Lao Industry Report

THE TEA SECTOR

November 2017

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The report draws heavily on recent work in the sector including the Phongsaly Tea Strategy (PICO / COPE 2016), Industry Position paper: Sustainability Development of the Lao Tea Sector (Earth Systems 2016), Phousan Wild Tea Report (FAO 2016) and Xieng Khouang Tea Report (TABI 2016).

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EXECUTIVE SUMMARY

This report has been commissioned by the European Chamber of Commerce and Industry in Lao PDR (ECCIL) to assess the potential for investment in the Lao Tea Sector. The report is part of a series of industry profiles being developed by ECCIL to inform investors about the current investment climate in Lao PDR, identify investment opportunities and support decision makers to further develop a business-enabling environment.
The Lao Tea sector has a rich history. Tea strains have been found in Lao PDR that are estimated to be at least 600 years old and evidence exists that Lao PDR was part of the 'Tea Horse Trail' trade route linking with China and the region as far back as the 7th Century. The sector is small by global standards with official production statistics of 6,295 tonnes in 2015 (approximately 1,300 dry tonnes) compared to 5.3 million tonnes globally. Conservatively estimated at US$6 – 10 million in 2015, most of the tea produced in Lao PDR is for export with China the key market. Other export markets which are procuring small quantities of Lao tea include the EU (Russia, France, Germany), East / South-East Asia (including strong recent interest from the Taiwanese market) and the USA.

Tea production in Lao PDR is primarily in the Northern part of the country although there is also some production in the South. Many tea growing regions are remote and have some of the highest poverty rates in the country. Tea is predominantly produced by ethnic minority communities with women playing a key role in both production and processing. Tea processors and traders generally control access to markets and realise much of the value for the Lao tea product. As with other economic sectors in the country, development organisations currently provide important assistance to tea growing communities as well as public and private sector partners to help drive sector development.

Tea products in Lao PDR are primarily from two parent species of camellia (C. sinensis var. sinensis and C. sinensis var assamica) which can be divided into three main categories: wild forest tea and ancient tea which both have high potential value in specialty tea markets, and commercially cultivated tea. In addition, there is a small but growing production of herbal teas made from mulberry, hibiscus, lemongrass and other plants.

The Lao Tea Sector faces both opportunities and challenges for potential investors. There is an opportunity to develop the Lao tea brand building on the mystery surrounding 'ancient' tea grown in remote mountainous regions and its value as a pro poor crop. Lao teas are known to have high intrinsic quality, have high levels of anti-oxidants and are considered largely organic by default. There are also large areas of land considered suitable for tea production within the country and availability of relatively low cost labour. Government socio-economic and agricultural development strategies have also identified tea as a target commodity to drive rural development.

However, the sector also faces current constraints including its dependence on a single market (China), limited technical knowledge in relation to production and processing which affects the export quality of finished tea and coordination and access to information between industry stakeholders. There are also challenges relating to the business environment and supporting infrastructure for potential investors. In addition, the full value of Lao tea resources are not currently being realised and this places them under threat from land conversion in the pursuit of alternative higher value crops.

The Lao Government is working with the development community and other tea sector stakeholders to address challenges and harness opportunities and is looking for investors that can add value to the sector by helping to protect the tea resource, maximise benefits to local communities and provide access to alternative markets for Lao tea and tea based products. Specific opportunities for investment in the Lao Tea Sector include:

1. Investment that will help to protect and leverage the country's high value ancient and wild tea resources and 'organic by default status of Lao tea;

2. Introduction of improved tea production and processing capacity including the development of value added products from lower value commercially cultivated tea;

3. Scaling up benefit sharing investment models with local communities such as 'Fair Trade' and 'Organic' certified tea which can help to address issues of rural poverty while also facilitating access to new value added markets;

4. Potential for further development the Lao tea brand on the global stage by building on the sense of mystery surrounding its ancient heritage and its value as a pro-poor crop; and

5. Developing stronger links between tea and tourism in the country that will help to create new tourist attractions while also growing the Lao tea brand.

1. ABOUT THIS REPORT

This Lao Tea Sector profile report has been prepared as part of a series of industry profiles commissioned by the European Chamber of Commerce and Industry in Lao PDR (ECCIL). The industry profiles are designed to provide up to date information for potential investors about the current investment climate in Lao PDR, identify new opportunities for investment and support decision makers to further develop a business-enabling environment in the sector. Information provided in the report will also contribute to guidebooks by ECCIL on opportunities and constraints to doing business in Lao PDR.

1.1 OBJECTIVES

The overall objective of this report is to provide a detailed industry profile that allows investors to assess the potential for investment in the Lao Tea Sector.

Specific objectives include:

- Provision of up to date information on the current status of the sector including identification of key stakeholders, tea producing and processing regions and information about the size and nature of the sector;
- Outline the aspects of the sector that are unique to Lao PDR and Identify investment opportunities as well as sector constraints and current initiatives that are helping to address these constraints; and
- Provide conclusions on the challenges to, and opportunities for, future investment in the sector.

1.2 METHODOLOGY

This report was developed drawing on recent research on the Lao tea sector and up to date information on the Lao business environment. Information was collected through a comprehensive desktop review and consultation with key sector stakeholders from industry, government and civil society.

1.3 LIMITATIONS

Information on the Lao tea sector can be difficult to obtain and data from different sources can be contradictory in nature. Every effort has been made to cross check data used in the report and utilise the best available information. Prices quoted for Lao teas in the report are current to November 2016.

1.4 SCOPE AND STRUCTURE OF THE REPORT

The following sections of this report will provide an overview of the Lao tea sector (Section 2), opportunities and challenges for the sector (Section 3) and conclusions and recommendations for the future development of the sector (Section 4).

2. LAO TEA SECTOR OVERVIEW

The Lao Tea Sector contributed between US$ 6 – 10 million to the Lao economy in 2015 and provides a source of livelihoods for an estimated workforce of more than 44,000 people.[1,2] Tea in Lao PDR has ancient origins and the northern part of the country was part of the 'Tea Horse Trail' network of trade routes that have existed since the 7th Century.[3] Some strains of tea have been identified in Oudomxay Province by tea experts that are up to 600 years old.[4]

Despite this rich history, the tea sector is relatively small in comparison with other agricultural sectors in the country and there is limited technical knowledge about tea production and processing compared to its regional neighbours, China in particular. In recent years, tea has been promoted by the Lao Government as a preferable alternative to swidden agriculture and poppy cultivation in the northern provinces[5,6] and has been identified as a focus crop in the country's Eighth Lao National Socio-Economic Development Plan 2016 - 2020 and the Agriculture Development Strategy to the year 2025 and Vision to 2030. There is currently no National Tea Association or a National Tea Strategy but Phongsaly Province has developed a Draft Provincial Tea Strategy which is expected to be released in late 2016.

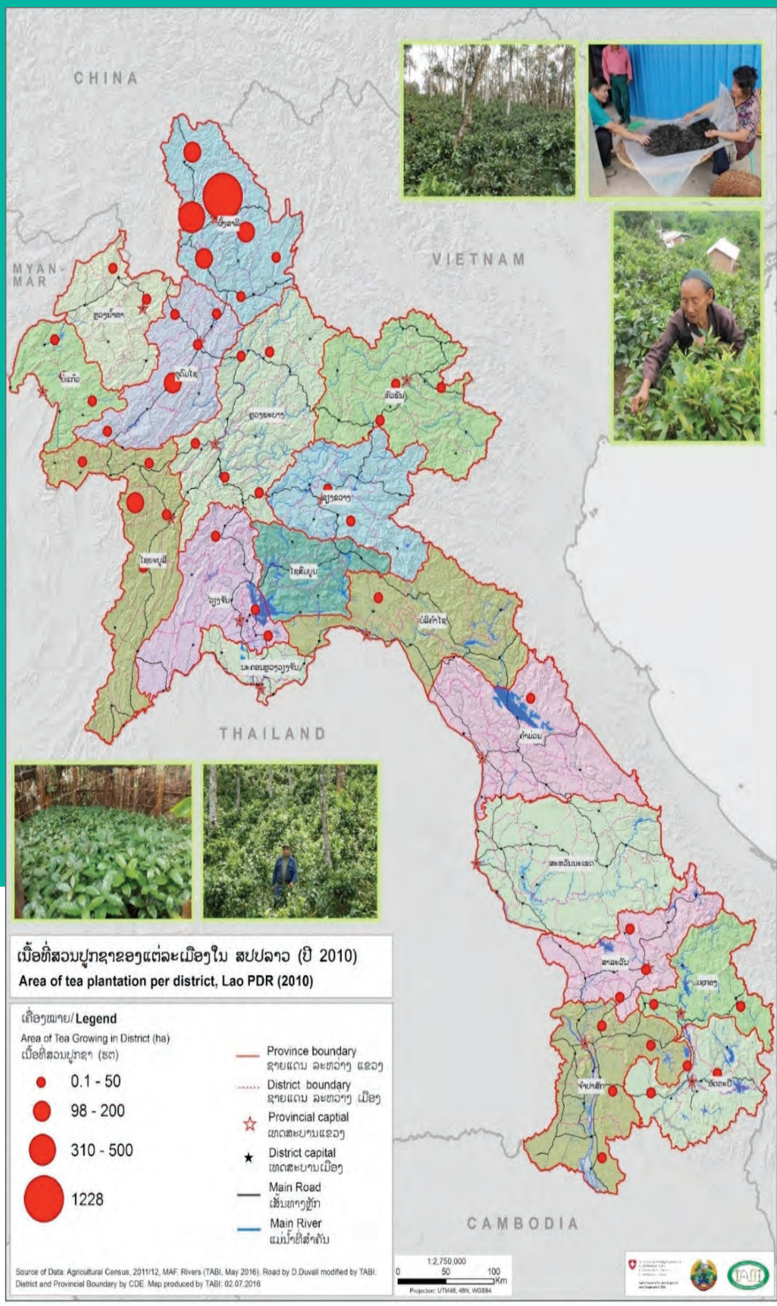
Plate 1 – Signpost for Ban Komen, Phongsaly

Plate 2 – Entrance to Ban Komen, Phongsaly

Source: Earth Systems 2016

2.1 TEA GROWING REGIONS

Tea is known to be cultivated and harvested for commercial purposes across all seven northern provinces (Phongsaly,Luang Prabang, Oudomxay, Huaphan, Luang Namtha, Bokeo and Xayaboury as well as Xieng Khouang in central Lao PDR and Champasack in the south. There are also small pockets of tea known to be growing in other parts of the country as shown in the 2010 map produced by the Agro-Biodiversity (TABI) Project (Figure 1). A study in 2011 identified large areas of the country (particularly in the northern Provinces) as suitable for tea cultivation with over 200,000 ha identified as very suitable.[6] However, this study was based mainly on climate, slope and elevation information and given the large land areas assessed, further detailed research on other aspects such as soils and current land use is required to obtain more robust data.



Source: TABI 2016

2.2 TEA SECTOR STAKEHOLDERS

Key stakeholders in the Lao tea sector include tea producers and processors/traders (refer to Table 1), relevant government institutions and development partners.

PRODUCERS

Over 8,000 households (approximately 44,000 people) are employed in the Lao tea sector. Cultivation or collection of tea resources in Lao PDR is primarily by smallholder farmers and local communities. The majority of the Lao tea resource is located in upland areas that are usually populated by minority ethnic groups with women playing the dominant role in cultivation, collection, processing and sale of tea. Some of these smallholders across the country are part of cooperatives that conduct either early stage processing or process finished products while others work directly with tea processors or tea traders. Smallholders are often price takers with limited market information.

PROCESSORS

The number of processing factories to support tea production have rapidly increased in recent years. Phongsaly is the epicentre for tea production and processing in Lao PDR. The number of factories in Phongsaly has grown from three in 2010 to at least eleven registered companies in 2016. One of these companies is Lao (Phongsaly Green Tea), one is Malaysian and the remainder Chinese. Another local Lao company, Somneuk Tea, is currently undergoing the registration process.[8] Outside of Phongsaly there are processing facilities in a number of other tea growing regions across the country. One processor of high quality ancient tea, Lao Gold Champa Tea Company has recently built processing facilities in Xayaboury, Xieng Khuang and Bokeo Provinces.[9] Some tea processors have small plantations to provide fresh tea for processing but most of their access to the tea resource comes from relationships with tea producers. Some smallholders and smallholder cooperatives also undertake early stage or complete processing of tea products. Information on key tea processing companies operating in the country is provided in Appendix 1.

TRADERS

Tea traders can register with the government to purchase and on sell tea products. Traders may purchase fresh leaf, dry leaf or finished products:

- Fresh leaf – Traders purchase fresh leaf from individual households, communities or cooperatives and then either process and package the product themselves or on sell to tea processors
- Dry leaf – Traders purchasing dry leaf either package the products for sale under their own brand or on sell to tea retailers
- Finished products – Traders dealing with finished products can include dealers with access to international markets as well as local retail chains, shops and markets.

In addition to registered traders, there are currently a number of unregistered traders operating in the Lao tea market in both organised and unorganised (ad hoc) modes of operation, particularly during the dry season when the tea is of higher quality.

GOVERNMENT

Government stakeholders are involved in the Lao tea sector at the Central, Provincial and District level. The key government stakeholders involved in the tea sector include the Ministry of Agriculture and Forestry (tea production/collection), the Ministry of Industry and Commerce (processing facilities), The Ministry of Planning and Investment (investment license) and the Ministry of Natural Resources and environment (environmental and social aspects of the tea sector).

DEVELOPMENT PARTNERS

Government stakeholders are involved in the Lao tea sector at the Central, Provincial and District level. The key government stakeholders involved in the tea sector include the Ministry of Agriculture and Forestry (tea production/collection), the Ministry of Industry and Commerce (processing facilities), The Ministry of Planning and Investment (investment license) and the Ministry of Natural Resources and environment (environmental and social aspects of the tea sector).

Table 2-1 - Key Tea Producers and Trader Categories by Region in Lao PDR

Region	Description	Key players
North	• Traditional wild forest tea, ancient tea gardens and cottage processing industry. Growing modern cultivation sector including 'contract farming' supported by Chinese traders and concession investors. Larger processing facilities planned. • Key product is light green rough tea (mao-cha). Majority of tea is sold to the Yunnan market. • Dominated by Chinese tea production approach and markets.	• Numerous small holder tea producers and cottage processors across seven provinces • Local social enterprises (i.e. Phongsaly Green Tea, Somneuk Tea Factory, Sengchan Agricultural Import Export Ltd.) • International commercial investors (i.e. Lao Suyen Tea Classic, LandSun, Phufa Tea Factory, Laos Tea Project) • Chinese, Yunnan tea traders/brokers • Local traders: i.e. Lao Mountain, Sinouk • NGO projects (i.e. Helvetas-COPE, CCL, OXFAM)
South	• Some traditional and a growing modern small holder and small scale cultivation. Finished products include Bolaven green, black and oolong tea as well as some herbal tea varieties. • Broader range markets including Europe and America	• Small holder tea producers: Lao Farmer Products; Batieng Products (Bapro) (unknown status) • Mai Savanh Lao. • Dao Heuang • Tea traders (i.e. Sinouk) • Numerous small holder tea producers (i.e. Ong Ya-Paksong KM 32, Ms. Soud-Paksong KM 40)

Source: Earth Systems 2016

2.2 VARIETIES OF TEA GROWN IN LAO PDR

There are three main tea cultivars found in the country, Camellia sinensis var. sinensis, Camellia sinensis var. assamica and Camellia sinensis var. parvifolia (see Box 1) of which the former two are most common.

Plate 3 – Camellia sinensis var. sinensis;

Camellia sinensis var. assamica

Source: TABI 2016

Tea resources in Lao PDR can be divided into three main categories, wild forest tea, cultivated forest tea (locally known as 'ancient tea') and commercially cultivated tea (introduced strains).

Wild forest tea can reach up to 20m in height and is generally found in communal village forest areas managed by households (or household cooperatives) within those villages. There are also concession forest areas for wild tea assigned to and managed by local or foreign producers employing local labour for harvesting.

Ancient tea gardens are commonly communal village tea plantation areas, managed and harvested by village households or household cooperatives. They are generally pruned to about 5m maximum for ease of harvesting and have recently been cloned in some areas to expand production. Ban Komen, a famous ancient tea garden village in Phongsaly Province has expanded their production area in recent years (now 72 Ha) to meet growing demand for the ancient tea product.

Main Tea Cultivars Found in Lao PDR

Camellia sinensis var. sinensis

Known as original tea plant, native to SE China. Typically grows to 3m with relatively small leaves (13cm). Primarily used to produce green tea.

Camellia sinensis var. assamica

Native to Assam region of India. Reaches up to 20m in the wild with large leaves (23cm). Often used to produce black tea and Pu-erh tea.

Camellia sinensis var. parvifolia

Known as Cambodian camellia, it reaches up to 5m and has leaves to approximately 18cm.

Plate 4 - Wild tea tree in Phousan, Xieng Khouang

Plate 5 - Ancient tea garden in Ban Komen, Phongsaly

Source: Thipavong Boupah 2013, Earth Systems 2016

Cultivated tea can also be found in different parts of the country. The French introduced tea to both Champassack and northern provinces such as Xieng Khouang during colonial times and more recently Chinese tea companies entered the Lao tea market in the early 2000's introducing cloned tea seedlings from Yunnan to target the Chinese market.[7] Cultivated tea plantations are generally densely planted (approximately 10,000 plants / Ha) and arranged in hedgerows with 1.5 – 2m between rows.

Plate 6 - Cultivated tea plantation at Paksong, Champassack Province

Plate 7 - Cultivated tea plantation, Phongsaly Province

Source: Earth Systems 2016

2.4 PRODUCTION

Tea resources in Lao PDR can be divided into three main categories, wild forest tea, cultivated forest tea (locally known as 'ancient tea') and commercially cultivated tea (introduced strains).

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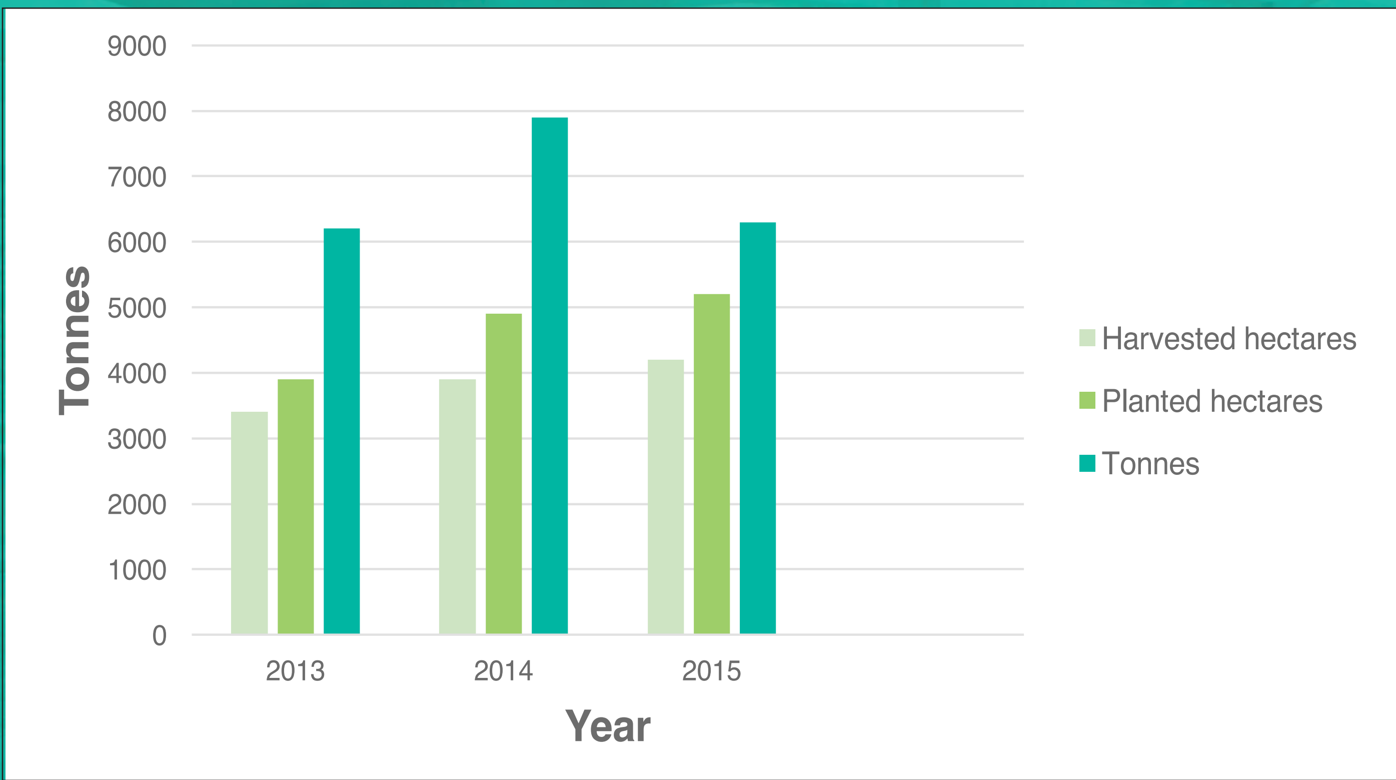
Figure 2 - Tea production figures for Lao PDR 2013 – 2015



Source: Ministry of Agricultural Statistics Yearbook 2015

The figures show that the northern provinces accounted for 93% of production. The average yield of 1.51 t/Ha is very low compared to other tea producing countries in the region. For example, tea plantations in China's Yunnan Province which borders Lao PDR, have achieved yields of up to 10 t/Ha and the average tea yield in Vietnam in 2015 was reported to be more than 20 t/Ha.[12,13] Available data on tea production is considered to be conservative as there is a considerable amount of unregistered trade in the sector and although tea is known to be commercially cultivated in Luangnamtha, Bokeo, and Xayaboury, no official figures on production were available for those provinces.

Table 2 - Tea Production Figures for Lao PDR 2015

Location	Planted Area (Ha)	Harvested Area (Ha)	Yield (Tons /Ha)	Production (Tons)
Northern Region	4,545	3,585	1.63	5,860
Phongsaly	3,235	2,275	1.80	4,100
Luangnamtha	-	-	-	-
Oudomxay	445	445	2.00	480
Bokeo	-	-	-	-
Luangprabang	785	785	1.50	1,180
Huaphanh	80	80	1.25	100
Xayaboury	-	-	-	-
Central Region	135	135	1.81	245
Xiengkhouang	135	135	1.81	245
Southern Region	460	460	0.41	190
Champassack	460	460	0.41	190
Total	5,140	4,180	1.51	6,295

Source: MAF Agricultural Statistics Yearbook 2015, Department of Planning and Cooperation

The tea production figures in Table 2 are limited to cultivated and ancient tea but previous research has attempted to estimate the wild tea resource as well. A study in 2011, found that 72% of Lao PDR's planted tea resource was wild forest tea, 24% commercially cultivated tea and 4% ancient tea.[12] These figures will have changed now as both commercially cultivated and ancient tea gardens are expanding while wild forest tea areas are likely to have reduced due to land utilisation for other types of development. The above figures do not include herbal teas (refer to section 2.5).

Plate 8 – Tea Plucking, Phongsaly

Plate 9 – Workers bagging the days harvest, Phongsaly

Source: Earth Systems 2016

2.4 TEA TYPES AND PROCESSING

Plate 10 – Sun drying tea leaves

Plate 11 – Wok firing fresh tea leaves

Plate 12 – Merchanised orthodox processing

Plate 13 – Heated drying room

Source: Earth Systems 2016

There are two main techniques in tea production, orthodox or non-orthodox (crush, tear, curl or CTC).[14] The orthodox method, a more delicate and labour intensive process, is the preferred production method used at both cottage / household and the factory level. Most tea processing is at the cottage level using the sun for drying and stoves, large iron pans or woks to fire the tea leaves. The CTC method utilises modern machinery to rapidly transform the tea leaf and can produce the final product (mostly black tea) within a day.

Tea types are determined chiefly by the processing steps employed (refer to Appendix 2). Teas processed in Lao PDR are divided into two main categories:[15]

1.'Mao-cha' (rough tea) used for the production of 'Pu-erh' (a fermented tea); and
2.Other finished teas such as white tea, black tea, yellow tea, red tea, green tea, oolong tea.

The most common final product is mao-cha which is sold to Chinese brokers and used to produce Pu-erh tea in China. In addition to the teas listed in category 2, there are a number of herbal teas produced on a small scale including tea made from mulberry, hibiscus, lemongrass, gooseberry, moringa and mushrooms.

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2.6 TEA TRADE

China is the key export market with an estimated 85-90% of tea produced in Lao PDR exported, primarily to Yunnan Province. Other export markets which are sourcing small quantities of Lao tea include Russia, France, Germany, the USA and other nearby countries in east and south-east Asia.

Unlike many tea producing countries, the domestic market for tea in Lao PDR is quite small. Lao tea can be found in outdoor markets, minimarts and targeted tourist outlets such as souvenir shops and airports but it is generally more expensive than mass produced tea imports, particularly those from Vietnam which dominate the local market.

There has been strong recent interest from the Taiwanese market for Lao red tea. The United States also has a large and growing market for specialty tea. The retail market for tea in the USA was approximately $43 billion USD in 2015 and 51% of that market was comprised of specialty tea products.[16] Most tea production is considered 'organic by default' but only a few plantations on the Bolaven Plateau are certified organic. There is scope to utilise the 'organic by default' reputation to access new markets in the future. Some producers are also employing Fair Trade practices / certification and this facilitates access to higher value markets.

2.6.3 KEY PRODUCTS

Plate 14 – Syuen Tea Cake, Phongsaly Province

Plate 15 – Phousan tea, Xing Khouang Province

Plate 16 – Paksong tea, Champassack Province

Plate 17 – Tea cigars from Phongsaly Province

Source: Earth Systems 2016

The ancient lineage and perceived health giving qualities of Lao forest teas are also well known within high value Chinese tea markets. In some cases, Lao teas are mixed and packaged in Yunnan to prepare final tea cake products and the origin of the raw material is concealed due to tea trade and product protection in China. Other Chinese tea traders/retailers promote the origin of Lao teas to customers looking for organic and chemical free tea.

Some Lao tea brands have already gained some notoriety in the domestic market including, Phongsaly Green and Red, Lao Farmer Products, Lao Gold Champa and Asian Natural Products. In addition, a number of coffee producers are also producing / packaging tea including Dao Heuang, Lao Mountain Coffee and Sinouk Coffee.

There is some production of green tea and ready to drink tea for the domestic market in Lao PDR but this market segment is highly competitive and dominated by inexpensive tea imported from Vietnam and Thailand.

Plate 18 – Dao Heuang ready to drink products

Source: Dao Heuang 2016, Lao Farmer Products 2016

Plate 14 – Syuen Tea Cake, Phongsaly Province

Source: Dao Heuang 2016, Lao Farmer Products 2016

2.6 TEA PRICE

According to International Trade Centre statistics the estimated value of tea exported from Lao PDR in 2014 was $10,000 USD per tonne.[17] Tea is purchased from smallholders mainly in unprocessed (fresh tea leaves) or partially processed (rough tea) form by processing factories or tea traders and processed in country by the former (or often in China by the latter) before sending to market. There is generally a significant gap between prices at the farm gate and end markets.

Lao tea prices are highly variable and dependent on origin, variety, intrinsic quality of the raw material and processing quality. Harvest times also have a significant influence on price with higher quality dry season tea (obtaining a price premium over wet season tea for which there is less demand. Prices for packaged Lao tea observed during a survey of markets and shops in Vientiane during October 2016 ranged between US$ 18.48 and US$ 500 per kilogram (kg) with the average price being approximately US$20/kg. Most products observed were tea bags or loose tea in 50g packages. A range of prices obtained from industry stakeholders during three separate studies during 2016 (Table 3). Prices obtained for processed Lao tea compare favourably with the current FAO composite price for processed tea of $2.42 USD / kg.[18]

Table 2 2 - Tea prices quoted by Lao tea industry stakeholders in 2016

Source	Type	Price per kg (USD)		
		Farm Gate	Processed	Retail
Phongsaly district, Phongsaly province	Commercially cultivated tea	0.88 - 1.76	6.16 - 9.86	18.48 - 24.65
Ban Komen, Phongsaly province	Ancient green tea	2.83 - 4.93		61+
Nyot Ou district, Phongsaly province	Wild tea	-	-	369+
Phongsaly district, Phongsaly province	Pu-erh Tea	-	-	275 - 418
Pakbeng district, Oudomxay province	Commercial green tea	0.84	-	-
Pek district, Xiengkhouang province	Phou San tea	1.23 – 6.16	12.32 – 30.81	14.79 – 30.81
Xiengkhouang province	Phou San tea	0.99 – 6.16	9.24 – 28.34	-
Bokeo province	Ancient red tea	-	-	500
Viengxai district, Houaphanh province	Commercial green tea	1.23 – 1.85	7.39 – 9.86	12.32 – 18.48
Paksong district, Champasack province	Commercially cultivated tea	0.62 – 1.23	4.93 – 12.32	16.02 – 18.48
Paksong district, Champasack province	Ancient green tea	-	-	8.01 – 8.63
Paksong district, Champasack province	Wild tea	-	-	61+

Source: Earth Systems 2016, TABI 2016

Plate 20 – Sa Pan Pee (1,000 year old tea) from Lao Gold Champa Tea Company sells for US$50/100 grams at San Jiang Market, Vientiane

Source: Lao Tea and Natural Products website

The higher prices for processed tea are in part a reflection of the value adding process as well as the fact that it takes 5-6 kg of unprocessed tea to make 1 kg of dried, processed tea. The premium paid for ancient tea from Nyot Ou District is a reflection of its status in the Chinese market. Processed tea may undergo further value adding steps before reaching the final consumer. There was anecdotal evidence from Paksong that white tea is sold in specialty cafes and restaurants in Bangkok for up to 1,500 Baht per cup.[19]

2.7 REGULATORY AND INVESTMENT ENVIRONMENT

The 8th National Socio-Economic Development Plan and the Strategy for Agriculture Development 2020 support tea production and processing as a vehicle to drive socio-economic development in Lao PDR. Further development of ancient and wild tea resources as well as promotion of organic/Fair Trade products and geographic indication in the tea sector are recognised as potential comparative advantages for the country through the development of high value agricultural products. The tea sector still lacks organisation and there is currently no national tea association or national tea strategy although, Phongsaly Province, which is the largest tea producer in Lao PDR, has developed a Provincial Tea Development Strategy which is a positive step towards the development of a country wide strategy.

Some of the challenges with regulation in the Lao tea sector include the lack of capacity and resources within government to implement policies and provide other support for sector stakeholders. Business red tape, inconsistent policies and uneven application of laws across the country can also be issues for potential investors. These challenges are discussed further in Section 3.

New market entrants in the sector can gain access to tea resources in several ways depending on preferred mode of entry. For example, investors seeking to set up a processing facility may be granted additional land at their factory site for tea cultivation and the right to source tea from specific communities. Alternatively, new investors can seek a concession for agricultural land for the purpose of setting up tea plantations or work with local farmers utilising a contract farming model. Another mode of entry is registering as a trader and dealing directly with tea growing communities or tea processors to buy fresh tea, partly processed tea, fully processed dry tea or finished, packaged tea. The registration process for each of these options is not necessarily the same across the country and may be dependent on the region of proposed operations.

3. TEA SECTOR OPPORTUNITIES AND CHALLENGES

The Lao tea sector presents both opportunities and challenges for potential investors and these have been identified in recent work such as the Phongsaly Tea Strategy and the Industry Position Paper: Sustainable Development of the Lao Tea Sector. Some of the key challenges and opportunities from an investor perspective are summarised in this section.

3.1 CHALLENGES AND OPPORTUNITIES BY CATEGORY

3.1.1 Tea Resource

CHALLENGES

The Lao tea sector is generally characterised by fragmented small scale production and limited technical expertise among stakeholders (tea growing communities, public and private sectors) compared to regional neighbours such as Vietnam and China. This has led to issues with product quality, productivity and associated financial returns from tea production which has in turn created the perception among many growers that tea is a low value crop. In addition to a lack of technical capacity, smallholder farmers don't generally have the means to invest in farm improvement activities that would lead to improvements in tea production. Much of the value from tea production is currently being realised by tea processors and traders and this factor combined with the emergence of alternative high value crops poses a threat to existing tea resources.

OPPORTUNITIES

Lao tea is known to have high intrinsic quality, is considered to be largely 'organic by default' and testing has shown that Lao teas have high levels of anti-oxidants.[20] The country's high value ancient and wild tea resources have not yet been fully quantified but it is recognised that they could provide significant potential for growth and investment in the sector. A number of villages with ancient tea resources are already expanding their planted area by cloning existing tea plants to meet demand. There is potential for investors to work with local communities to develop commercially cultivated tea plantations utilising genetic material from wild and ancient tea gardens. The 'organic by default' nature of much of the Lao tea resource also presents opportunities for access to high value tea markets.

For investors considering 'green field' investment in the Lao Tea Sector, large areas of land have been identified that are considered suitable for tea production within the country. Investors able to demonstrate the benefits of their proposed project can expect assistance from the government to identify suitable concession land at relatively cheap rates. There is also availability of low cost labour in the country which can potentially make Lao PDR an attractive option for setting up a new operation.

3.1.2 Tea Processing

CHALLENGES

As with tea production in Lao PDR, processors face challenges relating to technical tea processing capacity and availability of skilled labour in tea growing regions and logistical constraints can pose operational challenges due to the remoteness of many tea growing regions. Security of supply of tea resources can also be an issue for tea processors who are buying from tea growing communities. Many tea plantations in Phongsaly have been zoned to individual processing factories as a way of attracting investment in processing by providing potential investors with security of supply while also providing producers with a stable market for their product. In practice, zoning has not been functioning effectively as unregistered traders often enter the market during the dry season harvest and outbid designated processors for the higher quality dry season tea. While smallholders may benefit from higher prices for their dry season tea, traders are not generally interested in the wet season harvest and local processors are less enthusiastic about purchasing the lower value wet season harvest if they cannot access adequate volumes during the high value dry season harvest.

Access to low cost finance has been identified by both processors and producers as a key factor for the development of the Lao Tea Sector. Access to finance can help to drive investment by providing funds for equipment, working capital, agricultural inputs and research and development (R&D).

OPPORTUNITIES

Establishment of industries to process tea and tea products is an activity that has been endorsed by the Lao Government in the 8th National Socio-Economic Development Plan and the Strategy for Agriculture Development 2020. Government encouragement for industry investment has led to an established tea processing industry in Phongsaly Province with the capacity to process approximately 5,000 tonnes of tea per year and a recently built processing facility in Oudomxay Province has the capacity to process up to 8,000 tonnes of tea per year.

The current technologies employed and level of expertise in tea processing is variable in the country and there is an opportunity for investors to introduce technical capacity and new technologies which could facilitate considerable gains in the quality of processed tea and by extension, profitability for the sector. There is also scope for investors to establish facilities to process value added tea based products.

3.1.3 Market Access

CHALLENGES

China currently accounts for 85-90% of the market for Lao tea. There is limited coordination between Lao and Chinese authorities relating to tea production and export and this lack of coordination combined with limited options for other markets often results in an uneven playing field between tea stakeholders. There is generally limited market information in the sector and this can be a particular disadvantage for tea producers as they rely on processors and traders to set a fair price. There are also large fluctuations in price between the high quality dry season tea (spring pick) and the lesser quality wet season tea and generating demand for the wet season tea is a key challenge.

Due to low production volumes and low average yields, the costs of tea production in Lao PDR are higher than regional neighbours such as Vietnam and China.[21] This restricts entry into mass produced tea markets and underlies the importance for the Lao Tea Sector of targeting higher value specialty tea and value added markets. Even specialty markets demand sufficient supply volumes and consistent quality control. Some processors do not currently meet Sanitary and Phytosanitary Standards (SPS) or other standards that prescribe a minimum requirement for market entry.

OPPORTUNITIES

There are a number of opportunities for investors to utilise their existing networks and tea industry experience to facilitate access to new markets for the Lao Tea Sector. Lao tea is already well known in China for its ancient heritage and its chemical free production methods and there is considerable scope to further develop the Lao tea brand on the global stage. The global specialty tea market is growing rapidly and international tea buyers are always looking to source tea from new and exotic locations, particularly areas that also have a story that can add value to the brand (ie. Lao's ancient tea story and the sector's potential value as a pro-poor crop in ethnic minority communities). Some companies are already accessing value added markets by developing business operations that promote benefit sharing and good environmental stewardship and are compliant with standards or certification such as organic or 'Fair Trade'.

In addition, there is the potential to link tea with tourism in tea growing regions across the country, developing new tourist attractions that will in turn, help to grow the Lao tea brand. The Asian Development Bank (ADB) has already partnered with the Lao Government to create a 'Tea Caravan Trail' in Lao PDR and China as part of their Greater Mekong Sub-Region Infrastructure Program and work could be done to build on this initiative both in Lao PDR as well as forming an 'Ancient Tea Trail' with other neighbouring countries including China, Vietnam and Myanmar.

3.1.4 Business and Legislative Environment

CHALLENGES

Business registration and import / export licensing can still be a relatively complex and at times costly exercise although the government has now taken concrete steps to simplify these procedures. The country also scores lowly on global business metrics such as ease of doing business (134 out of 189 countries) and the Corruption Perceptions Index (139 out of 168 countries).[22]

The Lao Government has developed policies that are generally supportive of the tea sector but there is limited public sector budget to provide more than in principle support. Investors also need to deal with three levels of government (central, provincial and district) and this can present its own challenges for new investments.

OPPORTUNITIES

Lao PDR has a fast growing economy which has averaged 8% growth per annum over the last ten years. It has recently undergone major reforms aimed at improving the business and investment environment in order to join the ASEAN Economic Community (AEC) and the World Trade Organisation (WTO) and attract foreign direct investment.

Tea has been identified as a target commodity to drive rural development in Lao government socio-econonomic and agricultural development strategies and new investment in the sector is being actively encouraged by central, provincial and district governments.

Source: Earth Systems 2016

3.1.5 Coordination in the Tea Sector

CHALLENGES

Despite previous attempts to establish organisation in the sector, there is currently no national unifying body and although there are a number stakeholders from the private sector, District, Provincial and Central government, development partners and smallholder cooperatives who are generally working towards a common goal, poor coordination can lead to policy uncertainty and multiple initiatives which are sometimes working at cross purposes. Language can be a barrier, particularly in the north of the country which is home to numerous ethnic minorities and where Chinese tea stakeholders have considerable influence. There is also no central repository for information on the sector or central point of contact for local and international investors, research organisations or other stakeholders that want to obtain information and insights into the sector.

In most tea producing countries, tea research is at the centre of tea development.[23] In Lao PDR much of the research and development has been undertaken in isolation by private sector investors or as part of development projects. The absence of coordinated research has affected industry development in a number of ways including minimal introduction and application of improved production and processing techniques and the absence of a national inventory to proper quantify the extent and properties of potentially high value wild and ancient teas which could also lead to their protection against other forms of development.

OPPORTUNITIES

Tea Stakeholders across the country recently committed to the establishment of a national tea dialogue platform[24] and the Phongsaly Provincial Department of Industry and Commerce has recently developed a Provincial Tea Strategy in Partnership with the COPE project (refer to Table 4). There are a number of development organisations providing strong support for development of the sector and there is optimism among tea sector stakeholders that current developments will provide impetus for the development of a National Tea Strategy in the near future.

3.1.6 Infrastructure

CHALLENGES

Many tea growing regions are remote and have poorly developed infrastructure. This can create logistical challenges and higher transport costs to access tea growing regions, particularly during the wet season when access can be intermittent in some areas. While the country generally has a well-developed electricity network, other limitations relating to infrastructure include poor internet access outside the larger cities and towns (although this is improving rapidly) and limited access to goods and services (particularly specialised products and services) within tea growing regions. On-farm infrastructure is also generally limited with only a few well organised tea operations incorporating irrigation and mechanised farming practices.

OPPORTUNITIES

Road networks in several tea growing regions of Lao PDR have recently undergone significant upgrades with support from multilateral development banks and the Chinese Government. The ADB has financed two projects focussing on improvement of roads, agricultural and tourism infrastructure; the Greater Mekong Subregion Tourism Infrastructure for Inclusive Growth Project and the Northern Rural Infrastructure Development Sector Project. Internet access is also expanding rapidly in line with the country's high rate of mobile phone ownership (5 million mobile phone users out of a population of ~7 million).

3.2 DEVELOPMENT INITIATIVES

Many tea growing regions of the world are in emerging economies that face considerable development challenges. Lao PDR is classified as a Least Developed Country (LDC) and development partners currently play an important role in driving socio-economic development in the country. In the Lao Tea Sector, development organisations are working to support public and private sector efforts on all aspects of sector development both at national and regional levels including research into the tea resource, technical assistance for tea producers and value chain development. Some of the key current projects in Lao PDR and the Mekong Region are summarized in Table 4.

Table 3.1 - Current Tea Sector Development Initiatives

Project	Implementing Partners
Community Organisation, Participation and Empowerment (COPE) – under the Shan Tea Project. Phase 2 set to start in late 2016.	HELVETAS; SDC; Local government partners
The Agro-biodiversity Initiative (TABI)	SDC; MAF; Local government partners
Shan Tea Project	SDC; HELVETAS
IDH Sustainable Trade Initiative – Tea Program (currently being implemented in Vietnam)	IDH; Unilever; Rainforest Alliance, Vietnam Tea Association (VITAS)
GIZ Capacity development for private sector development in Myanmar	GIZ; Development partners; Local government partners
Oxfam Agri-business Engagement for Responsible Land Governance in CLMV	Oxfam; SDC; GIZ
Facilitating private sector leadership to address land governance issues in the eucalypt and tea plantation sectors	Earth Systems (sponsored by Mekong Region Land Governance Project)
FAO/AFD Project on the Promotion of Rural Development through Development of Geographical Indications (GI)	FAO; AFD; Local government partners
Tea 2030	Unilever, IDH, Tata, Twinings, Fairtrade, Rainforest Alliance, Ethical Tea Partnership etc
Ethical Tea Partnership	GIZ, IDH, Oxfam, UTZ, Fairtrade, Rainforest Alliance, Unilever, Twinings etc

Source: Earth Systems 2016

4. CONCLUSIONS

The Lao tea sector has significant potential to contribute to socio-economic development in the country, particularly in remote rural communities. The Lao Government recognises this potential and is working with the development community and other tea sector stakeholders to address current challenges and harness future opportunities. The government is looking for quality investment that can add value to the sector by helping to protect the tea resource, maximise benefits to local communities and provide access to alternative markets for Lao tea and tea based products. Specific opportunities for investment in the Lao Tea Sector include:

- Investment that will help to protect and leverage the country's high value ancient and wild tea resources and 'organic by default status of Lao tea;
- Introduction of improved tea production and processing capacity including the development of value added products from lower value commercially cultivated tea;
- Scaling up benefit sharing investment models with local communities such as 'Fair Trade' and 'Organic' certified tea which can help to address issues of rural poverty while also facilitating access to new value added markets;
- Investors with access to specialty tea markets and or expertise in brand development could help to raise the overall profile and value of the Lao Tea Sector and generate new market opportunities by building on the sense of mystery surrounding its ancient heritage and its value as a pro-poor crop; and
- Developing stronger links between tea and tourism in the country that will help to create new tourist attractions while also growing the Lao tea brand.

Source: Earth Systems 2016

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ECCIL EuroCham Laos

APPENDICES

Appendix 1: Details of Key Producers, Processors and Traders in the Lao Tea Sector

Table A 1: Lao Tea Processors / Factories

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes	Factory Location / Facilities	Type of Products
Phongsaly Green Tea Factory	Mr. Khamphan Chantingyong	Owner/ Manager	Saiylom village, Phongsaly district, Phongsaly province, LAO PDR	Mobile: +856 20 5558 8688	Lao company; Purchases fresh leaves from tea farmers group; processed its own tea; has it own brand; export to China; Europe: Germany; others	In Phongsaly (PSL). Currently produces ~100-150 tonnes / year. Recently completed construction of new processing unit.	Red/Black, Mocha/Rough tea, Green tea
Somneuk Tea Factory	Mr. Somneuk	Owner/ Manager	Phongsaly district, Phongsaly province, LAO PDR	Mobile: +856 02 5578 7781	Newly established Lao company; Purchases fresh leaves from tea farmers group; process its own tea and purchase processed tea from farmers; has it own brand; export to China; Europe: Germany; others	Recently established in 2016 on the way to Ban Komen village, Phongsaly. Current capacity is 30-50 tonnes / year.	Green tea, Mocha
Lao Eco-place/ Lao Syuen Classic	Mr. Andy Yan	Owner/ Manager	Phongsaly district, Phongsaly province, LAO PDR. Xay district, Oudomxai province, LAO PDR	Phone: +856 21 241 958, Mobile: +856 20 5220 5615/ 02 5420 9210/ 020 5546 3886 Email: ecoplace09@gmail.com; syuentea@gmail.com Web: http://syuentea.com/index.html	Foreign investment company-Malaysia; Purchases fresh leaves from tea farmers group; processed its own tea; has it own brand; has tea room in Vientiane; export to China, Malaysia, and others; also produce herbal tea drinks	In PSL and Oudomxai (ODX). Has equipment to make tea cake. Currently producing ~100-150 tonnes / year.	Red/Black, Green teas, Tea biscuit, Herbal teas
Phoufa Tea	Ms. Yang Hanqing	General Manager	Phongsaly district, Phongsaly province, LAO PDR	Phone: +856 21 241 958 Mobile: +856 02 2332 1689	Foreign investment company-China; Purchases fresh leaves from tea farmers group; processed its own tea; has it own brand; export to China mainly	In Phongsaly. Currently producing ~20 tonnes / year.	Red tea, green tea and Pu'er, depending on the clients' request.
Jiangcheng Yaotong, formerly Land Sun Tea	Ms. Wang Ruqun,	General Manager	Phongsaly district, Phongsaly province, LAO PDR	Mobile: +856 20 5588 9228 (Lao); +86 139 8798 9956 (China)	Foreign investment company-China;Purchases fresh leaves from tea farmers group; processed its own tea; has it own brand; export to China mainly	In Phongsaly. Production capacity ~200 tonnes / year	Red tea, green tea and Pu'er tea

ECCIL EuroCham Laos

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes	Factory Location / Facilities	Type of Products
Laos Tea	Mr. Alexander Zhiryakov	Manager	Office base in Russia; Processing bases in Phongsaly district, Phongsaly province, LAO PDR	Email: alex@laostea.ru , info@laostea.ru Web: http://laostea.com www.laostea.ru www.facebook.com/LaosTea/ www.youtube.com/user/laostea www.instagram.com/laostea/	Sourced/has been sourcing tea from Phongsaly - mainly from Komen and Payasi villages. processed its own tea and final packaging; has it own brand;	Rent a factory facility in Phongsaly to process teas and final packaging and labelling in oversea	Puerh(Puerh Shen), green, red, tea cakes
Mai Savanh Laos	Dr. Philippe Schmidt	CEO	Near Sekong capital, Sekong province, LAO PDR	Phone: +856 21 812 256 Mobile: +856 20 2241 9940 Email: nfo@maisavanhlao.org ; schmilao@yahoo.com Web: http://www.maisavanhlao.com/Lao_Silk_Tea.html	Sources fresh leaves from tea farmers group and its own small plantation; processes its own tea at facilities in Sekong and Vientiane; has it own brand; export to European countries and others	Sekong and Vientiane. Currently producing ~1 tonne / year	Green; Oolong tea, Mulberry-herbal tea
Sengchanh Agricultural Development Import-Export Company Ltd	Mr. Sengchanh	Owner /Manager	Beng District, Oudomxai Province	Phone: +856 21 241 958 Mobile: +856 02 5512 2333, 9954 6633	Sources processed tea from farmers group in Beng district; processed its own tea; has it own brand; export to China	In Beng district, ODX. Plan to expand. Currently producing ~5 tonne / year.	
Km 40 Paksong Farmer tea production	Ms. Soud	Owner/ Manager	Km 40, Paksong district Champasak province	Phone: +856 30 995 9648 Mobile: +856 20 7757 1150; 2274 8822 Email: southlaos@hotmail.fr	Purchases fresh leaves from tea farmers group; processes its own tea; has it own brand; export to European countries and others	Paksong. Currently producing ~1 tonne / year.	Green, black/ red, yellow, white, herbal tea
Dao Heuang Group	Mr. Sisouphonh Sihalath	Managing Director	333 Ban Phonkung, Mekong River Crossing Bridge Avenue, Pakse, Champasak Province, Lao PDR	Phone: +856 31 253 333 Mobile: +856 20 5551 6555; +856 20 7784 5555 Email: sisouphonh@yahoo.com; sisouphonh@gmail.com Web: http://www.daoheuanggroup.com/daocoffee/product_tea.php	Has its own tea plantation (11ha) in Champasak; process and final packaging it own tea; tea room	In Champasak province. Production figures not disclosed.	Gren and black tea
Tea Cultivator Promotion and Tea Collection Project in Sam Tai District	Mr. Khamkeo Phengnaphon	Managing Director	Sam Tai District, Houaphan Province	Mobile: +856 20 9986 6952	Contact Ministry of Commerce and Industry regarding "Agricultural Business Directory" for more information.	NA	
Natural Tea Preservation and Tea Plantation Promotion Co., Ltd	Mr. Asing	Managing Director	Phansavanh Village, SamTai District, Houaphan Province	Phone: +856-81 212020 Email: Lao-s@hotmail.com	Contact Ministry of Commerce and Industry regarding "Agricultural Business Directory" for more information.	NA	

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes	Factory Location / Facilities	Type of Products
Tea Reservation and Natural Tea Extension Project in Viengthong District	Mr. Thongsouk Thammaly	Managing Director	Thamlo village, Viengthong District , Houaphan Province		Contact Ministry of Commerce and Industry regarding "Agricultural Business Directory" for more information.	NA	
Enterprise for Samphan Tea Planting Promotion and Tea Renovation	Mr. Phanthamid	Managing Director	Yody Village and Kasone Village, SamTai District, Houaphan Province	Mobile: +856-20 55178835	Contact Ministry of Commerce and Industry regarding "Agricultural Business Directory" for more information.	NA	
Yuan Yuan Houaphan-Lao Antique Tea Development Co., Ltd	Mr. Thangsang		Done Village, Samneua District, Houaphan Province	Mobile:+856-20 5510 6819/ 5561 5966	Contact Ministry of Commerce and Industry regarding "Agricultural Business Directory" for more information.	NA	
Lao Gold Champa Tea Sole Co., Ltd/ Golden Champa Tea Company	Mr. Zhou	Owner/Managerr	Phousan Area, Xiengkhoung province; Sayaboury	Phone: +856-21 520 177 Mobile: +856-20 5665 4777 Email: 1376418860@ qqcom Web: www. goldchampa.com	Source fresh and processed tea from Phousan Area, Xiengkhoung and Sayaboury. Processed and package under own brand.	Bokeo, Xayaboury and Xiengkhouang	Green, black as loose teas

Table A 2: Lao Tea Producers / Farmers / Household Level

Contact Name	Position	Address	Contact Details	Notes	Type of Products
Mr. Sibounheuang	Owner/ Manager	Viengxai District of Houaphan Province	Contact TABI - The AgroBiodiversity Initiative project for more information.	Owns 0.64 hectare of tea garden and processes red tea. He also produces other crops	
Mrs. Siphone	Owner/ Mananger	Ban Yod Piane of Pek District of Xieng Khouang province.	Contact TABI - The AgroBiodiversity Initiative project for more information.	Owns 11,000 tea trees in 3 gardens with areas about 2 hectares and processes green tea	
Mr. Yotahimoua		Pek District of Xieng Khouang province	Contact TABI - The AgroBiodiversity Initiative project for more information.	Owns new tea planted area that mixed up with natural tea trees totally 4 hectares, and tea garden again 1 hectare in 4 plantation plots. Harvest about 40-50 tons/ year and produces ~6-8 tonnes of dry tea. Processes red tea in wet season.	Green tea / black tea / red tea
Mrs. La		Ban Komen, Phongsaly District, Phongsaly province.	Contact TABI - The AgroBiodiversity Initiative project for more information.	Owns 1.5 hectare of ancient tea area included over 100 big trees that aged more than 400-year-old as her family property from heritage,	
Mr. Tao Sa (Komen Tea Farmer Group)	Head of Tea Farmer Group	Ban Komen, Phongsaly District, Phongsaly province.	Mobile: +856 20 9866 9078	Currently there are 6 members' family, with approximately 6-7 ha of ancient tea areas (out of 80 ha from the village). Also, some own modern tea cultivation plantations.	

Table A 3: Lao Tea Traders (local)

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes
Lao Tea and Natural Products	Mr. Mike Carroll	Owner/ Manager	Lane 7, Lao Thai Road, Sisattanak District, Vientiane P.O Box 7567, Laos	Phone: Mobile: +856 20 5400 0230 Email: mikecarrolltea@yahoo.com Web: http://laoteaandnaturalproducts.com/contact-us	Sources processed tea from Phongsaly and Xieng Khuang provinces with some packaged into it own brand; also sourced from other tea producers (see link). Sell in bulk or package. Green, Black / red, Puer, Mao-cha teas.
Lao Farmers Products	Dr. Sisaliao Svengsuksa	President	158, Mittaphab Lao-Thai road, Ban Phonpapao, Sisattanak district, Vientiane Capital, Lao PDR	Phone: +856 (21) 312 886, 313 976 Mobile: +856 20 5220 5615, 5420 9210, 5546 3886 Email: ecoplace09@gmail.com; syuentea@gmail.com Web: http://laofarmersproducts.com/	Sources processed tea from Champasak (CPS), Xiengkhoung (XKG) farmers; sorted and pack under it own brand. Sell in package. Green, black/red, yellow, white Oolong, Scented teas.
Sinouk Coffee	Mr. Sinouk Sisombat	Owner/ Manager		Phone: Mobile: +856 20 5553 0495 Email: sinoukcoffee@gmail.com Web: http://www.sinouk-cafe.com/	Sources tea from Champasack and Phongsaly provinces and packaged into its own brand. Sell under its own packaging and brand. Green teas / Oolong tea.
Champa Kham Tea Xieng Khouang Lao Co. Ltd.	Mr. Ting Kuajanng (Chinese)	Owner/ Manager	Ban Thongmixay, Pek District, XiengKhouang province	Contact - Agro-biodiversity Project for more information.	
Xannou Natural Tea Xieng Khouang Lao Co. Ltd.	Owner: Mr. Han Sion (Chinese)	Owner/ Manager	Ban Phonsavanhxay, Paek District, XiengKhouang province	Contact - Agro-biodiversity Project for more information.	
Keo Paththana Chaleune Co. Ltd.	Owner: Mr. Keo Tasamak (Lao)	Owner/ Manager	Ban Nakon, Mok District, XiengKhouang province	Contact - Agro-biodiversity Project for more information.	
Sengphet Company	Mr. Sengphet	Owner/ Manager	Paek District. XiengKhouang province. Lao Farmers Products	Contact - Agro-biodiversity Project for more information.	

Table A 4: Lao Tea Traders (international)

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes
Camellia Sinesnsis Tea House			Based in Canada	Phone: 514 286 4002 Fax: 514 286 0625 Web: http://camellia-sinensis.com/en/catalogsearch/result/?order=name&dir=asc&q=laos	
ChaWang Shop			Kunming city, Yunnan province, China	Web: http://www.chawangshop.com/index.php/catalogsearch/result/?q=laos	

Table A 5: Lao Tea Retailers

Company/ Group Name	Contact Name	Position	Address	Contact Details	Notes
Oolong & Champa Tea Square Co or Tea Love Club	Denny Tseng/Jack Yang	General Manager	Vientiane, Champasak	Phone: Mobile: +856 20 5553 0495 Email: sinoukcoffee@gmail.com Web: http://www.sinouk-cafe.com/index.php/en/find-sinouk-coffee	Serve tea as well in all its coffee shop
Lao Eco-place/ Lao Syuen Classic	Mr. Andy Yan	Owner/ Manager	Unit 6, House No. 036 / 3 & 4, Samsenthai Road, Ban Haisok, Muang Chanthabuly, Vientiane, Lao PDR	Phone: +856 21 243 665, +856 21 264028 Mobie: +856 20 2882 5888, +856 20 5555 4400 Web: http://www.oolongteasquare.com/html/front/bin/ptlist.phtml?Category=353065	
The Tea Room	Dao Heuang Group	NA	No. 473, Unit 26, Kamphengmeuang Avenue, Hongkae Village, Saysettha District, Vientiane Capital, Lao PDR	Phone: (+856 21) 457 070 Fax: (+856 21) 457 013 Email: tearoomvte@daoheuanggroup.com Facebook: thetearoomvientiane	
Saengthavang Guest House	Ms. Bouvan Saengsavang (Lao)	General Manager	Phonesavanh town, Paek District, Xiengkhoung province		
Mlesna Tea House			4th Floor, Vientiane Center, Vientiane, Laos	Mobile: Phone: +856 30 5729676 Email: mlesna.lao@gmail.com Web: Facebook:https://www.facebook.com/MlesnaTeaHouseLaos	Sell ranges of teas and flavoured teas from Sri Lanka.

Table A 6: Lao Tea Initiatives

Project Name/ Organisation	Support/ Funding	Project Location	Contact Name	Position	Contact Address	Status	Note
TABI - The AgroBiodiversity Initiative	Ministry of Agriculture and Forestry and SDC	Phongsaly, Luang Prabang, Xieng Khouang, Xayabury, HouaPhanh	Mr. Chris Flint	CTA/Team Leader	Phone: Mobile:+856 20 55505002 Email: chris.flint@tabi.la Web: www.tabi.la	On-going	- Develop Profile of Lao Agro-Biodiversity Products: Tea - Capacity Building for farmers households/groups: production and processing
COPE-Community Organization, Participation & Empowerment Program	HELVETAS Swiss Intercooperation; MAF	Phongsaly, Xieng Khouang	Ms. Niphaphone NAMPANYA	Project manager / Gender & Social equity coordinator	Phone: +856 88 210 169 Mobile:+856 20 2207 1263/ 5681 3525 Email: niphaphone.nampanya@helvetas.org Web: www.helvetas-laos.org	On-going	Develop Phongsaly Provincial Tea Development Strategy - Capacity Building for farmers households/groups: production and processing, farmers groups forming; marketing; access to market; develop good relationship with tea processor at factory level
Agro-biodiversity Project- Mainstreaming Biodiversity in Lao PDR's Agricultural and Land Management Policies, Plans and Programmes	UNDP, FAO, GEF and MAF	Phou San Tea (San Mountain Region) in Xieng Khouang	Mr. Ole Sparre Pedersen	CTA/Team Leader	Phone: Mobile:+856 20 2344 1606 Email: olesped@gmail.com	On-going	-Phou San Wild Tea Xieng Khouang Province, LAO PDR From early days to Current Production and Market Development - Capacity Building for farmers households/groups: production and processing, farmers groups farmers groups forming; marketing; access to market;
SOUM SON SEUN JAI Community Based Food Security and Economic Opportunity Programme	IFAD, WFP, Lao-Luexmbourg Development Cooperation; MAF	Xaysathan District, Sayabouly Province; Pak Beng and Houn districts oudomxay Province	Soulivanh Pattivong	Country Programme Officer	Phone: Mobile:+856 20 2222 2060 Email: p.soulivanh@ifad.org Web: http://operations.ifad.org/web/ifad/operations/country/project/tags/laos/1608/project_overview ; https://luxdev.lu/en/activities/project/LAO/026	On-going	Capacity Building for farmers households/groups: production and processing, farmers groups farmers groups forming; marketing; access to market
Comité de Coopération avec le Laos (CCL)	EU	Phongsaly, Ngot Ou district	Ms. Manivone Vorachak	Director	Phone: Mobile:+ 856 21 25 40 39 Email: cclmani@club-internet.fr Web: http://www.ccl-laos.org/	On-going	Capacity Building for farmers households/groups: production and processing, farmers groups; marketing; access to market
Eat Greener – Changing food consumption patterns – A sustainable approach towards economic development in Lao PDR	EU (Switch-Asia), VZW Oxfam Solidariteit Solidarité ASBL	Paksong, Champasack; Paek, Xiengkhoung	Ms. Esther Diaz		Phone: +856-21-264-224 (ext. 125) Mobile: Email: esd@oxfamsol.be Web: http://www.switch-asia.eu/projects/eat-greener/	On-going	Capacity Building for farmers and organizations (Phone Soung Agricultural Development Project (PSADP), Lao PDR; Association de Soutien au Développement des Sociétés Paysannes (ASDSP), Lao PDR) in relations to green certification for tea and others products in Laos

Appendix 2: Tea Making Process

Appendix 3: Glossary of Terms

Steps Involved in Tea Processing

Picking/Plucking	All tea starts with picking the leaf. Tea leaves and flushes, which include a terminal bud and two young leaves, are picked from Camellia sinensis bushes typically twice a year during early spring and early summer or late spring. There is standard of plucking which determine different types of tea and price. In general, good quality tea come from tea part with only buds with 2 or 3 tender leaves and tender dormant buds.
Withering	Initial drying of bruised or torn leaf to break down leaf to liberate juices. The tea leaves will begin to wilt soon after picking, with a gradual onset of enzymatic oxidation. Withering is used to remove excess water from the leaves and allows a very slight amount of oxidation. The leaves can be either put under the sun or left in a cool breezy room to pull moisture out from the leaves.
Fixation	Heating to prevent or halt oxidation. Moderately heating the leaves to stop the oxidation at a desired level.
Maceration	Known in the Western tea industry as "disruption" or "leaf maceration", the teas are bruised or torn in order to promote and quicken oxidation. The leaves may be lightly bruised on their edges by shaking and tossing in a bamboo tray or tumbling in baskets.
Rolling/Shaping	Leaves formed to shape of desired tea. The damp tea leaves are then rolled to be formed into wrinkled strips, by hand or using a rolling machine which causes the tea to wrap around itself. This rolling action also causes some of the sap, essential oils, and juices inside the leaves to ooze out, which further enhances the taste of the tea.
Oxidation	Also called fermentation, leaf enzymatically broken down. For teas that require oxidation, the leaves are left on their own in a climate-controlled room where they turn progressively darker. This is accompanied by agitation in some cases which releases tannins. (There is a misuse of the term fermentation; in reality only pu-erh uses the fermentation process; where compressed tea is sprayed with water and covered up. Aging, heat and humidity will encourage micro-organisms and bacteria to develop a woody, less astringent tea).
Sweltering / Yellowing	Unique to yellow tea, warm and damp tea leaves are allowed to be lightly heated in a closed container, which causes the previously green leaves to turn yellow due to chlorophyll transformation.
Drying	Can be done many ways (sun, pan-fired, baked, air drying) to finish the leaves. Typical ways of 'finishing' the tea so it's ready for market includes panning, sunning, air drying, or baking (baking is the most common method).
Curing/Aging	Secondary oxidation/fermentation. Some teas require additional aging, secondary fermentation, or baking to reach their drinking potential. For instance, a green tea pu-erh, prior to curing into a post-fermented tea, is often bitter and harsh in taste, but becomes sweet and mellow through fermentation by age or dampness. More about pu-erh below. Flavored teas are manufactured in this stage by spraying the tea with aromas and flavors or by storing them with their flavorings such as jasmine or rose petals.
Grading	Improved appearance, consistency of leaf size and taste

Sources:

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- http://tea-plucking.blogspot.com.au/
- http://www.steepers.net/tea-processing.html

How Tea is Made?

Orthodox production	Seeks to maintain the integrity of the leaf, whether completely it's hand-made or with assistance from rolling machines and such. The tea leaves are not chopped, shredded, minced, etc. Orthodox processing uses the wholeness of the leaf itself to create a diverse range of flavors in the cup. 5 main steps in this process include: Step 1 - Plucking; Step 2 - Withering; Step 3 - Rolling; Step 4-Oxidation; and Step 5 – Firing, in producing different types of tea. Fixation step is involved in processing Oolong tea; Curing is involved in final processing of posted fermented teas as such Oolong and Pu-erh tea.
CTC: CTC, or Crush-Tear-Curl production	All five steps of Orthodox processing are performed, but much more rapidly and in a limited fashion. CTC was invented specifically for the black tea industry, in an effort to save time (a single batch of tea otherwise can take over a day to produce) and money. CTC is produced on a machine which takes fresh, whole leaves and macerates them (crushing, tearing and curling them, hence the name). The ground up leaf is rolled into little pellets and oxidized. The tea produced visually resembles Grape Nuts cereal or large coffee grounds. Because the leaf is completely broken up, every part of the process moves very quickly. This was originally intended for low grade teas and highly suited for teabags. Large tea producers in all major Sri Lanka now use this method and 80% of India's tea producers use this method.

Source: http://www.teaclass.com/lesson_0106.html

Types of Tea

White Tea	White tea essentially unprocessed tea. The name is derived from the fuzzy white "down" that appears on the unopened or recently opened buds - the newest growth on the tea bush. White tea is simply plucked and allowed to wither dry. That's it, really. If the weather isn't cooperating, the leaves may be put into a gentle tumble dryer on very, very low heat to assist (tea waits for no one, not even spring showers), but the leaves are not rolled, shaped, etc. Some minimal oxidation does happen naturally, as it can take a full day or two to air dry the tea leaves. This is why some white teas, like the classic White Peony, show leaves of differing colors (white, green, and brown). White teas produce very pale green or yellow liquor and are the most delicate in flavor and aroma.
Green Tea	Green tea is plucked, withered and rolled. It is not oxidized because during the rolling process, oxidation is prevented by applying heat. Remember our baked apples? For green tea, the fresh leaves are either steamed or pan-fired (tossed in a hot, dry wok) to a temperature hot enough to stop the enzymes from browning the leaf. Just like blanching vegetables, really. Simultaneously, the leaves are shaped by curling with the fingers, pressing into the sides of the wok. The leaves are then rolled and swirled-countless shapes have been created, each with a different taste. The leaves are then given their final firing to fully dry them, after which they are done. The liquor of a green tea is typically a green or yellow color, and flavors range from toasty, grassy (pan fired teas) to fresh steamed greens (steamed teas) with mild, vegetable-like astringency.
Oolong Tea	Oolong tea is one of the most time-consuming teas to create. It utilizes all of the five basic steps, with rolling and oxidizing done repeatedly. Oolong is a complex category because it's so broad: it's most simply described as half-way between green and black, and that's quite accurate. These teas are anywhere from 8% oxidized to 80% (measured roughly by looking at the amount of brown or red on the leaf while the tea is being made). The leaves are rolled, then allowed to rest and oxidize for a while. Then they'll be rolled again, then oxidized, over and over. Often, gentle heat is applied to slow the enzymes down a bit. Over the course of many hours (sometimes days), what is created is a beautiful layering or "painting" of aroma and flavor. Oolongs typically have much more complex flavor than Green or White teas, with very smooth, soft astringency and rich in floral or fruity flavors. Because of their smooth yet rich flavor profiles, Oolongs are ideal for those new to tea drinking.

Black Tea	Black tea (also known as red tea in China) utilizes all five basic steps (refer to orthodox production above), but is allowed to oxidize more completely. Also, the steps are followed in a very linear form; they are generally not repeated on a single batch. The tea is completely made within a day. The brewed liquor of a Black tea ranges between dark brown and deep red. Black teas offer the strongest flavors and, in some cases, the greatest astringency. Black teas are the only style of tea regularly consumed with milk and sugar (though some dark Oolong drinkers may disagree) and are the most popular bases for iced tea.
Pu'erh Tea	Pu'erh tea (pu-arr or pu-err) is a completely different art. It first undergoes a process similar to Green tea, but before the leaf is dried, it's aged either as loose-leaf tea or pressed into dense cakes and decorative shapes. Pu'erh is a fermented tea (and the use of 'fermentation' is correct here, although not the type which produces alcohol). Depending on the type of pu'erh being made (either dark "ripe" pu'erh or green "raw" pu'erh), the aging process lasts anywhere from a few months to several years. Very old, well-stored pu'erhs are considered "living teas", just like wine. They are prized for their earthy, woodsy or musty aroma and rich, smooth taste.
Yellow Tea	Yellow Tea is a rare and expensive variety of Green Tea: processing methods vary and some are closely guarded secrets, but most Yellow Teas are made by covering lightly withered Green Teas with mats to allow a small amount of oxidation to occur. This has the effect of giving a yellow tinge to the leaves and a slightly sweeter, more rounded taste to the liquor. It has an original smell, which could be mistaken for red tea if it is cured with herbs, but its taste is most similar to green and white teas. Yellow Tea is also a term used to describe the top-quality tea served to the emperor, because the imperial color has traditionally been yellow.
Reprocessed Tea	Tea products which are made by taking teas from the categories above as materials and reprocessing them, is called reprocessed tea. The product range includes scented tea, pressed tea, instant tea, extracted tea, fruit tea, medicinal tea and health tea, which have a variety of flavors and effects.
Tea bricks/ cake / biscuit	Tea bricks or compressed tea are blocks of whole or finely ground black tea, green tea, or post-fermented tea leaves that have been packed in molds and pressed into block form. This was the most commonly produced and used form of tea in ancient China prior to the Ming Dynasty. Although tea bricks are less commonly produced in modern times, many post-fermented teas, such as pu-erh, are still commonly found in bricks, discs, and other pressed forms. Tea bricks can be made into beverages like tea or eaten as food, and were also used in the past as a form of currency.

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