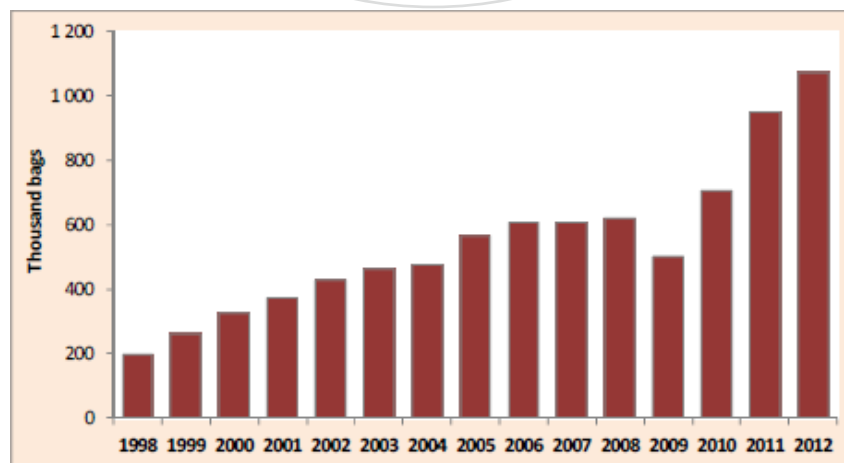


FIGURE 2: Total coffee consumption in China (1998-2012). SOURCE: International Coffee Organization, 2013

Currently, economic growth is stable and Western influence is more powerful, particularly in big cities like Beijing or Shanghai. Coffee consumption is growing at rate of over 12 percent each year². Experts argue that total consumption could reach 2.8 million bags by 2020, approximately the same amount as the United Kingdom (International Coffee Organization, 2014). Given the vast population of China and the fast growth of coffee consumption in the country, China will become a promising market for the world coffee trade. The ICO report, however, alerts that this consumption is not so significant when measured in absolute terms. They point out that consumption will remain dependent of economic growth and available only for the urban middle class (International Coffee Organization, 2013). Chinese coffee promoters want China to experience the same development in coffee consumption as Japan. Before the second half of the twentieth century, tea was Japan's most popular drink. Nowadays, Japan is the world's third largest importer of coffee and the fourth largest consumer in the world (ICO, 2014). They have developed a well-rooted coffee culture and a considerable knowledge about trade and quality standards. Japan's consumption now is four or five times that of China. The ICO is cautious to report a booming growth of China's coffee consumption. In Pu'er, on the contrary, expectations are high and official data is optimistic. Pu'er government officials are confident to state that China's consumption will soon reach the levels of Japan, becoming Asia's main coffee consumer. They, nonetheless, admit that it is still necessary to put all efforts available on the promotion of consumption among Chinese citizens. Consumption will not increase only with economic development; authorities and coffee companies need to generate a need for coffee and create a coffee culture individual of China (G02, March 18, 2014).

3.4. Motivations

Many of the people interviewed in Pu'er were not able to provide a clear answer to why the government is making this considerable effort to develop the coffee industry. Most of them mentioned the "official" explanation: the government wants to encourage successful industries to eradicate poverty in Yunnan and improve the lives of farmers and ethnic minorities. This is in fact the most widespread explanation given to the people in Pu'er. But

² The International Coffee Association suggests an annual growth of 12 percent. Most interviewees argue that the real growth is 20 percent. The 2013 report of the Coffee Development Office indicates that it is over 30 percent. With no data available to support these statements, this study will use the official data of the ICO.

poverty alleviation alone does not explain the dedication of local officials to this industry. Why is the government of Pu'er determined to develop coffee business? What kind of motivation do government, farmers, and entrepreneurs share? The existing literature does not examine these issues. Academic research only mentions the role of coffee in poverty alleviation and economic development (Li, 2009b; Wang, 2011). Nevertheless, a more varied spectrum of explanations emerged during interviews and through observation. In general, the incentives for the development of coffee industry in Pu'er can be summarized in three: focus on domestic sales, exclusivity, poverty alleviation, and environmental protection.

3.4.1. Focus on domestic sales

All three afore-mentioned strategies employed by the government to develop the industry — expansion of the area, raising quality standards, and promoting coffee— serve the main purpose of reducing exports to focus sales on the domestic market. It is explained as a “win-win” situation (G02, March 18, 2014). Coffee consumption in China is growing fast and it is predicted to develop even more. In 2012, China consumed around 60,000 tons of coffee beans, and produced roughly 36,000 tons of coffee (Pu'er Coffee Office, 2013, pp. 5, 10). This means that consumption already surpassed local production. The majority of these beans that Pu'er produces are exported mainly to European countries. In 2012, Pu'er exported 24,700 tons of coffee, almost 70 percent of the total production. Only a small percentage is sold in China due to its high price for low quality. Chinese consumers will not buy a locally produced coffee that does not reach the standards of specialty coffee (Barlow, 2013c). Hence, the majority of coffee consumed in China is imported from Vietnam, Colombia, Brazil and other major producing nations. Given the increasing levels of consumption, coffee imports increased by 43 percent in the year between 2012 and 2013 (Barlow, 2013b). This data suggests that China relies heavily on coffee imports for consumption, and coffee exports for sales. If Chinese consumers substituted foreign coffee for local products, it would be beneficial for both ends of the chain: producers and consumers. Imports of foreign coffee and exports of Yunnan coffee would still be necessary, but the goal of government and companies is to find a balance between imports and exports, and to prioritize local production and national industries (G02, March 18, 2014; & S01). For a local authority, it is “absurd” that Chinese consumers do not support thriving local industries. He explains that coffee is a product strongly associated to the West, and that only high quality Chinese coffee would be acceptable for local consumers. In consequence, the government is focusing on quality

control and promotion of Pu'er coffee as a strategy to persuade Chinese buyers. These government strategies will encourage Chinese people to buy local coffee and, over time, “the development of this industry will most certainly surpass the development of the rest of industries” (G02, March 18, 2014). Albeit early for such prediction, the combination of China's strong nationalism and the fast development of Yunnan coffee could potentially lead to the success of this industry in the long-term.

Many local and foreign companies also see Chinese coffee consumption as a key to the development of the local industry and as the new marketing focus. Starbucks China is using locally produced Pu'er coffee as a strategy to attract more clients. A member of the Coffee Association of Yunnan in Kunming explains that the real motivation behind the joint venture with Aini is to increase domestic sales of coffee in their almost 2000 stores in China. They are playing the “emotional card”. In other words, they aim to increase sales by persuading Chinese consumers that their coffee is not foreign but grown domestically. This strategy appeals at Chinese people's strong sense of nation and attempts to create a new notion that Starbucks is not only an American company, but a Chinese one too (B01). They believe that Chinese consumers will drink Starbucks coffee because it is locally produced and they want to contribute to the domestic economy. By doing so, the production of Starbucks in Pu'er will increase, and so will investment in the region, benefiting farmers and the regional economy (B07).

For local companies, China is not the main target market yet. Nonetheless, most of the companies interviewed admitted to have considered new marketing strategies to sell some products at home, even if it is only 3 in 1 instant coffee (B05). For Beigui and Arabica, the percentage of coffee beans or coffee derivatives currently sold in China is not very significant, roughly 4 to 7 percent of their total production. However, both companies agree that the Chinese market is expanding in demand, and that the future of their companies will most likely look towards increasing domestic sales. Manlao River is also a company whose sales are more significant in the United States, Europe and Japan, but they are steadily increasing the share of coffee sold to China. The main obstacle for them is that Chinese people are not ready to pay high prices for organic certified coffees like theirs, so their market is very limited to gourmet or environmentally-concerned consumers (B03). They hope that in the next years Chinese coffee lovers will value quality, ecology and social responsibility over price.

Aini is the only firm in Pu'er with larger national recognition and price-quality value for Chinese standards. In the coffee experience warehouse of Aini in Kunming there are on display different products that Aini is marketing for the domestic consumers. They claim to be excited about the company's turn to a more domestic-oriented business and believe it will be successful. Thanks to publicity and awards received by international coffee experts, Aini is one of China's best known domestic companies. They believe that the partnership with Starbucks has been very beneficial for the promotion of their brand (B02). Aini's next step is to create a range of products that fit Chinese preferences, like drip or instant coffee, while promoting higher-quality products that Chinese consumers are not familiar with, like roasted beans or ground coffee (B02; B07; & B10, March 24, 2014). Aini aims to leave behind exports to concentrate solely on the Chinese market.

3.4.2. Exclusivity

A Pu'er businessman, owner of several *KTV* (karaoke establishments) in Simao, meets regularly with members of *Kworlds* to talk, sing, and taste different cups of Pu'er coffee. Although not an expert, he is confident to affirm that all the coffees they brew and taste are very good because they are "originally from Pu'er". He explains that Pu'er always produces prime quality coffee no matter which company sells it. "Only *us* can grow good coffee in China" (C02).

Pride of exclusivity is most likely one of the main motivations for the coffee industry in Pu'er. Locals and entrepreneurs feel they are building a special industry, more international and sophisticated. They say the region is changing to adapt to this new agricultural product that will "soon be the new image of Pu'er, along with tea" (B04).

"Pu'er natural conditions are perfect for coffee growing". This is the most frequent answer to the question of what makes this coffee special and why the industry is developing so fast. Compared to the rest of coffee-growing regions in China and Yunnan, Pu'er has the most suitable natural conditions for the particular requirements of the coffee plant and trade. First of all, logistic and climate advantages put Yunnan and Pu'er at the head of all coffee-growing regions in China. Yunnan sits on a strategic location in the heart of Asia, connecting China with Southeast Asia and India. The average altitude is higher than in Hainan; rainfalls and

temperatures are more balanced than in the region of Baoshan or Sichuan province; and humidity is not as elevated as in Xishuangbanna prefecture. These controlled conditions of elevation, soil quality, rainfall, humidity and temperature allow Arabica types of coffee to grow better in Pu'er than in other regions, where they can only successfully grow varieties of Robusta, a coffee considered of lower quality. Additionally, Pu'er has better infrastructure and roads to connect fields and villages to main procurement and trade centers.

Pu'er is also endowed with a functioning institutional and governmental coffee network that speeds up production and provides tools to face potential obstacles. Pu'er government is pioneer in enacting policies, regulations, guidelines and reports to help farmers and entrepreneurs tackle the problematic areas and encourage them to continue growing coffee (B01; B02; & B07). Moreover, the web of coffee industry development offices spread across the prefecture is an effective tool for the implementation and correct management of these policies. No other region has a system as organized and dynamic.

Pu'er has also achieved great success in attracting foreign investment and encouraging entrepreneurs to establish new coffee-related companies. Two of the major multinationals that buy coffee in Yunnan, Starbucks and Nestlé, are based in Pu'er, where many other foreign companies purchase their coffee as well. In contrast, the rest of the coffee-producing prefectures in Yunnan serve mainly as areas where coffee is grown and sold to local companies or multinationals that buy once a year; little effort has been made to attract investment permanently, at least in comparison with Pu'er.

Baoshan is the second largest producer of coffee in Yunnan and the main competitor of Pu'er. For coffee producers in Pu'er, however, Baoshan does not represent real competition. Virtually all interviewees used the example of Baoshan to illustrate why Pu'er is the only region where quality coffee can be grown. In general, it is argued that Baoshan's weather conditions are more extreme than in Pu'er, and thus coffee growing is less stable. The weather is drier and temperatures are more extreme, which renders the cultivation of Arabica coffee more difficult and prone to rust leaf disease. Yunnan's continuous droughts are severe, and underground water is scarce; they lack institutional and governmental organization, and infrastructures remain rather underdeveloped. This year's drought has had a great impact on coffee growing in Baoshan, reducing production to half. For an expert of the Coffee Association, this not only shows Baoshan's inadequacy to growing stable coffee but also

evidences the lack of resource and disaster management measures. (B01). A Baoshan native that moved to Pu'er owns a coffee processing, roasting and experiencing store where he processes and sells coffee grown by friends that share his passion for coffee. For him, it is not a competition rather than two different markets. Pu'er can grow bigger amounts of coffee under more stable conditions, but the flavor is very standard. In Baoshan, unstable weather conditions make it impossible to produce larger quantities, but the coffee beans have richer flavors and higher quality. He concludes that Pu'er coffee industry is "exclusive" in terms of mass production with standard results, but not in diversity and character. Nonetheless, he believes that Baoshan needs the motivation and pride of Pu'er to succeed (B09).

Since only a few regions in China can grow quality coffee, this cash crop is considered a special agricultural product. These specialty products are fostered by the government through regulations and policies specifically designed for that industry. Policies like the 2007 "Special Agricultural Product Region Layout Plan" helped label coffee as a "specialty product" that needs to be promoted over other "regular" crops. Moreover, coffee is regarded in China as an "exotic" product that was just recently introduced in the daily lives of Chinese citizens. This feeling of pride and uniqueness encourages government officials, entrepreneurs and the *laobaixing* (ordinary people) to strive for the development of Pu'er coffee.

3.4.3. Poverty Alleviation

Except for short periods of booming prices, coffee growing is not considered an agricultural activity that strongly contributes to poverty alleviation. The case in Yunnan is not far from different. Farmers that want to grow coffee are faced with a substantial initial investment and the uncertainty of a new crop that does not have a long history in the region. More work and economic investment is needed in the first years, and profits do not come until three years later. It is a risky investment. For farmers that already grow coffee, profits from this crop can be very unevenly distributed; some seasons can provide large amounts of income, while bad seasons drop coffee prices and leave farmers in a more precarious situation.

Interestingly, farmers in Pu'er are encouraged to grow coffee to shake off poverty and improve their living conditions. Most actors in the coffee industry in Pu'er explain that escaping poverty is the main motivation behind the fast development of coffee production in the region. They agree that the goal of the government is to eradicate poverty among farmers

through the cultivation of coffee and, preferably, diversification of crops. As the main promoter of coffee growing, the government helps farmers on their introduction to the coffee business by providing free coffee seeds, plants, training and other technologies.

Poverty alleviation is more than a motivation. It can be considered an “official speech”, a clichéd term used by entrepreneurs, citizens and officials to explain the main driving forces behind the development of the coffee industry. Many of the interviewees offered a very similar story used to illustrate the benefits of coffee growing on the improvement of farmers’ lives. It is the story of a farmer who only had a piece of land cultivated for years with little profit. He decided to grow coffee instead, and now he owns a small car and a cell phone, he has fixed his house, and expects his children to go to university one day (B01; B05; G01, March 18, 2014; & B10, March 24, 2014). Telling this kind of success story shows the pride of being part of the industry that is contributing to the development of the province and the improvement of farmers’ living standards.

The community of ethnic minority farmers has benefited the most from the development of coffee cultivation. In Pu’er, ethnic minorities account for 61 percent of the total population. Most of them come from poor backgrounds with low levels of education and training. For most companies, the majority of their workers are poor farmers from minority ethnic groups that do not own land and are hired by companies as external labor force. Thanks to higher prices and the support of most of the companies, the lives of minority farmers have improved significantly since entering the coffee business. Some companies, like Aini or Manlao, help them with accommodation or the education of their children. According to an interviewee of Aini, these farmers used to live in underdeveloped communities and had no money to buy basic necessities. They grew crops for own consumption, “avoiding interaction with others” (B10, March 24, 2014). Before growing coffee, their incomes hardly reached a few hundred Yuan a month. Now, farmers working for Aini perceive a monthly base salary of CNY 800 complemented with the money they earn from selling the coffee they grow. The average income rises up to around CNY 3,000 every month.

For the government, coffee growing represents an opportunity to meet annual poverty reduction goals by developing local agricultural industries. This type of strategy is based on similar development models designed by organizations like the United Nations Development Program (UNDP) or the World Bank. The China Agriculture Special Task Force of the UNDP

suggests local development agricultural innovations “to achieve sustainable and equitable development, especially when these innovations are driven by national and local governments and actors” (UNDP, 2011, p.2). For companies, poverty alleviation is not only a motivator, but also a marketing strategy. Companies like Aini or Manlao River work closely with coffee growers to empower them, provide a more stable source of income, and help reduce poverty levels and increase education. This strategy, similar to fair trade certification standards, attracts consumers that care about social fairness and business ethics.

Poverty alleviation is a powerful motivator for all actors involved in coffee growing in Pu'er. Nonetheless, coffee prices are fairly unstable, and relying solely on coffee farming can be risky. The government of Pu'er and some companies like Manlao River, Beigui and Aini are increasingly encouraging farmers to engage in types of farming that provide a more stable socio-economic development, namely organic or fair-trade certification programs and multi-cropping (B01; B03; B02; S01).

3.4.4. Environmental Protection

Contrary to what this study argues, some members of the coffee industry in Pu'er believe that a major motivation for the development of coffee industry is environmental protection. Coffee authorities and some companies encourage the cultivation of this plant instead of crops like corn or sugarcane that are considered less environmentally friendly.

The government of Pu'er is increasingly involved in the protection and restoration of the natural environment in the region. They have devised several measures to replant the forests, support ecological agricultural practices and save natural resources. They encourage the cultivation of coffee along with other crops like fruits or medicinal plants (known as shade-grown coffee). Local authorities promote intercropping systems by providing farmers with seedlings to help them create a shade for their coffee (S01). A government official explains that coffee growing is beneficial for the protection of the soil. Since coffee is a long-lasting plant that does not need to be cut after harvesting, the plant grows roots that penetrate the land, providing protection against landslides and retaining underground water. Farmers use a metaphor to explain the damages to the environment from growing corn and sugarcane. They say that by not taking care of the soil, the land can “grow rocks”. This metaphor illustrates the soil erosion caused by the rain when the land is exposed after cutting those crops. This

metaphor, according to the interviewee, clearly demonstrates the environmental awareness of farmers and their commitment to grow coffee or tea for the protection of nature. Local authorities and farmers are determined to “leave a good environment for next generations” (G02, March 18, 2014). In addition, the sub-products of coffee primary processing can be used for the elaboration of organic fertilizer. A farmer interviewed in Ning'er County has a coffee processing unit behind her house. On one side there is a large mass of coffee pulp undergoing decomposition. This process is simple and allows them to obtain good quality organic fertilizer from their own products. Using these methods, farmers are not only saving money but also preserving soil and water from pollutants (F04).

3.5. Future developments

Thanks to the policies implemented, the production expansion and the involvement of all parties, the development of coffee in Pu'er is likely to succeed. Once coffee business is established and publicized, other improvements and industries will emerge from it. The increase of organic and fair trade certifications and the establishment of a coffee tourism are the main two positive developments expected. Unfortunately, the fast growth of coffee industry in Pu'er may result in severe damage to the environment, including pollution, depletion of resources and, most importantly, deforestation.

3.5.1. Certification

Created to help coffee farmers deal with problems of environmental sustainability and low incomes, certification is a means to “avoid the traps associated with low and volatile commodity prices, environmentally unsustainable farming practices and poor market access” (Blackmore & Keeley, 2012, p.iv). The main schemes of certification are organic and fair trade. Additionally, some new certifications have emerged as a response to the restrictive fair trade and organic certifications. Independent third-party certifiers such as Rainforest Alliance, Utz Kapeh, and 4C, and sustainable initiatives designed by private firms, like Starbucks C.A.F.E practices, offer a holistic approach to sustainability that deals both with issues of fair trade and organic farming.

The 2012 report on pro-poor certification in Asia (Blackmore & Keeley, 2012) examines the benefits and drawbacks of certification for small scale farmers in Yunnan. Given that very

often farmers lack the economic and technical support to engage in sustainable practices and seek certification, the report does not endorse certification for all cases. Nevertheless, the overall benefits of organic farming, premium prices, management and organization could potentially benefit farmers in the long-term. Multiple certification, especially organic and fair trade, is highly encouraged as the most successful approach to poverty alleviation and environmental protection. In the case of Pu'er, multiple organic certifications are more common than the combination of organic and fair trade.

In general, coffee certification is rare in Pu'er. The main companies that produce 100 percent certified coffee are Aini, Starbucks, Nestlé and Manlao River. Beigui recently obtained EC (European Union) organic certification for half of their coffee production. Most of them engage in organic practices but with different schemes of certification. Both Aini and Manlao are awarded with EC and Chinese organic certifications. Despite lacking a specific certification for fair trade practices, both companies support the improvement of farmers' living standards. Additionally, Aini holds Rainforest certification and Manlao has USDA (United States) organic certification. Nestlé follows the guidelines of the Common Code for the Coffee Community (4C). Starbucks, on the contrary, follows an internal scheme developed by the firm: C.A.F.E. Practices. As a consequence of the joint-venture, Aini coffee is also C.A.F.E. certified.

Pu'er needs to take a step towards certification. The type of certification scheme they choose to obtain mainly depends on their target market. Manlao River, for instance, obtained USDA certification to comply with the regulations of the United States, one of their main purchasers. Since Aini is now more focused on domestic sales, they have recently obtained Chinese organic certification. Sometimes, certification can also improve the opinion consumers have on the quality of coffee. As previously mentioned, Chinese people consider Yunnan a poor province and thus may believe they are not capable of succeeding in coffee production. Holding an organic certification, particularly European or American, can change these perceptions and erase prejudices. In the case of Aini, a global certification like Starbucks C.A.F.E. Practices would allow them to enter international markets and expand their sales. A coffee researcher in Pu'er advocates for the expansion of coffee certification schemes among Pu'er firms within the next few years. He claims that the government is aware of the importance of certification and is currently supporting farmers and companies to reach this step. Their goal is not only to protect the environment; they know that farmers can benefit

from organic premium prices to improve their economies (S01). In general, it is agreed that certification is highly desirable to raise quality and obtaining better prices for coffee.

Despite the efforts to boost coffee certification, the process is slow. Even nowadays there is a significant lack of awareness and distrust of certification schemes among farmers and companies. Some farmers can not afford the initial investment, or their lands are not good for organic farming; some companies argue that the investment is not profitable because their target consumer buys cheap coffee and does not demand certification; others reject certification altogether because it limits the scope of countries and buyers they can sell their coffee to (B01). For these many reasons, the government needs to create a strong campaign and provide incentives if they are resolved to achieve widespread coffee certification in Pu'er.

3.5.2. Tourism

Tea tourism is an important source of income for Pu'er citizens. In the past years, the city has been adapted to accommodate and entertain more visitors. It now has numerous hotels, restaurants, scenic routes and landmarks. In the Meizihu Park Tourist Area in Simao tourists savor traditional ethnic meals followed by a walk up the tea mountain. There they can sit and enjoy the views of the Meizi Lake and the tea hills on one side, and the town of Simao on the other side; they usually take pictures next to the big stone that reads "Tea city of China" and wait to see the sunset while they eat some snacks and drink Pu'er tea. This is a typical evening for tea tourists in Simao

According to Yunnan University's Tourism Management researchers Li Jie and Zhang Dequan, Pu'er can soon provide this same type of tourism experience to coffee enthusiasts and regular citizens interested in this drink (Li, & Zhang, 2010). Pu'er can benefit from their already established tea tourism, as well as from Yunnan's large influx of tourists, ethnic minority culture, cuisine, natural landscapes and strategic location. Coffee tourism in Yunnan will not only attract coffee experts, but also stressed urbanites that seek to blend in with nature. They foresee that coffee tourism will be both domestic and international. Yunnan is one of the main tourist destinations for Chinese citizens and Pu'er attracts people from all around the country thanks to their renowned tea. Additionally, many Western tourists visit Yunnan province looking for the long-lost spiritual connection to the land and to experience "a more plural and colorful China" (Llamas & Belk, 2011, p. 259). For foreigners, a coffee

made in China may seem unimaginable; this could be used as a powerful marketing strategy to attract international tourists that want to understand this new phenomenon.

The coffee tourism experience will encompass all stages of coffee production and tasting. Tourists will visit coffee plantations to enjoy the landscape and learn about growing techniques; they will observe the complex process of bean selection, production and roasting; and, finally, they will learn how to brew, taste and enjoy coffee along with other succulent local treats and deserts. Tourists will be encouraged to purchase local products and gadgets to continue the coffee experience back home. The proposed plan for the development of coffee tourism in Pu'er includes the establishment of five main functional areas: a coffee culture exhibition area, a coffee roasting area, a coffee production area, a gourmet coffee area, and a coffee merchandise area.

In order to promote coffee tourism, the government will have to focus on the improvement of coffee culture and knowledge of all personnel involved in this industry. Moreover, it is necessary to improve several other basic services, particularly increasing the number of cafés and coffee stores in Simao (B04; & S04). Additionally, Pu'er should create attractive coffee merchandising for all kinds of tourists. These handicrafts, coffee gift packages and other souvenirs should help improve the way consumers view Pu'er coffee and contribute to advertise this product.

3.5.3. Environmental problems

Massive industrialization is not the sole agent of environmental degradation in China. Long before the country emerged as a top economy in the world, radical policies and bad practices took a toll on China's countryside. Before the mid-1950s, the forest cover in Pu'er was 80 percent. However, it decreased down to 30 percent after the destructive periods of the Great Leap Forward, the Cultural Revolution, and the rural reforms of the early 1980s. Given the evident destruction of land, in the late-1980s the government of Yunnan started to implement measures to control and repair deforestation while pushing local agriculture (Sanders, 2000, pp. 204-205). While locals have recovered deforested areas and they now practice a relatively more sustainable agriculture, the massive transformation of the land into coffee fields threatens the sustainability of farming in Pu'er. The arrival of multinational firms and the proliferation of domestic enterprises are leading to a booming expansion of coffee production

that could increase environmental degradation. The main potential coffee-related environmental issues in Pu'er are threefold: water depletion and pollution, soil erosion, and deforestation.

Coffee is a water intensive crop. Drought affects coffee production in the quantity and also occasionally in the quality of cherries. Scarce rain can change the flowering season. If coffee flowers do not bloom, the cherries will not grow. Sometimes, the period of blooming is delayed and beans do not grow to a full size (B01; & B08). For one of the farmers at the procurement center of Aini-Starbucks, last year's drought had an impact on the size of the beans. While he normally sells coffee for the joint-venture, part of his last coffee production had to be sold to other buyers that require lower standards (F02). The decrease in rainfall of 2013 had a visible impact on this year's production (B01; B05; & B10 March 24, 2014). It was particularly severe in Baoshan, where the harvest was half of the previous year because most cherries were empty inside (B01; B06). It is generally agreed that droughts have less impact in Pu'er because the "natural conditions are very good" (B03; G02, March 18, 2014; S01; B06; B08; & B10 March 24, 2014). Reportedly, the region has up to 70 percent of forest coverage that prevents water from running off and preserves underground water (G02, March 18, 2014; S01). Consequently, no irrigation is needed or used for coffee plantations in Pu'er (B06; & B08). Since coffee farms are usually located in mountain slopes, irrigation is costly and not convenient, leading to extensive waste of water. "We do not suggest or promote irrigation. If coffee can not grow naturally, then this area is not suitable" (B06).

In addition to the water requirements of the plant, coffee processing wastes large amounts of water. According to a research on the water footprint of coffee and tea consumption in the Netherlands (Chapagain & Hoekstra, 2007), the water requirements for coffee are considerably higher than for tea. Although this study was conducted in the Netherlands, the findings are representative of the global average. The results, summarized in figure number 3, show that one cup of coffee requires around 140 liters of water in total. In the case of tea, the average water requirement is 34 liters for a standard cup of tea. Consequently, the water consumption of one cup of coffee is 4 times higher than for one cup of tea.

Table 9 – Virtual water content of a cup of tea or coffee					
		Virtual water content of the dry ingredient (m ³ /kg)	One cup of tea or coffee		
			Dry product content (g/cup)	Real water content (l/cup)	Virtual water content (l/cup)
Coffee	—Standard cup of coffee	20.4	7	0.125	140
	—Weak coffee	20.4	5	0.125	100
	—Strong coffee	20.4	10	0.125	200
	—Instant coffee	39.4	2	0.125	80
Tea	—Standard cup of tea	11.4	3	0.250	34
	—Weak tea	11.4	1.5	0.250	17

FIGURE 3: Virtual water content of a cup of tea or coffee. SOURCE: Chapagain & Hoekstra, 2007

While the majority of the water requirement of coffee comes from rainwater, and the water used in production only accounts for 0.34 percent of the total, the impact of that small amount is still very significant. First, the water needed for processing has to be extracted, in contrast with the rainwater needed for growing, that comes from a natural source. Second, the waste water generated during coffee processing is heavily polluted and can damage the soil and the environment if not properly managed. Interviewees failed to mention this aspect of coffee production in relation to the use of water resources. A member of the Coffee Association admits that in the future local authorities will have to solve the issue of resource management in coffee production. “If these difficulties are solved, then coffee growing will not cause any problems” (B01).

There is not a strong presence of environmental organizations in Pu’er yet, and no NGOs in the region deal specifically with the issue of the ecological impact of coffee farming. The environmentalists interviewed are not coffee experts but experts in Yunnan’s environment and water resources. They explain that water has been a problem in Yunnan for several years, but research is scarce and government implication remains insufficient. A recent study of the National Disaster Reduction Centre of China showed that, in the future years, agriculture in China could suffer a long term impact from drought. The government is starting to be concerned, but their focus is on short-term solutions like infrastructure instead of long-term resource management. Based on data on coffee growing and their expert knowledge, the environmentalists interviewed agree that water is or will not be enough for coffee production (S02; & S03). The scarcity of resources available in Pu’er will lead to the uneven distribution

of resources in favor of coffee growing. This is what one of the scholars calls the “marketization of water resources”; that is, the government prioritizes prosperous industries in the distribution of scarce resources (S02). This includes using clean water for booming industries and polluted water for other less profitable crops.

Since logging was banned in Yunnan, great improvements have been made in raising awareness among farmers and people whose economies depended on forest resources (Xu, & Ribot, 2004). Except for Manlao River representatives, all interviewees denied the continuity of logging activities in the forests of Pu’er, stressing that “it is against the law”. Only the representatives of Beigui and Arabicism mentioned that it was not possible to totally confirm that this practice has been eradicated. Three interviewees mentioned that some years ago illegal logging remained a common practice difficult to control (G02, March 18, 2014; B09; & B10, March 24, 2014). Some farmers may have taken advantage of the less strict control during that time and cleared forests to grow coffee. Some years ago there were isolated cases of individual farmers that secretly grew coffee in the forest; however, after they were caught “they were forced to clear the coffee and restore the forest damaged” (G02, March 18, 2014). Interviewees nonetheless stressed the severe control that local authorities have now over forest resources, and maintain that this practice does not occur nowadays. They firmly believe that farmers and companies have now a strong sense of environmental protection. According to them, the *laobaixing* of Pu’er now give preference to environmental protection over economic development.

A manager of an important coffee company in Pu’er believes that some type of logging activities must be taking place in Pu’er to accommodate the fast growth of coffee area. However, she emphasizes that this statement is based on her personal opinion and observation rather than on real data. She can only assure that her company does not engage in land expansion because they provide “specialty coffee focused on quality, not quantity”. She, on the other hand, maintains that the government should keep tighter control of the natural resources and agricultural practices in Pu’er that are “increasingly chaotic” (B03).

For environmentalists, the numbers on the expansion of the land in the last 5 years and the prediction for the next 10 years are an unmistakable reflection of logging activities and deforestation. Their argumentation is based on their experience in the extensive cultivation of other crops, like rubber tree in Xishuangbanna. Clearly, coffee and rubber are two different

plants with different environmental impact, but the push given to coffee growing is similar to that of rubber a few years ago. The monoculture of rubber has led to the aridification of areas in Xishuangbanna. Given that extensive coffee cultivation could lead to similar problems, rainforest and shade coffee and multi-cropping systems are necessary to reduce the environmental impact on the soil. Moreover, they believe that deforestation due to land expansion is a common practice in agricultural development in Yunnan. For environmentalists, the data on the growth of coffee land in Pu'er shows that such expansion is not possible only by change of crops or use of wastelands; "some logging must be taking place" (S02; & S03). They point out that this phenomenon also happened before with rubber tree and eucalyptus in the Xishuangbanna-Pu'er area. To put it simply, "they cut trees to plant whatever gives them more money" (S03). Even though they believe the reduction of forested areas in the region is alarming, they also acknowledge the efforts of the government in encouraging citizens to plant trees and stop the deterioration of the forest. In short, they do not believe the government is intentionally letting farmers cut down trees and destroy the forest; however, they express their concern for the fast development plans for coffee industry, because it can only happen, to some extent, at the expense of the environment (S02; & S03).

4. Analysis

The data gathered during the field research provides an inclusive perspective of the evolution and current state of coffee industry in Pu'er. This study aims to offer an insight on the origins, driving forces and future plans for the development of the local coffee business. These interviews and on-site observation serve to support or refute the few existing hypothesis about the actors responsible of this fast growth and their incentives; they help interpret aspects of Pu'er coffee that have not yet been analyzed in the literature; and, finally, this qualitative data provides a base for the formulation of conjectures about the future implications of this industry and its potential setbacks.

An industry of the government

Interviews with coffee-related government officials and members of the Coffee Association of Yunnan show a consistent tendency to minimize the importance of the local government in the development of the industry. Instead, the role of farmers and companies is considered crucial in the increase of production and the promotion of local coffee. While government

members acknowledge playing a part in coffee development by encouraging farmers to switch to coffee and providing support, they understate the vital importance of their assistance. Companies, entrepreneurs, growers and distributors interviewed grant the local government great recognition, but highlight that they are not the sole agent responsible for the development of coffee industry. Contrary to the arguments of both groups of interviewees, this study argues that only the government of Pu'er can claim full responsibility for the fast development of coffee production. Aside from Aini, domestic companies would have not pushed for the innovation of the sector without the support of the government. Multinationals play an important role in the progress of the business, but their presence in Pu'er is a direct consequence of the government's coffee policies.

The implication of the government of Pu'er in the coffee boom is of great importance. Like in many other coffee-producing countries, the involvement of the national and local governments is vital for the development and proper management of this industry. The role of the government surpasses the mere encouragement and extends to areas such as providing seeds for farmers, providing training and technical support, offering subsidies and compensations after natural disasters, and supporting investigation. Thus, compared with other countries in Latin America and Asia, the heavy involvement of the government of Pu'er is considered a natural part of the process. The government provided the initial impulse by bringing Nestlé to the region, developing policies for a specialty industry, and attracting foreign investment. Without these three strategies, coffee industry would most likely not have prospered. In fact, it could be argued that without the involvement of local authorities there would be no industry altogether. Even though the government's full support to the industry only began after profits were higher and more visible, authorities are now fully involved. Despite the fast growth, production in Pu'er is in the early stages of maturity; as a consequence, the role of the government remains vital. Nonetheless, they should gradually adopt a secondary role to start sharing more responsibilities with local companies. The government should continue developing the bureaucratic net of coffee associations and offices, formulating more coffee-specific regulations, and promoting branding and coffee consumption. Simultaneously, local companies should work closely with the government in the organization of coffee competitions and exhibitions in order to increase quality and publicize the Pu'er Coffee brand. In other words, although currently a much more present role is needed, in the future the government of Pu'er should merely act as the leader that connects all actors together and coordinates the correct implementation of the policies and

regulations. By taking a step behind, Pu'er authorities will empower local firms to take action and upgrade the coffee industry.

Local coffee companies have grown fast and they now play an increasingly important role in the development of the industry. With the support of the government and the technical assistance from multinationals, these firms are now climbing up the technology ladder to improve the quality and variety of their coffee. Yet nowadays, most companies limit their activities to coffee growing and primary processing or just purchasing beans. Despite the improvement, domestic enterprises have not reached levels of autonomy necessary to become more involved in the development of the industry. The majority of companies still depend on government support, external technical assistance and large exports of cheap coffee beans. Without the government's guidance, coffee business would most likely stagnate and Pu'er coffee would not be known. Local authorities need to direct coffee into a more profitable, more ecological, less export-dependent business led by local companies. Aini, the indisputable leader of domestic coffee companies in Yunnan, is most likely the ideal candidate for such task. They have a clear business vision that they are developing over the years. They are changing target markets and creating products that adapt to the changing needs of their customers; they are raising awareness of the Pu'er Coffee label, promoting coffee culture and advertizing their own brand; they care about raising quality standards, investing in technology and engaging in ecological farming; and, most importantly, they are close partners with the local government, providing and receiving assistance when needed. With or without government help, it is evident that Aini Coffee has become a major model for other coffee companies in Yunnan, and an important motor for the development of this industry.

Foreign companies have been key to the international exposure of Pu'er coffee. Growers and officials in the region do not place great importance to the role of those well-known brands that purchase coffee once a year, mainly because their contribution to the development of the industry is merely transactional, not constructive, and their presence is transitional. In contrast, Pu'er-based Nestlé and Starbucks have a great significance in the development of coffee industry, and their contribution is highly acknowledged. They brought knowledge and technology, trained farmers free of cost, and established farmer centers and procurement facilities where growers could learn more about coffee cultivation and improve their techniques. These famous multinationals not only provide unlimited training and support;

their constant presence in the region and daily work is also the best way to publicize Pu'er and its coffee. Even though Nestlé and Starbucks do not display the exact origin of their coffee blends —except for the local "South of Clouds Blend" of Starbucks—, their work in the region and improvements achieved over the years are known outside Yunnan. For instance, the World Business and Development Award granted to Nestlé for their assistance in Yunnan hit international news, contributing to the advertising of local coffee sponsored by a well-known international brand. The significance of Nestlé in the origins and development of Pu'er coffee industry can not be denied. Not surprisingly, all subjects interviewed —scholars, government officials, coffee company managers, and even regular people in the prefecture— acknowledge the importance of Nestlé in the improvement of coffee farming in Pu'er and, instead of considering them as competitors, they hold the firm in high regard. Starbucks is a recent resident of Pu'er, but has already gained a place of respect in the local business. Their strategy is, in principle, similar to that of Nestlé; but the current approach of Starbucks seems to be less focused on coffee purchases and more into marketing strategies. This joint-venture clearly is a partnership of interest in which each party expects to gain more customers and recognition with their mutual help. Starbucks provides a solid endorsement for Aini in the domestic and international market, generating the idea that any company in partnership with Starbucks meets their quality standards. Similarly, Starbucks presence in Chinese land, not only to purchase coffee but mainly to improve the quality of coffee farming and generate more profits, is highly valued among Chinese consumers and may lead to an increased popularity of Starbucks in China. The good relationship of the local government with these two main multinationals, particularly with Nestlé, is manifest in the close cooperation of both entities in different aspects of the industry. The government meets regularly with their executives and agronomists to discuss ways to improve different aspects of the coffee business. The government of Pu'er seeks advice from them and takes them into account in the decision-making process of coffee-related issues in the region. They also make use of the expertise of these multinationals to improve the general standards of the industry in Pu'er. In exchange, the government is offering these companies exclusive benefits to settle in the region, expand their business, and enjoy certain degree of freedom in the local business. Not only they enjoy reduction of taxes and other similar benefits; companies like Nestlé have also profited from government property. The firm's procurement center and regional headquarters are located inside the National Grain Reserve of Simao. The government handed over one of their state-owned granaries and office buildings to help Nestlé establish in the region and set up a functioning office where farmers can seek advice and sell their beans. Interviewees from

both sides explained that their relationship was simply cordial and it did not differ much from the collaboration of the government with local companies; observation and contrasting interviews suggest otherwise. It may be argued that, in an attempt to attract foreign investment, multinationals enjoy privileges that many local companies are not even offered.

Farmers are the most vulnerable participants and the ones that benefit less from coffee business. Contrary to what authorities and producers claim, the impact of coffee growing on small farmers is not always positive and the economic benefits are not as significant as advertised. While the real motivations for each individual farmer are yet to be analyzed, growers generally enter the coffee business mainly because of external encouragement and benefits offered. Clearly, the farmer makes the ultimate decision of switching to this new crop; however, the current environment in Pu'er—in which coffee is becoming a major crop and it is strongly fostered by the authorities and local entrepreneurs—pressures them into entering the business. Farmers hear stories of success of farmers escaping poverty; they have easy access to training and resources, like free coffee seeds and cheaper products; and the system of suppliers and buyers is more organized than for other agricultural products. These strategies seem to be aimed at persuading farmers into growing coffee. Many times, they are just encouraged to try, but the time and labor investment is such that only few farmers stop growing coffee even if they are not successful. Growing coffee entails several risks for farmers. They need to understand that coffee is a relatively unstable crop in terms of prices and market demand. It may not always be profitable, and the support system that exists now for the coffee industry may disappear when a coffee crisis hits the market, just as it happened in the late 1990s. If not provided with all that knowledge they need to make an informed decision, farmers could face problems when coffee prices are low or quality does not reach the minimum standards. Information for farmers, thus, is the key to the improvement of their lives and to the sustained growth of this industry. Nonetheless, coffee farming could mean a substantial increase of income for some growers. Especially benefited from coffee are farmers that work for companies that grow, produce and sell their own coffee. Firms like Aini and Manlao offer growers a steady salary and a further increase according to sales, reaching monthly incomes higher than the average. Independent farmers that sell their beans to different purchasers are in a less stable situation. Their success in the coffee business depends on the quality of their products, when they sell, and who they sell their beans to. Sometimes selling beans to companies that offer higher prices may entail a higher risk because they demand higher standards that require heavier investments; if the company does not need to

purchase more beans or considers that the quality is not desirable, the farmer would end up selling the product to a company with lower standards and prices. On the other hand, independent farmers in a good harvest season may obtain high prices for their beans. The most important factor is that they are prepared for potential setbacks. If independent farmers acknowledge that coffee is not a reliable source of income and diversify the crops they grow, the success of their coffee business is more likely to happen.

An unbalanced chain

In order to achieve success and gain profits from coffee growing, the value chain must be balanced and well divided between the producing country or region and the consumer end. Countries that have managed to shift their involvement in the industry and rebalance the chain towards their end have successfully brought more profits to their farmers and local companies. While there are many approaches to rebalance and add value to the chain, the main approach is always to bring as many steps of the chain as possible to the producing region. In the case of Pu'er, the most favorable situation would be that all primary processing and some secondary production of coffee were done in the region.

Given that the coffee industry in Pu'er is still in earlier stages of development, the number of companies producing coffee as a final product is very small. Moreover, there is an important lack of secondary processing businesses, and the numbers have not increased significantly in the past years. Currently there are over 118 registered coffee companies in Pu'er city, but the majority of those are primary processing factories. Only the primary processing is growing faster than any other aspect of coffee processing, but this part of the business is not enough to increase regional profits and regain control over the industry. Thus, nowadays the business in Pu'er is still focused on coffee growing and direct procurement. Whereas direct procurement brings higher benefits to the farmers, the total share of the profit that remains in the region is smaller. Companies that only purchase coffee beans offer higher prices for their beans because the farmers have already transformed the cherries into beans with primary processing; companies that buy unprocessed cherries offer lower prices to farmers, but more and more often carry out the primary processing in Pu'er, bringing more profits to firms and entrepreneurs and expanding the industry. Either way, the majority of coffee beans end up being exported to other countries for secondary processing, packaging and sales. Sometimes, those beans will be sent to domestic coffee factories in prosper regions like Guangdong, but they rarely stay in Pu'er. Both systems bring reduced gains to the region and do not

contribute to a more balanced distribution of the profit. Consequently, Pu'er officials and entrepreneurs need to consider the creation of secondary processing factories to bring production to the region, generate business, and increase prices paid to farmers by reducing costs of transportation and middlemen.

Promoting quantity and quality

The involvement of government, companies and farmers alone does not explain the fast development occurred in the past three to five years. Under the rigorous management of the Coffee Industry Development Office of Pu'er, the government has developed four main strategies to boost coffee production and increase sales. During the course of interviews, several contradictions emerged among different interviewees on the issue of motivations, role involvement and future developments of coffee industry. Nonetheless, the question of what measures have been most widely put forward received an unanimous response, pointing at expansion, quality control, and promotion as the standard approach taken in Pu'er.

The expansion of land for coffee is one of the most conflicting topics of this research. Interviewees claim that coffee production is growing at a steady rate since the 1980s and reject the assumption that it has developed particularly fast in the last few years. They argue that the years from 2008 to 2010 can be considered a turning point in terms of management and policy development, but not in significant terms. Yet the official data on cultivated area and projected area expansion presents a different picture. Numbers clearly show a sharp increase in land, production and revenue after 2009. Before that, the increase of area cultivated with coffee was not consistent or was relatively slow. Taking the arrival of Nestlé in the late 1980s as the start of coffee production in Pu'er, it is reasonable to argue that the area expanded rapidly in the decade until the late 1990s; however, the coffee price crisis and the lack of interest on this crop led to a sharp decrease, followed by a slow recovery. It was not until the late 2000s when the government started promoting coffee cultivation and the area expanded faster and more consistently—that is, there were no periods of decrease or deceleration. Consequently, this study argues that the area available for coffee has in fact expanded more rapidly in the last three to five years, and it is expected to develop more in the coming decade. The development of coffee production has not been gradual. Surprisingly, one government official that argued that coffee area and production were growing gradually declared that coffee could soon surpass the development of all other crops in Pu'er, including tea. Whereas no data is available to confirm this prediction, and it is yet to be seen the extent

of expansion for the next years, his affirmation contradicts his claims that expansion of coffee in Pu'er is taking place at a normal speed.

Local authorities need to avoid falling into the traps of the coffee cycle. If the cultivated land continues to expand without proper planning and many more farmers are encouraged to grow coffee, supply could exceed demand in a few years from now. Clearly, the production capacity of Pu'er is low compared to other countries; what this study argues is not that coffee production will be excessive, but that there may not be enough market for such large amounts of low-quality coffee.

The best strategy to avoid these problems associated with the volatility of coffee prices and the coffee cycle is forward integration. By balancing the coffee chain or adding new links to it, farmers will gain in stability and companies will open to new, more demanding markets. Research on coffee industry around the world points at quality control as the main step producers and growers need to take to improve branding and eliminate geographic prejudices. This “turn to quality” is, without a doubt, the main focus of the government in collaboration with companies, universities and farmers. Despite claims that Pu'er produces high quality coffee, the reality is that only very few specialty coffees have received high scores in coffee competitions. Producers constantly argue that Pu'er coffee obtained a punctuation of over 80 in an international competition. Nevertheless, they always refer to the punctuation obtained by Aini's Manzhongtian coffee, the finest specialty coffee grown by the company, and probably the best product in the region that has entered a competition. Generally, the quality of coffee beans sold in Pu'er is rather average, except for those who grow for or deliver to Aini, Manlao River, Starbucks and Nestlé. Pu'er coffee, nonetheless, has the potential to become a coffee of good quality and characteristic aroma, provided that growing techniques and quality controls are improved. The government is working hard to fund research in universities and companies, coordinate their efforts in innovation, and to create partnerships with international brands that can transfer technology and knowledge. The results are yet to be seen, but it could already be argued that the government is making quality control their main priority and that they are evolving in the right direction. If continued, this improvement of quality will have a positive impact on the negative perception that consumers have about products of Yunnan and, together with the right marketing, it will help boost sales.

Promoting Pu'er coffee is a more difficult task. This fairly recent approach will probably require more time and effort. Pu'er has to fight against negative stereotypes of the international and domestic community. Moreover, China is a tea-drinking country that just recently started consuming coffee. Attracting consumers is thus hard for Pu'er producers. So far, the responsibility of this task falls into the hand of the local government; most of the domestic companies still lack the foundation, quality and organization necessary to take the lead in the promotion of Pu'er coffee. Currently, only the top-level company Aini can embrace this challenge. The strategy of the government seems to work slowly but effectively. Cupping competitions, international exhibitions and media advertisement are making public, at least domestically, the existence of Pu'er coffee. A powerful logo and slogans are persuasive methods to create a visual image and a distinctive brand. When Chinese people think of Yunnan, they picture a backward region with no resources. However, when they think of Pu'er tea, they immediately think of quality, exclusivity and unique taste. The government needs to create a similar image for Pu'er coffee. Using the brand "Pu'er Coffee" independently, as opposed to "Yunnan Coffee", is a clever marketing strategy used to avoid negative associations to Yunnan. Finally, the promotion of coffee consumption, albeit a necessary strategy, has to be carried out by local, regional and national governments. The task of Pu'er is to persuade consumers into buying local coffee; promoting coffee consumption has to be pursued on a national level.

A unique industry

One of the main questions this research aimed at answering was the nature of the motivations behind the fast development of this industry. At first glance, it may seem that coffee growing does not bring especial benefits, particularly economic, to Pu'er compared with many other industries. On the other hand, more and more people now argue that the sole motivation for this coffee boom is increasing incomes for poverty alleviation. These two statements seem contradictory. When analyzing motivations for coffee development, it is necessary to differentiate between "official" and real motivations. In the case of Pu'er, the general explanation is that coffee growing will help reduce poverty; additionally, it is argued that coffee is being cultivated simply because Pu'er is an ideal place for this plant, and that this advantage should be exploited. However, interviews with all actors involved and observation have shown that the real motivations could not be more different.

Generally speaking, the principal driving force that explains this coffee boom is the search for acknowledgement and recognition. In other words, what motivates the people of Pu'er is making the brand "Pu'er Coffee" known and respected domestically and internationally, so that coffee is no longer associated with a low quality product produced in an underdeveloped region. This pride of being the exclusive producers of an exotic product seems to be a major impulse for authorities to push this industry and for producers to increase their output.

For the government of Pu'er, exclusivity is undoubtedly the main motivator for all the efforts they make. The look of pride on the government officials interviewed when talking about their privileged industry reflects their determination to use coffee to change the situation of the province and the way it is perceived; but, most importantly, it is an opportunity to position themselves as a successful government within the province and China. They have managed to create an industry with potential to succeed because no other provinces can grow coffee like they do. Moreover, they have thrived in attracting investment and organizing a bureaucratic network that has put Pu'er at the head of coffee industry in Yunnan. Their efforts have been rewarded in the last few years with a sharp increase in sales, which has triggered more policies, investment and government support. The government of Pu'er is following national guidelines to create a specialty industry for the development of the local economy. They can say that Yunnan is not an underdeveloped province famous only for their tea, tobacco, medicinal plants and mushrooms. Yunnan now grows a unique crop of high quality, and Pu'er is the leading prefecture thanks to the government's contribution. The potential growth of domestic coffee consumption will help Pu'er coffee increase sales and reach a new type of market. If Chinese consumers buy Pu'er coffee, the image they have about Yunnan would likely change, boosting sales and investment not only in coffee but also in other industries of the region.

The desire of officials and growers to reduce poverty with coffee cultivation contradicts the existing literature that strongly emphasizes the economic risks of coffee reliance. Clearly, coffee growing generally provides farmers with higher incomes and other social benefits. The situation of Pu'er can not be compared to that in Latin America, since Chinese farmers do not have the pressure to produce coffee because China's economy does not depend on that industry. However, if the government and producers continue encouraging farmers to grow coffee at a fast speed, they could be pushing them into a coffee monoculture dependency that is risky for their economic stability. These types of sun-grown or monoculture farming

techniques are used by farmers that want to obtain the maximum profit from their lands. However, the lack of other crops that sustain farmers during hard harvests or coffee price cycles can have devastating consequences for them and for the environment. Environmental protection is also an “official” motivation claimed by producers and authorities. Given the fast land expansion and increase in productivity, coffee growing is more likely to backfire and result in environmental damage. Consequently, farmers should not rely on coffee as their sole source of income, because it can bring them deeper into poverty and damage the environment.

An uncertain future

In fact, this research finds that environmental degradation is the aspect of coffee boom that should raise more concern for the future. Despite knowing now the damage caused by the extensive monoculture cultivation of rubber tree in Xishuangbanna, authorities and citizens in Pu'er seem to be in denial about the potential environmental side-effects of intensive coffee cultivation. They argue that coffee does not waste resources because it grows naturally using the water available from rainfall and the subsoil, but they fail to mention the large amounts of water needed for the processing of coffee beans. During periods of intense drought and water scarcity, the government may benefit coffee producers in the distribution of natural resources, encouraging the boom of coffee cultivation in spite of the lack of resources and discriminating farmers that grow other crops. They also argue that coffee multi-cropping is beneficial for the environment, but large-scale intensive coffee cultivation is encouraged instead of high-value sustainable farming. If maximization of profits is what farmers seek and companies encourage, shade-grown coffee will most likely disappear and sun-grown coffee will be the norm. Already in Pu'er the majority of coffee is grown without a shade, which is detrimental to the soil and biodiversity. If this practice expands along with the growth of coffee cultivation, the environmental impact will be considerable. This analysis mostly agrees with the predictions listed in Gibson's report (2013) as the “four D's”. The author's concerns about the potential deforestation effect of intensive coffee cultivation are based on real data on land expansion and are shared by environmentalists and some entrepreneurs. Droughts are a problem that affects all Yunnan, but it seems to be less severe in Pu'er. Nonetheless, since coffee production is a water intensive practice not only during growing but also for processing, concerns about the development of coffee industry in a region with long periods of droughts and water scarcity are justified. This paper, however, contradicts the connection Gibson makes between coffee growing and the proliferation of dams in the region. These dams are not being built to have water reserves during droughts, but to provide energy to

provinces like Guangdong. Hence, dams in the region are built to exploit the economic value of the Mekong and its tributaries, not to reserve water for agricultural practices like coffee farming.

The promotion of sustainable practices and certification could attenuate the environmental impact of large-scale coffee cultivation and improve the lives of farmers. Pu'er needs to engage in product differentiation to increase the value and comply with international standards. Organic certification raises quality and generates higher incomes while protecting the environment and biodiversity. Fair trade schemes focus on social aspects of farming, and some programs include basic sustainable practices. While certification does not solve all social and environmental issues, the farming skills and administrative competences required for such certification can be beneficial for a more harmonized and efficient farming. Standardizing certification in Pu'er remains a difficult task. Coffee industry has not reached the level of sophistication necessary to take the further step towards certification, and the process could be costly and unsuccessful. Farmers need to reach higher quality standards before applying for certification. Moreover, the costs of this process are relatively high, and farmers face high investments and profit loss in the first years. In order to facilitate the process, companies should encourage farmers to seek certification by providing financial assistance, technical support, and regular monitoring. Nestlé's rigorous control of their 4C units should serve as an example of how assistance from companies or buyers greatly contributes to the expansion of coffee certification. As for which program to choose, farmers should considerate all options carefully and choose the scheme that adapts more to their target consumer. Farmers that want to grow beans for the domestic market should seek organic certifications, particularly Chinese; farmers targeting an international audience have more freedom of choice. No matter what program they choose, farmers need to keep in consideration the economic and technical risks of certification in order to succeed and take a step towards increased profits.

On the positive side, coffee boom in Pu'er could lead to the development of a new form of tourism. This industry will invigorate visits to the region, help advertise local coffee brands and promote coffee consumption among Chinese consumers. Given that Pu'er coffee is not popular in China yet, a holistic tourist package including local culture—with an emphasis on ethnic minorities—, nature, gastronomy and coffee experience would be advisable in order to attract more visitors. Unfortunately, Pu'er authorities need to take action to improve the

amenities and infrastructures of the region, raise the knowledge about coffee, and enhance basic services. For instance, Pu'er should focus on English language tourist and hospitality services, accommodation and transportation adapted to international preferences and the creation of coffee-specific merchandising. Above all, Pu'er should work on transforming the city of Simao into a place that transpires coffee in every corner. Promoting coffee tourism for a place that has nearly no coffee shops would most likely be unsuccessful. Authorities and businessmen need to consider these improvements before coffee tourism takes off.

5. Conclusion

In the land of tea, coffee has been growing fast in the last years. Since 2010, the area cultivated and the exports have tripled, and the total revenue from coffee sales has almost doubled. Simultaneous to the expansion of coffee business is the recognition for this local industry. Nowadays more and more consumers, investors and experts know about coffee grown in China. Given the recent success in sales, coffee industry in Pu'er is expected to continue the fast growth experienced in the last years. Local government and businesses want to create a Pu'er brand and promote the region as the coffee capital of China. Not only that, in the future they also aspire to become a point of reference for the coffee industry in Asia.

The achievements in coffee business can be almost entirely attributed to the involvement of the local government. They have succeeded in the formulation of industry-specific policies, the support to farmers and companies, and the coordination of all parties involved in coffee in Pu'er. Their motivation is more symbolic than purely economic. They want to prove that Yunnan is not an underdeveloped region; they want to show that the efforts of the local government have resulted in the development of a specialty industry unique in China; and they want to transfer that regional pride into a national pride, to promote domestic consumption of local products and reduce the import of foreign coffee.

Coffee multinationals like Nestlé and Starbucks remain important for the business, particularly in the areas of technology transfer and training. Nevertheless, the last years have seen the rise of domestic companies and processing companies that, with the assistance of the government, are trying to climb up the technology ladder and produce high-quality coffee. Despite lacking stability and a strong international presence, local companies have come a

long way in the past years. If they continue to evolve at this rate, local companies will likely become a benchmark of success amongst national coffee businesses and will take an important part of the leadership in the development of the Pu'er coffee industry.

In the coming years, Chinese coffee consumption will continue to increase at a fast speed. Pu'er producers hope that a focus on the domestic market will help boost coffee sales, improve the image of Yunnan, and attract tourism. Moreover, the economic and non-economic benefits resulting from growing coffee will positively benefit farmers and the local economy of Pu'er. Farmers can consider coffee as a positive alternative to their precarious situation.

Nonetheless, coffee is an unstable cash crop that can suffer drastic price changes in short periods of time. Farmers that decide to turn to coffee should consider these aspects of coffee growing before they invest money and time. Despite encouragement from officials and entrepreneurs, this industry is not stable yet and an overconfident immersion in the coffee growing business could worsen the situation of some farmers. They need be informed and act with caution. Moreover, the expansion of coffee plantations could have a severe impact on the environment. Authorities need to foresee the potential risks of intensive coffee cultivation before encouraging the fast expansion of the land available for coffee.

Generally speaking, the fast development of coffee industry in Pu'er has had a very positive impact on the region. Coffee may not generate significant profits now, but the creation of an innovative and exclusive industry is a reflection of the progress they are making. The local government has thrived in designing an organized network of bureaucrats, entrepreneurs and *laobaixing* that has proved to be more successful than any other county and province in China. Providing that the government proceeds with caution and prioritizes quality over quantity, the expansion of coffee industry in Pu'er will be very beneficial for the economic, political, social and entrepreneurial development of Pu'er and Yunnan.

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Appendix

TABLE 6: Codes and references of the interviewees

Code	Occupation	Date of interview/ personal communication	Location
B01	Secretary General, Yunnan Coffee Association	March 12, 2014	Kunming
B02	Head of communications, Aini Garden	March 13, 2014	Kunming
B03	Executive director for the distributor of Manlao River Coffee in Kunming	March 13, 2014	Kunming
B04	General manager of Kworlds Communication	March 18-24, 2014	Pu'er
B05	General manager of Beigui Coffee	March 19, 2014	Pu'er
B06	Manager of Nestle Coffee Agriculture Service in China	March 20, 2014	Pu'er
B07	Deputy general manager of Starbucks in Pu'er	March 21, 2014	Pu'er
B08	General manager of Arabicism	March 21, 2014	Pu'er
B09	Owner of Yicun Coffee	March 21, 2014	Pu'er
B10	Promotion manager at Aini offices in Pu'er	March 24, 2014, May 5, 2014, May 12, 2014	Pu'er
G01	Director of the Pu'er Coffee Industry Development Office	March 18, 2014, June 24, 2014	Pu'er
G02	Deputy director of the Pu'er Coffee Industry Development Office	March 18, 2014, May 12, 2014, June 25, 2014	Pu'er
S01	Researcher at the University of Tropical Crops in Pu'er	March 20, 2014	Pu'er
S02	Founder of Green Watershed	March 26, 2014	Kunming
S03	Member of Green Watershed	March 26, 2014	Kunming

S04	Researcher at the Tourism Management department in Yunnan University	May 16, 2014	Kunming
F01	Farmer at Nestlé procurement center	March 20, 2014	Pu'er
F02	Farmers at Starbucks and Aini procurement center	March 21, 2014	Pu'er
F03	Farmer at Beigui procurement center	March 19, 2014	Pu'er
F04	Farmer in Ning'er county	March 23, 2014	Pu'er
C01	Employee at one of Aini's cafés	March 24, 2014	Pu'er
C02	Businessman of Pu'er	March 22-24, 2014	Pu'er

