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LAO PEOPLE'S DEMOCRATIC REPUBLIC: SUSTAINABLE COMMERCIALISATION IN THE COFFEE VALUE CHAIN

FOSTERING THE DEVELOPMENT OF GREEN EXPORTS THROUGH VOLUNTARY SUSTAINABILITY STANDARDS

UNCTAD/DITC/TAB/INF/2020/2

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This study is part of UNCTAD's efforts to tackle vulnerabilities and build resilience in small and vulnerable economies, while prompting structural diversification and upgrading. It strengthens national capacities to design and implement complementary trade and agricultural policies supportive of small scale and subsistence-oriented farmers, including female farmers and vulnerable groups, and supportive of local food security. It provides evidence-based analysis that feeds national, regional and international policies with the aim of generating inclusive sustainable development.

The information in this report has been gathered from various sources, including interviews with key informants in the country, over the course of the year 2018. A national consultant, Sunnti Duangtavanah, carried out the survey of members of the Jhai Coffee Farmers Cooperative (JCFC) in the Bolaven Plateau, as well as interviews with relevant stakeholders along the Lao coffee value chain. Interviews were conducted with public and private stakeholders, including representatives from the Department of Agriculture, the Department of Trade Promotion, domestic and international organizations. Invaluable support was provided by the Government of Lao People's Democratic Republic, in particular Mr. Thavisith Bounyasouk of the Department of Agriculture (Ministry of Agriculture and Forestry) and Mr. Sysangkhoum Khotngotha of the Department of Trade Promotion (Ministry of Industry and Commerce), who generously shared information and guided key steps in the production of the study.

The study was drafted by Sunnti Duangtavanah in 2018 and 2019. The study was finalised by Miho Shirotori, Cecilia Heuser, Niematallah Elfatih Ahmed Elamin and Romain Consiglio, all from the UNCTAD secretariat. The study was formatted by Emmanuel Doffou, UNCTAD consultant.

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AFD	Agence Française de Développement
ATJ	AlterTrade Japan
DoA	Department of Agriculture
IFOAM	International Federation of Organic Agriculture Movement
CPC	Bolaven Plateau Coffee Producers' Cooperative
GAP	Good Agricultural Practice
GIZ	Gesellschaft für Internationale Zusammenarbeit
JCFC	Jhai Coffee Farmer Cooperative
JICA	Japan International Cooperation Agency
LCA	Lao Coffee Association
LCB	Lao Certification Body
MAF	Ministry of Agriculture and Forestry
MPI	Ministry of Planning and Investment
NSEDP	National Socioeconomic Development Plan
SDG	Sustainable Development Goal
UNCTAD	United Nations Conference for Trade and Development
VSS	Voluntary Sustainability Standards

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EXECUTIVE SUMMARY

1. OVERVIEW: Sustainable commercialisation of agriculture for the local market and for exports is one of the key pillars of the sustainable development policy of Lao People's Democratic Republic . Relevant policies and guidelines have been developed to enhance the production capacities of value chain actors and facilitate the access of local agricultural products, including coffee, to international markets.

2. WHY THE COFFEE SECTOR? Coffee is the country's top 3rd agricultural crop for exports in terms of value. The Ministry of Agriculture and Forestry aims to increase coffee production to 1 million tons by 2025. There is a promising market opportunity for the Lao coffee sector, as the local and regional demand for coffee are increasing. Moreover, the global demand for high-grade specialty coffee and/ or "sustainable" coffee, for which the Bolaven Plateau in Lao People's Democratic Republic is well suited, is rising fast. Based on these factors, the coffee sector is considered strategic and was selected to be sustainably commercialized through green or organic production - one of the approaches put forward in the Lao Coffee Sector Development Strategy by 2025 to improve marketability through quality improvement.

3. STUDY AIMS AND OBJECTIVES: The current study aims to assess whether and how certifying for Voluntary Sustainability Standards (VSS) can improve market gains for smallholder coffee producers in Lao People's Democratic Republic in a manner that contributes to their sustainable development. To do so, the study examines the state of the coffee value chain in Lao People's Democratic Republic, with a particular focus on smallholder coffee producers. In addition, it assesses how smallholder producers perceive challenges and opportunities associated with adopting a VSS, in particular organic standards. The study assesses the pros and cons of a "trust-based business model" of organic certification, versus a business model based on obtaining third-party organic certification.

4. METHOD AND SAMPLE: The study utilizes the UNCTAD VSS Assessment Toolkit, and is based on desk reviews, interviews of stakeholders, and a face-to-face survey of 234 coffee producers of Jhai Coffee Farmers' Cooperative (JCFC), one of the largest organizations of coffee farmers in Lao People's Democratic Republic. It consists of 298 families in 18 different villages in the Bolaven Plateau, working together to produce specialty coffee for foreign markets.

5. ORGANIC AGRICULTURE IN LAO PEOPLE'S DEMOCRATIC REPUBLIC: Local NGOs supporting sustainable and organic agriculture started emerging in the mid-1990s, paving the way for bilateral development partners and international organizations to also get involved in the movement. Together, they advanced the movement on a nation-wide scale. The government started supporting organic farming in the early 2000s. The National Growth and Poverty Eradication Strategy- adopted in 2013 as the policy framework to eradicate poverty by 2020- identifies sustainability as an essential building block for growth and poverty reduction. The development plan of the Ministry of Agriculture and Forestry, "Strategy for Agricultural Development 2011 to 2020", features organic agriculture as a promising strategy to uplift smallholder producers and reduce rural poverty by "creating employment opportunities, transferring modern technologies to increase productivity and facilitating linkages to regional and global value chains". The Lao government aims to "develop clean, safe and sustainable agriculture and shift gradually to the modernization of a resilient and productive agriculture economy".

6. COFFEE VALUE CHAIN ACTORS: Actors are classified into: agricultural input providers, coffee producers and coffee traders. Agricultural input providers supply machinery, equipment, fertilizers, and seedlings. However, they also perform other roles, including collecting, trading and exporting coffee and other crops. Coffee producers are grouped into two groups: (i) independent or individual smallholder farmers, groups and cooperatives; and (ii) large-scale commercial coffee producers, many of which were set up by foreign investors. Coffee traders can be small-scale coffee traders who are mostly intermediaries between producers and big companies.

The study selected the Jhai Coffee Farmers' Cooperative (JCFC) to conduct a field survey and interviews. JCFC built a trust relationship with its clients that does not need a third-party certification. The cooperative encourages its members to allocate a certain part of their coffee production area to the organic production of specialty coffee or high-quality coffee (ka-fe phi-seth), even though its members do not receive a third-party organic certification through JCFC. A

quality test is performed before overseas orders are placed. Every year the number of hectares used for specialty coffee changes based on the demand of foreign buyers. JCFC farmers sell their remaining products to local traders and coffee processing firms.

7. COFFEE VALUE CHAIN ACTORS' PERCEPTION OF ORGANIC CERTIFICATION:

Interest on VSS/organic certification: Almost all respondents expressed their interest in organic certification. This interest is driven mainly by the upgrade in price level, followed by the guaranteed market access to niche markets abroad, and the contribution to environment and health. More than half of the sample think getting a higher price is the main benefit of being certified. The reason why JCFC members have not received a third-party organic certification is because they build a trust-based relationship with their buyers, and thus the buyers do not ask for it.

Perception of JCFC farmers on organic certification: Perceptions of the decision to get certified have two dimensions: economic and non-economic. On the economic perception, respondents are fully aware of the economic benefits brought about by certifications. They are also aware of the additional operating cost incurred, as organic farming requires a greater amount of labour inputs. In line with this, most respondents agreed that the availability of financial support or subsidies is crucial when trying to obtain organic certification. In regard to the non-economic perception, over 95 per cent of respondents agreed with the environmental and health benefits of organic production and thought that organic markets are more reliable or trustworthy.

Perceived barriers to organic certification: In the decision-making stage, the quality of farm-to-market infrastructure is considered as a severe barrier to certification by a quarter of the respondents. Rural infrastructure is generally underdeveloped and in bad conditions, particularly during the rainy season. According to the surveyed farmers, the top three moderate barriers are paperwork related to certification, length of transition period, and cost of certification. Once the certification is obtained, respondents mostly identify access to finance, incidence of disease, insects, and weeds, impact of inclement weather and soil infertility, and finding reliable buyers as severe barriers.

8. POLICY OPTIONS:

The policy options identified by the study can be deployed in the short, medium and long term. In the short term there is a need to build interest and incentives for farmers to pursue organic certification. In addition, it is necessary to decrease the gap between the current status and condition of small farmers and farmers' cooperatives - JCFC as an example- and the condition needed for farmers to be able to pursue and maintain organic certificates. In the short to medium run it is suggested to: disseminate organic certification related information (explaining potential opportunities associated with certification), revise the 13-year-old national standards for certification to an international level or at least a regional one, provide capacity building for farmers and farmers' organizations, and enhance the transparency and accountability of farmers' organizations. Also, to overcome the difficulties associated with third-party certification schemes (paperwork, etc.), it is recommended to consider a first party certification scheme like PGS model. In the medium to long run, it is necessary to address the obstacles and barriers identified by the surveyed farmers in the decision-making stage and during the implementation stage of organic standards certification. It is important to improve the infrastructure in rural areas. It is also essential to provide financial support or subsidies to farmers who seek organic certification, disseminate organic certification related information (through training activities, workshops, etc.), set up a resource centre for organic and sustainable agriculture, provide capacity building for farmers, and create a domestic market for organic products.

1. INTRODUCTION

Sustainable commercialisation of agriculture for the local market as well as for exports is one of the key pillars of the sustainable development policy of Lao People's Democratic Republic. Relevant policies and guidelines have been developed to enhance the production capacities of value chain actors (e.g. producers, processors, traders, exporters, and government) and to facilitate the access of local agricultural products to international markets.

The coffee sector in Lao People's Democratic Republic has been steadily growing, as has the share of coffee in the country's export basket. In addition, coffee is gaining popularity within the domestic market. However, the coffee sector in Lao People's Democratic Republic is still small and fragile vis-à-vis regional and international competitors. According to the International Coffee Organization (ICO), the coffee produced in Lao People's Democratic Republic in 2017/2018 accounted for 1.2 per cent of all coffee produced in Asia and Oceania, or 0.3 per cent of the global coffee production.[1] Thus the coffee sector has been identified as a strategic sector to be sustainably commercialized in order to enhance its access to international markets. To do so, it is essential to support smallholder farmers and enhance their capabilities to meet the global coffee demand in quantity as well as quality.

The Lao Coffee Sector Development Strategy by 2025 suggests green or organic production as an approach to improve the marketability of agricultural products through quality improvement.[2] The vision is "an expanding coffee sector, oriented toward quality and respect for the environment, providing sustainable and decent incomes for smallholder producers as well as viable business conditions for private sector partners". In this context, it is pertinent for coffee farmers to receive regulatory, infrastructural, and technical support that can help them diversify into high-quality specialty coffee or organic coffee (UNDP, 2017).

Against the above background, this study is conducted to assess whether and how adopting Voluntary Sustainability Standards (VSS), more specifically organic certification, would improve the market gains of smallholder coffee producers in Lao People's Democratic Republic in a manner that contributes to their sustainable development. The study aims to:

i. Examine the state of the coffee value chain in Lao People's Democratic Republic, with a particular focus on smallholder coffee producers.

ii.Assess how smallholder producers perceive challenges and opportunities associated with adopting VSS, in particular organic standards.

The study uses the UNCTAD VSS Assessment Toolkit, developed under the UNCTAD project Fostering Green Exports through VSS in Asia and Pacific, to reach findings based on desk reviews, interviews of stakeholders, and a face-to-face survey of selected coffee producers of Jhai Coffee Farmers' Cooperative (JCFC), one of the largest organizations of coffee farmers in Lao People's Democratic Republic.

The survey was conducted in 2018 by a local survey team in Lao language and verified by a national consultant.[3] The study benefited from the valuable information and suggestions provided by the Department of Agriculture (DoA) of the Ministry of Agriculture and Forestry (MAF) and the Department of Trade Promotion (DTP) of the Ministry of Industry and Commerce (MoIC)[4].

The rest of this report is organized as follows: the coming section identifies the state of organic agriculture in Lao People's Democratic Republic starting from the early 90s, providing an overview of the emergence and development of the organic movement in the country. Section 3 focuses on the coffee value chain; it explains in detail its main actors and elaborates on their roles and activities. Section 4 presents the findings of the survey conducted by utilizing the UNCTAD VSS Assessment Toolkit, which reflect the perceptions of a sample of JCFC farmers of the potential barriers and opportunities associated with organic certification, both before obtaining organic certificate (decision-making stage) and after (maintaining the certificate). Section 5 concludes the study and goes through different strategies to enter niche markets of high-quality specialty or "sustainable" coffee. It also presents a

1. See International Coffee Organization (November 2019).

2. Lao People's Democratic Republic (2014).

3. The survey team consisted of five faculty members from the Agriculture and Forestry Faculty, Champasack University. The project decided to engage the faculty as the findings could contribute to their future research.

4. The authors of the study are grateful particularly to Mr. Thavisith Bounyasouk of DoA/MFA and Mr. Sysangkhoum Khotngotha of DTP/MoIC for suggesting coffee as the focus sector for this study (among others, such as tea, mulberry, honey and rice).

set of proposals and policy options to achieve sustainable commercialization in the coffee value chain in Lao People's Democratic Republic.

2. ORGANIC AGRICULTURE IN LAO PEOPLE'S DEMOCRATIC REPUBLIC

2.1 NGOS TAKING THE INITIATIVE (1990 – 2000)

The very first initiatives on organic agriculture were established by local non-governmental organizations (NGOs). In the mid-1990s, local NGOs supporting sustainable and organic agriculture started emerging, which paved the way for bilateral development partners and international organizations to also get involved in the movement. Together, they advanced the movement significantly on a nation-wide scale. The Lao Farmers Products (LFP), considered a pioneer of the local organic movement, was among the first organizations to receive certification. LFP was established in 1996 by the Association de Soutien au Développement des Sociétés Paysannes (ASDSP), an organization that supports the development of subsistence producers and trains them to obtain organic certification. The LFP then buys organic products from these producers at a premium price, to be processed, packaged and distributed locally and internationally. They are among the first organizations to export Lao organic products such as jam, honey, tea, and rice to the global market. They support over 300 farmer families and continue their efforts to train producers in organic farming.

Organizations that support knowledge sharing and training for organic agriculture also emerged. The Sustainable Agriculture and Environmental Association (SAEDA), established in 1991, is one of the oldest sustainable agriculture-related NPOs. It initially started as a forum for sustainable agriculture, but this changed in 2007 when it shifted its focus to project implementation. The association offers awareness training on organic agriculture, as well as training on agrobiodiversity conservation, and the development of farmers' organizations. SAEDA works closely with the national government as well as the district governments, and other developmental partners, to receive assistance in implementing its programs.

In the early 2000s, bilateral and multilateral development partners and foreign NGOs started supporting organic farming as part of their strategies to reduce rural poverty in Lao People's Democratic Republic. The movement became larger in 2004 when Helvetas, and NGO supported by Switzerland, partnered with DoA on a project titled "Promotion of Organic Farming & Marketing in the Lao People's Democratic Republic (PROFIL)", which aimed to develop a national organic sector.

2.2 THE GOVERNMENT TAKING PART (2001-2010)

In 2005, DoA created the Lao Organic Standards with assistance from the International Federation of Organic Agriculture Movements (IFOAM), and the Organic Agriculture Certification Thailand (ACT). The standards were approved by the national government under the "Decision of the Minister of Agriculture and Forestry (MAF) on Organic Agriculture Standards No. 1666".

Figure 1. Logo of Lao Organic and GAP

Lao Organic Logo

Lao GAP Logo

The Lao Organic Standards provide guidelines to receive organic certification, covering issues of organic production, management, land preservation, transportation, evaluation, inspection, and labelling requirements. The Lao Organic Standards also laid out the specifications and regulation of the Lao Organic Label, the official national certification label. The Lao Organic Label is a third-party certification created for domestic recognition of organic products.

In 2006, MAF introduced the Five-Year Agriculture Development Strategy (2006-2010), the main objectives of which are: food security, commodity production, shifting of cultivation, and sustainable forest management. With this strategy, MAF started the promotion of clean agriculture, including organic agriculture.

In 2008, the Lao Certification Body (LCB) was established as the body responsible for monitoring, training, dissemination, and education on organic agriculture. LCB also works closely with other international certification bodies on information and knowledge exchange. In late 2017, there were 15 central and local inspectors with 250 farm advisors of which 22 were members of a certification committee, and 20 were farm based Internal Control System Technicians. The LCB staff operates in 8 provinces and works with 19 companies and 17 producer groups with a total of 2,869 hectares certified.

The promotion of organic agriculture is implemented under the Clean Agriculture Standard Centre (CASC).[5] Established in 2012, CASC's role is to support, advise and provide technical training on organic agriculture to agricultural producers. CASC aims to promote clean agriculture, including conventional agriculture-traditional farming, organic agriculture, pesticide-free production (PFP), and good agricultural practices (GAP). The organic agriculture unit works with groups of producers to set up internal control systems, manage groups, and introduce organic agriculture techniques until they meet the certification criteria.

2.3 MULTI-STAKEHOLDER PARTNERSHIP ON ORGANIC AGRICULTURE (2011-PRESENT)

The National Growth and Poverty Eradication Strategy, adopted in 2013 as the policy framework to eradicate poverty by 2020, identifies sustainability as an essential building block for growth and poverty reduction. The eighth five-year National Socioeconomic Development Plan 2016-2020 (NSEDP) adopted in June 2015, integrates areas such as climate change, economic inequality, sustainable consumption, peace and justice into the national development strategy.

Enhancing organic agriculture can be an important strategic option for Lao People's Democratic Republic to achieve sustainable agricultural development and poverty eradication. First, organic farming contributes to environmental sustainability. According to FAO, organic and sustainable farming methods can create healthier soil and prevent erosion, and produce lower levels of carbon dioxide, nitrate, and methane[6]. Organic agriculture can also improve the quality of surface and ground water as it halts the use of harmful chemicals such as synthetic pesticides.[7]

Second, organic agriculture can be "significantly more profitable than traditional farming, netting organic farmers 22 per cent to 35 per cent more (revenue) than their conventional counterparts", and can create more job opportunities in rural farming areas[8]. Recent case studies indicate that small-scale farmers who switched to organic agriculture, experienced yield increases and obtained higher net revenues in the long term. A higher income potential of organic agriculture is also supported by the rapid growth of the global demand for organic products. The global organic food and beverage market is estimated to grow at around 17 per cent over the next decade, with profits to reach approximately US$456 billion by 2025.[9]

Fostering organic agriculture is also perceived by the government of Lao People's Democratic Republic as a potential strategy to incorporate rural smallholder producers to market-oriented commercial agriculture.

The developmental plan of MAF, "Strategy for Agricultural Development 2011 to 2020", mentions that organic agriculture is a promising agricultural development strategy to uplift smallholder producers and reduce rural poverty by "creating employment opportunities, transferring modern technologies to increase productivity and facilitating linkages to regional and global value chains."

Moreover, the country's "Strategic Plan for National Organic Agriculture Development 2025 and Vision Toward 2030" ("Vision Toward 2030" hereafter) states the aim to "develop clean, safe and sustainable agriculture and shift gradually to the modernization of a resilient and productive agriculture economy". The DoA is has also set a production target for organic agriculture at 2 per cent (or 70,000 ha) of the total agricultural production area in the country by 2030. Bilateral and multilateral development partners continue to support the development of Lao organic agriculture. As the PROFIL program ended in 2011, the Japan International Cooperation Agency (JICA), started providing support to the Lao government in 2013 through the "Lao Organic Agriculture Promotion Project (LOAPP)", which aimed to

5. Formerly known as the Clean Agriculture Development Canter (CADC).

6. FAO Inter-Departmental Working Group on Organic Agriculture, "FAQ: What are environmental benefits of organic agriculture".

7. Organic Tarde Association Report, "The role of organic in protecting soil health and water quality" 12 October 2016.

8. Time, "Why it might actually pay to be an organic farmer", 1 June 2015.

9. Global Organic Food & Beverages Market Analysis, April 2017.

set up a national strategy for organic farming as well as to strengthen the development of the CADC. After LOAPP, in 2017, JICA started a new project called "Clean Agriculture Development Project" to be implemented until 2022. The project focuses on technological improvements and techniques for clean agriculture and quality management, aiming to expand the production of clean agricultural products to meet growing market needs.

Another example among big scale programs is "Eat Greener – Changing Food Consumption Patterns: A Sustainable Approach towards Economic Development in Lao People's Democratic Republic", a program launched by Oxfam in 2014. Oxfam supported and trained ASDSP and LFP to become organic and Fairtrade certified, and assisted in linking them to markets in Europe.

The German Development Agency (GIZ) has worked with the stakeholders in the coffee sector, namely smallholder farmers, processing enterprises, cooperatives, extension services centres and government agencies by focusing on quality management and enhancement techniques for post-harvest processes. For example, GIZ works with the extension services centre Center 35 to strengthen its capacity to provide quality extension services to coffee producers (under RELATED: 2017-2020). In cooperation with MoIC and MAF, techniques like good manufacturing practices (GMP) and GAP are introduced.

With the rise of different initiatives and projects on organic agriculture, the need for information exchange and knowledge sharing arose. The Lao Organic Agriculture Forum (LOAF) was established in 2012 to fulfil this need. LOAF is a platform to facilitate information and experience sharing on organic agriculture development in Lao People's Democratic Republic. The forum was initiated by UNCTAD under the United Nations Inter Agency Cluster on Trade and Productive Capacity project "Enhancing sustainable tourism, clean production and export capacity in Lao People's Democratic Republic". Organized in partnership with MAF, the Forum aims to encourage public-private partnership and dialogue. It is open to all stakeholders including producer organizations, trader associations, environmental groups, research institutions, and consumer associations.

The initial objective of LOAF was to update participants on the current situation of organic agriculture and to give an opportunity for various stakeholders to raise their concerns regarding organic agricultural development. Over the years, the forum has expanded to become a platform to share information, showcase organic sector entrepreneurs, and conduct match-making meetings between businesses and producers. The bulk of the forums have concentrated on domestic organic agriculture development with focus on examining organic value chains, creating partnerships among stakeholders, and developing strategies and action plans to promote organic agriculture. In November 2019, over 130 stakeholders joined LOAF7, which for the first time brought two government agencies – MFA and MoIC – together with stakeholders to discuss the sustainable commercialisation of Lao organic products, both in the domestic market and internationally.

2.4 COST OF ORGANIC CERTIFICATION

Table 1 The average cost of obtaining Lao Organic Certification in 2017.

Source: LCB, 2017

Initial costs of Lao certification		
Description	**Amount**	**Notes**
Certificates	400,000	Lao and English
Documents	500,000	
Inspection	300,000	per day per visit
Allowance	250,000	per day
Travel	Varies	depends on distance

Table 1 summarises the average cost of obtaining Lao Organic Certification in 2017.. To get certified, producers needed to pay LAK 400,000 (around US$ 45) for the issuance of certificates in both Lao language and English. LAK 300,000 (US$ 34) per day for a field inspection, LAK 250,000 (US$ 28) to cover accommodation and food per inspector per day, in addition to an adequate amount to cover the travel expenses of certifiers using the government's rate policy.
AgroAsie Co., an organic food producer in Vientiane Capital, said the company paid US$ 375 in 2018 to receive the Lao organic certification from LCB for its 4-hectare farm. The inspection was done by four LCB personnel and took four days. The fees could have been double for inspecting a farm in a faraway place, such as Champasack province. Hiring ACT, a certifying body from Thailand, for a third-party inspection and certification of organic standards for

foreign markets could cost around US$ 6,100. Certifying for Fairtrade International could cost as much as US$10,000 in the initial stage, while the cost could be halved after a few years.

Note that the Lao Organic Certification is not recognised in regional or international markets, thus it may not be considered relevant for agricultural product for exports, such as coffee. Producers who aim to export to overseas organic markets are required to obtain third-party certification to prove they meet the organic standards of importing countries.

3. COFFEE VALUE CHAIN IN LAO PEOPLE'S DEMOCRATIC REPUBLIC

Coffee is the country's 3rd most exported agricultural crop (NSEDP 2016-2020, World Bank, 2018), with around 14 per cent of total agricultural exports in 2017 (World Bank, 2018). FAO estimates that the coffee production in Lao People's Democratic Republic increased on average 12 per cent per year between 2012 and 2017, from 87,330 tons to 150,795 tons (FAOSTAT). MAF aims to increase coffee production to reach 1 million tons by 2025 (Vientiane Times. November 15, 2017). There are more than 20,000 smallholder families making a living from selling coffee beans, and more than 300,000 people (or about 6 per cent of the total working age population) engaged in jobs linked to the coffee industry.

3.1 RANGE OF COFFEE PRODUCTS

Most of Lao coffee is produced in the Bolaven Plateau, in the south of Lao People's Democratic Republic. Its climate and fertile soil are suitable for coffee production. The plateau covers three districts – Paksong in Champasack province, Thateng in Sekong province, and Lao Ngam in Saravan province – and produces more than 95 per cent of Lao coffee in 70,000 hectares. Bolaven Plateau coffee or commonly called in the local language, ka-fe phu-phiang bo-la-ven, was introduced to Lao People's Democratic Republic by the French in the early 20th century.

Figure 2. Map of the study area

Source: https://matthewtoro.files.wordpress.com/2016/09/bolavenplateauregion_color_greenmap.jpg

There are three types of coffee produced in the Bolaven Plateau, Arabica typica (kafe noy pheun muang), Arabica catimor, and Robusta (kafe kang). Thus, the area employs three cropping systems. Arabica's high quality meets the standards of niche markets of specialty coffee, thus it is priced higher than the other types of beans[10]. For this reason, the Lao government and the donor community have encouraged farmers to increase their production of Arabica.

Compared to other types, however, the harvested output of Arabica is usually low due to diseases. Catimor is a hybrid between Arabica typica and Caturra that is competently grown by farmers but has high requirements of labour and fertilizer inputs. Robusta, the most widely planted type in the area, is the least labour intensive and does not require chemical inputs (CABI Southeast and East Asia. 2008). However, the quality of beans is considered low and is normally used as a raw input for instant coffee (JICA, 2012).

3.2 LOCAL, REGIONAL AND GLOBAL MARKET OPPORTUNITIES

The market environment surrounding the Lao coffee sector is quite promising. The demand for coffee is growing fast in neighbouring Asian countries. China and India have come on board as new potential market opportunities. Viet Nam imports on average 50 per cent of Lao People's Democratic Republic's total Arabica coffee beans every year. Moreover,

10. Specialty coffee is generally defined as high grade coffee sourced from a single origin, based on the fact that "special geographic microclimates produce beans with unique flavour profiles (see Specialty Coffee Association News "What is specialty coffee?", 17 March 2017)

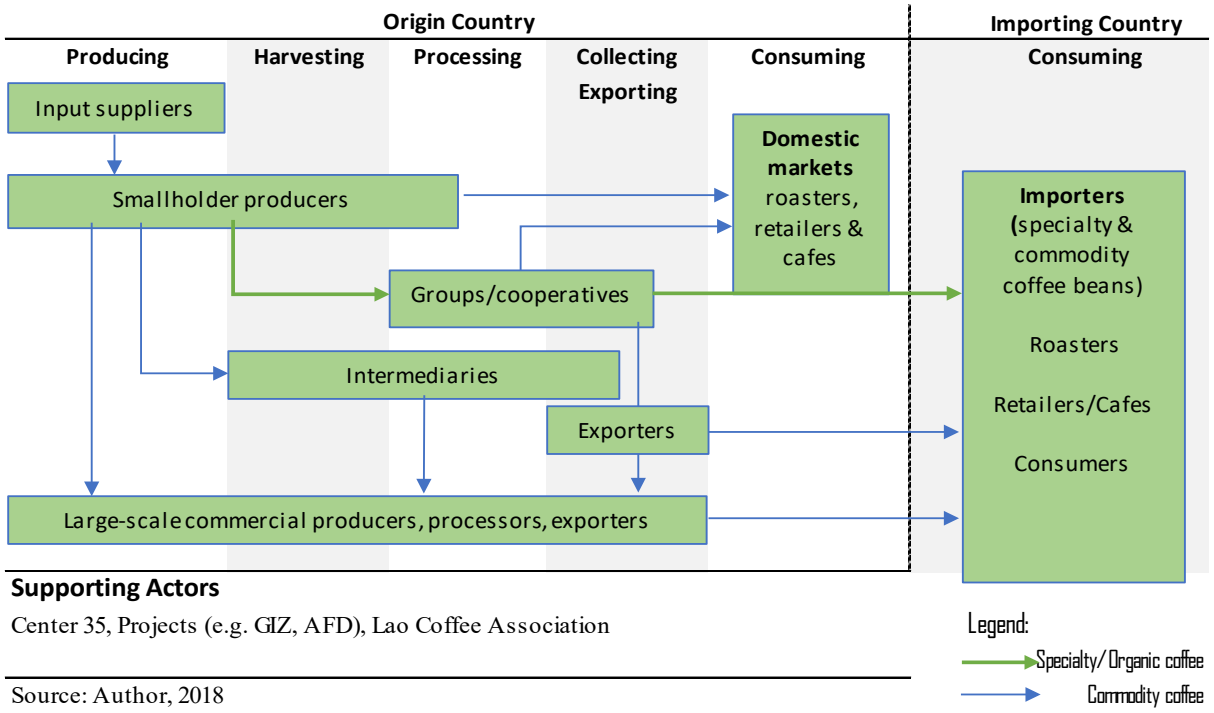
the global demand for high-grade speciality coffee and/ or "sustainable" coffee - a product for which the Bolaven Plateau is well suited - is rising fast.

Domestic demand for coffee has been increasing as well. Although statistics of domestic coffee demand are not available, the launch of many new coffee shops /cafés as well as small-scale roasters in recent years is an indicator of the increasing popularity of Lao coffee among locals. Some established coffee brands such as Sinouk Coffee, Lao Mountain Coffee, Saffron Coffee, Le Trio Coffee, Meuang Xieng Coffee, Yumi Coffee, and Dao Coffee are marketed locally, hoping that the booming tourism can boost their sales.

Due in part to the technical support provided by development partners, such as the Agence Française de Développement (AFD) and GIZ, as well as to private investment, the quality of Lao coffee has been improving, and is slowly gaining market recognition.
The private sector is also playing an important role in introducing and developing clean agriculture to be able to export Lao coffee through large retail networks across the globe (Box No.1).

3.3 ACTORS IN THE LAO COFFEE VALUE CHAIN

Figure 3 Key actors in the Lao coffee value chain



Source: Author, 2018

Box No. 1

Outspan, a subsidiary of Olam International, a leading global food and agri-business company that is listed on the Singapore stock market, has invested in coffee plantations in the Bolaven Plateau since 2009, covering about 2,000 hectares on state-leased land (Vientiane Times, 01.11.2018). About 1,300 hectares have already been planted to supply niche coffee markets (Vientiane Times. November 1, 2018.).

Olam International markets both instant and specialty coffee, but considers Lao People's Democratic Republic to be an emerging specialty coffee country.[1] Outspan follows Olam International's policies that require the company's plantations to be certified under the Rainforest Alliance and UTZ international certification programs, which promote sustainable agricultural production.[2] As part of its corporate social responsibility, Outspan focuses on sustainability, working with more than 1,700 local smallholder coffee farmers through the Bolaven Sustainable Coffee Program. The program is designed to enhance the capacity of coffee smallholder farmers to improve the quality, quantity and sustainability of their coffee production by adopting new and environmentally friendly agricultural techniques, enabling them to meet international standards.

Through this program more smallholder coffee farmers will have the opportunity to participate in the company's supplier initiative, which will contribute to their integration to a global value chain system and secure the future of the coffee industry in Lao People's Democratic Republic.

1. https://www.olamgroup.com/products/confectionery-beverage-ingredients/coffee/specialty-coffee.html

2. Olam International's website: http://www.olamgroup.com/locations/asia/laos.html

1. Agricultural Input Providers: The study identifies at least 10 provincially-listed companies that mainly supply agricultural inputs (e.g. machineries, equipment, fertilizers, and seedlings). They also perform other roles, including collecting, trading and exporting coffee and other crops. In addition to these companies a number of shops seem to be selling agricultural inputs in the studied area. As coffee production expanded and intensifies, companies and shops are reportedly promoting pulpers and fertilizers among coffee farmers. Fertilizers with various formulas from neighbouring countries like Thailand had been widely detected, while Vietnamese pulping equipment is widely used due to its affordable price. Center 35 produces and sells coffee seeds and seedlings to JCFC farmers. Some organizations of coffee farmers prefer to produce the seedlings themselves.

2. Coffee Producers: Coffee producers can be classified in two groups: (i) independent or individual smallholder farmers, groups and cooperatives; and (ii) large-scale commercial coffee producers, many of them established by foreign investors, that own their coffee farms through land concession.[11] They also buy coffee from smallholder farmers.

3. Coffee Traders: Small-scale coffee traders play an important role in collecting and selling coffee to big companies like Dao Heuang Group, Thin Nghia, Cat Que in Paksong town and Pakse.[12] It is reported that Vietnamese companies are being increasingly active in coffee trading in the province. Statistics of the Lao Coffee Association (LCA) indicate that, in 2017, 77 per cent of total coffee exports was destined to Viet Nam.

For more detailed information on coffee value chain actors, Annex Table (A1) presents the key roles of the identified actors in the chain which is divided into 3 tiers: (i) actors that play a role in the coffee sector as well as other crops for trade and export; (ii) actors that focus on coffee in particular, ranging from growing, processing to export (including importers); and (iii) supporting actors (like GIZ and Center 35). The data about the companies is processed based on the data provided by the provincial office of industry and commerce.

11. Some examples are Dao Heuang Group, Paksong Highland, Outspan Bolavens, Lao Thai Hoa, Cat Que, Thin Nghia, and Minh Tien.

12. Dao Heung Group has the largest coffee processing plant in Lao People's Democratic Republic and buys coffee cherries to export green beans of coffee or to produce instant coffee.

The data show that a number of companies play different roles in the coffee chain ranging from the supply of agricultural inputs (equipment, fertilizers, seedlings) to the importation of coffee. These companies are registered with the provincial office of industry and commerce and there are also many of them playing other similar multiple roles (particularly in collecting coffee beans and selling to large companies like Dao Heuang, Paksong Highland, Min Thien Coffee, Cat Que, Outspan Bolavens and many more) that are registered with the Paksong district of industry and commerce. A few hundred small collectors or intermediaries were reportedly based in the village who also grew coffee but act mainly as coffee traders.

Companies listed in Tier 2 in Annex Table A1 are directly involved in coffee exports. Half of them grow, harvest, and even collect coffee from smallholder farmers, and export by themselves or through shipping agents. The provincial office of industry and commerce put them in the import-export categories of business.

Tier 2 also lists buyers of the importing economies such as the Republic of Korea, Taiwan Province of China, Japan, United States of America, and some European countries (e.g. Germany, Belgium, Switzerland). The importers like Nettle-Korea buy coffee beans from Dao Heuang Group, Lao Thai Hoa Coffee, and Oustpan Bolavens. Club Green and OK Lao export coffee to their parent companies.

3.4 MAPPING THE ACTIVITIES IN THE COFFEE VALUE CHAIN

From bean to cup, coffee goes through a series of steps. These steps and their corresponding activities are presented in Figure 4.

3.4.1 Coffee production stage

The coffee production cycle starts with land preparation before the rainy season. The seeds are planted first and nurtured in large beds or in shaded nurseries (e.g. regular watering and shading from hot sunlight) until they are mature and healthy enough to be planted permanently. Seedling development usually takes place during the rainy season (from May). Once the seedlings are planted, it takes between 5 and 7 years for them to bear fruit.
The harvest of Arabica coffee cherries begins in late October and lasts until December, whereas Robusta coffee

cherries are picked in the period from February to March. Smallholder coffee producers handpick the cherries to ensure consistency in quality. On the other hand, large-scale commercial coffee farms have mechanized the cherry-picking process. Cherries are picked in three rounds. In the first round, only deep red cherries are selectively picked one by one in order not to be mixed with immature beans that have a low average taste. The second round is the main harvest stage as most of the beans are ripe. The last round takes place in December, to pick up the remaining mature cherries. The price of the cherries is determined by the time (round) in which they were picked. Once the cherries are picked, they need to be transported to a (wet) processing facility.

Coffee Production stage: Cost and Income Analysis

Through interviews, the study collected information on coffee production cost and potential revenue. This information was collected on an ad-hoc basis from selected farmers thus it is only indicative.

Cost of Production: Cost of coffee production is determined by the inputs needed and activities required in the pre-harvest and within harvest periods. Table 2 provides the estimated cost per hectare (10,000m2).

- Start-up cost The start-up cost is about LAK14 million (US$1,649) per hectare. It takes around four to five years until harvest, depending on the coffee type. The main cost incurred during this period is the grass cleaning or weeding fees which costs at least LAK9 million (US$1,054) per hectare. This period requires intensive care especially in the first year after planting.

- Annual operating cost The farm's annual operating cost is estimated to be around LAK11.82 million (US$1,385) per hectare (inclusive of start-up cost). This cost estimation takes into account labour inputs and counts the various activities performed by the farms' workers (i.e. cut grass three times a year, prune coffee trees, purchase fertilizers, pick cherries, mill or hull coffee beans) and land tax. In general, coffee farmers try to do some of the tasks themselves to save expenses.

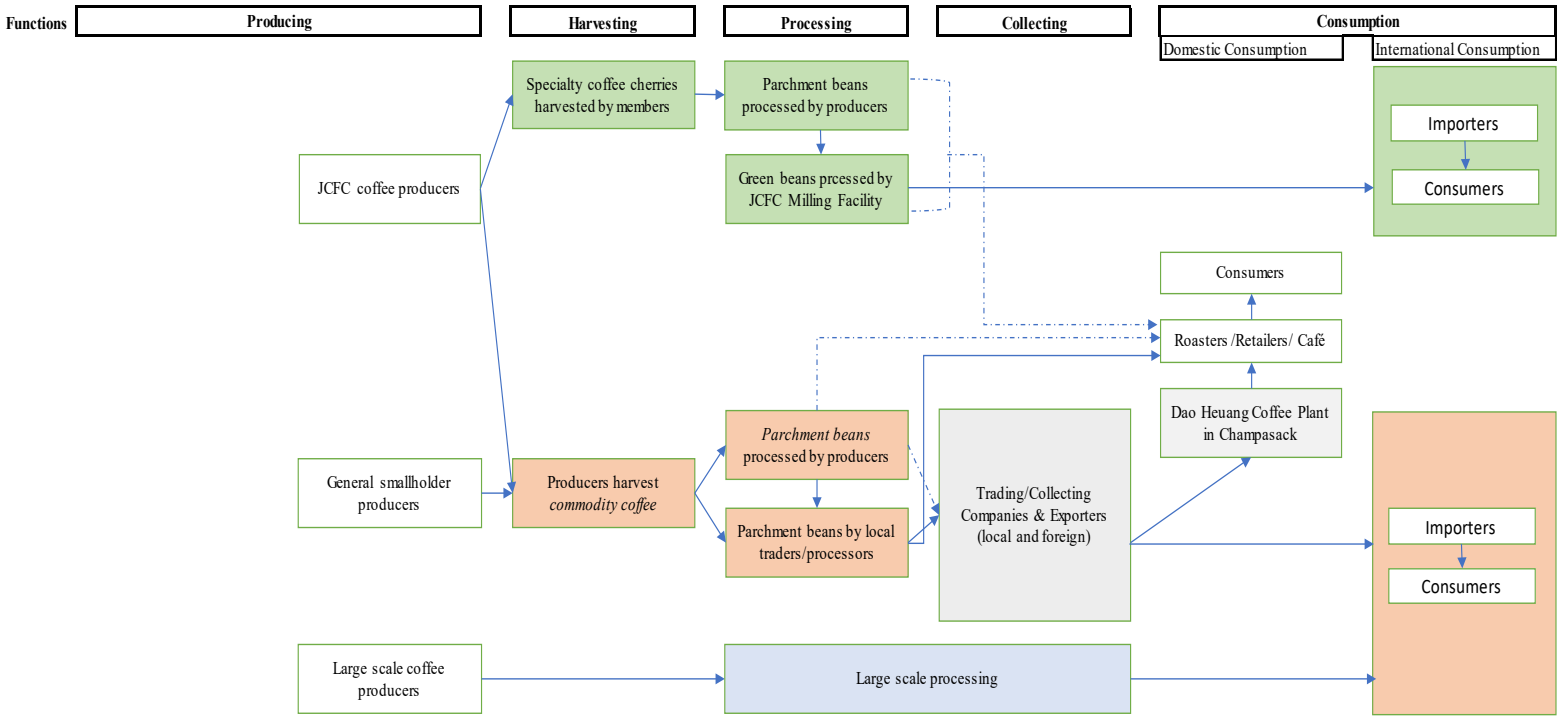
Income from Coffee: Table 3 provides an estimation of farmers' income from coffee production. The productivity (yield) of coffee cherries (both organic and non-organic) is between 3-5 tons per hectare, worth LAK6-10.5 million (US$703-1230) per hectare. The revenue varies depending the coffee type and quality.

The revenue from coffee depends on when it is sold - before processing (unprocessed as cherries or red beans), after primary processing (as parchment or white beans), or after secondary processing (as milled or green beans). A farmer can earn around US$1,230 per hectare from selling unprocessed coffee cherries. The price would increase by around 37 per cent (goes up to US$2,000) for parchment beans after primary processing or to around US$2,700 if the beans are certified organic. The revenue would be even higher, US$2,953, for hulled organic coffee beans after secondary processing.

With the annual operating cost being around US$1,385 per hectare, farmers would bear a loss of around US$39 from selling coffee cherries i.e. before processing. If farmers process the cherries to produce parchment beans, an additional cost of around US$100 per hectare is added to the total estimated cost (for electricity as well as additional labour costs).

The margin that a farmer would receive from selling non-organic parchment beans would be about US$480 per hectare, while the margin from organic beans could be US$1,200 per hectare.

Figure 4. Mapping Activities Undertaken by Actors



Functions	Input supplying	Producing	Harvesting	Processing	Collecting	Domestic Markets	International Markets
Activities	Seedlings & nurseries	Improving soil	Harvest round 1 - cherries	Wet processing (Arabica)	Collecting parchment beans	Roasting	Importing green beans
	Tools & equipment	Applying bio-fertilizers	Harvest round 2 - cherries	Pulping	Trading parchment beans	Retailing	Roasting
	Labor	Removing weeds	Harvest round 3 - cherries	Fermentation	Distributing	Consuming	Retailing
	Capital	Pruning	(Output 1: cherries)	Washing	Exporting		Brewing/Consuming
	Technical support	Replacing weak coffee trees	Handpicking: smallholder	Sun-drying			
	Inspection (specialty coffee)	Nuturing coffee trees	Machinizing	Dry processing (Robusta)			
				Sun-drying			
				(Output 2: Parchment beans)			
				Processing parchment beans			
				Removing/hulling			
				Sorting/grading			
				Storage (bags)			
				(Output 3: green beans)			
	Implementation and Certification Area						

Table 2. Estimated production costs per hectare

Source: The data presented in this table was collected through interviews done at the time of this study. This information was collected on an ad-hoc basis from selected farmers and is only indicative.

Item	Costs (LAK)	Notes
(A) Pre-harvest / start-up		
Clearing of a new plot and ploughing per hectare	3,750,000	It costs LAK600,000 per 1,600 sq. meters
Seedlings per hectare	2,520,000	LAK700 per seedling
Digging holes to plant per hectare	1,800,000	LAK500 per hole (*3,500)
(Organic) fertilizer @ 5 tons	5,000,000	
Planting coffee trees/seedlings	1,000,000	Daily wage: LAK50,000
Total	**14,070,000**	
(B) In-between harvest		
Cleaning farm/weeding	3,078,000	3 times per year
Pruning	500,000	
(Organic) fertilizers and transport	2,200,000	It costs more depending on a level of soil infertility; LAK323,000 per transport trip
Total	**5,778,000**	
(C) Harvest		
Picking coffee cherries	5,000,000	Average 5 tons per hectare, pick wage is LAK1000 per kilogram
Milling/hulling parchment beans	1,000,000	
Total	**6,000,000**	
(D) Others		
Land tax per year	45,000	
Estimated operational costs of farm (annual)	**LAK11,823,000**	
	or US$1,385	

Table 3. Coffee production income per hectare

Source: The data presented in this table was collected through interviews done at the time of this study. This information was collected on an ad-hoc basis from selected farmers and is only indicative.

	Unprocessed		Primary processing		Secondary processing
Outputs per hectare	Average 4000 kilograms				
(red cherries)		800 kilograms			
(parchment / white beans)					
		569 kilograms			
(hulled / green beans)					
		Organic	LAK 23,200,000	Organic	LAK 25,200,000
Price per hectare	LAK10,600,000	Non-organic	LAK 16,800,000		
	US$703-1230	Organic			
Non-organic	US$2,718				
US$1,968	Organic	US$2,953			

3.4.2 Coffee processing stage

Many coffee producers process coffee at the household level, parchment bean is produced using their own small portable washing or pulping machines. The processing begins as soon as the fresh coffee cherries are picked to prevent spoilage. Wet processing is a widely used method for Arabica coffee.[13] Depending on the financial condition of the farmer, some individual farmers do own small wet processing machines. Dry processing, mostly through sun-drying, is applied for Robusta coffee. Farmers then transport the parchment beans to the cooperative facilities to do the secondary processing, or instead, sell parchment beans to local traders of coffee processing farms.

The pulped and fermented beans (through wet processing) are normally sun-dried to an 11 per cent moisture, which is the suitable level for storage in bags or for milling/hulling and then roasting. At this step the milled beans are graded and sorted by size and weight, followed by a visual check before grading, the last step. The milled beans, or 'green beans', are then readied for sales or exports.

3.4.3 Coffee trading stage

Traders start visiting coffee farmers in villages during the picking season. Coffee farmers who do not have processing machines or who are in need for cash sell fresh cherries to traders in the village, however selling coffee fresh cherries is not a common practice. Most village traders have their own (wet) processing facilities. Farmers who have processing (including the milling) machines sell primary processed parchment beans to local traders, who then transport the collected parchment beans to local and foreign coffee trading companies or to processing companies like Dao Coffee Plant.[14]

There are about 225 small traders in Paksong district and 7 large trading companies.[15] Some farmers sell the beans to small-scale local roasters. According to Khambone, Technical Advisor and Team Leader of the AFD-supported project Reinforcement and Expansion of Coffee Sector in Lao People's Democratic Republic (RECoSeL), more than 90-95 per cent (30,000-50,000 tons) of the coffee produced in the study area is exported as dried beans (green beans) while the remaining goes to the local market. Vientiane, the capital, has 200 coffee shops and about 12 roasters, while Champasack has around 10 roasters.

Table 4 shows prices paid by traders per kilogram for cherries, parchment beans, and hulled beans for organic and non-organic coffee. The price ranges from LAK1,700-1,800 (US$0.10-0.20) per kilogram during the 1st and 3rd rounds of picking. It goes up to around LAK2,750 (US$0.31) per kilogram at the peak season, i.e. during the second round of harvest. It needs 5-5.2 kilograms of coffee cherries (deep ripe cherries) in order to produce 1 kilogram of parchment beans.

When sold to a cooperative, parchment beans of Arabica can fetch LAK28,000–30,000 (US$3.28 –3.51) per kilogram. The cooperative then hulls/mills parchment beans at its facility and then it is ready for export. The loss from hulling is about 30 per cent – meaning it takes about 100 kilograms of parchment beans to produce 70 kilograms of hulled coffee beans.

Table 4. Coffee traded by kilogram

Hulled beans	Organic	LAK40,000-50,000
	Non-organic	
Parchment beans	Organic	LAK28,000-30,000
	Non-organic	LAK13,000-29,000
Cherries	Organic	LAK2,000-3,500
	Non-organic	LAK2,000-3,500

Based on interviews, a local trader would buy coffee cherry from farmers and sell to processor/exporter companies in town (Dao Heuang Group, and some Vietnamese companies) with an average net profit of LAK100-150 per kilogram of cherries. If parchment beans are sold to those companies, the farmer would fetch a margin of LAK200-500 per kilogram, depending on the quality (e.g. dryness, size, flavour, amount of broken beans, etc.).

13. Wet processing removes the pulp from the freshly harvested coffee cherry to separate the skin and pulp from the bean (through the pulping machine). The bad or unripe beans float to the top while the heavier ripe beans stay at the bottom.

14. Established in December 2012, Dao Coffee Factory is located in Luksaet Village, Bachieng District, Champasack Province.

15. They are Dao Heuang Group, Oustpan Bolaven, Paksong Highland, Cat Que Lao, Lao Thai Hoa Coffee, Lao Minh Tein Coffee, Phetsavang Joint Development.

As regards taxes, until 2017 a local trader who would sell around 5-6 tons of parchment beans to processors/ exporters would pay taxes of around LAK200 (US$0.023) per kilogram of parchment beans to the village authority, which will be reimbursed to the trader by the buying company when showing the tax receipt issued by the village authority. This changed in 2018, currently the company buying the coffee pays taxes directly to the district tax authority.

3.5 THE VALUE CHAIN IN FOCUS: JHAI COFFEE FARMERS' COOPERATIVE

The study selected the Jhai Coffee Farmers' Cooperative (JCFC) to conduct interviews and a field survey. The coming section explains in details this value chain in focus.

Organization: JCFC started with 15 members along 3 villages when given a 'provisional' status of association in 2000. It then become a cooperative in 2013. Today, JCFC contains 298 families in 18 different villages in the Bolaven Plateau, working together to produce specialty coffee mainly for foreign markets. JCFC's total production area in 2018 was 1500 hectares at three to four tons of cherries per hectare.

Management: JCFC is managed by a team of unpaid volunteers elected by members. The team consists of 6 operational members and 21 group representatives.

Products and value chain activities: JCFC produces both specialty coffee and regular commodity coffee. Although members is certified are not certified through the cooperative, JCFC encourages its members to devote a certain area of their farms for organic production of specialty coffee or high-quality coffee (ka-fe phi-seth). In the area that is not allocated for ka-fe phi-seth, members are required to apply GAP.

The specialty coffee is sold to international customers based on orders only. These customers do not request organic certification but rather do a quality test prior to placing an order (trust-based business model). Overseas customers are interested only in Arabica. JCFC has been promoting Robusta beans, also organically produced, to them but without much success. Individual members (not through JCFC) can sell non-specialty coffee beans (or "commodity" coffee) to local traders or coffee processing firms.

Box No. 2: Jhai Coffee Farmers Cooperative (JCFC): Farmer Owned Cooperative

(An excerpt from JCFC webpage) As one of the cooperatives owned and managed by farmers in the Bolaven Plateau which shares profits among the community fairly, the JCFC is a unique group of people who are working together to better their own lives in a collective effort. Founded in year 2000, the coop has grown slowly. Its management and membership consisted of 35 families in 2014/15, 75 families in 2015/16, and membership tripled to 298 families in 2016/17. These families live in 18 villages scattered throughout the Bolaven Plateau with village-level wet-mills and African-style, raised-bed drying facilities in each village. (…) Each village elects a village leader as representative of the village within the cooperative. Every few weeks, village leaders hold leadership-wide meetings to address past, current, and future concerns of the cooperative at their headquarters, Jhai Coffee House. Each JCFC village chief manages and invites new members organically. The outreach for increasing membership is not done through management recruitment but rather from families who are participating and enjoying the system who then infrom other families in their village about the JCFC traceability program.

Source: https://jingjhai.coffee/meet-the-jhai-coffee-farmers-cooperative

In 2017, about 400 hectares were exclusively allocated for high-quality specialty coffee. Every year the number of hectares used for specialty coffee changes. The production land dedicated to specialty coffee is determined by the volume of specialty coffee demanded by foreign buyers. The output of hulled specialty arabica coffee (green beans) is low – approximately 500-560 kilograms per hectare on average - when compared to 3-4 tons of commodity coffee, for which the fertilizers used increase the yield.
The specialty coffee that is produced and primarily processed by JCFC members is directly transported to the JCFC milling facility. JCFC collects parchment beans of specialty coffee beans only in bulk, adds value to the beans by hulling, cleaning, sorting and grading, and exports directly to international buyers.

Processing Facilities: JCFC has a processing plant that contains three milling machines (e.g. hulling, polishing, A, B and C grading and sorting), located in Phou Oy village, about 3 kilometres from Paksong town, the capital of Paksong District. The processing plant was installed in 2000 with a production capacity of 5 tons per day.[16] However, JCFC does not have full-time staff to operate the processing facilities. Member farmers take turns to do it. When processing activities take place at the facility, around 5 people are assigned to supervise the process. JCFC also offers processing services for members and non-members with a cost of LAK300 (US$0.035) and LAK1,000 (US$0.12) per kilogram, respectively.

Main Markets: JCFC's main international markets are Japan and the United States. In 2017 JCFC's total production output of green beans was about 825 tons. Around 6 per cent of that was specialty coffee, of which 41.3 tons were bought by a Japanese firm named Alter Trade Japan (ATJ) and the remainder was exported to the United States. The remaining of JCFC's total green bean output (commodity coffee beans) was sold to local buyers such as Dao Heuang Group.[17] Companies from the Republic of Korea and Taiwan Province of China doing coffee business in Lao People's Democratic Republic are the target for specialty coffee, but their orders are irregular and in a small quantities. JCFC considers Alter Trade Japan (ATJ) as its primary trading partner, having bought specialty coffee from them since 2010.[18] A few years ago, JCFC also had its specialty coffee promoted by a café shop in the Republic of Korea with a small quantity of 3-4 tons a year. JCFC works with Thailand, India, and China as well. However, they say they may not be able to meet the increasing overseas demand for their coffee.

Organic Certification status: One of the reasons why JCFC members have not pursued third-party organic certification is because their current buyers, like ATJ, do not ask for it. ATJ's approach is to work together with coffee producers to achieve sustainable production - i.e. high and stable prices, decent working conditions and reduced environmental degradation - and to offer opportunities to both farmers and consumers to interact beyond borders, i.e. enabling to meet and support each other.
ATJ provides JCFC farmers with the necessary knowledge and skills to produce quality coffee. ATJ also enables the Center 35 personnel to work with the farmers on their behalf, to provide practical extension support as well as to inspect and monitor the production of high-quality specialty coffee. It is because of this trust-based business model that ATJ and other clients do not require third-party organic certification for the Japanese market.

Orders: JCFC receives orders (quotas) from their overseas customers usually one year before the start of the next season. After confirming the orders, JCFC calls for a meeting for quota allocation and distribution. Once internally settled, an agreement takes place between overseas buyers and JCFC. Before the harvest starts, the buyers are required to pay 70 per cent of the total amount agreed in advance and LAK2,000 per kilogram of the green beans ordered. The buyers hire experienced human resources to inspect the processing.

Quality requirements: Since no third-party certification is utilized, for the quality assurance, in order to win a contract, coffee sample is taken and sent to potential customers to test the 'taste quality'. The sampling also assesses the 'flavour and smell' to identify whether the wet processing is carried out properly and/or in a timely manner, whether the

16. As a part of its technical assistance program, GIZ provided a brand-new coffee cherry processing machine in November 2018.

17. According to its website (http://www.daoheuanggroup.com/about_profile.php), Dao Heuang has about 250 hectares to grow coffee in Chansavang village, Paksong district with an annual yield of 500 tons. Its range of products include fresh sealed coffee beans, ground coffee, instant coffee and pre-mixed 3-in-1 instant coffee sachets with creamer and sugar already added – all with no artificial flavours (http://www.daoheuanggroup.com/daocoffee/profile_coffee.php)

18. ATJ, according to its website (http://www.altertrade.co.jp/english/02/cof_e/cof_02_e.html#lao), was involved in a coffee project in the Bolaven Plateau in 2005 upon a request made by Oxfam, an NGO. Oxfam, in cooperation with the Test Center and Department of Agriculture, worked with 59 families in 2 communities (Ban Katat and Ban Ben) on coffee production to processing in 2001. It found that the trained families were able to produce quality Arabica but had difficulty to find a market as they did not get certified organic and/or Fairtrade. ATJ guaranteed a long-term purchase agreement while supporting farmers' plan to build a storehouse and centre.

farmers pick unripe coffee cherries, and whether the farmers have not done pruning and trimming which results in coffee plant ageing.

Buyers in Japan and the United States demand high-quality specialty coffee beans of Grade-A Arabica type. In some cases, especially for customers from the United States, each buyer uses his own personal judgment to decide on the quality of specialty coffee demanded, and reportedly it is not clear for the farmers what are their quality indicators or measurements. According to JCFC, the quality requirements of buyers from Singapore are not as strict as those of buyers from Japan or the United States, while customers from Thailand and China have much lower quality requirements.

Price: JCFC exports green beans to Japan for around LAK40,000 (US$4.69) to LAK45,000 (US$5.27) per kilogram. The premium beans can fetch LAK50,000 (US$5.86) per kilogram. The cooperative receives an additional incentive of LAK2,000 (US$0.23) per kilogram that is divided into two parts– one contributes to the village fund and the other goes to the cooperative's operational costs and other preparation activities. United States buyers could pay as high as LAK50,000 (US$5.86) per kilogram of green hulled beans. The conventional coffee is sold at LAK13,000 (US$1.52) (Grade C) to LAK29,000 (US$3.40) per kilogram as parchment beans. Thai buyers paid LAK18,000 (US$2.11) per kilogram in 2017 and LAK29,000 (US$3.40) per kilogram in 2018 for Arabica Typica; they paid LAK16,000 (US$1.87) per kilogram of Catimor.

Development partners: JCFC is among several beneficiaries of GIZ support. The GIZ project works with Center 35 and a JCFC technical team on trimming and pruning coffee trees. GIZ also assisted the development of practice-oriented manuals for exporting procedures of Lao coffee to the ASEAN market, with the aim to help coffee cooperatives reduce their dependency and become capable of selling their coffee directly to the market (i.e. bypassing traders) and obtain adequate prices.

4. PERCEPTION OF COFFEE VALUE CHAIN ACTORS OF ORGANIC CERTIFICATION

The following section presents key findings from a survey conducted with JCFC members. The initial objective was to assess differences in perceptions of potential costs and socio-economic and environmental benefits of organic certification among certified and non-certified JCFC coffee producers. However, as very few members of JCFC have applied for third-party organic certification, the focus was shifted to assess pros and cons of the JCFC business model, i.e. trust-based buyer-producers relation that does not require a third-party certification, versus a business model based on obtaining third-party organic certification. Two hundred and thirty-four JCFC coffee producers were surveyed and interviewed, using the UNCTAD VSS Assessment Toolkit.

4.1 CHARACTERISTICS OF SURVEYED FARMERS

The characteristics of the surveyed coffee producers in terms of gender, age groups, and status of land ownership are summarised below.

Gender & Age Group: Among the surveyed coffee producers, only 16 per cent were female (Figure 5). As regard age, 42 per cent of the surveyed producers were below 40, and 26 per cent were in their 40's. Those aged 70 or more accounted only for 4 per cent of the surveyed sample (Figure 6). The household size average was 4.9 people with 2.6 working age people on the coffee farm.

Land ownership: The total size of the land dedicated to coffee production of the surveyed farmers is 1,086 hectares spreading across 31 villages. Nearly 99 per cent of the covered area in the survey is owned by the interviewed farmers. The farmers who own 1-5 hectares account for almost 80 per cent of the sample, while 18 per cent of farmers own 6-10 hectares, and the rest own around 11 hectares or more.

Figure 5. Surveyed sample by gender (n=233)

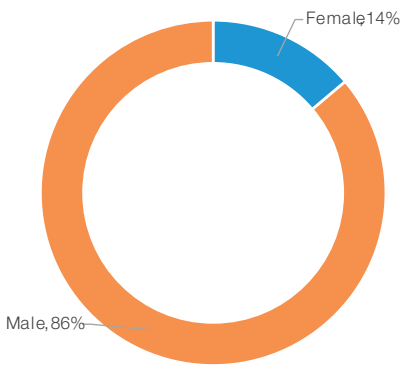
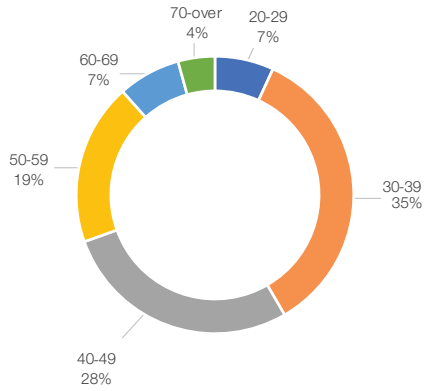


Figure 6. Surveyed sample by age group (n=233)



Level of education: Table 5 shows the education level of the respondents. 40 per cent of the respondents studied or completed primary education, 28 per cent of them completed lower secondary education, while 19 per cent have upper secondary education.

Farming experience: Table 6 depicts the farming experience of respondents. The average years of farming experience of the farmers aged 20-39 is 11 years – suggesting that some of them started farming at a very young age (as young as 10). Those aged between 40-59 have about 22 years of farming experience. All together the farmers aged below 60 account for nearly 90 per cent of the interviewed farmers and have between 11 and 22 years of experiences, and hold a lower level of education.

Table 5. Education of Respondents

Education	Total	%	Female
No education	19	9	4
Primary	86	40	16
Lower secondary	60	28	3
Upper Secondary	41	19	8
Higher education	8	4	0
Total	214		31
Missing	20		3

Table 6. Farming Experience

Age group	Years	No.	%
20-39	11	93	41
40-59	22	107	47
60-over	30	26	12
Total		226	
Missing		8	

State of VSS/Organic certification: Although JCFC members claim to grow coffee using GAP and organic farming systems, most of them are not certified. Some JCFC members had volunteered to dedicate a hectare of the total coffee production land they own for organic certification for high-quality specialty coffee. Due to limited resources, however, they could not achieve the required yield. JCFC now encourages individual members to concentrate on managing the quality of coffee beans without opting to obtain third-party organic certification.

JCFC was once certified for Fairtrade and for organic standards, however due to the high cost of certification it was decided not to renew the it even though farmers claim to continue applying Fairtrade as well as organic methods to the production of specialty coffee. Instead of paying the certification cost, JCFC chose to work closely with their overseas buyers and build a trust-based relationship. That is, knowing the organic nature of production and equitable benefit sharing within JCFC, its buyers, such as ATJ, do not need a third-party certification of organic production. Data collected showed that four farmers had a 15-hectare area of certified organic production. Since JCFC is not certified organic, it is possible that those farmers are members of other cooperatives – most likely CPC. According to managerial officials of both JCFC and CPC, without their knowledge a few farmers might be members of both cooperatives because of the village overlapping.

Marketing channels: As regards the marketing channel, half of the interviewed farmers' "first choice" is to sell their coffee through the cooperative (Figure 7), as it provides the higher agreed on price of high-quality specialty coffee (Figure 8).

Although the quantity of such coffee is small, the fair price, nevertheless, provides farmers with high economic returns. 35 per cent of the farmers sell their specialty coffee to

both the group/cooperative for the quota agreed on with its foreign buyers and to local traders or coffee processing firms for the remaining quantity.

Figure 7. Used marketing channels (n=231)

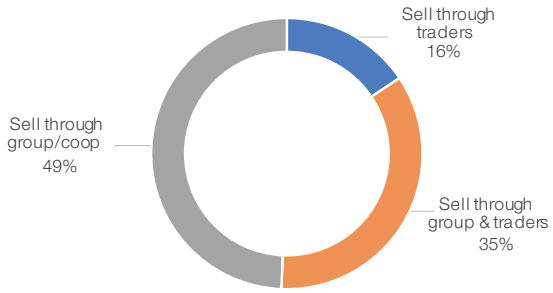
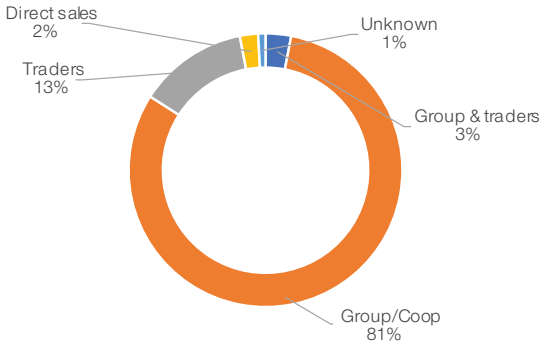


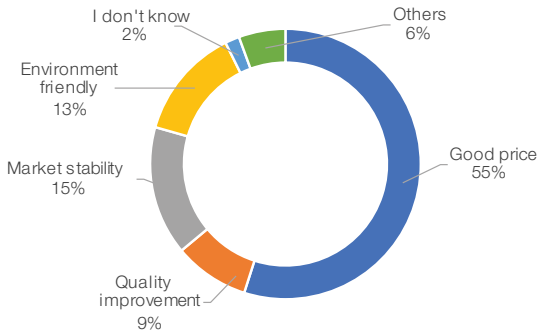
Figure 8. Channel through which most profit is obtained (n=232)



4.2 INTERESTS ON VSS/ORGANIC CERTIFICATION

When asked what they thought the biggest benefit from organic certification would be, 55 per cent responded with higher price, followed by stable market access (15 per cent), contribution to environment (13 per cent) and improvement in quality (9 per cent) (Figure 9). Around 20 per cent of the respondents said they already knew somebody who experienced benefits from certification.

Figure 9. Benefits of Certification (n=233)



When asked whether they are interested in being certified organic, all respondents but one responded yes. Among them, the majority (98 per cent) agreed that organic certification would help them to get a higher price, 24 per cent agreed it would give them guaranteed access to niche organic markets abroad, and 25 per cent agreed it would contribute to the environment and health of producers and consumers.

4.3 PERCEPTION OF JCFC FARMERS OF ORGANIC CERTIFICATION

The following tables and charts measure the perception of JCFC coffee farmers of a variety of aspects related to certification and sustainability standards. Perceptions are shaped by each individual's understandings and motivations, and they guide the decision to pursue certification or not. Perceptions have two dimensions: economic and non-economic. Each dimension includes nine indicators. The responses in Tables 7 and 8 were normalized to a scale of 1-100 (from strongly disagree to strongly agree). A large share of the respondents, regardless of their gender, age, education, and farm size, expressed their strong agreement on both economic and non-economic views regarding benefits and advantages of certification.

On economic perceptions, as shown in Table 7, the majority of respondents (at least 95 per cent of them) agreed that organic certification would help them (i) obtain higher prices than conventional products, (ii) sell to premium markets, and (iii) make a higher profit than conventional products. They also see that certification might help them obtain new and different marketing techniques by being exposed to more buyers and a greater range of market information.

Table 7. Perceptions of Respondents on Decision to Certify Production

Economic perceptions	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Number of respondents
The prices I will obtain for my certified produce are higher than prices for conventional production.	97	3	0	0	0	232
I will have higher operating/production costs if I am certified.	86	11	2	0	0	230
I will be dependent on suppliers of organic farming inputs if I am certified.	84	13	1	1	0	229
I will have a new and different marketing method if I am certified.	70	11	5	0	1	204
Local buyer perception of certified organic produce is currently negative.	77	17	0	1	1	223
Organic farming is more profitable than conventional farming.	95	4	0	0	1	231
Financial support/subsidy for my production is important if I get certified.	93	5	0	0	0	229
Organic produce will sell at a premium in markets.	97	1	1	0	0	230
There is no economic disadvantage for me if I do not get certified.	66	12	9	3	6	224

It is noteworthy that over 90 per cent of respondents agreed that the availability of financial support or subsidies would be crucial when trying to get organic certification. This is perhaps closely related to the fact that over 86 per cent of respondents thought obtaining organic certification would result in higher operating costs as organic farming would require a greater amount of labour inputs (e.g. hiring workers for weeding and controlling for insects) and other organic farming inputs.

On the non-economic perceptions regarding the decision to certify production (Table 8), over 95 per cent of respondents agreed that organic practices are more environmentally sustainable and healthier and organic markets are more reliable or trustworthy. However, around 70 per cent strongly support that the process of organic certification is confusing, while around 85 per cent think that they will definitely lose their freedom in deciding what they can do if they get certified.

Table 8. Perceptions of Respondents on Decision to Certify Production

Non-economic perceptions	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Number of respondents
I have a concrete idea of the changes that will happen to my farm if I obtain certification.	76	13	3	0	0	214
Using organic practices is healthier for me and my family.	96	3	0	0	0	230
My family supports organic production.	97	1	0	0	0	229
Organic practices are more environmentally sustainable than conventional practices.	97	2	0	0	0	231
Organic production is more viable for me.	96	2	0	0	0	227
Organic markets (the prices and people involved) are reliable/trustworthy.	90	9	0	0	0	230
Organic production is one way to sustain life on Earth.	89	8	0	0	0	227
The process of organic certification is confusing.	69	19	1	0	2	212
I will lose the freedom to decide what I can and cannot do if I get certified.	85	12	1	0	0	227

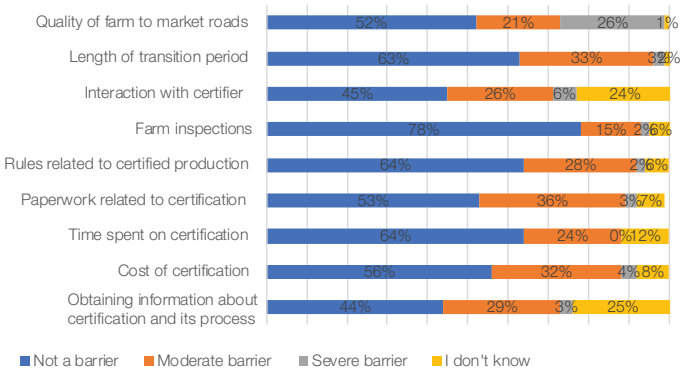
4.4 PERCEIVED BARRIERS TO ORGANIC CERTIFICATION

4.4.1 In the decision-making stage

Surveyed farmers were asked to what extent the following issues would be obstacles when considering obtaining organic certification: (i) lack of information on certification and its process, (ii) cost of certification, (iii) time spent on certification, (iv) paperwork required for certification, (v) production requirements under organic certification, (vi) farm inspections, (vii) interaction with certifier, (viii) length of transition period from conventional to organic production, and (ix) quality of farm-to-market infrastructure.

As shown in Figure 10, the majority of JCFC coffee farmers do not consider that farm inspection, organic production requirements, and time spent on certification are obstacles or barriers to certification. This may indicate that farmers, having worked with ATJ, are not worried about their ability to meet the organic certification requirements, which they are to some extent already practicing.

Figure 10. Barriers in Attitude and Decision-Making Stage



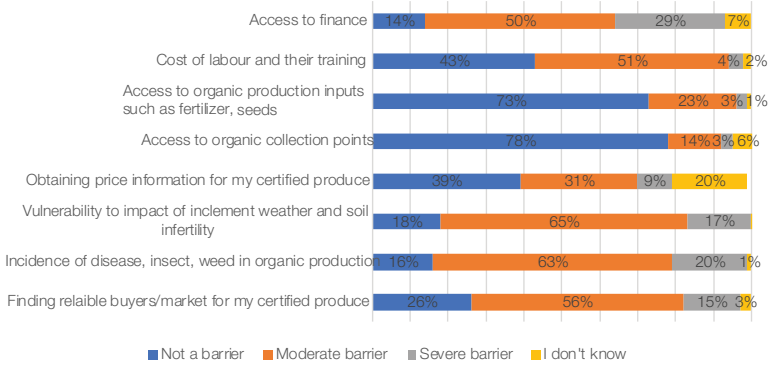
The top three moderate barriers indicated by farmers are paperwork related to certification (36 per cent), length of transition period (33 per cent) and cost of certification (32 per cent). According to Center 35 officials, JCFC once tried to obtain organic certification from the LCB but gave up due to the amount of paperwork.

The quality of farm-to-market infrastructure is considered a severe barrier to certification by 26 per cent of respondents. Rural infrastructure is generally underdeveloped and in bad condition particularly during the rainy season.

4.4.2 In maintaining the certificate

JCFC farmers were also asked about the possible obstacles in maintaining the organic certification once it is obtained. As presented in Figure 11, more than 70 per cent of respondents do not consider the access to organic collection points as a challenge. This is because JCFC already has an established and conveniently located facility serving as a collection point for their specialty coffee. The access to organic production inputs is not considered a challenge either. What the respondents found to be moderate barriers include the impact of inclement weather and soil infertility (65 per cent), incidence of disease, insect, and weeds (63 per cent), finding reliable buyers (56 per cent), cost of labour (51 per cent) and access to finance (50 per cent). These were also issues that a significant portion of respondents (between 15-29 per cent) considered severe barriers.

Figure 11. Barriers in the Implementation Stage



4.5 TRUST-BASED BUSINESS MODEL VERSUS THIRD-PARTY ORGANIC CERTIFICATION

The survey findings presented above show that JCFC farmers are well aware of the economic and non-economic benefits of organic certifications, as well as its challenges and barriers. Despite this, at the time of study, JCFC farmers were not planning to get certified. This is because JCFC farmers seem to be satisfied with their trust-based business model with ATJ and other overseas clients. The reason behind this level of satisfaction is that the price margin JFCF farmers receive from ATJ and United States buyers for their high-quality specialty coffee is fair enough for them that they see no need to seek new buyers in the global niche markets of organic coffee. The study also compared the case of JCFC with another successful coffee cooperative, Bolaven Plateau Coffee Producers Cooperative (CPC). Table 9 shows the profiles of JCFC and CPC.

Table 9. Comparative Profiles: JCFC and CPC

Source: JCFC webpage (https://jingjhai.coffee/meet-the-jhai-coffee-farmers-cooperative), CPC webpage (http://www.cpc-laos.org/) and interviews with representatives from both organizations.

Description	Jhai Coffee Farmers' Cooperative	Bolaven Plateau Coffee Producers Cooperative
Establishment	2000 with initial membership of 2450 as association; becoming cooperative in 2013	2007 with initial membership of 1855 as association; and becoming cooperative in 2014
Membership	450 (250 active producing organic specialty coffee) in 21 villages (2018)	1093 (824 active and producing organic coffee) in over 55 villages (2018)
Office base	Paksong District	Pakse City (provincial capital)
Ownership	100 per cent owned by farmers	100 per cent owned by farmers
Management and operations	Sitting board members are elected farmers Operated by 6 'non-salaried' farmers to oversee the whole operation	Sitting board members are elected farmers Operated by 30 'salaried' professionals, including foreign advisor (paid by AFD) to oversee the whole operation
Support Donors	None	AFD
Products and certification	Specialty coffee, commodity coffee (non-certified organic and GAP)	Coffee (certified organic and Fairtrade International)
Outputs (green beans, ton)	800-850 (est. annual)	1300-1400 (est.)
Export volume (ton)	52 (2017)	At least 1200-1300 (2018)
Foreign markets (trading partners)	Japan, United States	France, Switzerland, Belgium, Japan, New Zealand, Norway, United States
Local market	Retailed, Jhai Coffee House (in Paksong mainly), accounting for less than 5 tons of its specialty coffee production	Retailed, sold in big cities of Lao People's Democratic Republic, accounting for 6 per cent of production

Established in 2000 and 2007, both JCFC and CPC are 100-per cent owned by farmers and produce coffee in the Bolaven Plateau. Both started with a high number of members. JCFC faced a dramatic drop in its membership from 2250 to 450, and it is said that only half of them are active members producing specialty coffee. CPC also experienced a fall in its membership but at a lower degree - from 1855 to 1093. Around 820 CPC members are said to be active producers. The decrease in the membership in both cases was due to failure and inability to comply with standards and requirements. Both have a management board of elected farmers supervising policies and managerial issues. In terms of the day-to-day operations and management, JCFC relies on 6 elected farmers to help manage its business. These 6 farmers are volunteering and are paid only when attending the cooperative meetings in form of daily and fuel allowances. Although it has an office, the JCFC management body lacks basic office equipment and has no filing cabinets. Documentation and paperwork are done by hand and kept by the individual members.

The management body of CPC is well equipped with necessary equipment, proper filing, communication equipment, and vehicles. The office is managed by a general manager with a foreign advisor based in the office, financed by a long-term development partner, AFD since 2005. According to the CPC president, the AFD support will be slowly phased out as CPC is getting stronger and will -in the near future- be able to stand on its own.

JCFC produces non-certified specialty coffee in enough quantity to supply its foreign buyers primarily in Japan and United States. As the quantity exported is rather small, JCFC members also produce commodity coffee and sell it directly to local traders or coffee processing firms.
CPC, with continued donor support since its establishment, has focused mainly on certified organic and Fairtrade coffee for export with main foreign buyers based in the European Union, followed by the United States. Third-party certification, together with improved marketing and promotion capacity, has expanded the market for CPC coffee.

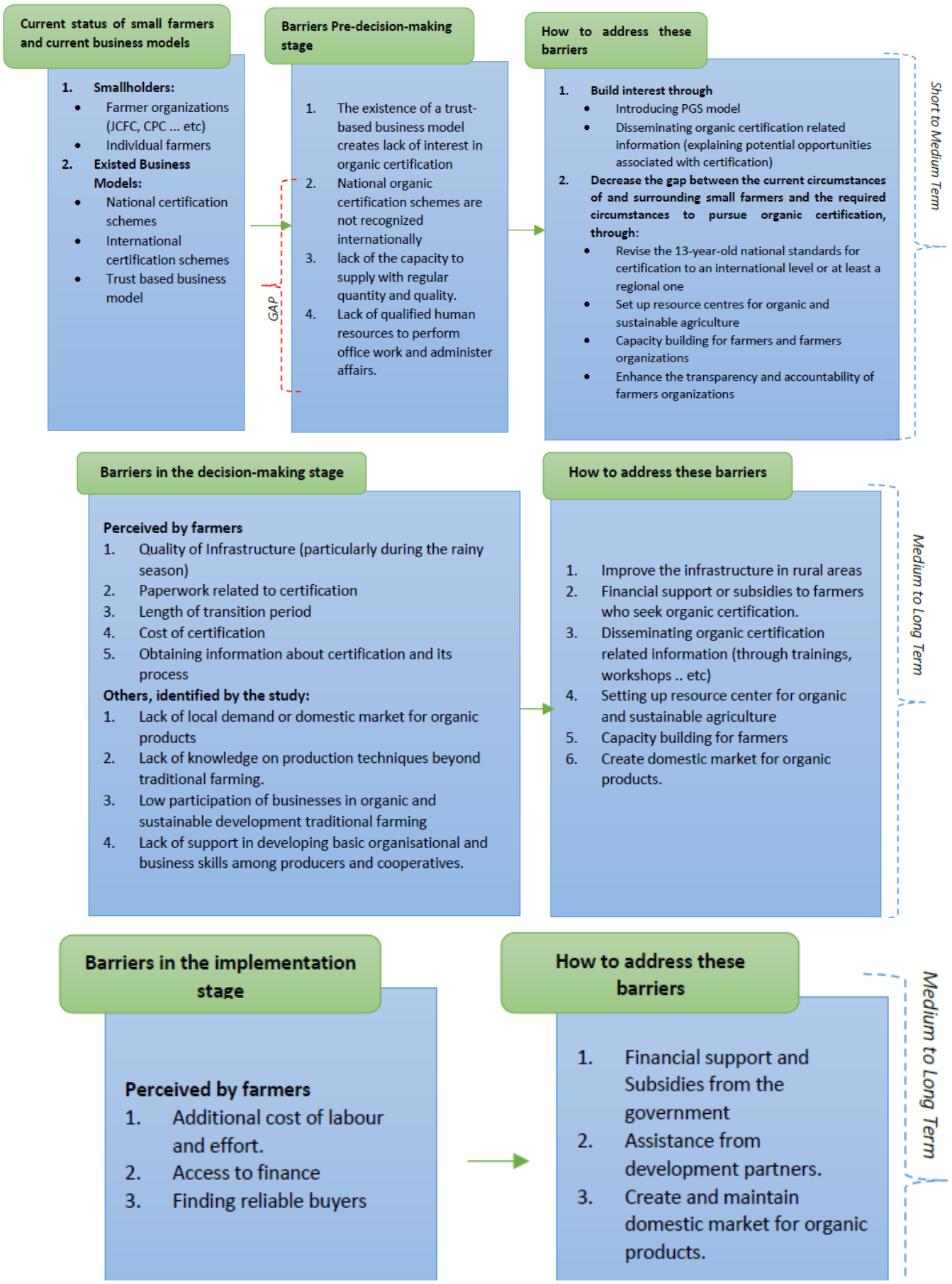
The relative market success of CPC can be summarised as the following:

- Farmers show ownership and understanding of working collectively, and benefits and values of certified quality coffee,
- Competent and skilled human resources for management,
- Continued support from development partner (AFD) focusing on human-resource development and the development of a market-driven approach, together with technical assistance to improve production and quality.

With respect to future business expansion, JCFC seems to face a number of challenges:

- The very first to be addressed is the shortcomings in dedicated human resources. JCFC is managed by unpaid volunteered farmers who are not systematically developing their business or managerial skills (e.g. organizational management, accounting, bookkeeping, marketing, reporting, among others). They have limited opportunities to develop business skills or a foreign language skill. Some interviewees pointed out that their lack of capacity to communicate in English would is a key barrier for JCFC to market their quality coffee beyond the current buyers. Such limitation perhaps leaves JCFC with no other choice but to nurture their current buyers. In addition, as mentioned by Center 35 officials, JCFC once tried to obtain organic certification from the LCB but gave up due to the amount of paperwork. This is directly linked to the issue of dedicated human resources within the cooperation. Support from a development partner could be beneficial to improve the capabilities of JCFC members in this area.
- JCFC applies two different production systems, one for the specialty coffee and the other one for commodity coffee, which is inefficient and ineffective. Unifying or at least reducing the differences between the two production systems could lead to cost and effort savings.
- JCFC's production plan is 100 per cent dependent on their overseas customers' level of demand. This production system lacks consistency as the customers' demand changes yearly. The potential benefits of adopting a more consistent and efficient system should be considered.
- JCFC was certified before but decided not to renew its certification because of is high cost. This shows that financial assistance from the government and donor programs is vital to support farmers in getting certified and in maintaining the certification.

5. POLICY OPTIONS AND CONCLUDING REMARKS



5.1 PRE- DECISION-MAKING STAGE (SHORT TO MEDIUM RUN)

Prior to pursuing certification, there are set of challenges that need to be addressed in order to create the required circumstances by which farmers can actively think to get certified. At this stage a few points need to be tackled:

- For JCFC farmers and maybe other small farmers there is a lack of interest in getting certified. This is mainly because farmers are satisfied with the trust-based business model they built with their current clients. Thus, first, it is significant to build interest by disseminating organic certification related information and explaining its potentials, while also addressing the disadvantages of the current model, which are not limited to lack of consistency and efficiency. Information dissemination is essential given that around 70 per cent of respondents in the study strongly support that the process of organic certification is confusing. This confusion needs to be addressed through knowledge sharing and information dissemination. In addition, given that the trust-based business model is more favourable to small farmers because it requires less paperwork and documentation, an interest in organic certification can also be built through introducing the participatory guarantee system (PGS). Unlike the third-party certification (European Union, Lao Organic), PGS is a low-cost certification system in which the inspection is carried out by a first party i.e. the farmers themselves. It relies on the development of a locally based system of quality assurance with strong emphasis on social control and knowledge building (FAO, 2018). This approach is quite similar to the trust-based business model carried out by JCFC and ATJ. PGS is a step for smallholder farmers to familiarize themselves with the concept of certification before they wish or are required by buyers to get certified.

- Currently there are three business models run in the country, trust-based business model (JCFC model), national and international organic certification schemes. The national certifications are not recognized regionally or internationally, thus they are not relevant to key exportable commodities like coffee. Therefore, it is essential to revise the 13-year old national standards for certification to an international level or at least a regional one.

- The Lao People's Democratic Republic government encourages smallholder farmers to form a farmer organization (e.g. group, association, cooperative or network). Regulations on different farmer organizations are already in place. Smallholder farmers will benefit from farmers' organization by which they can help each other through marketing advantages, the exchange of knowledge and experiences, and increased bargaining power in the input purchase and supply of products. But the capacity of the established groups like JCFC that is farmer-run is limited and lacks transparency and accountability due to absence of dedicated specialized human resources to help manage the day-to-day operations. JCFC faces serious human resources- related problems that hinder its ability to mobilize resources and expand its business. It is recommended as a priority to enhance transparency and accountability. Capacity building programs are essential to create qualified people to perform key functions – office management, finance and accounting, communication and marketing, production management (including pest management) and product quality management.

- Small farmers lack the capacity to supply with regular quantity and quality, this needs to be addressed through capacity building and enhancing farmers knowledge on production techniques beyond traditional farming, and to consider setting up resource centres for organic and sustainable agriculture.

5.2 DECISION-MAKING STAGE (MEDIUM TO LONG RUN)

Barriers to be addressed in the medium to long run include the obstacles identified by farmers in the decision making stage that are not limited to: paper work related to certification, length of transition period, cost of certification, obtaining information about certification and its process, and the quality of infrastructure in rural areas.
Other potential obstacles derived by the study include: lack of knowledge on production techniques beyond traditional farming; limited extension services at the local level, lack of information on certification, low participation of businesses in organic and sustainable development, access to finance or subsidies as incentives to help organic production, and lack of support in developing basic organisational and business skills among producers and cooperatives. In

addition, there are limited coffee sector-specific extension facilities and services that help organic certification at the grass-root level for smallholder farmers (e.g. input suppliers, producers, processors, traders/companies, banks, government agencies and donors). Also, there may be no incentive to practice organic farming because of lack of local demand or domestic market for organic products.
These obstacles need to be addressed through:

- Financial support or subsidies to farmers who seek organic certification. This is vital given that JCFC was certified before but decided not to renew its certification due to the high cost.

- Donor support: One of the prominent reasons behind the differences between JCFC and CPC is the continued support CPC is getting from donors since its establishment.

- Improving the infrastructure in rural areas.

- Setting up resource centres for organic and sustainable agriculture, continuous dissemination of organic certification related information (through trainings, workshops, etc.), and persistently strengthening the capacity of farmers' organizations or cooperatives such as JCFC to improve production techniques and practices in order to produce quality coffee demanded by the markets.

- The domestic market of organic or healthy food products is developing slowly as the economy progresses. It is also important to develop domestic consumption and sales of organic products by improving the information channel about organic agriculture, building trust and developing more organic markets.

5.3 THE IMPLEMENTATION STAGE (MEDIUM TO LONG RUN)

Cost of labour and access to finance are considered as barriers by farmers even beyond the decision-making stage. This again highlights the importance of (1) Financial support and Subsidies from the government, (2) Assistance from donors and development partners.
Inclement weather and soil infertility, incidence of disease, insect and weeds, and finding reliable buyers were perceived as obstacles in maintaining the certificate.
All these are technical issues that have economic and non-economic aspects. The economic aspects can be addressed through the points previously mentioned (financial support, etc.). The non-economic aspects require capacity building and knowledge enhancement, in addition to training to improve production techniques and practices.

In conclusion, the study assessed how smallholder producers perceive challenges and opportunities associated with adopting voluntary sustainability standards (VSS), in particular organic standards. it also assessed the pros and cons of JCFC trust-based business model versus a business model that is based on obtaining third-party organic certification. Organic certification alone would not help smallholder coffee farmers to obtain stable access to organic markets. Prior to pursuing certification, there is a set of challenges that needs to be addressed in order to create the circumstances required for an organic certification to be adopted. The study suggests policy options to be employed in three stages, short, medium and long term. In the short term it is essential to build interest and incentives for farmers to pursue organic certification. In the medium to long run, the challenges can be addressed through: financial support or subsidies to farmers, the dissemination of organic certification related information (through trainings, workshops, etc.), setting up resource centres for organic and sustainable agriculture, capacity building for farmers, and creating a domestic market for organic products.

6. ANNEXES

Table A1. Value chain actors and roles in coffee related activities

					Coffee					Other Crops			
Companies (based in Lao People's Democratic Republic)	**Importers based in Foreign Economies**	**Importing Economies**	**Member of LCA**	**Agri. Input Supplier**	**Grower**	**Collector**	**Processor**	**Exporter**	**Domestic Sales/ Dealers**	**Exporter**	**Ext. Promotion**	**Grower**	**Collector**
Tier 1													
Agri. Dev. - Dai Thang*	-		NO		X			X	X				X
Herrtage Grower CPS	-		NO	X		?			X	X		X	
Dak Lak Rubber (Dak Lao Ruco)	-	Viet Nam	NO			X		X		X	X	X	X
Dau Tieng Viet-Lao Rubber Joint Stock Dev.	-		NO								X	X	
Food Product Imp-Exp State Com.	-		NO	X		?		?	X	X			
G-Farm Lao	-		NO	X							X		
Indochina Dev. Partners Lao	-		NO							X	X		X
Lao Trading & Mineral processing	-		NO	X						X	X		
Maneerath Agri.	-		NO						X	X		X	X
Moukdajalernsin Trading Exp-Imp.	-		NO	X						X			X
Paksong Floriculture & Agri.	-		NO							X		X	X
Pe - May Silavy Chaleunsup Imp-Exp	-		NO							X			X
Phonechaleun Agri. Promotion Exp-Imp	-		NO	X		?			X	X			X
Saifon Agri. Exp-Imp	-		NO			X		X		X			X
Saigon Plant Protection*	-		NO						X	X		X	
Sky Vision Agri. Promotion	-		NO							X	X	X	X
Souk Houng Heang Agri. Dev.*	-		NO		X			?		X		X	
Soukthavy Trading	-		NO	X		?		?		X			?

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					Coffee						Other Crops		
Companies (based in Lao People's Democratic Republic)	**Importers based in Foreign Economies**	**Importing Economies**	**Member of LCA**	**Agri. Input Supplier**	**Grower**	**Collector**	**Processor**	**Exporter**	**Domestic Sales/ Dealers**	**Exporter**	**Ext. Promotion**	**Grower**	**Collector**
Supsomboun Trading Imp-Exp	-		NO							X			
Thanh Ana Coffee	-		NO			X		?	X	X			X
Thongkham Agri. (Sekong)	-		NO			?			X	X			X
Vatcharaporn Agri. Promotion	-		NO						X				
Xaysana Group	-		NO	X						X			X
Tier 2													
Café Lao Tai Exp-Imp	Dynamic Network LNC.	Republic of Korea	YES					X					
Champasack Dev. Agri. Imp-Exp	Lao Coffee	Thailand	YES			?		X	X	X	X		X
Club Green (Laos)	Club Green (Republic of Korea)	Republic of Korea	YES		X			X					
CPC	CafeMA International	Switzerland			X	X	X	X					
Dao Heuang Group	Lotte-Nestle (Republic of Korea) / Dong Suh Foods Corp.	Republic of Korea	YES		X	X	X	X			X		
First Foods	Da Chun Enterprise	Taiwan Province of China						X					
J.Won Agriculure Promotion	Bolaven Coffee	Republic of Korea	YES					X					
Lao Thai Hoa Coffee	Lotte-Nestle (Republic of Korea); M/S Golden Grains Trading L.L.C Muscat	Republic of Korea; Oman	YES		X	?	X	X					
M.W. Holdings	M.W. Holdings	Republic of Korea	YES			?		X					
OK Lao (Laos)	OK Lao International; Huru International; Persnam Corp.	Taiwan Province of China	YES		?	?		X					
Outspan Bolavens	Lotte-Nestle (Republic of Korea); B-R Korea; BM Coffee, SPC GFS Co.	Republic of Korea	YES		X	X	X	X					
Paksong Highland	The Order; Louisa Coffee; Mitsui-Soko (Republic of Korea)	Taiwan Province of China; Republic of Korea China; Republic of Korea	YES		X	X	X	X					

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					Coffee					Other Crops			
Companies (based in Lao People's Democratic Republic)	**Importers based in Foreign Economies**	**Importing Economies**	**Member of LCA**	**Agri. Input Supplier**	**Grower**	**Collector**	**Processor**	**Exporter**	**Domestic Sales/ Dealers**	**Exporter**	**Ext. Promotion**	**Grower**	**Collector**
Phetsavang Joint Dev.	COP Co.	Republic of Korea	YES		X	X		X		X		?	X
Sivilay Chaleun Kankha Imp-Exp	Savan Coffee Bean International	Taiwan Province of China	YES		X	?		X	X	X			X
Agri. Product Dev. (Promotion)	-		YES		?	X		X	X				X
Agri. Product Collection-Sales Coop	-		YES			X			X	X	X		X
Cat Que - Laos Sole Co.	-	Viet Nam	YES		X	X		X			X		
Chaleunsin Exp - Imp.	-	Viet Nam; Thailand	YES			X		X					X
Cong Ty Co Phan Tin Nghia (Lao)	-	Viet Nam	YES		X		X	X	X				
Houay Hee Trading	-		YES			?		X		X		X	X
Houngxayasing Chaleurn Agri. Exp-Imp.	-		YES	X		X		X	X	X			X
Jhai Coffee Farmer Coop	AlterTrade Japan, Thanksgiving Co.	Japan; United States	YES		X	X	X	X					
Lao Minh Tien Coffee	-		YES		X	?	X	X					
P.K.S Phetkamsay Imp-Exp.	-		YES			?		X		X			X
Paksong Dev. Exp-Imp.*	-		YES		X	X		X		X	X	X	X
Phetdavanh Promotion Agri. Imp-Exp	-	Viet Nam, United Kingdom, Hong Kong (China), United States	YES	X		?		X		X			X

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