From Tea Garden To Cup

China's Tea Sustainability Report

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SRI OCIAL ESOURCES NSTITUTE

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2009

Social Resources Institute (SRI)

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Social Resources Institute (SRI) is an independent research institution focusing on the cross-cutting areas between business and civil society. SRI aims to research the social problems occurring during the economic development and explore the appropriate solutions. SRI's mission is to promote sustainable business in China.

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SOMO is a non-profit Dutch research and advisory bureau. Its activities and research on corporations and their international context focus on sustainable economic and social development and on the structural eradication of poverty, exploitation, and inequality.

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1 Preface

China is the cradle of tea and remains the largest tea producer in the world. China comes only after Kenya and Sri Lanka in tea export, ranking third in the world. China also has the largest tea grower population in the world, with about 80 million people working on tea farms. China provides more than one million tons of tea for both foreign and domestic markets each year.

Drinking tea has become part of life for many people. Only secondary to drinking water in the world, tea has become even more popular than coffee. However, most people have no idea of tea production process from processing, blending, packaging, transportation and sale, as well as the major players involved in this process that spans agriculture, industry and retail, let alone the impact of tea consumption and production upon the tea growers and workers' lives.

In this project, our primary focus is on the tea growers. In China, each tea growing household occupies 2 to 3 mu (1 mu=667 sq m) tea farm. Their average income is only half of average income of farmers. Low income has made tea growing lose its attraction. Younger generations prefer seeking employment in cities than staying home growing tea.

Similarly, we should also pay attention to conditions of tea workers. During the past several years, a wave of social audit has been sweeping the clothing and electronics industries in the Yangtze River Delta and Pearl River Delta to improve corporate social responsibility (CSR). Now this trend has also been observed in the tea industry. Our investigation reveals that some tea brand owners have started to require tea processing companies to meet human rights, labor and environmental standards. We have also discovered that there is a wide gap between working conditions of tea workers in China and international social responsibility standards.

Within this context, we launched this research project on Chinese tea supply chain in hope of promoting the sustainable development of tea industry through establishing the communication platform among different stakeholders.

Research Goals

In this report, sustainable development is defined on two levels: first, economic development should benefit low-class producers and comply with human rights standards, safeguard rights and interest of workers and protect environment in business activities; second, the development should not harm the interests of next generation.

The goal of this project is to promote sustainable development of the tea industry through analyzing the tea supply chain in the collaboration with the stakeholders. It can be specified as follows:

- Describing the panoramic picture of the tea supply chain in China, including all the links and major stakeholders; and establishing the core action agents;
- From the perspective of sustainable development, analyzing problems and challenges of the tea supply chain, with the emphasis on the practial difficulties encountered by tea growers and workers in their efforts to improve living conditions;
- Introducing practical solutions based on the above analysis to help promoting the sustainable development of Chinese tea industry, which will directly benefit the tea growers and workers.

Research Methods

Supply chain is defined by Hopkins and Wallerstein (1994) as 'a network of labour and production processes whose end result is a finished commodity'. In this project, we adopt supply chain analysis as our main research approach to explore the circulation of tea in the different links as a primary agricultural product and commodity, as well as the impact the enterprises and global trade will have upon the tea growers and workers who are at the bottom of the chain.

This approach can also clearly reveal the influence different action agents and stakeholders have upon the supply chain.

This report is based on both desk research and field investigation.

Desk research: the researchers collected existing research literature such as China Statistical Yearbook, law documents, corporate annual reports and press release. Some local tea agencies were very helpful in providing information about the development of the local tea industry. However, studies of Chinese tea growers and CSR of tea companies remain limited, so we have to conduct field research to supplement this aspect.

Field Investigation: Between April and July, 2008, researchers traveled to five major tea producing regions which are Hubei, Anhui, Jiangxi, Zhejiang and Yunnan and interviewed local tea growers, tea growers associations, factory workers, primary processing factories, refineries, reputable companies, cooperatives and local tea authorities. Researchers also visited major tea distribution centers in Beijing. Face-to-face interview is the major method for field research.

Research Limitations

As the first research project on sustainable development of the Chinese tea industry, this report aims to provide a panoramic description of the industry. While analyzing the supply chain, we have tried to cover all the major players involved. We hope it can help readers have a complete understanding of Chinese tea industry as well as its problems. However the research needs further improvement in depth and statistics.

China boasts a great variety of tea. The conditions of tea growers and workers from different places vary, as well as tea processing, marketing, trading and export companies. This report has tried to classify them and explain their differences. However, due to the limited time, we were not able to study all the players in all the tea producing areas. We would appreciate your pointing out what the report has not covered.

2 Overview of the Tea Industry

This chapter gives a detailed introduction to recent development of the Chinese tea industry and an outline of the Chinese tea. It also offers a complete picture of the Chinese tea classification, place of origin, output, output value, domestic sale and export based on the characteristics of the industry to provide the readers with an overall description of the Chinese tea industry.

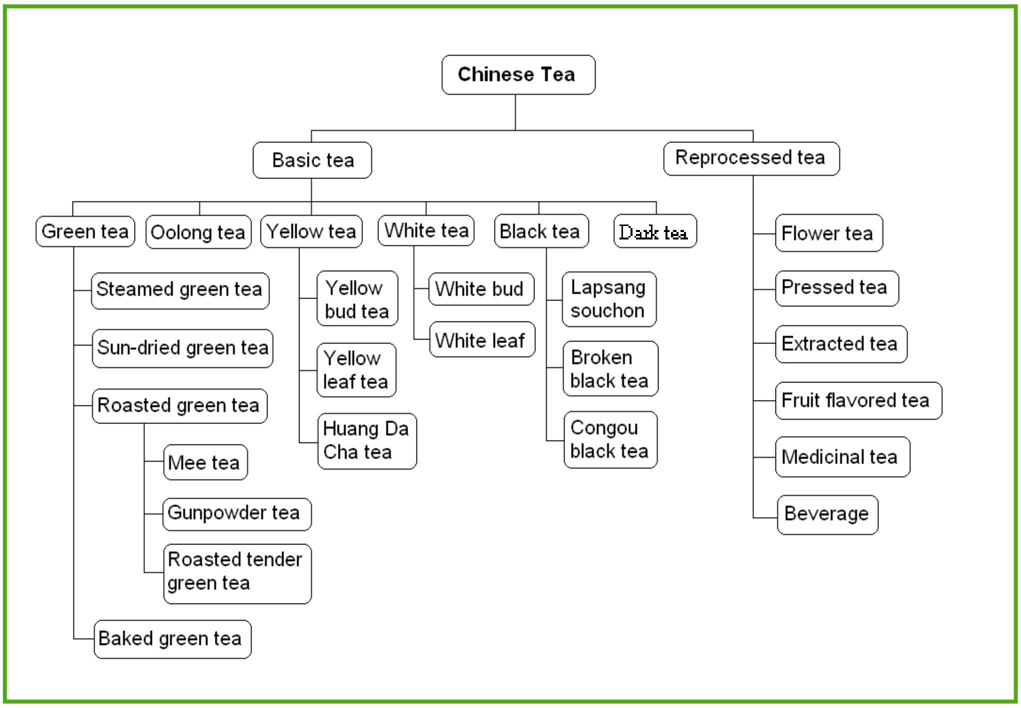
2.1 Tea Classification

Classification of the Chinese tea is varied and complicated.

Normally, tea can be classified into two categories: basic tea and reprocessed tea. Basic tea can be divided into six broad categories according to production methodology: green tea, black tea, oolong tea, white tea, yellow tea and dark tea. These categories can be further divided into sub-categories (Figure 2.1-1). The second type refers to primary tea and refined tea that are reprocessed with an infusion of fruit or herbs with other flavors added.

The fineness of tea production, tea can be classified into mass-produced tea and high-end tea. Mass produced tea refers to tea leaves that are produced mostly by machines. With machine-plucking which costs less human labor, this type of tea usually sells cheaper. High-end tea is mostly handmade during the whole procedure. Since only hand-picked leaf buds are used, it sells much higher.

Figure 2.1: Classification of Chinese Tea



Source： Social Resource Institute (SRI)

2.2 Tea Producing Areas

As tea producing areas mainly concentrate in south China, they are normally divided into four zones as follows:

A. South China Tea Area: This area is located in south China, including middle south of Guangdong, south of Guangxi, middle south of Fujian, Taiwan and Hainan. This area is most suitable for growing tea. Often producing large-leafed tea, this area is a major source of black tea, oolong tea, and flower tea.

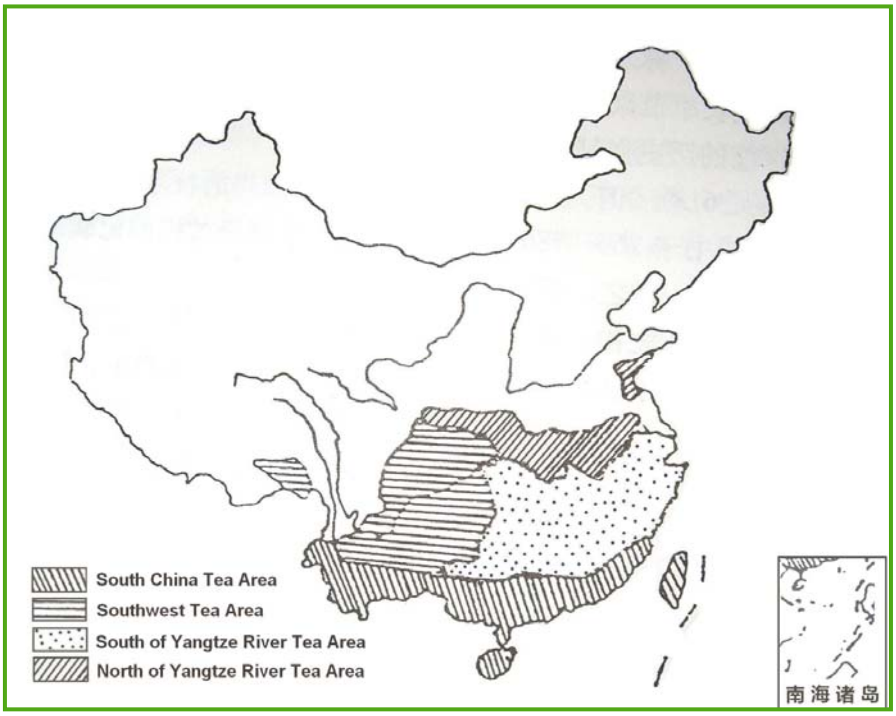
B. Southwest Tea Area: This area is located in southwest China, including middle north of Yunnan, Guizhou, Sichuan and southeast of Tibet. This area is the most ancient tea growing area in China, boasting a multitude of tea species. As one of the major bases of big-leafed red fannings, it mainly produces black tea, green tea, Tuocha tea, and Pu-erh tea.

C. South of Yangtze River Tea Area: this area is located in south of the middle and lower reaches of the Yangtze River, including Zhejiang, Hunan, Jiangxi, south of Anhui, south of Jiangsu and south of Hubei. As a major tea base in China, this area produces two thirds of the total yield every year. It mainly produces green tea, black tea, dark tea and flower tea, as well as other various kinds of high-end tea. The tea farms mainly spread in hilly areas, with few of them on high mountains.

D. North of Yangtze River Tea Area: this area is located in the north of the middle and lower reaches of the Yangtze River and is the northernmost tea producing area in China, including

Henan, Shaanxi, Gansu, north of Anhui, north of Jiangsu and north of Hubei. This area mainly produces green tea.

Figure 2.2-1 Distribution of Four Major Tea Areas in China



Source：Social Resource Institute (SRI)

Famous Teas and Genuine Tea Production Areas

In China, famous teas don’t usually associate with certain brands, instead, they are more closely related to the production areas. Due to specific soil and weather condition, as well as the historical and cultural value accumulated during the past thousands of years, the teas produced in these areas enjoy very high reputation. At present, there have formed Ten Famous Teas.

In this project we selected three famous teas mentioned in most of the folk stories, which are West Lake Longjing Tea, Dongting Biluochun Tea, and Anxi Tieguanyin Tea; and take these three tea production areas as the genuine tea production areas.

We use *genuine* to emphasize the special local natural environment, as well as the unique cultural tradition. We want to highlight this concept as we notice that the livelihood of tea growers and mode of tea production and distribution in these areas are of their own characteristics, which can’t be replicated easily. The other thing worthy noticing is that the long cultural tradition has already transcended the uniqueness of natural environment, and has become an important index for the value of tea. This is one special point about Chinese tea.

Figure 2.2-2 Genuine Tea Areas

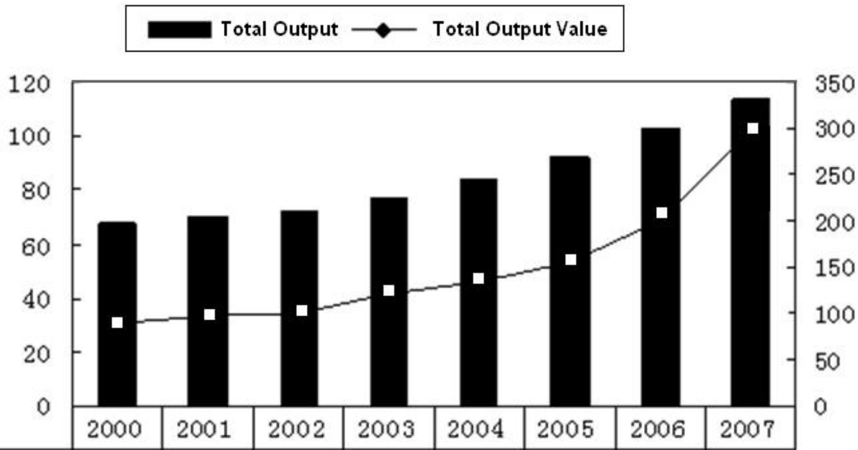
	Name	Type	Genuine Tea Area
1	Longjing	Green	West Lake, Hangzhou, Zhejiang
2	Biluochun	Green	Dongting Mountain, Wuxian County, Jiangsu
9	Tie’guanyin	Oolong	Anxi, Fujian

Source： Social Resource Institute (SRI)

2.3 Tea Output

In 2005, China overtook India and became the world’s largest tea producer. In 2006, China became the first country whose tea output exceeded one million tons. In 2007, China recorded 1.53 million hectares of tea farm, with 1.14 million tons output, accounting for 35 percent and 30 percent of the world’s total. In 2007, China’s tea output value reached RMB 29.88 billion.

Figure 2.3-1 China’s Total Tea Output and Output Value in Recent Years (Unit: 10,000 tons/ US$ 100 Million)



	2000	2001	2002	2003	2004	2005	2006	2007
Total Output	67.6	70.2	72	76.8	83.5	92	102.8	114
Total Output Value	90	96.7	100	120	135	155	200	298

Source: China Statistical Yearbook 2007, made by Social Resources Institute (SRI)

China’s tea production started acceleration in 2004, and its annual growth rate of total output and value averaged nearly 11 percent. Accelerated growth is not only attributable to six percent of annual area growth of tea farm, but also to transition from traditional to modern tea production. Meanwhile, the structure and geographical distribution of the tea industry have become more scientific and tea products more technology intensive. With increasing output per unit of tea farm, tea output per hectare had reached 745 kg by 2007.

Tea Output Structure

China's tea production is dominated by green tea. Green tea accounts for three quarters of total tea growing area and output. China is also the world largest green tea producer. In 2007 it produced 860 thousand tons of green tea, making up 78 percent of the world's total of 1.11 million tons.

In addition, high-end tea is replacing mass-produced tea as the dominant tea product in China. The output of this type of tea has increased from 144 thousand tons in 2000, to 435 thousand tons in 2007, accounting for 38.2% of the total production. The output value has increased from RMB 5.5 billion in 2000 to RMB 24 billion in 2007, accounting for 80% of the total output value.

Output of Different Tea Areas

China has 19 tea production areas in total, including provinces, autonomous regions and municipalities. The main tea production provinces can be found in Table 2.3-2.

The areas in the south of Yangtze River contribute the largest output, while South China is also the main tea production area. The output from Fujian Province has remained top through the years.

Table 2.3-2 China's Provincial Tea Output in 2007

Province	Output (10,000 tons)	Proportion of total (%)
Fujian	22.16	19.43
Yunnan	17.00	14.91
Zhejiang	16.02	14.05
Sichuan	13.10	11.49
Hubei	10.50	9.21
Hunan	8.75	7.68
Anhui	7.10	6.23
Guangdong	4.89	4.29
Guangxi	3.40	2.98
Guizhou	2.84	2.49
Henan	2.61	2.29
Shaanxi	1.40	1.23
Jiangsu	1.40	1.23

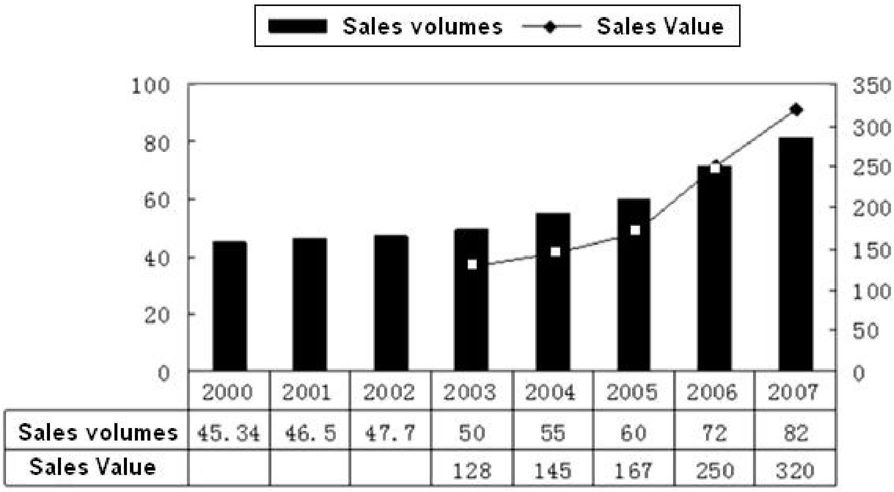
Source: Statistical Communique on 2007 National Economic and Social Development of each province

Organized by SRI

2.4 Domestic Sale

China sells two thirds of its tea in the domestic market. In 2007, the domestic sales reached 820 thousand tons, 12 percent more than in the last year; and the sale amount reached RMB 32 billion, 28 percent more compared with last year.

Figure 2.4-1 Tea Sale in the Domestic Market in Recent Years (Unit: 10,000 tons/ US$ 100 Million)

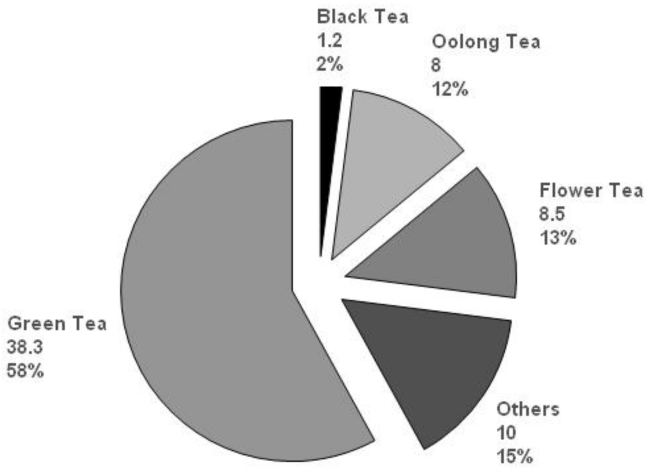


	2000	2001	2002	2003	2004	2005	2006	2007
Sales volumes	45.34	46.5	47.7	50	55	60	72	82
Sales Value				128	145	167	250	320

Source: China Tea Marketing Association (CTMA), Ministry of Commerce (MOFCOM), made by SRI.

China's domestic tea consumption market is dominated by green tea. In 2007, green tea snatched half of the market share, followed by flower tea and oolong tea. Red tea only had 2 percent of the market share.

Figure 2.4-2 Sales of Different Tea in the Domestic Market

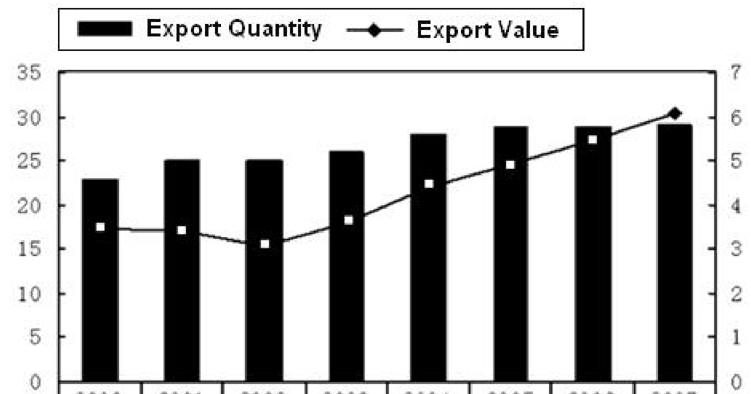


Source: China Tea Marketing Association (CTMA)

2.5 Tea Exports

After garlic, rice, soybean meal, citrus, tea comes the fifth in the total output volume of Chinese agricultural products. In 2007, China came after Kenya and Sri Lanka in terms of tea export value, ranking third in the world.

Figure 2.5-1 China's Tea Export in Recent Years (Unit: 10,000 tons/US$ 100 Million)



	2000	2001	2002	2003	2004	2005	2006	2007
Export Quantity	22. 77	24. 97	25. 02	25. 99	28	28. 8	28. 7	28. 94
Export Value	3. 47	3. 42	3. 05	3. 58	4. 37	4. 91	5. 47	6. 07

Source: National Bureau of Statistics (NBS), MOFCOM, made by SRI

Since 2004, China's annual tea export volume has remained stable between 280 and 290 thousand tons, with small steady growth every year.

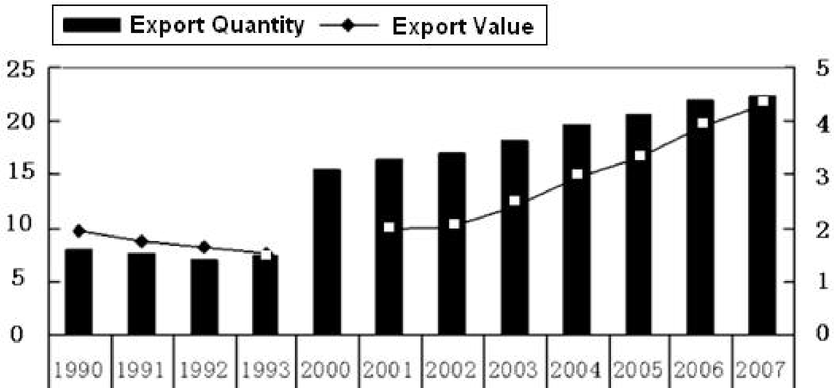
Because the exported green tea are mainly mass-produced tea with low price, exported black tea has no advantage in quality as well as production cost. In 2002, the export amount went up while the price decreased. The increase has been maintained afterwards, however, due to the other factors such as inflation, it becomes less obvious after 2004.

Exports of Different Types of Tea

The main type of tea exported in China is the green tea. In 2007 China exported 223.7 thousand tons of green tea, accounting for 77.32 percent of the total tea export. China is also the world's largest green tea exporter.

While the export amount of green tea increased sharply, the opposite trend was observed in black tea export during 1990's. In 1999, because the European Union implemented the new pesticide standards, black tea exported to Europe decreased by 44% campared to the same period in last year. With the profit of famous green tea in domestic market increasing yearly, the black tea planting areas decreased accordingly. Since 2002, the export amount of black tea has remained at a low level, as indicated in Figure 2.5-3.

Figure 2.5-2 China's Green Tea Export Trend in Recent Years (Unit: 10,000 tons/US$ 100 Million) [1]

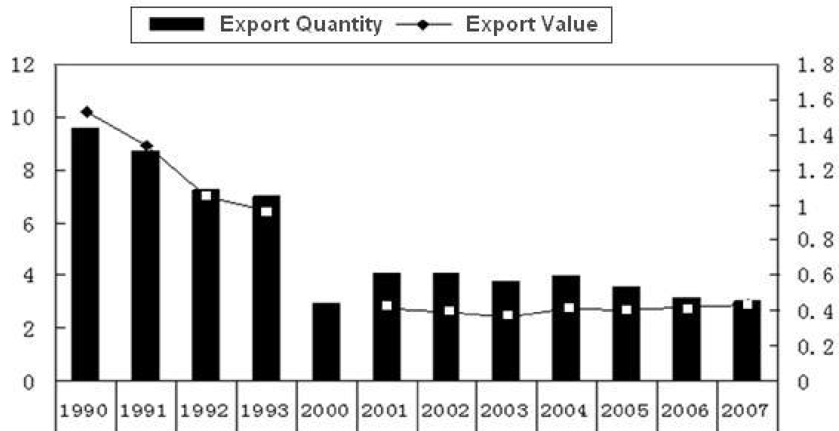


	1990	1991	1992	1993	2000	2001	2002	2003	2004	2005	2006	2007
Export Quantity	7.98	7.69	7.05	7.51	15.5	16.3	17	18.2	19.6	20.6	21.9	22.4
Export Value	1.94	1.75	1.64	1.52		1.99	2.03	2.41	2.94	3.31	3.9	4.31

Source: International Society of Tea Science (ISTS), NBS, MOFCOM

While green tea export enjoys rapid growth, China's red tea export once plummeted in the 1990s. Since the 21st century, red tea export volume has been stabilized at a low level (Figure 2.5-3).

Figure 2.5-3 China's Red Tea Export Trend in Recent Years (Unit: 10,000 tons/US$ 100 Million) [2]



	1990	1991	1992	1993	2000	2001	2002	2003	2004	2005	2006	2007
Export Quantity	9.56	8.7	7.22	6.96	2.94	4.09	4.08	3.78	3.94	3.58	3.15	3.03
Export Value	1.53	1.34	1.05	0.97		0.41	0.39	0.36	0.41	0.4	0.42	0.43

Source: Ministry of Commerce (MOFCOM), National Bureau of Statistics (NBS), made by SRI

Tea Export of Different Provinces

The major tea export provinces are located in the south of Yangtze River such as Zhejiang and Anhui; and South China such as Fujian and Guangdong. Zhejiang has been a national leader in tea

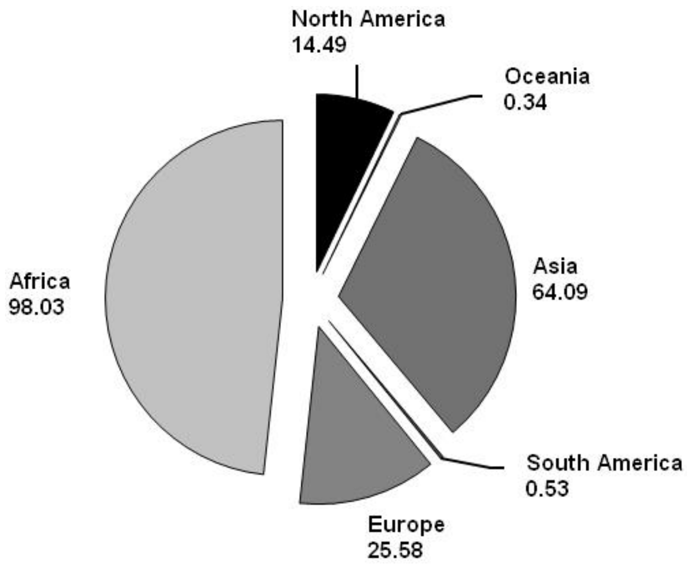
1 The data from 1994 to 1999 can not find.
2 The data from 1994 to 1999 can not find.

export, accounting for over half of the national tea export every year. In 2007, Zhejiang exported 151.5 thousand tons of tea, accounting for 57.4 percent of the total volume.

China's Tea Export Markets

China's tea is mainly exported to Africa, rest of Asia and Europe, with half of the volume going to Africa (Figure 2.5-4).

Figure 2.5-4 Continental Export in the First 8 Months of 2008 (thousand tons)



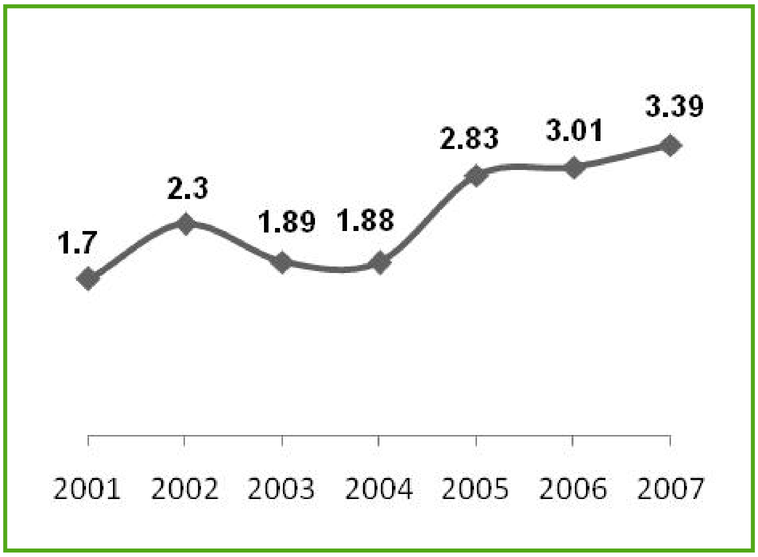
Source: China's Monthly Export Report (tea) of MOFCOM, August, 2008

The top 5 countries that import tea from China are Morocco (56.8 thousand tons), Japan (27.7 thousand tons), Uzbekistan (19 thousand tons), US (18.8 thousand tons) and Russia (16.6 thousand tons).

2.6 Tea Price

Since 2002, tea price has undergone a low ebb period due to two reasons. On the one hand, because the continually growing domestic production capacity made it difficult for peasants to increase income, the poorer western regions turned the farmland into tea plantations as one of the main measures to improve the peasants' livelihood. On the other hand, international tea prices have remained low, also the European Union and Japan have raised the standards for pesticide residues detected, leading to the blocking of tea export, and further decreasing of tea unit price.

Figure 2.6-1 Average Tea Price in Recent Years (US$/kg)



Source: SRI based on the data of National Bureau of Statistics (NBS)

Among tea prices, the price that has the biggest impact upon the livelihood of tea growers is the price at which they sell their products first hand, namely the production price of tea. According to the National Bureau of Statistics, the Chinese tea price has shown an upward trend, except in 2003 the circulation link was blocked by SARS.

Figure 2.6-2 Producer Price Index of Tea from 2002 to 2006

Last year=100

	2002	2003	2004	2005	2006
Crude red tea	105.33	83.22	109.41	112.57	106.19
Crude green tea	180.71	100.56	110.48	110.95	107.03
Oolong tea	106.26	94.56	107.50	95.89	103.20
Tea		91.99	111.22	110.22	106.96

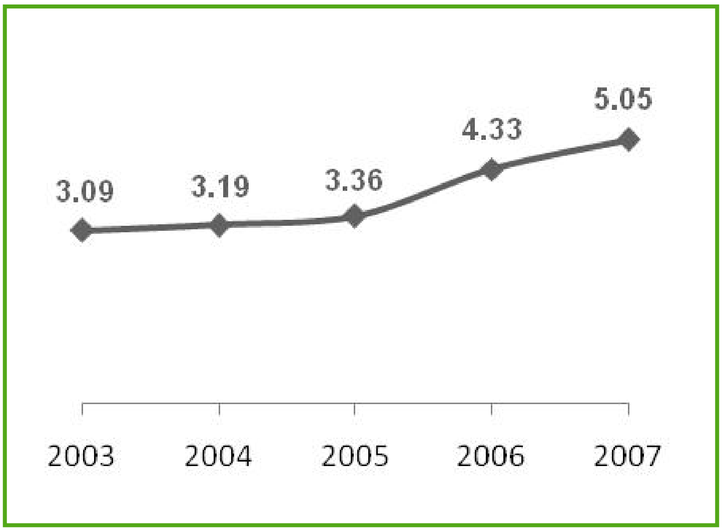
Source: PPI of Agricultural Products 2006, NBS; organized by SRI

It should be noted that tea price rise does not necessarily improve livelihood of tea growers, as CPI is also on the rise at the same time; and the prices of agricultural means of production such as pesticide and fertilizer grows even faster, which offset the increased income of tea growers.

Tea Price in the Domestic Market

The domestic price is directly related to the construction of teas in the market. Although mass-produced tea in flow is much more than high-end tea in quantity, the output value of high-end tea has reached 81% of the total output value, contributing to the sharp increase of domestic price. In 2007, the domestic price reached to 39 yuan/kg, more than doubled over the same period of the previous year.

Figure 2.6-3 Pricing Trend of Tea Sale in the Domestic Market (US$/kg)



Source: SRI based on the data of National Bureau of Statistics (NBS); made by SRI

Tea Price in the Export Market

As tea for export is mainly mass-produced, the export price is lower than that in the domestic market. The price of exported tea in 2006 and 2007 averaged RMB 15/kg, only half of the domestic price.

Green and black tea accounts for the biggest share in the tea export. If cost is deducted, China's export of red tea is losing money, while export of green tea can only gain low profit.

Figure 2.6-4 Changes of China's Black Tea Production Cost and Export Price (US$/ton)

Year	00	01	02	03	04	05	06
Production cost	983.1	814.3	867.0	1,016	1,572	1,764	1,777
Export price	1,126	1,009	950.7	962.0	1,054	1,080	1,312

Source: SRI based on Compilation of Information on the Cost-benefit of National Agricultural Products

One of the important reasons for dropping of black tea export price is that the export market has shifted from Europe to Africa where middle and low consumption dominates. Meanwhile with the cost for labor and raw materials increasing, compared with Vietnam and other countries which catch up later, Chinese black tea production possess no advantage in price any more, and is giving up a large portion of their market share gradually. Counting in the cost for refining processing, the financial losses in black tea export will keep increasing.

Table 2.6-5 Changes of China's Green Tea Production Cost and Export Price (RMB/ton)

Year	00	01	02	03	04	05	06
Production cost	1,244	810.2	1,346	1,290	1,294	2,949	2,779
Export price	1,404	1,223	1,192	1,328	1,488	1,556	1,747

Source: SRI based on Compilation of Information on the Cost-benefit of National Agricultural Products

From 2004 to 2006, due to the unfavorable weather such as heavy snow in Zhejiang, the national green tea average output quantity dropped from 96.10 kg/*mu* to 51.40 kg/*mu*. Meanwhile the increase of cost of means of production such as chemical fertilizer caused the production cost of green tea to rise quickly.

Because the high-end green tea is sold in domestic market at a higher price, also the cost of raw materials is higher, the average production cost for green tea increase greatly. The actual figure of exported green tea is lower than the national figure according to the current statistics; therefore there is still little benefit in green tea export.

3 Analysis of the Tea Supply Chain

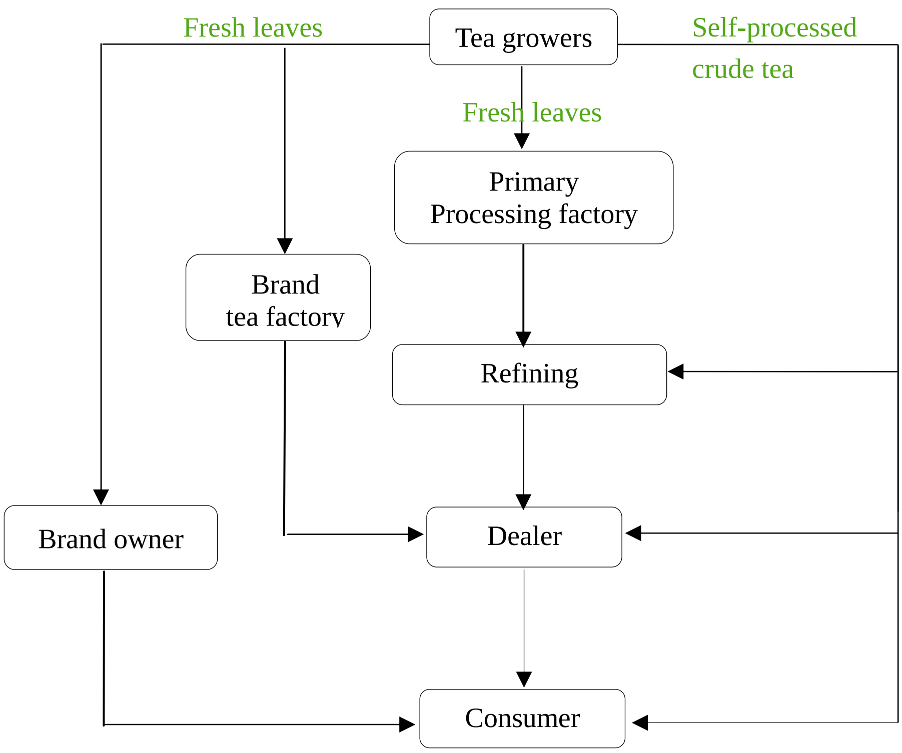
This chapter will provide an overview of major stakeholders in the tea supply chain. Owing to different characteristics of players in the supply chain, the report divides the supply chain into two kinds: supply chain of the domestic market and supply chain of the foreign market. The major task of supply chain analysis is to identify the core action agents, and analyze if their efforts will be favorable for the sustainable development or not.

There are also stakeholders outside of the supply chain, such as government and various civil society organizations, which we will address in Chapter Four and Five. The analysis of the supply chain in the report aims to study various social strata of the tea industry, with the focus on tea growers, tea workers, and manufacturing and processing companies at the bottom of the supply chain.

3.1 Diagram of the Supply Chain of the Domestic Market

More than 2/3 of the tea is consumed in the domestic market. One characteristics of the domestic sale supply chain is that the distance between tea growers and market is very short, therefore tea growers are able to provide tea products directly to the consumers.The supply chain of the domestic market is shown as below:

Figure 3.1 Supply Chain of the Domestic Market



Made by SRI

After picking fresh tea leaves, tea growers have two options: selling the leaves directly or selling self-processed tea. As processed tea is more expensive than fresh leaves, to get more profit, skilled tea growers tend to process tea themselves and sell the remaining fresh leaves to primary processing factory and brand tea factory.

There are mainly three distribution channels that turn fresh leaves picked by tea growers into finished tea.

I. Tea growers sell fine tea leaves they handpicked to brand tea factories which process the leaves into tea and then sell it to dealers. Through wholesale and retail the tea is sold to tea store, teahouse, supermarket and other stores, and finally to consumers.

II. Tea growers sell both leaves and buds to processing factories for mass-producing tea. After the processing factories have turned them into crude tea, the refineries will buy it and reprocess it into finished tea after sorting and selection. Refineries mainly engage in tea mass production, and tea mass produced, after entering the distribution channel, is sold in the market mainly through wholesale. Such tea is mainly supplied to places such as hotels and restaurants that provide free tea.

III. Tea growers process fresh leaves into tea and sell it themselves. On the one hand, tea growers sell their roughly processed tea to refineries, brand tea factories and businessmen that come to their place to buy tea. On the other hand, tea growers further process crude tea into high-end tea and sell it in the township- or county-level retail market. In the genuine tea areas, as the tea available is limited but expensive, dealers and consumers will also go to the tea growing households to buy tea directly.

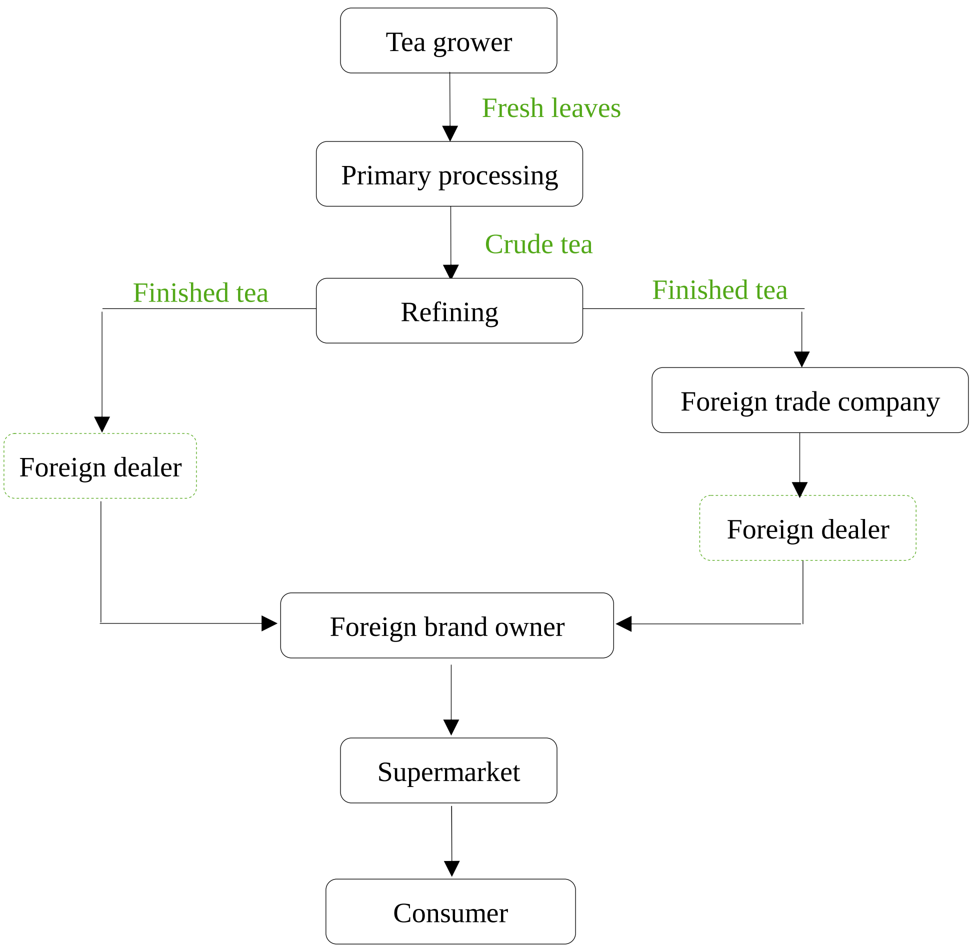
There is another different distribution channel, which consists of tea growers, brand owners and consumers. The brand owners here refer to comprehensive tea companies that engage in production, supply and marketing. Such companies usually have their own production bases[3] and processing factories, and place orders to tea growers for fresh leaves and have their own tea chain stores directly selling tea products to consumers.

3.2 Diagram of the Supply Chain of the Export Market

China's tea export, particularly green tea export, boasts an important position in the world market. Export-oriented tea is mostly mass-produced.

[3] Plantations which rent from local government

Figure 3.2 Supply Chain of the Export Market



Tea growers who are at the top of the supply chain sell fresh leaves, including both leaves and buds, to primary processing factories, which process fresh leaves into crude tea and then sell it to refineries. After sorting and selection, the refineries will turn crude tea into finished tea, which will enter either of the two distribution channels:

I. The refineries directly export tea and do business with foreign purchasers (dealers or brand owners). Such refineries are equipped with export license, mass production capacity and foreign trade professionals, thus capable of handling complex export business on their own.

II. Small refineries that are not allowed to engage in exports on their own usually entrust foreign trade companies to handle their export business. Some reprocessing companies have obtained export license, but their lack of foreign trade professionals force them to turn to foreign trade companies in tea export.

Unlike domestic consumers who buy tea in tea store, supermarket and wholesale market, foreign consumers rely on supermarkets as the major channel to buy tea.

3.3 Tea Growers

China has the largest tea growing population of about 80 million tea growers compared with other tea producing countries. Tea production remains a small family business in China. On average, each tea growing household has 2 to 3 labors. Per capita cultivated area is less than one *mu* of tea farm, and per capital tea output of China is the lowest among the major tea producing countries.

Figure 3.3 Quantities of Tea Growers and Per Capita Tea Output of the Major Tea Producing Countries

Country	Number (10,000)	Per capita output (kg)
China	8000	10.4
India	150	546
Sri Lanka	75	402
Kenya	50	649

Source: Report on the Development of Tea Industry in China and across the Taiwan Strait

At the uppermost position of the supply chain, tea growers are the source of raw materials for tea production, getting the least profit while doing the most intensive work. Although some of them have transitioned from growing to sale, scattered tea growers remain in a disadvantage in the supply chain dominated by companies and have no equivalent power in bargaining with companies.

3.3.1 Types of Tea Growers

Figure 3.3.1 Classification of Tea Growers

- Tea growers
  - Genuine tea growers
  - Non-genuine tea growers
    - Full-time tea growers
    - Part-time tea growers

Whether tea growers are located in the genuine tea production areas is the criterion to distinguish genuine tea growers from non-genuine tea growers. We draw this line because whether tea growers are located in the genuine tea areas is a major determinant of income of tea growers.

According to the proportion of income from tea to the total income from agriculture, non-genuine tea growers are divided into full-time and part-time ones.

Genuine Tea Growers

Genuine tea growers refer to those who grow tea in the genuine tea production areas, By rough estimation, the number of genuine tea growers is about 300 thousand, less than 1 percent of the total.

The work of genuine tea growers involves planting, plucking, rolling, sale and tourism service. Their income is much higher than other types of tea growers because of four reasons: first, they are equipped with better techniques. As their ancestors lived on tea growing and passed techniques to them, they have accumulated rich experience in tea farm management and tea sale. Besides, their tea farm has high yield. Second, genuine tea growers have moved to the downstream of the supply chain and engaged in value-adding sale. For example, newly developed tourism service has not only created a new source of income for them, but also reduced their sale cost. Third, they grow tea in superior places. China has reputable tea, but no famous tea brands. Therefore consumers tend to judge the quality of tea by its place of origin. This has become the decisive factor. Finally, because they share one place of origin, the tea growers cooperate with each other in production and sale to ensure high quality of their tea to avoid vicious competition.

In conclusion, genuine tea growers show the following characteristics.

- Geographical superiority
- Tea production techniques passed from their previous generations
- High reliance on tea for livelihood
- Nationwide sale networks
- Well developed tea-related service industries (like tourism)
- Highest income among tea growers

Longjing Tea Growers

Longjing village in Hangzhou is the place of origin of a well-known green tea, West Lake Longjing tea. The village has government-certified geographical indications of the place of origin. Now the village has been reconstructed into a travel destination, with all the houses rebuilt into Jiangnan style characterized by overhanging eaves and counterforts. The transformation is financed by both the government and villagers themselves.

Madam Wang is a local tea grower in her thirties. In her family, only she and her husband are adult labors; their daughter is just of primary school age. They run a three-*mu* tea farm. To make spring tea, they will hire plucking workers, and one rolling worker to work together with the husband. This year, they produced more than 100 kg of Longjing tea. They gave 250 g of tea per *mu* to the village committee as special procurement for the government. Their net income each year is 50 thousand RMB.

Because of lack of labor, her family has joined hands with other families to sell Longjing tea together. Each household has to provide some labor to create a sales network for their product. The Longjing village committee provides unified packaging and anit-counterfeiting label to tea growing villagers. Under the anti-counterfeiting coating is the tea grower’s ID number.

When we went to the Longjing village, it was summer. The most expensive tea called Mingqian had been sold out, but still many tourists and tea lovers flocked here. Madame Wang had been soliciting customers at the public bus station at the entrance to the village. One cup of tea costs 10 RMB, with free refilling. Another source of income is to provide meal at home to tourists.

Urban residents of Hangzhou have been dreaming of living in the Longjing village, which shows the longing of urban people for rural life. However, all the tea growers in the village expect their children to excel academically so that they won’t have to work on the farm, but to live in a city and get a decent job.

Non-genuine Tea Growers

Non-genuine tea growers refer to those who grow tea outside the genuine tea areas. As consumers associate quality of tea with place of origin, non-genuine tea growers can only sell fresh leaves or dried tea at a lower price, as they don’t have the fortune to grow tea in a famous place.

According to the proportion of income from tea in the total domestic income, the report divides non-genuine tea growers into full-time and part-time. Full-time ones gain no less than 50 percent of the total household income from tea. A few of them grow tea outside the core tea areas in the 10 genuine tea areas. Full-time tea growers also process and sell tea, but they are not comparable to genuine tea growers in terms of quantity of self-processed tea, scope and breadth of sales network.

Full –time tea growers show the following the characteristics:

- Average geographical location
- Unrefined tea rolling techniques
- High dependence on tea for livelihood
- Sale of tea in the proximity

Part-time tea growers gain less than 50 percent of their total household income from tea. They are usually stimulated by the local government to grow tea, as in Guizhou of southwest tea area and Gansu of north of Yangtze River tea area. Eager to make local farmers wealthy, local governments encourage farmers to grow cash crops and develop some barren mountains or land into tea farms.

Growing tea requires scientific management in later period. Part-time growers suffer low tea yield due to their lack of planting and cultivating techniques.

Part-time tea growers are characterized by:

- Inferior geographical location and low reputation
- Few people capable of processing tea and getting income from selling fresh leaves
- Small proportion of income from tea in the household income

3.3.2 Work of Tea Growers

The work of tea growers includes farm management, plucking, processing and sale. Processing and sale can add value, and are the major contributor to income for tea growers.

The life cycle of a tea farm lasts 50 years, with the first 3 years devoted to tending the farm. Usually 30 years after the tea farm will start aging.

Farm Management: The main work on the tea farm is to furrow, hoe and weed, and trim the tea bushes three times every year.

Plucking: Plucking is carried out in all seasons, and is needed the most in spring. Most plucking work is done manually, with workers using hand or scissors to pick leaves.

Processing: Tea growers usually process tea leaves manually, and sometimes use machines to process leaves of large quantity. Manual processing includes withering, rolling and drying and other procedures. Machines can be helpful in sorting, rolling and packaging.

Sale: Market information is crucial for tea growers to sell tea. Genuine tea growers work with their relatives and family members to expand their sales network across the whole country. Non-genuine tea growing households usually rely on males to carry tea to the nearby tea wholesale market. High-income non-genuine tea growers also rent stores in the tea market to sell their tea.

Tea production is a labor intensive industry, with plucking and processing consuming most labor which is about 80 percent of the total labor. Most tea growers are manual laborers and their works show the following characteristics:

Strict Time Limit

Although tealeaves can be plucked in four seasons, output of spring tea accounts for over half of the total output. Accordingly, most labor of tea growers is put into this season.

Plucking in spring lasts about one month. During this period, tealeaves grow very fast. One day's delay will turn tealeaf into tree leaf, and lead to fall in price. As prices of fresh leaves and dried tea go downward every day, a tea growing household has to mobilize all the people to pluck leaves, including children who join in during holidays and after school, and sometimes ask for leave from school for plucking. Meanwhile, tea growers have to hire a number of plucking workers and rolling workers to accelerate tea production.

Intensive Labor

Husband and wife working together is the normal mode among tea growers. They usually work shifts 24 hours a day. At five o'clock in the morning, the wife goes to pluck tea, sometimes taking children along to help. At the busiest season, tea growers have to spend over 10 hours plucking, from 5 o'clock in the morning to 4 or 5 o'clock in the afternoon. If they want to produce high-end tea, they can only pluck one bud from one leaf. A skilled picker can pick 2 kg top-class fresh leaves a day[4].

After the leaves have been picked, they will be immediately sold to processing factories or sent back home for rolling and drying. Only 150 to 200 g tea can be rolled and dried one time, and 2.5 kg tea can be rolled and dried all night long. The dried tea then will be sold in the market as early as possible. They can only take a rest during the break. For example, when the husband is drying the tea, the wife will sleep 3 to 4 hours. When the wife is plucking tealeaves, the husband will take a rest before selling the tea.

[4] Fresh leaves are divided into five grades. The higher the grade, the smaller the leaf. The highest class tea is made of top-class fresh leaves. For example, West Lake Longjing tea is made of small tender leaves with a small inclination whose length is less than 2.5 cm.

Processing tea is really a test to one's strength, experience and skill, and usually undertaken by a male. Boys must reach the age of 16 to learn this skill. The temperature of the tea pot is so high that it will often burn the skin of a beginner. Few females can do this job.

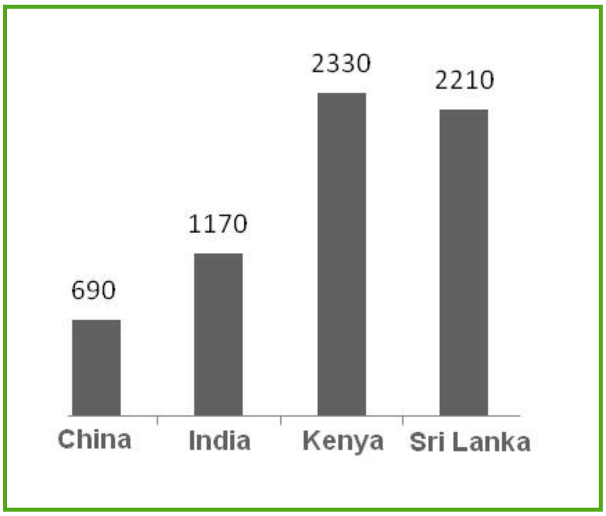
Weak Tea Growing Skills

Per capita tea output of China is only 2 percent that of India, and tea yield of one mu is less than half that of India. The main reason is because tea production and tea farm management lack technical support, as a result, too much labor is used on the tea farm.

Now most tea growers are middle-aged people above forty. As they are not well educated, they find it difficult to grasp skills in trimming crowns of tea bushes, selecting suitable pesticide and cultivating quality strains.

Now tea growers sign contracts with companies to supply fresh tealeaves to them. The companies only set standards for fresh leaves, but do not provide technical support or training to growers. Although the government has been providing various kinds of technical training, tea growers have benefited little from them, as the training is outdated and monotonous. Therefore, intensive labor remains dominant in tea farm management and tea production.

Figure 3.3.2 Average Tea Output of Major Tea Producing Countries in 2005 (unit: kg/hectare)



Source: China Tea Marketing Association (CTMA)

3.3.3 Revenue and Expenditure of Tea Growers

Revenue

Compared with other crops, tea yield value per *mu* is medium. However, average area owned by tea growers is less than one *mu*. In 2006, crude green tea yield value of one *mu* was RMB 1,719.63, per capita annual income was less than RMB 1,719.63. Compared with per capita annual income of RMB 3,309.95[5] in the same period, the income of tea growers was only slightly more than half of the average level.

Figure 3.3.3-1 Yield Value of Different Crops (US$)[6]

Type	Yield value per *mu*
Apple	420.15
Silkworm cocoon	365.42
Peanut	113.58
Crude green tea	**222.75**
Cured tobacco	178.92
Cotton	156.23
Sugarcane	172.83
Soybean	43.44

Source: Statistical Yearbook of China's Rural Economy 2007

While average income of tea growers is lower than that of other crops growers, there is a wide gap between different types of tea growers. Tea growers generally have three sources of income: 1) selling fresh leaves; 2) selling self-processed tea; 3) providing tea-related tourism service.

Figure 3.3.3-2 Income of Different Types of Tea Growers

Type	Fresh leaves	Self-processed tea	Tourism service	Annual income （US$）
Genuine	●	●	●	10,362~32,383
Full-time	●	●	○	647.7~10,362
Part-time	●	○	○	259.1~647.7

● means Yes, ○ means No;
Source: Social Resources Institute (SRI)

Selling fresh leaves is the primary income source for tea growers. Almost all the income of part-time growers comes from selling fresh leaves, so place of origin will determine the price of the same-grade fresh leaves. For example, in Longjing village, fresh leaves used for producing Mingqian tea is sold at RMB 700 to 1,000[7] per kg, but in Wenzhou, Zhejiang, which is not the genuine tea area, fresh leaves of the same grade can only sell at a price of RMB 50 to 60[8] per kg. In Yunnan, which belongs to southwest tea area, this price plummets to RMB 10[9] per kg.

Both genuine and full-time tea growers process tea themselves, but because of their different geographical locations, income of full-time growers is much lower than that of genuine growers. In 2008, the highest price of Mingqian tea sold by genuine growers in Longjing village is RMB

[5] This refers to operating revenues of the rural households, and is sourced from Statistical Yearbook of China's Rural Economy.
[6] 1 **US$**:7.72 RMB
[7] Statistics of Zhejiang West Lake Longjing Tea Association in 2008
[8] Report on Spring Tea Production, Wenzhou Agricultural Bureau
[9] Statistics of the Tea Industry Office of Yunnan in 2008

5,600/kg, more than two times higher than RMB 2,500/kg, the price at which the Mingqian tea is sold by full-time growers in Wenzhou.

Nowadays only genuine tea growers have started to provide tea-related tourism service to visitors. As genuine tea areas are often tourist attractions, they attract tourists to personally experience tea production process and provide accommodation service for them. For example, in the Longjing village, a cup of tea costs RMB 10 with refilling free. A tea growing household can gain thousands of RMB each month from this service.

Expenditure

The expenditure of tea growers includes land cost and production cost.

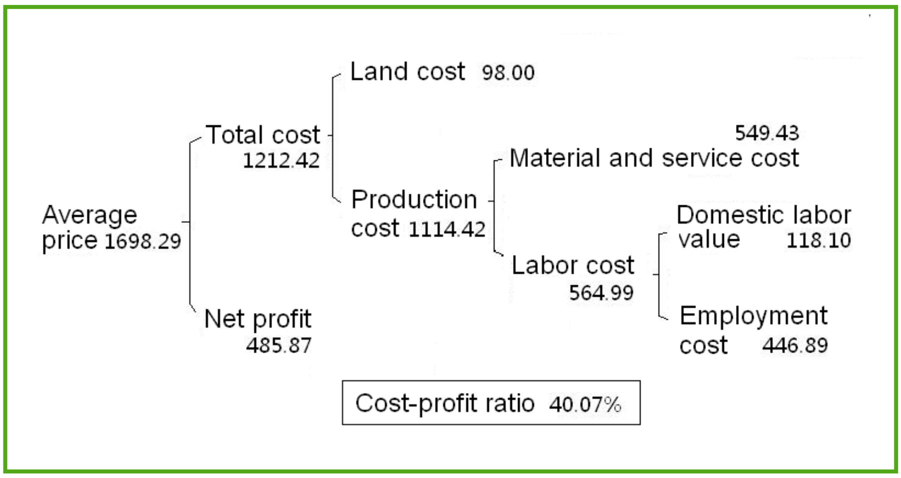
Land cost is born by paying rent for transferred land and self-operated land, accounting for only 8 percent[10] of the total cost.

Production cost is the largest expenditure for tea growers, including material and service cost as well as labor cost. Material and service cost includes cost of tea seedlings, fertilizers, power, fuel, and rental of machines, etc. Labor cost includes domestic labor value and employment cost, involving labor such as tea farm management (soil loosening, weeding and fertilizing), plucking and processing.

Material and service cost is normally equivalent to labor cost. Employment cost accounts for 79 percent of the total labor cost, because in spring growers have to hire many people to pick leaves and a small number of processing workers whose salary has been at a high level.

Profit

Figure 3.3.3-3 Average Cost for 50 kg Crude Green tea in 2006 (RMB)



[10] Calculated from cost statistics of crude green tea in 2006, Statistical Yearbook of China's Rural Economy 2007

Source: Statistical Yearbook of China's Rural Economy 2007; made by SRI

If each grower is assumed to occupy one *mu* of tea farm and produce 50kg crude green tea, then the net income of tea growers is RMB 485.87. It is only one quarter of RMB 1,930.96, the average income of rural residents in China. If the cost is deducted, their income is far lower than the national average level.

An important reason for their low income is that tea growers have to spend a lot of money on hiring extra hands. Tealeaves picking relies a lot on manual labor, and processing of high-end tea requires additional labor. Therefore, faced with increasing labor cost, Chinese tea growers will suffer narrowing profit margin.

Figure 3.3.3-4 Labor Cost for Different Crops (US$)

Type	Labor Cost
Apple	22.17
Silkworm cocoon	6.43
Peanut	0.70
Crude green tea	**58.23**
Cured tobacco	5.80
Cotton	5.69
Sugarcane	21.67
Soybean	0.99

Source: Statistical Yearbook of China's Rural Economy 2007

Income Determinants of Tea Growers

Whether tea growers can gain high income or not is determined by their geographical location and their position in the supply chain. For tea growers of the same type, their size is also an important determinant of income.

1. Geographical Superiority

Consumer's preference to the place of origin in buying either fresh leaves or dried tea explains why there is a wide income gap between genuine and non-genuine tea growers. When it comes to quality alone, tea produced in some non-genuine tea areas is even better due to their better vegetation, environment, climate and soil. Therefore, while protecting genuine tea areas, we should also encourage other tea growers to build their own brands through cooperation which is also a way to narrow income gap between different growers.

2. Value-adding Capability

Among non-genuine tea growers, the determinant of their income is whether they are capable of processing tea, that is, whether they can add value to their products. Selling fresh leaves lacks added value. According to statistics from Xinyang, Henan province, net income of fresh leaves selling growers from one *mu* of tea farm is RMB 1,829, RMB 332 less than those who process tea themselves.

Genuine tea growers' extension to downstream sides of the supply chain and provision of related service contribute to an expansion of value adding links, reduction of sales cost and diversity of income sources.

3. Size of Tea Farm

There is also a huge income hiatus between tea growers of the same type, depending on their geographical location and size of tea farm.

According to research statistics of Xinyang[11], Henan province, tea growing area of small growers is only one fifth that of big growers, but their total income is only one tenth that of big growers. Their income gap should not be attributable only to tea farm area. First, although small growers can devote more efforts to cultivating and enjoy high tea yield, they cannot process a large amount of tea and sell more fresh tealeaves. Second, when the price of fresh leaves is maintained at the same level, the price of big grower's dried tea is normally RMB 60 higher than that of small growers. Moreover, the proportion of high-end tea at a price of RMB 400 to 1,200 of big growers is 20 percentage points higher than that of ordinary growers, who mostly produce tea at a price lower than RMB 200. The reason is that big growers can produce large quantity of tea, and dealers or processing factories can purchase enough tea from them thus to avoid unstable quality of tea bought from many sources. Therefore, big growers often maintain long-term sale trade relations with buyers. Compared with small growers, big growers are more sensitive to market information and more capable of selling their tea at the best time.

Figure 3.3-3 Returns of Small and Big Growers in Xinyang

Returns	Unit	Small growers	Big growers
Fresh leaves	RMB/kg	30	32
Dried tea	RMB/kg	141	200
Price structure			
Below 200	%	80	38
201～400	%	17.8	39.4
401～800	%	2.1	21.6
801～1200	%	0.1	1.0
Net income per mu	RMB	2002	3508

Source: National Bureau of Statistics (NBS)

[11] Henan Investigation Team, NBS

3.3.4 Environmental Risks

Suitable natural environment including agreeable climate, soil and water, is the precondition for sustained high tea yield.

But uncertainties involved in agricultural production hinder tea growers growing and producing tea from a sustainable perspective. If companies and government cannot help growers minimize the risks, tea growers will have to consume the existing resources to its fullest extent to maximize their income.

Tea farmers develop three kinds of tea farms: plain tea farm, hill tea farm, and mountain tea farm. Tea growing on mountains above altitude of 200 to 600 meters is of best quality and higher price. To develop more mountain tea farms, tea growers have damaged extensive forests and vegetation. Yunnan is well known for its forest resources, but since 1950s, a large number of trees have been felled for development of productive tea farms.

Generally, the slope at a 25 degree angle is not suitable for growing tea. As the price of high-end tea is on the rise these years, tea growers have converted mountainous land into tea farms to increase their income. The common practice is to set fire to the mountain to remove the vegetation, and then develop the land into terrace for tea growing. Before maturity of these tea bushes, the soil of the terrace is completely exposed. Tea growers need to loosen soil at a regular basis, which will erode cohesion of the soil. As a result, a downpour can easily cause soil erosion. According to statistics of Fujian province, tea farm suffering soil erosion in 2006 reached 63,500 hectares, accounting for over 50 percent of the total tea growing area. Soil erosion will also reduce nutrition of the soil, but overuse of fertilizers will harden the soil, which will in turn lower the yield. In this case, tea production will enter into an unsustainable vicious circle.

Besides, tea growers seldom take account of the distance between their tea farms and sources of pollution in developing new farms. Their tea farms are usually scatterd and mixed with farmland. Therefore pesticide used on the farmland is very likely to cause pollution to tea farms.

Due to lack of information and techniques, tea growers are not sensitive to changes in pesticide residue standards for exported agricultural products, as evidenced by their misuse of pesticide and vague idea about how to meet buying company’s standards in using what kind of pesticide.

Faced with rising price of fertilizers and pesticides as well as organic tea, tea growers show strong interest in growing organic tea. However individual tea growing households can hardly afford the cost of transition which lasts 3 years.

3.4 Tea Workers

Tea workers are also internal stakeholders of an enterprise. In the supply chain, conditions of workers of suppliers are an important indicator in evaluating whether brand owners have shouldered their supply chain responsibility or not. In this report, we assume the temporary workers as tea workers employed by tea growers. According the current Chinese laws, tea growers don't have to sign labor contracts in hiring workers who are only entitled to payment for their labor. Therefore, the internationally universal supply chain responsibility cannot protect the interest of all the tea workers.

3.4.1 Livelihood of Tea Workers

Tea workers concentrate in two links: growing and production. According to their different roles in the process, tea workers can be classified as growing workers, plucking workers, processing workers and workshop workers. It should be pointed out that no clear line can be drawn between these four types of workers. On some small tea farms and in small processing factories, one worker may assume different roles.

Growing workers are usually local farmers. If a tea processing factory rents a large tea farm, it will hire some workers to attend to it. The responsibility of growing workers is to develop a tea farm, cultivate tea seedlings and take care of the tea farm. They get a monthly salary between RMB 800 to 1,500 from processing factories.

Plucking workers usually come from other places and come in groups to pick tealeaves in spring when the number of them reaches its peak, and in autumn as well. Plucking workers, usually temporary workers hired by companies or tea growers, are responsible for picking fresh leaves and paid by day, and sometimes paid by kg if they pick fresh leaves used as raw materials for mass-produced tea. Since women are usually more skilled in plucking, they enjoy higher pay than men. A man's daily income is between RMB 40 and 50, while a woman's is between RMB 50 to 60. A plucking worker can earn from RMB 1,000 to 2,000 in a plucking season (about one month).

Since 2006, plucking workers have been in short supply. Tea growers and processing companies have to turn to a foreman who usually organizes a group of workers ahead of the plucking season for hiring plucking workers in advance. The foreman can charge RMB 10 to 120 for one worker based on demand of labor.

Plucking workers are mostly middle-aged or old women. Their transportation and living cost are paid by tea growers or companies who will also provide working equipments to them. Some companies even insure plucking workers against accidents.

Processing workers play a key role in producing high-end tea for sale in the domestic market. Ordinary tea growers usually hire one processing worker in a busy season. Brand tea factories hire workers based on needs, but normally over three. Fresh leaves cannot be exposed to air for long, so processing workers have to process as much tea as possible within a day. Now most processing workers are men over forty whose income is determined according to their experiences. Their daily income is between RMB 60 and 100, but in a short time less than 30 days. Employers provide accommodation to them. High-end tea processing factories tend to hire some veteran processing worker with a high monthly pay. A few processing workers are even entitled to profit sharing.

Apart from processing tea themselves, they also serve as technical guide for the factory. Their monthly income is more than RMB 4,000.

Workshop workers refer to tea workers who operate machines for tea production. Some are temporary, some long-term. Workshop workers of primary processing factories are temporarily employed local tea growers. Women are responsible for spreading fresh leaves in the sun, while men for operating processing machines. Their day wage is from RMB 20 to 40. Refineries usually produce based on orders and hire long-term workers, whose monthly salary is between RMB 800 and 1,500. Tea production machines are not demanding on physical strength and skills. Except packaging that requires strong body, most work is done by women over 30. As small factories are not equipped with sorting and grading machines, screening of stalks, broken leaves and powder is all done by manual labor, usually by women. One worker can finish 9 to 12 kg tea each day. Tea pickers are paid by work amount, usually RMB 4 to 5 for one kg.

3.4.2 Labor Rights and Interest

Tea processing factories have not fully recognized labor rights and interest, and still believe that timely payment of salary is the only right of labor. They pay least attention to overwork, vocational health, safety and labor contract.

Plucking workers start work at 5 o'clock in the morning and work until 5 or 6 o'clock in the afternoon. Their employers send lunch to the tea farm. Early in the morning, the tea farm is very wet, which is very harmful to their legs and makes them vulnerable to rheumatic diseases such as arthritis.

It is common for workshop workers to work overtime. In busy season, they usually work over 10 hours, from 7 o'clock in the morning till 10 o'clock in the evening. For primary processing factories, such a busy season usually lasts 3 months. Refineries produce based on their orders. If they want to meet the deadline, working overtime is frequent.

Most tea processing factories are small, with processing machinery mostly produced in the 1980s or 1990s and necessary protective facilities lacking. Besides, processing workshops are not well illuminated or ventilated, with tea powder permeating the air. Workers neither wear gauze masks or gloves, nor take other protective measures.

Our research reveals that most workers employed by companies have not signed labor contracts, and few are covered by social security by their employers.

Tea workers are vulnerable groups in employment. Once their employers suffer recession or labor disputes arise, workers that have not signed labor contracts will have no way to fight for their rights and interest through legal means. At the same time, protection of labor rights and interest of workers in tea growing areas, where there are not active NGOs representing for ordinary workers as in the Pear River Delta, can only depend on administrative intervention. A majority of tea companies have not taken account of providing workplace injury insurance, overtime pay and paid maternal leave to their workers, who have not fully recognized their own rights and interest.

Figure 3: Investigation into Conditions of Workers of a Tea Company in Central China

Problems	Percentage of companies	Description
Child labor	5%	Mostly hired by tea factories in remote mountainous areas for tea plucking
Employment of non-adults	35%	Hired for packaging
Asking for deposit, seizure of ID cards, and limitation of personal freedom	20%	Mostly targeting non-local workers by suspending payment of salary of one month
Overtime work	100%	Depending on busy production season
Salary lower than the minimum standards, no compensation for overtime work	No statistics	
Extremely narrow coverage of social security	80%	Low awareness of social security and most workers are highly mobile farmers
Salary default	No statistics	Suspension of payment of salary of one month
No legally mandatory benefits	20%	
Crowded, poorly equipped dorms	46%	
No enough exits in workshops	10%	
No enough firefighting equipments	20%	
No enough firefighting training	80%	
Poor working conditions and lack of protective equipments	30%	
Weak safety management of special equipments and workers on special jobs	10%	
No trade unions or non-functional ones	70%	

Source: Social Responsibility Report of China's Tea Industry, Ministry of Agriculture, May, 2007

Migrant Workers

In Pu'er city of Yunnan province, we visited tea processing factories and production base of Yunnan Landsun Tea Green Industry Co., Ltd.. The Yunnan government cooperated with some companies to carry out a poverty alleviation program, moving poor people from Zhaotong city where ethnic minorities concentrate out of the environmentally polluted areas. These migrants are mostly of Miao nationality. Some have settled in the production base contracted by Landsuntea which signs contracts with these migrants who are given tea farms in plucking period. As Miao people don't know how to grow and pick tea, the company provides management and technical training to them. Selling fresh leaves at the contracted price is their main source of income. As a matter of fact, these migrant have become workers of the company responsible for managing tea farm and picking tealeaves. However, from the contract they have signed, we can see no formal employment relations between them, and the company doesn't have to sign labor contracts with these migrants and provide other benefits.

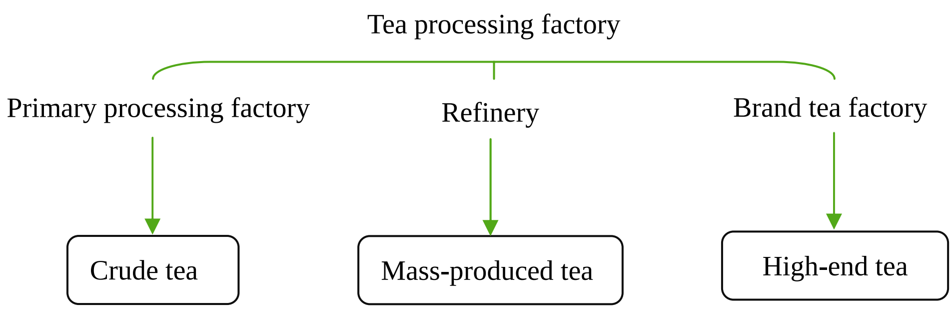
Some female migrants also do some temporary work for the company to increase their household income. We saw 3 girls aged around 13 who were sitting together with other women piling processed tea. They looked quite skilled and more efficient than old women. Others told us that these 3 girls were children of migrants and helped their mothers in the workshop irregularly. They didn't go to school. Normally, Miao girls get married at age 15 or 16, quitting school early to ear money for their homes.

3.5 Tea Processing Factories

Nowadays China has about 70 thousand tea processing factories, most of which are small primary processing ones. Tea processing factories have direct connection with tea workers and tea growers. In the supply chain, these factories are also the targets of social audit by foreign brand owners. Realistic improvement of social responsibility should be conducted by them at last.

3.5.1 Classification and Status

Figure 3.5.1-1 classification of tea processing factories



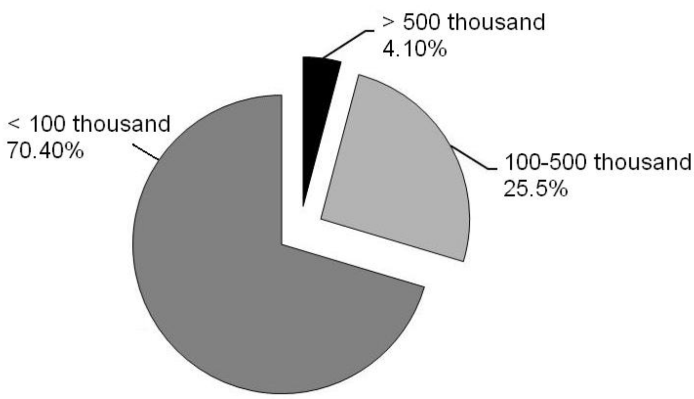
Made by Social Resources Institute (SRI)

Tea processing consists of primary processing and refining, and tea processing factories are classified into two types: primary processing factory and refinery. Brand tea factories engage in both primary processing and refining, producing high-end tea. Ordinary refineries mass produce tea for export, and a few of them also produce high-end tea.

Primary Processing Factory

Although primary processing factories exist in large numbers, they are small in size and scattered in villages of tea growing areas. These factories usually buy fresh tealeaves from local tea growers, processing around 30 tons[12] of tea every year, with no more than RMB 100 thousand of output value.

Figure 3.5.1-2 Size of Zhejiang Primary Processing Factories in 2002 (output value/RMB)



Source: SRI based on Cash Crop administration bureau, Zhejiang Agriculture Department

Primary processing factories are usually owned by local village committee and contracted to individuals for operation for 1 to 3 years. Operation of the factories depends on the time for

[12] Research of Policies on and Status of Development of the Tea Industry in Yunnan, Duan Xingxiang, Department of Agriculture, Yunnan,

plucking tealeaves, and usually lasts from March to July. Workers are mostly temporarily employed local villagers.

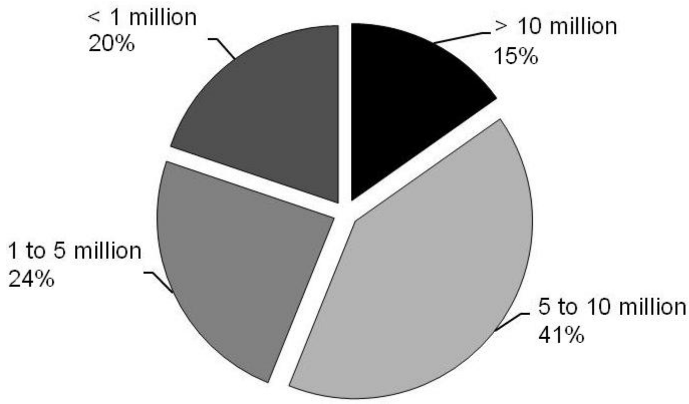
Most primary processing factories are simply equipped with withering, rolling and drying machines. Small factories have only 5 to 6 machines, while larger ones have no more than 15 machines. The statistics of Zhejiang in 2003 show that over 50 percent of machines had been used for over 15 years, and 23.8 percent of them were bought in the 1980s.

As tea primary processing is only regarded as a link of primary processing of agricultural products, there is no mandatory health requirement for this link. Studies show that in 2005, of 3,951 tea primary processing factories in Zhejiang, only 8.2 percent had obtained health certificates.

Refinery

Refineries usually mass-produce tea based on orders of their clients and are in operation throughout the year, processing about 200 tons[13] of tea every year, with output value from hundreds of thousands to millions of RMB.

Figure 3.5.1-3 Size of Refineries of Zhejiang in 2002 (output value/RMB)



Source: SRI based on Cash Crop administration bureau, Zhejiang Agriculture Department

Nowadays only a few big refineries are capable of building a base +processing+ trade model, or even starting specialized and industrialized production. Most refineries have not reached the stage where they are capable of large-scale production. Many refineries are still accumulating capital, and in need of loans from banks or individuals to improve liquidity. The statistics from the Tea Bureau of Xiuning County, Anhui show that the tea companies here borrowed RMB 90 million from banks and RMB 50 million[14] from individuals. The annual profit of many companies is not enough to pay the interest of bank loans.

13 Research of Policies on and Status of Development of the Tea Industry in Yunnan, Duan Xingxiang, Department of Agriculture, Yunnan,

14 Interest rate for loans borrowed from individuals is 10 percent.

As products of refineries are mostly exported to foreign markets, they face stricter pesticide residue standards than in the domestic market. To have better control of tea sources, big refineries also have primary processing plants, or build trade partnership with primary processing factories through establishment of a cooperative to ensure unified quality of tea.

As CSR of tea companies is put high on the agenda, social audit will extend along the supply chain to production of refineries.

ETP Factory Inspection

Xiaolukou Tea Factory is a comparatively big tea refinery in terms of export in Qimen county, Anhui province. The factory was founded in 1978. Formerly owned by the township government, it became a private business in 2000. It has 27 staff, and now mainly engages in red tea export. It has its own trademark and export license. However, as it is located in remote mountainous areas, it can hardly attract foreign trade professional to handle its export affairs, so it has to entrust Shanghai Dibeiman International Trading Company as its agent to handle export.

In July 2008, the tea factory of Xiaolukou town received a fax from ETP informing them of an inspection of the factory. The management of the factory was confused, as they did know the meaning of both ETP and inspection.

Our research reveals that CSR performance of the factory is far below the core indicators of ETP.

First, there is no trade union in the factory. Of 26 workers (except the manager) of the factory, some are relatives or neighbors of the manager. Speaking of right and interest of workers, the managers believes that timely payment of salary to workers is protection of rights and interest of workers.

Second, the workers are not insured against accidents, nor are they equipped with protective facilities or firefighting equipments. There are no fire emergency exits or first-aid kit in the workshop. The workshop is very noisy when machines are working, and the air is permeated with tea powder. As workers are not crowded together, risks of operating machines are reduced. It seems that there are no fatal risks involved. The workers we interviewed also believe that no major accidents will occur.

According to ETP requirements, companies need to sign binding labor contracts with workers, whether they are seasonal or temporary workers, and these workers should be registered with labor authorities. However, in this factory, only less than 20 percent of workers have signed labor contracts with the factory.

The manager does not take ETP seriously, believing that being his relatives and neighbors is a kind of commitment and guarantee, but we really doubt whether they can really settle problems once workplace injury arises or economic disputes occur between workers and factory through their bonds.

For many tea companies, protection of labor rights and interest remains a visionary concept.

Brand Tea Factory

Brand tea factories mainly engage in production of high-end tea, and sell part of their crude tea to refineries. As high-end tea processing depends highly on manual labor of workers, tea growers with tea processing skills can start a brand tea factory after buying some machines. In tea producing areas, such family businesses are often seen, and their annual capacity is only around one ton.

Big brand tea factories are usually located in townships, and are completely equipped with machines. Under normal circumstances, a brand tea factory has only one manager for routine affairs, 3 technicians, and over 20 workers, equipped with 3 to 4 baking machines, sorting machines and drying machines, processing about 150 tons[15] of tea each year. However, some brand tea factories also buy dried tea from tea growers and sell it after screening of stalks and other procedures, and only a small number of them dry tea themselves.

The difference between brand tea factories and other tea factories lies in names of their products, as you can see from the table below: among three kinds of tea produced by brand tea factories, Qiandao Yuye and Qingxi Yuya are all local tea brands (Chun'an, Zhejiang). Such tea brand building is usually dominated by local tea bureau (office). Some places build 3 to 4 brands. However, the problem is that despite a large number of tea brands, there is no big difference in quality. Some tea brand has no substantial output.

Figure 3.5.1-4 The information of brand tea factories in Chun'an,Zhejiang Province

Factory name	Tea brand	Tea growing area (*mu*)
Jiukeng Xiayan	Qiandao Yuye, Qingxi Yuya, Maojian, Maofeng	180.0
Chashu Liangzhong Tea Farm	Qiandao Yuye, Qingxi Yuya	50.7
Jiangjia Lijiawu	Qiandao Yuye, Qingxi Yuya	107.0

Source: Social Resources Institute (SRI)

3.5.2 Cost and Profit

Primary processing factories are small, with poor health conditions and low profit margin. For example, in Shengzhou city, Zhejiang[16], in 2004, primary processing factories bought fresh spring tealeaves at an average price of RMB 0.7/kg, or dried tea at RMB 2.8/kg. Processing cost for one kg of tea was about RMB 2. These years, crude spring tea is sold from RMB 5.6 to 6/kg, so profit for one kilogram of spring tea was only RMB 0.8 to 1.2/kg. If a primary processing factory can process

[15] Research of Policies on and Status of Development of the Tea Industry in Yunnan, Duan Xingxiang, Department of Agriculture, Yunnan,

[16] Environment and Polices for Shengzhou Tea Processing Industry, Wang Xingui, Zhang Daqing, Forestry Bureau, Shengzhou, Zhejiang

10 tons of tea every year, its profit is only around RMB 10 thousand.

Refineries face bigger market risks and their profit is highly affected by tea export price. After opening of tea export, more companies have started to export tea. The dominant way of competition among refineries is to lower price. As demand of the export market falls short of supply, exported tea price is sometimes even lower than that of crude tea.

Falling price, changing international standards for quality and safety, growing logistics cost and RMB appreciation have forced some refineries to stop production frequently or go bankrupt.

Faced with narrowing profit margin, refineries have to lower price at which they buy from the upstream sides of the supply chain, which means primary processing factories and tea growers are direct victims of the falling price.

Brand tea factories are better off. Thanks to around 30 percent of growth rate of sales of high-end tea in the domestic market, brand tea factories enjoy growing profit margin. Such a situation has attracted many refineries to shift their market focus and increase output of high-end tea.

The statistics of Xinyang, Henan show that the profit of brand tea factories can reach RMB 5/kg, as opposed to meager RMB 1/kg profit of primary processing factories.

Figure 3.5.2 Production and Sale of Deming Tea Co., Ltd.[17] of Shihe District in 2007

Item	Unit	Quan-tity	Grade		Employed labor	
			Top	Second	Plucking	Processing
Self-owned tea farm	mu	200				
Self-produced dried tea	kg	1000	10	990		
Sale price	RMB/kg		2000	1000～1400		
Output value	RMB 10,000	120				
Cost						
Employed labor	person	98			80	18
Average working time	day(month)				25 days	2 months
Transportation and intermediary cost	RMB/person				120	
Average living cost	RMB				RMB 10/day	RMB 3,500/day
Total cost	RMB 10,000	20.56			7.96	12.6
Profit for 1 kg	RMB	4.97				

Source: Henan Investigation Team, NBS

Note: Plucking Coat=1×2×3×4 ）＋（1×5）＋（1×2×6）; Processing Cost=1×2×6; Profit for One Mu=(Total Output Value-Total Cost)/Tea Farm Area

[17] Deming Tea Co., Ltd is a brand tea factory with 200 *mu* of tea farms. It has 2,000 m^2 of workshop, mainly producing high-end tea.

3.5.3 Environmental Risks

Environmental risks of processing factories mainly come from air and water pollution, damaged vegetation and soil polluted by use of pesticide.

Air pollution is mainly caused by coal burning by processing factories. Most processing factories use coal as fuel. Combustion of coal will not only generate pollutants such as CO_2 and SO_2, but also produce large quantity of fly ashes. Some processing factories place cinder together with finished tea products, which will cause pollution to tea. As such pollution cannot be removed by processing; the tea will be harmful to consumers' health.

Wastewater mainly comes from tea washing and workshop cleaning. Wastewater should have been treated before discharge, but most primary processing factories discharge the wastewater directly into the nearby fields, although the wastewater has not reached the standards for irrigation.

Noise and dust pollution mainly come from processing procedures of refineries. As there are more machines in operation in refineries, noise in workshop can reach 70 to 85 db. Dust pollution is mostly caused by screening process. Besides, while the tealeaves are being processed, stalks and broken leaves will fall to the ground. Some processing factories collect these polluted broken tealeaves to small dealers who in turn sell them to places such as restaurants and hotels that provide free tea service.

Vegetation damage is mainly attributable to some processing factories using wood as fuel. For example, the Yiling district of Yichang city has 125 thousand *mu* of tea farm, producing more than 6 thousand tons of tea every year, and 255 tea processing factories, with RMB 121 million of output value. The investigation by the local forestry authorities reveals that of 19.8 thousand cubic meters of forest wood consumed every year, 14.5 thousand cubic meters is consumed by local tea processing factories. The damaged forest has contributed to soil erosion, and even landslide and mud-rock slide.

In addition, some tea processing factories overuse pesticides and chemical fertilizers in their own tea farms. Such practices are not only harmful to the tea quality, but also polluting to the soil. To reduce pesticide and fertilizer use, some processing factories start to take measures of compound ecological system, for example, they raise poultry on the tea farm to eliminate the insects, and meanwhile the poultry manure can fertilize the soil.

3.6 Tea Dealers

Tea dealers refer to businessmen and enterprises that engage in tea products trade. After buying tea from processing factories, the dealers will either wholesale it other dealers or retail it to consumers for profit.

The dealers comprise the main distribution link in the supply chain. They connect tea production and sale, and are often relay stations for social audit.

3.6.1 Type and Profit

China has many dealers, mostly trading various kinds of tea bought from diversified sources. According to their distance from processing factories, dealers can be divided into first-tier dealers, second-tier dealers… and finally retailers.

First-tier dealers mainly do wholesale business, and develop some second-tier dealers, who engage in wholesale and retail. Retailers are usually stores, supermarkets, tea stores and teahouses.

Profit of wholesalers and retailers can be referred to as follows:

Figure 3.6.1 Profit Margin of Wholesalers and Retailers in the Domestic Market

Type	Wholesale profit	Retail profit
High-end green tea	30%	100%
Average green tea	5%	50%
Oolong tea	30%	200%
Red tea	50%	100%
Flower tea	20%	100%
Jasmine tea	8%	30%
Pu-erh tea	50%	150%
Medicinal tea	5%	100%

Source: CSR Report of China’s Tea Industry

3.6.2 Disordered Distribution Link

Distribution is the most complicated, disordered and intractable link in the tea supply chain.

Most dealers sell loose tea, which is compatible with consumption habits of Chinese people. If you buy loose tea, retailers simply package the tea with kraft paper, without any indication of brand, producer or production date.

Chinese consumers attach great importance to places of origin in buying tea, such as West Lake Longjing and Yellow Mountain Maofeng. Such places usually apply for protection of their geographical indications and put such indications on products to distinguish itself from other products of the same type. However, China does not have strict administration of such geographical indications. Besides, when selling tea to dealers, factories will also give the geographical indications to dealers, some of whom will put such indications on the tea products not produced in that place of origin and sell it at a higher price. The disorder in the distribution link makes it difficult to trace back to the source of tea and certify quality of tea.

The distribution disorder is also evidenced by selling tea mixed with old tea at the price of new tea, as the price of old tea will fall dramatically after the new tea is on the market. If dealers have old tea in hand, some of them will mix it with new tea for sale.

Dealers may also hype or manipulate tea price. For example, from 2005 to 2007, Pu-erh tea was hyped a lot across China, as this tea is very unique in that the longer the tea, the more valuable it is. Such uniqueness is exploited by dealers to raise its price time and again to gain huge profit.

Chinese Pu-erh Tea Hype in 2007

First-, second- and third-tier dealers joined hands to hoard Pu-erh tea in this hype. The first-tier dealers had absolute control and sold only 30 percent of their stock, while the second- and third-tier dealers hoarded 10 percent of their stock. Finally, Pu-erh tea sold in the market was only less than 20 percent of the actual output.

After hoarding the tea, they started to hype it in two ways: first, they hyped it in the media; second, they held auctions, where its price was raised from dozens or hundreds to thousands of RMB. Owing to such hypes by dealers, the price of Pu-erh tea grew dozens or even hundreds times more.

Faced with rocketing price, tea factories accelerated production. Meanwhile, tea from various places such as Zhejiang and Guangxi flooded to Yunnan, which increased the tea supply dramatically overnight. While the price remained high, those hoarders started to sell. Big hoarders sell the tea according to designated proportion and order to prevent price dive. When most investors had pulled out, the bubble started to burst.

After bursting of the Pu-erh tea bubble, many manufacturing companies and small and medium-sized dealers went bankrupt. Demand fell far short of supply, and price of fresh Pu-erh leaves even dropped to RMB 4/kg.

3.7 Tea Foreign Trade Company

Tea foreign trade companies are the juncture for tea import and export, and a link that China's tea export cannot dispense with. In the past, only state-owned foreign trade companies had the right to import and export tea. Now this monopoly has been broken, and private foreign trade companies have witnessed rapid growth.

3.7.1 State-owned Foreign Trade Company

China's major provincial tea growing areas all have their own tea import & export companies, most of which belong to the system of China Tea Import & Export Corporation (CTIEC), which is affiliated to China National Native Produce & Animal Imp. & Exp. Corp., COFCO. All the provincial tea import & export companies just maintain loose alliance with CTIEC.

Some other provincial tea import & export companies, affiliated to All China Federation of Supply and Marketing Cooperatives, are companies started by provincial supply and marketing cooperatives, such as Zhejiang Tea Group Co., Ltd. and Anui Tea Imp. & Exp. Co., Ltd.

Zhejiang Tea Group remains the largest company among all the provincial import & export companies, and has developed into a comprehensive foreign trade company with businesses dominated by tea but supplemented by other goods. Since 1990, Zhejiang Tea Group has been exporting the largest amount of tea in China, about 40 thousand tons every year, and has become the No. 1 global exporter of green tea.

In recent years, state-owned foreign trade companies have secured a majority of market shares in import and export business. These companies usually buy tea from domestic processing companies and then export it after blending. Export agency business for other manufacturing companies is only a small proportion in their business scope.

3.7.2 Private Foreign Trade Company

In 1997 China promulgated Provisional Measures for the Administration of Tea Export, whereby part of tea producing companies can be granted export right. In 2006, tea export quotas licensing system was officially revoked. All the small and medium-sized companies can apply for export right. These two policy changes have not only broken monopoly of state-owned foreign trade companies, but also contributed to prosperity of private foreign trade companies.

The main business of private foreign trade companies is to provide agency service to help manufacturing companies export tea. If manufacturing companies do not have independent export right, or they are not skilled in export business despite its ownership of export right, they will usually turn to private trade companies as their agents for export business. China offers 13 percent tax rebate to tea exporters, 1 to 3 percent of which will be charged by private foreign trade companies as agency fees.

Some private foreign trade companies not only do agency business for tea export, but also cooperate with tea companies to build comprehensive joint-venture tea companies. For example, Shanghai Dibeiman International Trading Company joined hands with Huangshan Xin'anyuan Organic Tea Development Co., Ltd. and together invested RMB 8 million in building a joint-venture tea company.

Expanding business operations to the upstream sides of the supply chain can allow companies to manage quality and standardize production so that they can ensure quality of products and wide profit margin. Therefore, it has become a common choice for both state-owned and private foreign trade companies.

3.7.3 Relay Station of Social Audit

Social audit is brought into China by multinational brand owners. Now social audit is very limited in the domestic tea industry, and most social audit is required by foreign brand owners through private foreign trade companies for domestic tea processing factories. As exports of state-owned foreign trade companies are large, and orders place by individual brand owners account for only a small proportion in their business, they are enthusiastic about factory inspection by these foreign agents.

We interviewed three tea manufacturing companies in Anhui, two of whom export tea through Shanghai Dibeiman International Trading Company which was the intermediary that sent ETP factory inspection notification to the tea factory of Xiaolukou township. Social audit is very common among clothing and toy companies in the Pearl River Delta, but social audit targeting agriculture-related companies, particularly tea processing factories in remote areas is rare. It can be forecast that with expansion of China's tea export and shifting of focus of export to European and US market, social audit by foreign buyers targeting tea processing factories will be the norm for the tea industry.

3.8 Brand Owners

Brand Owners are companies that own product brands. They either produce products under their own brand, or entrust other manufacturing companies to produce using their brand. The chapter divides brand owners into domestic and international ones.

In the international market, brand is the signal for consumers to identify products. Brand owners that enjoy high market reputation play a dominant role in the supply chain, capable of bringing standards of quality, production and social responsibility to the upstream manufacturing and processing companies. International brand owners are active advocates for social responsibility, and often maker and supervisor of social responsibility rules.

In the domestic market, consumers mainly judge tea by its indications of place of origin. Development of domestic tea brand owners is very limited, and they remain in infancy in terms of CSR.

3.8.1 Domestic Brand Owners

Nowadays China has the following well-known tea brands: Beijing Zhang Yiyuan, Wuyutai, Beijing

Gengxiang, Tenfu's Tea, Sichuan Emei-Shan Zhuyeqing Tea Co., Ltd., Sichuan Xufu Tea Industry Co., Ltd., Zhejiang Wafa Tea Co., Ltd., Changsha Tea Co., Ltd., and Anhui Tianfang Tea Industry (Group) Co., Ltd. The most successful brand owner in China is Tenfu's Tea, which owns 526 chain stores, and sales revenue of RMB 520 million in 2005.

Brand owners can be classified into three types based on whether they have their own processing factories and tea growing bases.

Type 1 has its own processing factory and tea growing base. Such brand owners are usually large, and often producer of organic tea. They own processing factories and tea growing bases at the same time, so they can set strict quality standards from tealeaves plucking to packaging to minimize food safety risks, particularly risks from the most intractable tea sources. Besides, having a stable tea source means that they can reduce uncertainties from raw materials in case of tea price fluctuations.

Type 2 has its own processing factory but no tea growing base. Most brand owners have their own processing factories. The weakness of having no tea growing base lies in difficulty in managing pollution sources for tea farms.

Type 3 has neither processing factory nor tea growing base. There are few such brand owners, and they rely mostly on OEM model to produce. They delegate authority to qualified factories to produce under their brand.

Due to limited capacity, some brand owners that have their own processing factories will also adopt OEM mode. The advantage of this mode is that it can accelerate brand building, but it also involves high risk. If they don't impose strict standards on the factories producing under their brand, sub-standard products will harm reputation of their brand.

Case OEM for Chinatea

While Yunnan Pu-erh tea was being hyped, orders taken by Chinatea far exceeded its 1 thousand tons capacity. Chinatea Yunnan Branch does not have its own production base and has only few processing factories. Therefore, the company authorized some tea companies to produce under its brand and charge RMB 10 to 60 per kg for trademark usage.

After this, output under Chinatea brand increased dramatically overnight. Although Chinatea repeatedly said that all the authorized tea factories had passed QS certification, and that these factories were veteran producers of Pu-erh tea, it can't be denied that quality of Chinatea products had fallen, which led to negative impact over reputation of Chinatea.

On April 20, 2007, the price of tea using trademark of Chinatea started to dive first, causing panic among many small and medium-sized dealers, which later became the last straw for bursting of Pu-erh bubbles.

3.8.2 Foreign Brand Owners

Foreign brand owners usually purchase tea in three ways: direct purchase, joint-stock venture and acquisition of domestic companies.

Direct purchase takes two forms: sample bidding and agency purchase. Sample bidding means that foreign buyers first provide samples to domestic tea producers, and find its supplier through bidding. Agency purchase means that foreign buyers do not directly contact suppliers, but place orders through domestic foreign trade agents to buy tea from various sources. For example, Lipton has long entrusted agents to buy black tea raw materials from Qimen of Anhui, Chongqing, Yunnan and other areas.

Nowadays foreign brand owners usually enter the Chinese tea market through joint-stock companies and direct purchase. Joint ventures are usually invested by foreign brand owners and domestic companies. For example, in March 1986, Zhejiang Tea Group built a joint venture called Zhejiang Sanming Tea Co., Ltd. with a Japanese tea company, and in May 2007, started another tea joint venture with Indian Tata Group. In April 2008, Unilever invested RMB 150 million in Sichuan to start a tea processing and tea food development project.

There are few cases of foreign brands acquiring domestic companies, but there is one outstanding example: in 1999, Unilever acquired Jinhua Tea brand[18], which secured the largest market share in north China.

Unilever and Lipton

Lipton under Unilever is the world largest tea brand, popular in 110 countries and regions across the world. Following Coca-Cola and Pepsi, Lipton tea is the world third largest non-alcohol beverage producer.

In 1992, Lipton entered China. Five years later, Lipton secured the first place in terms of sales and market share in the Chinese tea drink market, and has been keeping this place until now. Lipton sells eight series of tea in China. Except black tea, all the raw materials for other kinds of tea come from its own tea farms and contracted tea farms.

In September 2005, Unilever invested US$ 50 million in Anhui to establish a global tea production base and set up a Lipton R&D center in Huangshan city of Anhui to provide technical support for production of tea powder and batch manufacturing of tea extracts. Besides, following the model of company plus tea grower, Unilever also developed tea farms in Huangshan District of Huangshan city.

At the Unilever pilot base in Huangshan, Anhui, we interviewed Mr. Wang, director of marketing of Huangshan Maofeng Tea Group.

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[18] In 2007, Jinghua Tea Brand was acquired back by Beijing Tea Corporation.

The most important strategic partner of the Unilever pilot base is Huangshan Tianjian Agricultural Sci-Tech Ltd, a daughter company of British High Star Ltd. that specializes in reprocessing of tea and Chinese herbal medicine. The base has two affiliates: Tianyun and Tianhua tea factories, producing high-end green tea and raw materials for Lipton green tea.

Both Tianhua and Tianyun cooperate with tea growers by placing orders to them. Earlier, local tea growers only produced spring tea. After Unilever came here, they started to pick summer and autumn tea as raw materials for bagged tea.

Unilever inspects its suppliers' factories every year in terms of production safety and working conditions. Mr. Wang said, "Unilever has an internal inspection system, which involves many aspects and details. Factory inspection is systematic, and has been carried out by people from Unilever."

3.8.3 Social Responsibility

As core actors in the tea supply chain, branders establish trading rules which have a direct impact on tea growers as well as small and medium-sized suppliers. Therefore, to implement responsible actions in the supply chain the most effective way is to start from the branders in the lower reaches of the supply chain, then move to the production groups in the upper reaches.

At present, there is no internationally recognized multilateral agriculture-related CSR framework. However, through a variety of pressure movement initiated by the foreign civil society organizations, a number of international brands, such as Unilever, have made improvement plans concerning suppliers' actions and sources of tea raw materials.

We introduce here two commitments and improvement Unilever has made in implementing their CSR.

Sustainable Tea Farm

Unilever cooperated with Rainforest Alliance (RA), an international NGO dedicated to environmental protection, to supervise its tea suppliers. It sets the goal to produce all the raw materials for Lipton tea sold across the world from sustainable tea farms before 2015.

Unilever puts thousands of tea farms in North Africa, South America and Southeast Asia under inspection. To meet standards of RA, tea farm owners must ensure compensation and benefits for employees, balance tea farm management and environmental protection, learn how to reduce use of pesticides and waste of resources and improve production skills to lower cost. Tea workers will then enjoy better living conditions, education and welfare due to better income.

To honor its commitments, Unilever will continue to buy tealeaves at a high price, 10 to 15 percent higher than the current market price. Before 2015, Unilever will have to pay additional 5 million euros for it.

The mode of Unilever's working with NGOs to promote sustainability of the supply chain is typical of multinational corporations. Chinese companies should learn from it.

Unilever's Rules for Supply Chain Partners

Unilever has many suppliers across the world. Like Chinese MNCs, Unilever has also made rules for supply chain partners, evaluating and examining social conditions for suppliers.

The rules set by Unilever for its supply chain partners are as follows:

- Respect human rights. Do not harass or abuse employees;
- Meet the minimum standards set by the local law, including the minimum pay standards; overtime work must be within the time period and longest time period set by the law;
- Prohibition of forced labor in any form;
- Prohibition of child labor;
- All the employees are entitled to safe and healthy working conditions;
- Compliance with local environmental laws and regulations;
- All the products and services should reach designated quality and safety standards;
- Prohibition of illegal acts such as bribery;
- Protection of collective bargaining right.

The concept of CSR is just being introduced into China, and the enterprises implement their responsibilities mainly through charitable acts such as donation to education. Therefore, most people mistake CSR as charity burden which can't be shouldered by the tea enterprises making low profit.

At present, major domestic tea branders think that to guarantee the quality of tea products is the major way to implement their responsibilities. In contrast, branders who do foreign trade have a more comprehensive understanding of CSR. For example, as early as 2007, Fujian Tea Import and Export Co., Ltd. which belongs to China Tea Co., Ltd. has applied to join ETP, and to have inspection in aspects such as employees, education, pregnant women, health, safety, and accommodation in order to comply with the standards of social responsibility.

4 Role of Government

Government is another important stakeholder outside the tea supply chain. Government can regulate major players of the supply chain through macro policies such taxation, subsidy and administrative licensing. In addition, the state-owned tea factories and trade companies still play an important role inside of the supply chain.

We have discussed about state-owned companies in the previous chapter, so in this chapter we will focus on description and analysis of government as a regulator. Meanwhile we will discuss government's role in promote the sustainable development of tea industry as a purchaser.

4.1 Tea Industry Development Scheme and Administrative Departments

Transition from tea to tea industry should follow the industrialization path designed for development of agriculture. In the new 11th Five-year Plan, the Ministry of Agriculture has listed tea as one of the most important four industries supported by the government. The Ministry will expand and strengthen the tea industry within five years to make it a pillar industry for local economy and build local capacity to alleviate poverty. The administrative measures are as follows:

- Support and cultivate specialized tea growing communities, leading tea townships and households.
- Accelerate the process of standardization, cleaning and production of scale.
- Change the current order-based[19] model and build partnership between leading companies and growers.
- Encourage development of intermediary service agencies.
- Encourage growers to develop specialized economic cooperatives.

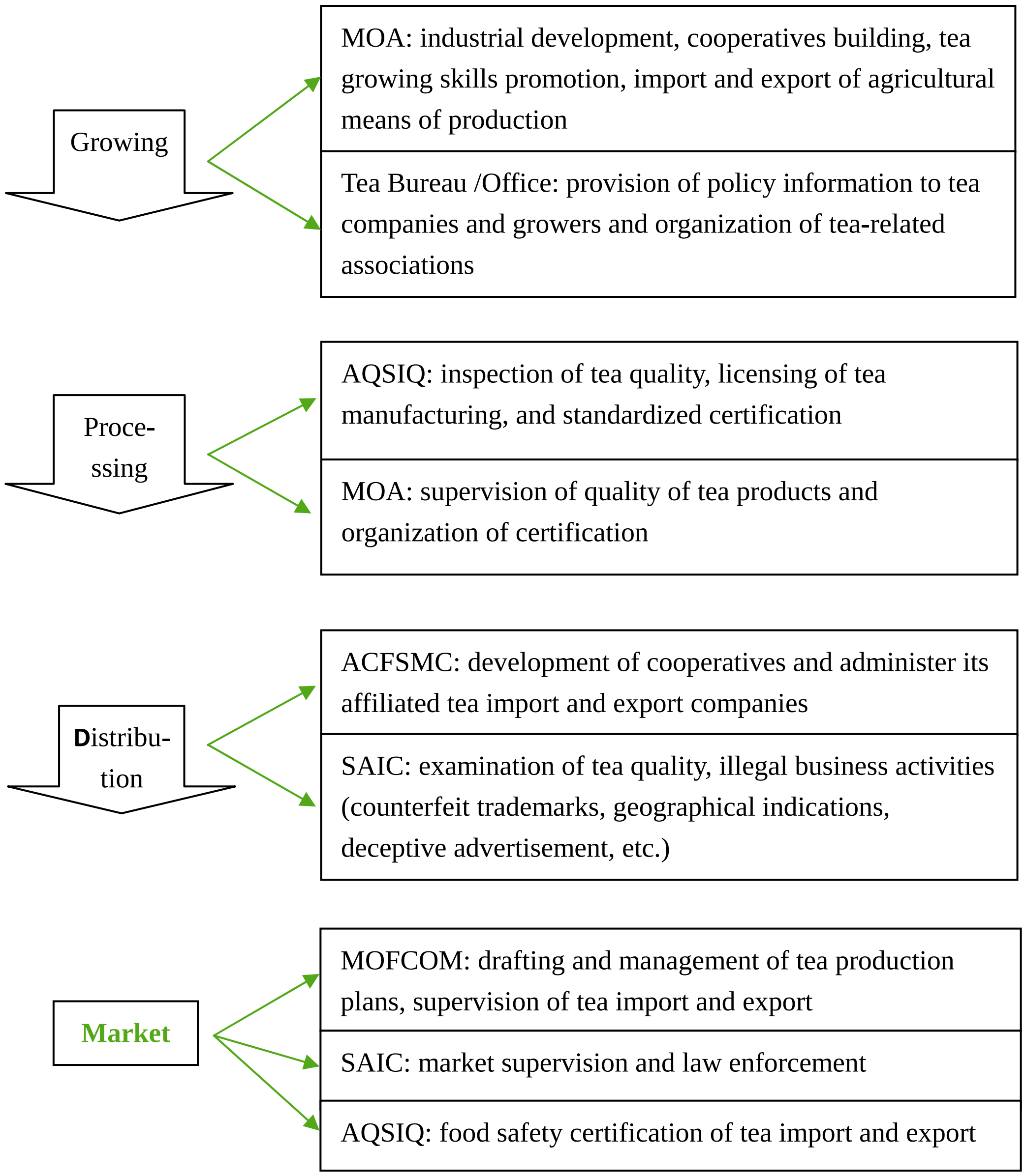
Such a development scheme focuses on growing and planting of tea. However, to develop the tea industry, more efforts will be needed in establishing paths and exploring market.

The tea industry involves growing, processing, distribution and market, which are regulated by different government departments, such as Ministry of Agriculture (MOA), Ministry of Commerce (MOFCOM), General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), All China Federation of Supply and Marketing Cooperatives (ACFSMC), State Administration for Industry & Commerce (SAIC), and tea bureaus and offices at various levels. Regulation of the tea

[19] companies conduct transactions with tea growers through placing orders

industry can be shown as follows:

Figure 4.2 Regulation of the Tea Industry by Government Departments



Made by Social Resources Institute (SRI)

4.2 Legal Framework

Through the written provisions of the law, the government can regulate market behavior while protecting the interests of vulnerable groups and reduce to the largest extent the negative effects caused by commercial activities on environment and long-term development.

Rights and Interest of Tea Growers

In case of labor disputes between tea growers and tea companies, the Contract Law of The People Republic of China will apply. The Law on Farmers' Cooperatives of PRC will apply if disputes occur in cooperatives.

Rights and Interest of Tea Workers

Some tea workers are employed by the tea growers. Such verbal agreements between natural persons are not protected by Chinese Labor Law. Others employed by the tea companies are protected by the Law like those in other industries.

Figure 4.2-1 Legal Protection of Labor Rights and Interest

Labor rights	Provisions
Freedom of association and collective bargaining right	Labor Law provides that workers have the right to join and organize trade unions, to participate in democratic management or negotiate with employers on an equal footing about their rights and interest through trade union congress or worker representative congress and other ways. Labor Contract Law gives detailed provisions in payment, work time, rest and leave, work safety and health, compensation, benefits, training, work discipline, association and negation rights. Applicable laws: Labor Law, Labor Contract Law and Trade Union Law
Elimination of forced labor	The 2008 newest version of Labor Contract Law adds four forms of forced labor. Applicable laws: Labor Law and Labor Contract Law
Elimination of employment discrimination	Labor Law provides that workers must not be discriminated because of nationality, race, sex and religion. Special protection must be given to female workers, and preferential treatment should be given to ethnic minorities and disabled people. Applicable laws: Labor Law, Labor Contract Law, Regulations on Protection of Female Workers, and Regulations on Employment Service and Administration
Prohibition of child labor	Employers are prohibited from employing adolescents aged below 16, and must give preferential protection to non-adult workers aged between 16 and 18. Applicable law: Labor Law
Right to pay and leave	Labor Law sets the standards about the longest time of work and extra work, and rules about paid leave, benefits, insurance and compensation, etc. China has minimum pay standards for workers. Applicable laws: Labor Law and Labor Contract Law

Environment

China's legislature has not introduced a law on environment. Environmental problems involving pollution emissions from tea production can be addressed in different legal frameworks.

Figure 4.2-2 Legal Protection of environment problems of tea production

Link	Rules
Tea farm	Prohibition of destroying forests to develop tea farms, and developing tea farms at the slope at an angle of over 25 degrees. Applicable laws: Forest Law and Law on Water and Soil Conservation
Tealeaves	Producers should use fertilizers, pesticides, agricultural films and feed additives scientifically, improve growing techniques, ensure quality and safety of agricultural products and try to turn wastes into resources in agricultural production to prevent environmental pollution. Toxic and hazardous wastes are prohibited from being used as fertilizers. Use of designated outdated pesticides and additives is also prohibited. Applicable law: Law on Promoting Clean Production
Leaves processing	Companies should save energy, reduce emissions and control discharge of major pollutants, and cut pollution to surrounding living environment. Pollution emissions must meet national environmental protection standards. Applicable laws: Law on Promoting Clean Production, Law on Prevention and Control of Noise Pollution, Law on Prevention and Control of Solid Waste Pollution, and Law on Prevention and Control of Water Pollution
Tea products	Design of products and packaging should take account of their impact on human health and environment during life cycle, and give priority to non-toxic and non-hazardous design that is easily degradable and recyclable. Companies should package products scientifically and reduce over-packaging and packaging waste. Applicable laws: Law on Promoting Clean Production, Law on Prevention and Control of Solid Waste Pollution

Product Quality and Safety

Applicable laws for quality and safety of tea products are Law of PRC on Agricultural Product Quality Safety and Food Hygiene Law of PRC.

Figure 4.2-3 Legal Protection of quality and safety of tea products

link	Rules
Growing	Protect environment of the tea farm, prohibit pollution to air and soil of the tea farm, provide quality and safety training to tea growers. Materials used in growing such as pesticides and fertilizers must meet the quality and safety standards. Tea companies and tea growers' cooperatives must keep a record of tea products production. Applicable law: Law on Agricultural Product Quality Safety

Processing	Set quality and safety standards for tea production process;Set standards for ingredients used in tea processing, such as preservatives and additives. Provide quality and safety training to tea workers. Applicable laws: Food Hygiene Law and Law on Agricultural Product Quality Safety
Tea products	Set standards for packaging and containers of tea products; Set rules for additional indications of tea products such as indications of Safe Crop; Set rules for tea product quality safety testing and certification. Applicable laws: Law on Agricultural Product Quality Safety and Food Hygiene Law

4.3 Standards and Certification

Certification is an effective means to distinguish products in market that have reached a certain standard, including three parts which are development of standards, qualifications, and implementation of certification.

In the certification system for tea and other agricultural products, the government plays a role in establishing food security-related standards and supervising commercialized certification market. A specialized Certification Accreditation Administration Committee has been set up. Standard-setting bodies of the government include the General Administration of Quality Supervision and the Ministry of Agriculture. Duplicated parts can be found in these standards. At the same time, certification bodies having the government as background exist in large number, making it difficult to achieve the objective of independent third-party certification requirements.

Certification standards set by the government departments include Quality Safety Certification (QS), Safe Food standards, Green Food standards, Organic Tea standards, and Good Agricultural Practices (GAP).

4.3.1 Quality Safety Certification

QS System is a collection of mandatory rules set by AQSIQ that are applied to food manufacturing and processing companies. Since January 1, 2005, QS has been applied to tea products. Companies that fail to pass QS certification can not produce or sell tea, and all the tea stores and teahouses can not sell tea produced by these companies. QS Certification is conducted by provincial and prefecture-level quality inspection authorities.

QS Certification mainly has three standards:

1) Food manufacturing companies must have obtained license for production.
2) Mandatory inspection is required for products produced by the company.
3) A food production licensing system is adopted. Food products passing inspection will be marked with QS labels.

QS Certification has strict standards for production place and equipments.

Challenges to QS Certification

Companies' reluctance to accept QS certification has slowed down the certification process. In 2006, a journalist of Tea Weekly found in three tea growing areas that of 2,400 tea factories in Shaoxing, Zhejiang, only three factories had obtained tea production license. All 1,000 tea factories in Ningbo had not passed certification. Of more than 300 tea factories in Yueyang, Hunna, only three had passed certification. Hunan Yueyang Tea Trade Association said that it was impossible for all the tea companies to pass certification.

QS Certification is criticized mainly for two reasons: first, the certification is detached from actual conditions, and sets too high standards for tea producers. Many small and medium-sized companies and tea growers cannot meet the mandatory standards for production equipments. Second, the certification cost is too high. It is estimated that by following QS standards, a new tea factory with a 200 *mu* tea farm has to invest RMB 50 thousand in transformation, whereas an old factory has to pay RMB 100 thousand for this purpose, while re-building a company will cost RMB 250 thousand. This cost is really high for average tea factories.

4.3.2 Safe Tea Certification

Safe tea refers to tea that does not contain hazardous substances and quantities of them are controlled within the limits set by competent authorities. The tea products that have passed Safe Food standards are marked with Safe Food labels to gain trust from consumers.

In 2001, MOA issued Safe Food Standards (Tea), setting criteria for production, testing, inspection, indication, packaging, transportation and storage of safe tea. The Standards has also made specific provisions on natural features, sensory quality, physical and chemical quality, hygiene indicators, heavy metal and pesticide residue of tea. The whole process management is also incorporated into the Standards.

The Center for Agri-food Quality Safety of MOA provides Safe Food certification. Institutional and individual applicants can apply for certification to this center or agricultural authorities of province, autonomous region, municipality and city that has been granted with special autonomy.

As a government initiative, Safe Food certification does not charge fees.

4.3.3 Green Food Certification

Green Food certification includes standards for environmental quality, production process, products indicators, packaging, storage, transportation and other indicators. The certification also sets standards for pesticide residue, toxic heavy metal pollution, and microbial contamination.

Based on evaluation of each indicator, Green Food sets two grades: AA grade and A grade. Many food products can reach A grade, but few can reach AA grade. The domestic green food market remains huge.

China Green Food Development Center bears the responsibility for Green Food certification. Companies can apply for certification to provincial or prefecture-level Green Food Office or Green Food Development Center.

In 2007, National Audit Office audited budget, income and expenditure of MOA 2006, discovering that China Green Food Development Center affiliated to MOA charged RMB 39,539,300 for Green Food certification and indication using expired charging license and criteria, and RMB 20,797,900 of the total was charged by using expired license.

4.3.4 Organic Tea Certification

Production of organic tea follows natural and ecological law and use sustainable environment-friendly technology, without using substances such as synthetic pesticides, fertilizers, growth regulators and synthetic additives.

In 2002, MOA released the Organic Tea standards, giving detailed provisions about production environment, technology, processing technology and end products.

Organic tea producers must pass certification of qualified certification agencies before using Organic Tea label for their products.

All the certification agencies must be approved by Certification and Accreditation Administration and China National Accreditation Service for Conformity Assessment before starting certification business. Now China has 28 certification agencies[20] such as China Quality Certification Center and Organic Tea research and Development Center.

Organic Tea certification has achieved substantial results in China in the past decade. By the end of 2007, more than 300 companies had been certified as organic tea manufacturers, with above 400 thousand *mu* of tea farms, and 8 to 10 thousand tons of organic tea output, accounting for more than 1 percent of the total tea output. [21]

Organic Tea certification cost includes certification fees and testing fees. Testing cost of RMB 5,920 is set by the State Price Control Bureau. Certification cost varies according to different certification agencies, usually around RMB 20 thousand. Cost for corrective actions taken for organic tea production also varies significantly from place to place. Some places are equipped with natural conditions for producing organic tea, while others have to take long time for cultivation of this type of tea.

[20] Visit http://www.ofood.cn/html/know/know_334.html for inventory
[21] Research and Analysis of Future of China's Organic Tea Industry, http://www.chinabgao.com/reports/36345.html

Figure 4.3.1 Comparisons of Safe, Green and Organic Food Certifications

	Safe	Green	Organic
Quality	Ordinary quality level of Chinese agricultural products	Ordinary food quality level of developed countries	High environmental and safety standards
Operation	Operated by government for public good	Driven by government and operated by market	Commercialized
Focus	Production process, product quality	Production process, product quality	Production process and environmental quality

Source： Social Resources Intitute (SRI)

4.3.5 GAP Certification

Good Agricultural Practices (GAP) are a collection of principles to apply for on-farm production and post-production processes (including crops growing and animal breeding). GAP certification is an effective tool to improve quality safety management of agricultural products production base. GAP certification places high premium on management of hazardous and toxic substances the process of planting, growing (breeding), harvesting, cleaning, packaging, storage and transportation of agricultural products, quality safety of agricultural products, ecological environment, animal welfare, and vocational health.

In April 2003, Certification and Accreditation Administration first proposed to set up a GPA system at the source of China’s food supply chain, and started to draft China GAP standards in 2004, which is based on EUEPGAP but compatible with China’s actual national conditions. China GAP has two grades of certification: first grade is equivalent to EUREPGAP, and second grade is 5 to 10 percent lower than the first grade.

Only qualified certification agencies can conduct GAP certification.

4.4 Tax

Taxes levied on the tea industry include special product tax and value added tax (VAT) in tea growing, processing, sale and other links. Tea growers, tea businessmen and companies are all taxed. Such taxation had continued for decades. Although there are some changes of tax rate and type, tea taxes had remained high.

From January 1, 2006, agricultural tax was abolished nationwide. Tea growers don’t have to pay any tax and fees, nor do they have to pay VAT if selling their self-produced tea. Tea companies need to pay VAT, income tax and other taxes, and their general tax rate is 35 to 40 percent.

According to statistics of Jiangxi province, a tea processing company that has been certified as organic tea producer will have to pay altogether 16 types of taxes and fees: VAT, income tax, stamp tax, city construction fee, additional education fee, flood prevention fee, industrial and commercial inspection fee, newspaper and magazine subscription fee, hygiene testing fee, quality inspection fee, license examination fee, code fee, trademark fee, trademark fee, brand green food certification fee, AA-grade organic food certification fee.

4.5 Subsidy

Government subsidy for tea production takes two forms: direct subsidy and indirect subsidy. Direct subsidy is directly given to tea growers for development of additional tea farms, and subsidy is proportional to tea growing area newly developed. Compared with subsidy for other crops, subsidy for tea growing is extremely limited.

Figure 4.5 Government subsidy for cash crops in 2007 (RMB)

Type	RMB
Apple	0.84
Silkworm cocoon	2.19
Peanut	6.36
Crude green tea	**0.093**
Cured tobacco	178.37
Cotton	4.01
Rice	20.31
Corn	13.78
Sugarcane	9.67
Soybean	15.68

Source： Statistical Yearbook of China's rural economy

Indirect subsidy also takes two forms: seedling subsidy is given to seedling companies to promote better strains. When buying seedlings, tea growers only pay half the original price, and the other half is subsidized by the government. The second way is to subsidize tea companies in the hope of benefiting tea growers, which is the most common way for government subsidy.

Government subsidy and policy support to companies far exceed those to tea growers. In Liu'an of Anhui, the local government gives RMB 300 per *mu* if tea companies expand tea growing area by 100 *mu* and tea growers by 50 *mu*. But for tea growers whose average tea farm is only one *mu*, such subsidy is merely symbolic.

Apart from regular subsidies, the central government also allocates funds when farmers suffer no yield or low yield because of disasters, normally in cash or other forms. For example, when buying agricultural machines, farmers will also be proportionally subsidized by government.

In 2008, tea processing machinery is also included into agricultural machinery inventory that is subsidized by central budget. Purchase of tea machines listed in the inventory is entitled to 30 percent subsidy, which is provided by the central budget.

In response to central subsidy for tea machinery, all the provincial agricultural and financial departments have issued documents providing that the subsidized tea machinery must be listed into the provincial inventory of machine manufacturers, and provided unified price inventory.

The price of tea processing machines produced by designated factories is around RMB 3 thousand. If 30 percent subsidy is deducted, tea growers only have to pay over RMB 2 thousand, and this sum of money is enough to buy tea machines from any factory not listed in the inventory.

4.6 Training

Government-organized tea training was earlier the responsibility of local agricultural technology center, and this responsibility has been transferred to the shoulder of local tea department, which invite experts from agricultural and forestry research institutes or university to provide training to tea growers.

Tea growers have become the major target of government-sponsored training. In recent years, after tea companies have gained a dominant position in industrialization, government training has started to cover tea companies, dealers, managers of tea companies, sale companies and marketing professionals.

Earlier, training by the government was limited to growing and plucking skills and the like. Now tea growing, production and sale skills remain the most important part of training, but other information, skills and techniques have also been included into training to adapt to industrialization of the tea industry, standardization of tea production and popularity of organic tea. Training targeting big growers and tea companies also includes market rules, and information such as industrialization operation requirements of modern agriculture so as to increase tea growers' awareness of mercerization and build their marketing and risk-managing capacity.

Figure 4.6 Training Programs of Huoshan County for Tea Growers in 2008

Subject	Number of people	Time (days)	Schedule	Place
Safe tea production technology	500	5	Mar. 10—14	Zhufo'an
	500	5	Mar. 15—19	Heishidu
	300	3	Mar.20—22	Dahuaping
Organic tea production technology	400	2	Mar.23—24	Taiyang
Huoshan Yellow Bud Picking Skills	400	2	late Mar.	Hengshan
	400	2	early Apr.	Yu'erjie
	1500	15	mid-Apr.	Dahauping, etc.

Technological transformation of low-yield tea farm	2000	20	late May—early Jun.	Dahuaping
Clonal strain cultivation techniques	500	5	early Oct.	Taiyang
	500	5	early Oct.	Foziling
	300	3	mid-Oct.	Mozitan
	300	3	mid-Oct.	Danlongsi

Source: Tea Office of Huoshan County

4.7 Government Procurement

Since tea is a popular beverage consumed by staff in government agencies, it has become one common item in routine government administrative expenditure. Although no detailed statistics on the quantity of tea purchased is revealed, the government has undoubtedly assumed the role of a downstream buyer.

Government procurement is usually made by private purchase of the departments. Companies that have good relations with the government will get the orders. Therefore it belongs to individual transactions happening between government buyers and business owners. And the entire procurement process does not involve any considerations on the corporate social responsibility. In fact such lack of transparency provides opportunity for power rent-seeking.

At present, only Hefei, Anhui Province has listed tea procurement into government public procurement tender projects. While formulating policies to promote the tea industry, the government should make its procurement actions comply with its own policies, such as giving priority to purchasing teas fulfilling green certification, pollution-free tea certification, etc.

Since the corporate social responsibility and sustainable development of agriculture have been listed as core business strategies, the government procurement should give priority to tea companies implementing corporate social responsibility, such as those with good performance in improving labor environment, ecological construction, and the livelihood of tea growers at the upper reaches of the supply chain.

5 Civil Society Organizations

In the tea industry, the civil society organizations include tea trade associations, tea growers' associations and tea cooperatives, as well as NGOs at home and abroad.

The role these organizations play is to gather scattered tea growers and production companies of small and medium size in order to enhance the capacity to integrate resources and market bargaining power. Many domestic NGO assist in the local tea industry as a means of poverty reduction for local villagers; while most of the international NGO look for value-added links within the supply chain, trying to improve the livelihood of tea growers through advocating international buyers to purchase tea products with certain certifications.

5.1 Tea Trade Association

China has a large number of tea trade associations spreading nearly in every province and city. Tea trade associations in major tea growing areas and leading tea distribution centers such as Beijing and Shanghai are more active. Tea trade associations have four independent levels according to their geographical source of membership: national, provincial, prefecture and county.

Tea trade associations represent the interest of their member companies, but owing to China's special political system, they are highly tainted with government functions and maintain close relations with agriculture or tea authorities at various levels. Nearly all the tea trade associations are registered with civil affairs departments as non-profit organizations.

The members of tea trade associations usually include institutional members and individual members. Institutional members are the majority, and they are often big local tea producers and distribution companies. Individual members are most often tea researchers, government officials, and leading tea producing, processing or growing households. Some associations also absorb tea-related government departments and research agencies as their institutional members.

Founded in 1992, China Tea Marketing Association (CTMA) is the only national trade association that specializes in tea businesses. CTMA now has 11 sub-committees, with 732 institutional members and 641 individual members. Corporate members of provincial tea trade associations usually number dozens to two or three hundreds, mostly companies of or above moderate size. The membership of prefecture- or county-level trade associations is comparatively small, with dozens of small companies. Corporate members of the county-level trade associations are usually local primary processing factories, refineries and dealers.

The primary functions of tea trade associations are to provide necessary service to companies, including:

- ✓ Promote local tea brands
- ✓ Collect and release market information
- ✓ Formulate and implement rules
- ✓ Balance local supply and sale
- ✓ Organize tea trade fairs
- ✓ Provide training in tea production, certification and technology
- ✓ Offer policy recommendations to government on behalf of companies

Tea trade associations also fulfill part of government functions, such as planning and administering local tea market, assisting implementation of tea industrialization policies and supporting development of local leading tea companies.

5.2 Tea Growers Association

Membership of tea growers associations is mainly dominated by farmers, representing interest of tea growers as a non-profit organization. In China, there exist a large number of such associations. For example, a government document of Duyun, Guizhou, which also produces brand tea, says, "Duyun has 85 villages that have tea farms, and 77 village-level tea growers associations, with a membership of more than 30 thousand. Duyun has reached a stage where each tea growing village has a tea growers association, and each tea grower has joined the association." Let's look at another example. "Since 2000, led by the county tea trade association, 13 village-level and 2 township-level tea growers associations have been established in major tea growing areas such as Zhufo'an, Dahuaping, Taiyang and Heishidu in Huoshan county, Anhui. You can find tea growers association nearly in all the major tea areas in China.

Service provided by tea growers associations includes technical consultation, training, brand building and marketing. These associations have played an important role in stabilizing distribution channels, setting price, protecting interest of tea growers. But most tea growers associations are dominated by companies and government at grassroots level, and tea growers can hardly be part of decision making process. These associations still have a long way to go to become autonomous.

Dazhangshan Organic Tea Growers Association

Dazhangshan Organic Tea Growers Association (DOTGA), founded in October 2000, is a NGO registered with local civil affairs bureau. The membership of DOTGA mainly consists of tea growers from Dazhangshan Organic Tea Co., Ltd. (DOT). Its regulator is the Tea Bureau of Maoyuan city, and deputy chief of the Tea Bureau serves as vice-chairman of DOTGA, and manager of DOT as its chairman. As a matter of fact, DOTGA is not separate from company as required by FLO. DOTGA is financed by DOT, and 80 percent of the association leaders come from DOT.

DOTGA mainly engage in advertisement, promotion, development of organic tea, environmental protection, support of rural education and sustainable development of organic farming. DOTGA has over 14 thousand members from 4,070 tea growing households. Sixty households elect one representative, and representatives elect an chairman, who will be responsible for operation of the association. Representatives participate in decision making and price setting of DOTGA.

In October 2001, DOTGA joined FLO, and became its first Chinese member. Every year, DOTGA can get more than RMB 300 thousand funds from FLO to improve its public service in production, life, education and transportation of tea growers. Of income from selling FLO green tea, 0.5 to 1 euro /kg will be directly remitted to the account of DOTGA as its fund used to contribute back to organic tea growers in Dazhangsha to improve their production and life as well as education of their children.

5.3 Tea Cooperative

On October 31, 2006, China passed Law on Farmers Cooperatives of PRC, which went into effect on July 1, 2007. The government provides fiscal, taxation, financial, technological and labor support to arouse people’s enthusiasm in starting cooperatives.

Since 2006, tea cooperatives registered with industry and commerce authorities have been growing every year, particularly in Zhejiang and Jiangsu. In 2008, tea cooperatives have been founded in different counties or cities one after another.

The Law on Farmers’ Cooperative regulates that farmers must account for no less than 80 percent of the total membership. Currently, tea cooperatives are formed in three ways:

Figure 5.3 Forms of Tea Cooperatives

Forms of Tea Cooperatives	Description
Cooperatives initiated by tea growers themselves	Usually small in scale and quantity
Cooperatives established by company +(tea base) +tea growers	Led by local leading companies joining hands with local major tea growing, processing and selling households. General manager of the leading company usually acts as chairman. Such form is most often seen.
Unions of Tea Cooperatives	United by tea cooperatives

Made by Social Resources Institute (SRI)

Tea cooperatives are different in size, some with dozens of members, and others with thousands. For example, Xianzhizhu Tea Industry Cooperative in Emei of Sichuan has about 6,300 individual members.

As tea cooperatives has pooled various players, resources and strengths, they have played a constructive role in promoting tea technologies and building brands, raising overall profitability of the industry. However, rights of tea growers in the cooperative remain to be questioned. As most cooperatives are initiated by companies, and major leaders are from companies or government, many people start to suspect that rights and interest of farmers cannot be represented by the cooperative.

5.4 China's Grassroots NGOs

There are no Chinese grassroots NGOs with tea as their focus, and only a small number of NGOs whose business is partly related to tea. Most of these NGOs focus on problems such as environmental protection, rural development or fair trade.

Figure 5.5 Names and Work of Chinese Grassroots Tea-related NGOs

Green Cross	Organic tea farm
In 2004, Green Cross launched an environmental protection project called Wushan Model in Wushan township, Gucheng county, Xiangfan city, Hubei province, in cooperation with local township government and village committee, to build eco-tea farms and promote organic tea growing. The project was closed in 2006. It is said that due to eco-tourism, organic tea growing, per capita income grew 15 percent, with 3 thousand people benefiting from the project.	
Huoshan Center for Environment, Development and Poverty Alleviation	Organic tea growing
The center promoted organic tea growing project in Huoshan, and helped local tea growers to establish a cooperative in November 1999, which provides long-term training service. The project helped tea growers to increase income by RMB 300.	

China Vetiver Network	Water and soil conservation in tea farms
This organization once planted 30 thousand kg of vetiver in 29 tea farms in 7 counties of Red Soil Project Area in Fujian, protecting above 130 hectares of area.	
Fair Field	Tea fair trade
Fair Field mainly has two brands, one of them being Yuxiang. Fair Field helped organize tea growers cooperatives, provided micro credit, and training in tea reprocessing, quality and packaging in northeast Fujian. Fair Field introduced the concept of fair trade into tea projects.	

5.5 CSR initiatives launched by International Organizations

International NGOs look at the tea industry and growers from the perspective of development. They are already active in other major tea growing countries (mostly developing countries), trying to connect buyers and consumers from developed countries with producer and tea growers from developing countries. In the next few years, international NGOs will be the major driving force for development of CSR in the tea industry in China.

Fair trade Labeling Organizations International（FLO）

FLO, an umbrella organization that unites 20 Labeling Initiatives and three Producer Networks, was launched in 1997. FLO is the global leading standard setting and certification organization for labeled Fair trade. In China there are ten tea agencies that have passed FLO certification, which are listed below:

Figure 5.4 Ten FLO-certified Chinese Tea Agencies

Organisations	Type
Shenzhen Graham Organic Foods Company Limited	Trader
Graham Company Limited	Trader
Fair Taste (HK) Limited	Trader
Mannong Ancient Tea Association	Producer
Xuan En Yulu Organic Tea Association	Producer
Wuyuan Xitou Organic Tea Co. Ltd.	Trader
Jiangxi Wuyuan Xitou Tea Farmers Association	Producer
Wuhan YSBio Organic Int'l Inc	Trader
Jiangxi Wuyuan Dazhangshan Organic Food Co., Ltd.	Trader
Dazhangshan Organic Tea Farmer Association	Producer

Source：Website of FLO

Ethical Tea Partnership (ETP)

ETP is a non-profit organization that unites tea companies from Europe, North America and Oceania. ETP evaluates producing conditions of tea companies across the world and provides support to tea manufacturers to build their capacity to help them improving living and working conditions for workers and environmental management. Its long-term goal is to have all its members produce tea in a socially responsible way. In ××, ETP entered China. From 2007 to 2008, ETP carried out evaluation of demand and capacity building of tea manufacturing unites in eight provinces of China, focusing on aspects such as health, safety, field management, environmental protection and energy conservation of tea manufacturing companies.

Solidaridad

Solidaridad is a pioneer, developer and innovator from Netherland in the field of fair trade. Its current effort is to promote sustianable development of supply chain to create a people-friendly and environment-friendly chain by joining hands with companies, consumers as well as producers and farmers from developing countries to alleviate poverty and improve producers. Solidaridad has developed a big programme for producer support, and stimulates improvements in product quality, certification, processing, trade, traceability, financing, purchasing, communication and the marketing of the end product. In 2006, Solidaridad came to China and has now carried out projects on cotton and soybean in Xinjiang, and is ready to bring Solidaridad working model to China's tea industry.

6 Power Distribution in the Supply Chain

Having discussed the livelihood of each actor in the supply chain, we will proceed further to identify the core actors, as well as the relationships among different actors and stakeholders. Based on this, we will be able to know the power distribution in the supply chain, which mold the market trading rules and determine the added value of different links in the supply chain.

Basically the supply chain follows the usual path of processing of primary agricultural products in developing countries, and consuming in the developed countries. In China, there still exists a huge domestic market. Therefore, tea supply chain in China can't be simply categorized as the type driven by international trade.

We need to clarify the different control and influence exerted by different actors and stakeholders in the supply chain, in order to seek constructive solutions for involvement of and cooperation among government, civil society organizations, and business sectors.

6.1 Power distribution in the domestic supply chain

Tea industry came late in market-oriented management, still bearing marks of government interference in economic activities in the period of planned economy. As a result, in domestic supply chain, the government as an external stakeholder has transgressed the role of market supervisor. Some functions of government, including the establishment of institutional framework, as well as the supervision of the enterprises should be distributed to the trade associations and other civil society organizations.

It is precisely because of this over-regulation, the government as an outside stakeholder has turned into a core actor in the supply chain. Consequently, decisions such as tea plantation planning and tea purchasing depend more on the approval of local government administration instead of the market.

In such a business environment where the role of market has been replaced by the government, competitions among enterprises can't be decided by products and services only. For example, each year the Ministry of Agriculture will award the prize “Leading Enterprises” to some model agricultural enterprises with good economic returns. To get the recommendation from the local government, many enterprises spend extra costs on lobbying and public relations. Government's indirect intervention in the enterprises' business has also left the door to corruption。

The leading enterprises in the tea supply chain, especially the highest state-level ones, usually have their own brand merchants which are one of the core actors in the supply chain. Although the overall development of Chinese tea enterprises remains at a low level, the various supports these leading enterprises get from the government far exceed those of the medium and small –sized enterprises. These supports are as follows:

Financial investment

The technical transformation, technology research and product development, as well as the development of farmer cooperative economic organizations and professional associations and so on, can be supported by agriculture, science and technology funds from the local financial department.

Preferential taxes and fees

Leading enterprises usually get preferential taxes and fees which include:

1. Corporate income tax exemption for a certain period of time;

2. The financial department awards agricultural products businesses with the right to import and export bonus proportional to the taxes they pay.

3. Leading enterprises are charged according to the minimum standards in applying for green food environment and product monitoring, use of signs, getting licenses from departments such as taxation, industry and commerce, and paying other fees.

Credit support

Leading enterprises have priority in obtaining loans from banks. Some enterprises with excellent rating can use their tangible assets such as own property, real estate (including real estate, equipments, bases and mountains developed and operated) and other intangible assets such as registered trademarks to get loans secured by mortgage.

In approval and issuance of national and provincial projects construction fund and production liquidity fund, leading enterprises also have priorities such as earlier declaration or inclusion into poverty alleviation loans projects, comprehensive agricultural development loans projects, key local projects and bond projects.

Support in use of land

Leading enterprises usually can get preferential price in renting land. If they need to buy the land owned by the farmers collectively, some local governments provide incentives such as allowing the enterprises to pay later after they buy the land.

If leading enterprises need the land for agricultural products business and wholesale market of key agricultural and sideline products, they can buy at a favorable price lower than that for the land for industrial use.

Government encourage the farmers to transfer the land management rights through subcontract, transfer, leasing, investment and other forms, and therefore enable the leading enterprises to conduct the large-scale business. If the enterprises build the raw materials base through collecting the land, the government will give them one-time subsidies in accordance with the acreage.

Thus, in the domestic tea supply chain, government departments and brand merchants represented by leading enterprises constitute the core actors. Since the taxes on special agricultural products were abolished in 2006, tea production has no more direct connection with the economic interest of government. Without any economic drive to urge the farmers to increase their production, the government is under pressure to ensure its achievements part of which is shown in the annual statistics of per capita income.

Usually core actors will become the makers of transactions rules. But small and medium-sized enterprises and farmers, once forming an effective league, can also enhance their bargaining power in order to counterbalance unfair aspects in the transaction rules.

Farmers in the supply chain are always scattered individuals. In most farmer cooperatives, they are self-employed workers working in the raw material production bases, and in a more vulnerable position compared with the small and medium-sized enterprises.

In the establishment of trade associations, farmer cooperatives, as well as contract farmers' land for the development of tea garden, tea production enterprises, especially leading ones, get too much support in favorable policies from the government. However tea farmers have become mere participants instead of interests subjects in the supply chain, and found no ways to express their own interests in policy-making.

Due to their disadvantageous position in the supply chain, tea growers gain only 30% of the benefit in growing. With the rising cost of production and raw materials deducted, there is little left. "Growing gains the least benefit, processing the moderate, circulation the most".

In the domestic market, to improve lives of tea growers who provide raw materials through increasing profits of companies, the government should assume their normal role in regulation, break the monopoly and provide healthy outside environment for the supply chain. In addition, in the cooperation between tea growers and companies, tea growers should be encouraged to establish organizations to protect their own rights and interests, and to gain independent and equal position in price negotiation.

6.2 Power distribution in the export supply chain

Union on the vertical dimension of export supply chain is very obvious. In the link of tea farmers, the production enterprises take the lead to set up tea cooperatives, thus severely interfering with the cooperatives' purpose to enhance the bargaining power through horizontal union of the tea farmers. They establish transaction rules and determine added-value to some extent.

However, in tea export supply chain, China's producers have been playing the role of raw materials providers all year round; very few enterprises have their own brands. Even fewer engage in net sales of state-owned tea and OEM production after they purchase raw materials from the producers.

Similar to the supply chain in domestic sale, growing and processing are centered in China, maintaining small or moderate profits. However circulation in foreign market dominated by exporters and buyers can bring extremely high profits.

International buyers always need to cater to consumers in their own countries. Especially in European and American countries, attention is paid to environment, labor and sustainable development. Although buyers require few CSR audit of domestic tea industry, and such audit is regarded as part of green trade barriers. However, from the long run, the promotion of CSR will benefit the livelihood of vulnerable groups in the supply chain. For example, the comparatively mature responsible consumption in the developed countries has directly improves the livelihood of farmers and workers in the less developed areas.

Consumer pressure groups are the most effective force in changing power distribution and unfair transaction rules in the supply chain. In European and American countries, these groups often launch campaigns directing to the big brands such as Lipton (part of Unilever). Branders are the core actors in the supply chain; they also become the group most sensitive to the pressure from consumers since they face the end market directly.

With its powerful purchase capacity, international famous branders tend to deprive the suppliers of their bargaining power. Such one-sided advantage should not have existed. However, domestic suppliers don't know how to improve their bargaining power through making use of pressure from consumers in European and American countries. Every weak link in the supply chain, such as tea farmers, tea workers, as well as primary producers and suppliers in the export supply chain, falls into less advantageous positions because they act separately and lack communication with the external stakeholders.

At present, consumer pressure groups in China haven't been formed. Consumers concern more about food safety, such as pesticide residues in tea; while less attention is paid to such issues as unfair trade rules and distribution of profits. In 2009, China Consumers Association began to advocate the concept of "Responsible Consumption", namely, to boycott the nonconforming products and thus exert pressure on businesses that produce such products. Although food safety is still the major concern, the consumers are beginning to be aware of the power of consumption. It will be just a matter of time for them to shift their attention to issues such as environmental protection and sustainable development.

The government, as an external stakeholder, should change its role in the export supply chain from controlling import and export quota directly to normal market regulation. The export process should also be simplified through changing approval of export enterprises to registration system. Therefore state-owned foreign trade companies who have great advantage in the quota system will have to compete openly with the private companies and to extend their business upwards along the tea supply chain.

7 Suggestions on Sustainable Development of Tea Industry

Although enterprises are encouraged to pursue the goal of gaining maximum profit under the market economic system, their short-term actions might bring negative impact upon the sustainable development. And though the government may have effective regulation, potential mistakes are unavoidable and the risk of over-regulation also exists. Therefore, we promote the participation of civil society organizations, as well as the cooperation between the different actors and stakeholders to promote the sustainable development of tea industry.

We believe that to improve the livelihood of tea workers is a milestone in this process. Although our ultimate goal is to promote the sustainable development of tea industry, we should give priority to improving the livelihood of groups in the upper reaches of the supply chain; otherwise the sustainable development will become “water without a source”.

Government: responsible procurement

The government can/should play two roles in the sustainable development of tea industry: First, the state-owned tea enterprises should take the lead to carry out social and environmental responsibility in the industry. Second, the government departments should integrate advocacy of responsibilities into procurement of tea.

The first role calls for the voluntary act of government. The lack of access to market will make it difficult to implement. At present state-owned tea enterprises also need to survive through the market. However, the second role is practical. For example, in Hefei, Anhui Province, the local government has included tea procurement into the procurement projects for open tender, which can be taken as a prerequisite for the implementation of responsible procurement.

Currently the food businesses’ knowledge of responsibilities still retains on the basic level of no fake products, and no harm to the consumers’ health. Therefore when tea businesses include CSR into core strategies, and take into consideration the impact their business has on society and environment, usually the production cost will rise within a short time. If no change is made compared with the products of the same type in the market, most probably they will face the danger of having their profit margins squeezed or market share lost. But how can we acknowledge the enterprises’ improvement through consumer behaviors?

Tea is daily consumer goods not only for common families, but also for government departments and companies. Since government has been the active advocator of sustainable development, we hope that they can manifest this role in their procurement of tea products.

There is no accurate data on how much percentage the tea purchased by the government takes in the total consumption volume. However, in terms of quantity and quality the government's procurement can't be underestimated.

To achieve the goal of responsible procurement, a separate set of third-party certification is required to make products “differentiable”. At present the international social responsibility certification system has become mature, but it's necessary to consider localization and the compatibility with the domestic standards, so as to avoid the proliferation of a variety of certifications and the lack of independent third party supervision, as well as the unnecessary cost.

Tea Farmers: Forward Integration

The previous analysis of the supply chain has revealed that the polarization between the rich and poor has become very obvious.

The traditional tea-drinking history has contributed to the premium of genuine tea areas, making a very small number of farmers become wealthy quickly. Another hidden factor is that compared with other agricultural products, in the tea supply chain the forward integration is the easiest. Therefore the tea farmers from the genuine tea areas can enter the market directly, thus the profits in the links in-between can be integrated.

This fact proves the feasibility of tea farmers' cooperative without the enterprise's domination, as well as the predictable market prospect. In Taiwan, tea farmers' organizations have taken advantage of this forward integration. Through distributed processing and unifying the standards and brands, they help to improve the livelihood of farmers effectively.

Currently, per capita net income of Chinese tea growers takes up only 1/4 of the average income of villagers. To maintain their livelihood, the tea growers have to find other work such as temporary work in the tea processing factories, or other low-skilled jobs.

The government's policy is to improve the productivity and tea growers' income through industrialization of tea products. Currently some measures are being implementing, including:

1. To support tea growers' direct access to the non-agricultural capital (industrial, commercial and financial capital), which is manifested in the favorable polices and funding opportunities for leading tea enterprises at all levels;

2. To support the tea growers' economic cooperation organizations led by the enterprises.

However, these two methods have ignored the tea growers' advantage in forward integration of supply chain.

We agree with reservation to the second plan. In the field research, we discovered that the low tea garden management techniques and improper use of pesticides and fertilizers have led to lack of unified quality of fresh tea leaves. This situation can be improved by organizing tea growers and provision of technical training by the government and social organizations, however compared with tea companies, tea growers' cooperatives have less advantage in tea export supply chain. First of all, the importing countries are increasing their standards of pesticide standards many of which are set to serve as a trade barrier[22], and failure to meet these standards will lead to destruction of products. In comparison, companies are more capable of bearing such losses, and have better access to export market information and qualified personnel who are familiar with foreign trade. Second, in the early stage of refined tea production for export, companies have greater advantage in equipment purchasing and maintenance while tea growers' cooperatives' strength in hand-frying techniques doesn't help much in tea export. Therefore with current export and domestic markets demands being distinct tea companies will be better equipped to contribute to improving the livelihood of tea growers through awareness rising, setting quality standards and supporting suppliers to meet these standards than governments supporting cooperatives and tea farmer directly provided their management structure is improved. However, in the domestic tea supply chain, we think the cooperatives led by the tea growers will be the most effective to improve the growers' income.

First of all, the cost of high-quality tea production is not high, and tea growers can share the cost for auxiliary equipments. Furthermore without the influence of trade barrier, domestic pesticide standards will not pose a big risk for the tea growers. Therefore in domestic market uncertainty is greatly reduced. Tea growers' cooperatives can participate in the market through creating common brands. In the early stage of sales channel exploration, they can also resort to the civil society organizations and government to reduce the links of tea products' entry into market and loss of profit.

Cooperatives: Improving the management structure

Enterprise-led cooperatives are in line with the current reality of tea production. They need to improve the management structure so that tea growers will not become the external raw materials providers only.

In research, even in the most grass-roots village-level tea cooperatives, we noticed their dependence on the village committee and enterprises. Leaders of local enterprises often become the director general or the main administrator of the cooperative, and the members are mostly their friends or relatives. Most tea growers have no interest in the cooperative; some even hold

[22] Gao caiyun , "Chinese tea industry which face to green barriers" , "Chinese tea industry", 2003.3, No. 3.

resentful thoughts that the cooperative is used by that the village cadres and business owners for their own good, thus has nothing to do with the tea growers' own interest. This has seriously undermined the benefit tea cooperatives created for the tea growers, and dampened their enthusiasm to form and join the cooperatives.

To solve this problem, there are two possible solutions.

1. An independent third party (such as an NGO) assists the tea growers to form the cooperatives on their own. In the past most tea cooperatives are initiated by the government or enterprises. Government usually appoints itself or designates certain enterprise representative as the director general of the cooperative, which severely undermined the independence and autonomy of cooperatives. NGO, with an independent identity, can help tea growers to set up cooperatives, and get resources in management, sales, technology and others. NGO can also assist farmers in decision-making through democratic procedures in election, finance and distribution. Currently such practice is rarely found in China. Considering the large number of NGOs engaging in rural development, this should be a worthy direction.
2. Establish the channels for tea growers to voice their rights in the cooperatives. Government should exit the business and resume their role as support provider in policy, as well as tax reduction, financial incentives, technical guidance and training, etc. Government needs to oversee the establishment and implementation of cooperative decision-making rules, such as the right to vote, decision-making rights, and management rights. In decision-making rules tea enterprises should be balanced by tea growers.

Rules should be guaranteed of effectiveness, and the participants need to have equal bargaining power. Therefore the horizontal joint between the tea growers is needed, and the market is urgently required to play the role of awarding the good and punishing the bad. Civil society organizations and consumer groups can play a supervisory role in the meantime.

Cooperation among the stakeholders

To promote the sustainable development of tea industry, actors in the supply chain and the stakeholders such as government, civil society organizations and consumer groups should form communication channels and mechanisms. The feasibility of this measure has been proven in the sustainable development of world's forests and fisheries.

If we require only the tea enterprises to make improvement in social and environmental issues, we will find it hard to avoid the danger of "bad money drives out good".

Therefore we propose to set up a dialogue and cooperation platform for multiple stakeholders such as tea brand, dealers, refining plants, primary processing factories, tea workers, tea farmers, as well as relevant government departments, civil society organizations, standards and certification organizations to discuss jointly issues of sustainable development in the tea industry.

With their own interests in mind, these groups may reach consensus on sustainable development through this platform. They then take steps to realize their goals for different stages:

1. Food Safety. This is the basic corporate responsibility that most urgently needed in China at present.

2. Environmental responsibility. Reduce the negative impact on the environment, such as air pollutant emissions and water pollution.

3. To improve the livelihood of farmers.

4. To improve the employment situation in the tea enterprises.

5. To set up CSR standards for tea industry.

The development of CSR standards for tea industry

With consumers' concern about sustainable development increasing, they not only require low prices and good quality, but also resist sweatshop production. This led to the social audit which takes working condition monitoring as the primary purpose. Since 1990s, clothing, electronics and toy manufacturers in China's coastal areas have been undergoing this change. And now this trend has been observed in agriculture in which tea industry is the key one.

CSR standards are the basis of social audit. Many challenges need to be overcomed in making CSR standards which is in line with the characteristics of Chinese tea industry.

First of all, the traditional CSR standards take ILO's eight core criteria as the foundation. Such criteria as freedom of association and collective bargaining, the elimination of forced labor, prohibition of employment discrimination, the prohibition of child labor, labor contracts, as well as workplace safety and health mainly apply to the factory workers in the specific employment relationship. While the other important group in the supply chain – tea growers is being ignored. In China, tea is planted by the growers separately, and between the enterprises and the tea growers there exists no employment relationship, but procurement relationship which is unstable. Therefore traditional CSR standards do not apply to tea growers; however to protect the tea growers should be one important aspect of CSR standards for the tea industry.

Secondly, in the tea processing enterprises, it's common to hire temporary workers whose work is highly seasonal. This is very different from the situation of garment enterprises in the coastal areas, which poses a challenge to CSR standards making.

Of course, in the development of tea industry CSR standards, we also need to take into account the special conditions of China. Freedom of association, as the most important provision in CSR standards, becomes the most difficult part in China. In the formulation of standards, we need to consider other similar questions, and to develop step-by-step and operable CSR standards for the tea enterprises.

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Most people have no idea of tea production process from processing, blending, packaging, transportation and sale, as well as the major players involved in this process that spans agriculture, industry and retail, let alone the impact of tea consumption and production upon the tea growers and workers' lives.