

Wake Up - the Lao Coffee Game

Learning Outcomes

Combining interactive, face-to-face role play with digital gaming trajectories, the Lao Coffee Game offers an integrative learning experience for the system dynamics of globalized, export-oriented agriculture, epitomized by coffee, and the implications for sustainable development. By playing the game, students:

- Dive into the coffee sector of Laos, a fascinating context, where the global scope of agricultural commodity and capital market dynamics are deeply interwoven with the living realities of local actors.
- Adopt various perspectives of key actors. In their roles, students relate to other players and face a number of events, in which they have to negotiate and defend their interests within a highly dynamic macroeconomic context. In doing so, the game requires prompt **decision-making in a sometimes-uncertain context, while giving its players the chance to experience the impacts of their actions in real-time.**

To be more elaborate, this gaming experience aims to support the following learnings and reflections on the part of the players:

- **General insights in the Lao coffee sector:** Students gain insights into the dynamics and developments of the Lao coffee sector as well as into different related sustainability dimensions. The Lao coffee sector is archetypal of globalized agricultural value chains that link local production systems in the global South with trading and consumption patterns in the global North.
- **Engagement with stakeholders from the coffee sector:** Students are introduced to different actors of the coffee value chain. They learn to assess the rationales, strategies and agency of different stakeholders, thereby engaging with different perspectives on sustainable development. Furthermore, the game aims to depict the power relations which define actor relationships and individual scope of actions.
- **Exploration of risks and opportunities of globalized agricultural value chains:** Students explore co-benefits and trade-offs arising from export-based commodity agriculture, gain a perspective on winners and losers, and discuss potential opportunities and alternative approaches to rural development in the context of agricultural transition.
- **Engagement with the complexity of pathways for sustainable development:** Negotiations, contradictions, and conflicts of interests are inherent to sustainable development processes. Transitions towards sustainability generate opportunities, but they also bear risks. In this sense, they produce trade-offs and co-benefits, winners and losers, such that all perspectives must be considered. In the game, students are confronted with the multi-dimensionality, contextuality and complexity of sustainable development goals. They explore interactions and interrelations between different sustainability dimensions and are confronted with **decision-making in a context of uncertainty that is typical for exploring transformation pathways.**

Illustration: Engagement with stakeholders from coffee sector - Some examples

- **Farmers** are relying on decisions taken by the companies that buy their products. They might opt for sustainable coffee production to increase their revenues. Furthermore, climate change has a strong impact on their livelihoods. However, they rely on the support from the government and NGOs for improving their livelihood. In short, their sustainable livelihood is based on good quantity and quality of coffee production, supportive government and NGOs as well as sustainable companies.
- **Wage workers'** incomes are dependent on multinational companies, large-scale farmers and on the performance of the agriculture sector as a whole. Furthermore, their livelihoods depend on governmental regulation and policies on working conditions and social security.
- **District middle buyers** depend on multinational companies and coffee farmers in order to collect and sell coffee. Climate change is another factor that impacts their activity, as it can lead to a lower production volume. Furthermore, middle buyers thrive if they have more information available than the local producers. Their autonomy in doing business depends to a large extent on governmental regulations and the government's capacity to enforce these regulations.
- **Multinational companies** produce their own coffee, but they also rely on local coffee farmers, who supply them with additional coffee. Being active in a global market, they need good domestic and global relationships to trade their product. Like the district middle buyers, their autonomy in doing business also depends largely on governmental regulations and its capabilities to enforce these regulations. Lower regulations in Laos with respect to other coffee producing countries are a positive factor for the multinational company.

How to play

Wake Up – The Lao Coffee Game

Intro

We are on the Bolaven Plateau in southern Laos, one of the country's main coffee-growing regions. The Lao government wants to stimulate sustainable rural development by promoting the export of agricultural commodities, such as coffee. It hopes that doing so will generate higher incomes and better livelihoods for the local population, as well as increase tax revenues and foreign currency reserves for the government. To support the regional coffee sector in a sustainable and integrative way, the government has set up a district council to steer and promote coffee production in the region. The council comprises up to 10 members, each representing a key actor of the coffee value chain, such as farmers, corporate actors, policymakers, or international development workers.

Over several rounds of play, the council members must negotiate and make decisions about actions to shape the coffee sector. Should you rent the land to an international company? Should the government stipulate a minimum wage for workers on coffee plantations? In these negotiations and decision-making processes, the council members must pursue their own interests or those of the organization they are representing – all the while considering the impacts of their actions on the whole of the coffee sector. In other words, they will have to keep the coffee sector in balance while also seeking advantages for themselves/their organizations.

Basic settings

Disclaimer

This is a game based on empirical findings. The stories and characters, although based on these findings, are fictional and have been created especially for the game. They are therefore not an exact reflection of reality. Playing the game is expected to lead to three main learning outcomes:

Students will have an increased understanding of

- the complexity of sustainability interactions and related dynamics
- the trade-offs that may occur between stakeholders
- different perspectives on the same issues, and taking these into account while finding solutions

Target groups

Students aged 17–23 (secondary/high school and Bachelor's level)

Language

English and Lao

Number of players

- The game requires a minimum of 7 participants (6 players + 1 narrator)
- Groups of over 10 have two options:

- Students form two groups and play in parallel. After the game, they compare experiences.
- Students form several small groups and each group takes on the role of one character. This will make the game slightly longer, as you will require time for discussion within the group.
- If you play the game with fewer than 10 players, we suggest excluding the following roles (in this order): philanthropist, CAL, NGO, cooperative.

Basic procedure

1. Optional: Familiarizing yourself with the topic (i.e. the Lao coffee sector and its stakeholders)
2. Introduction to the game and the roles
3. Short introduction round of the council members
4. Playing the game
5. Debriefing and reflection

Duration

- Preparation for students: approx. 2 hours (optional)
- Introduction to the game and familiarizing yourself with the roles: 30 minutes
- Playing the game: 1–1.5 hours. However, the game can be ended at any time.
- Debriefing and reflection: 30 minutes–1h

Location

The game can be played face-to-face as well as online, via an online communication tool that allows you to hold group video meetings (e.g. Zoom, Teams or Skype). You can play the game on a smartphone or a computer – you just need a standard internet browser and a stable internet connection. We recommend playing the Lao version with the Google Chrome browser.

Equipment needed for playing face to face

- One computer (operated by the narrator) and screen on which the game is displayed (preferably large enough for the whole group to see comfortably)
- A set of instructions (“How to play”)
- The role descriptions (each player should receive the description of their role only)
- The parameter descriptions: a copy for each player
- Name tags
- A timer
- Optional: the background documentation provided (Lao Coffee Sector - Background Information)

Equipment needed for playing the game online

- An online communication tool that allows you to hold group video meetings (e.g. Zoom, Teams or Skype)
- A computer (the game app is operated by the narrator, who will share her/his screen)

- A set of instructions (“How to play”)
- The role descriptions (each player should receive the description of their own role only)
- The parameter descriptions: a copy for each player
- A timer
- A group chat through which to share information (we used Zoom and Whatsapp)
Optional: the background documentation provided (Lao Coffee Sector - Background Information)

Preparing to play

Background Information

We recommend allocating some time for the students to familiarize themselves with the context of the game, i.e. the Lao coffee sector and its stakeholders. This preparation can support the students in playing their respective roles and making informed decisions in the game, strengthening the learning outcomes.

You will find extensive teaching material and background documentation on the website. Depending on educational level, the students can study the background documentation independently or the material can be taught/presented by the teacher/lecturer. We recommend doing this preparatory work before starting the game.

Roles and parameters

Allocate some time for the students to read their respective role descriptions and to familiarize themselves with the role they will be playing. Everyone should read only their own role description. The players should remain in the dark regarding other’s interests, so as not to be influenced in their strategy or voting behaviour. It may be helpful to assign the roles in advance, before the students read the background documentation. This will allow them to relate the subject matter to the role they will be playing. Further, depending on what educational level the students are at, it may be helpful for the teacher to discuss the respective roles with each student, to help answer any open questions.

Playing the game

Setting and overall aim

To promote sustainable development in the regional coffee sector, the Lao Government has set up a district council to steer coffee production. The council comprises up to ten members, each representing a key actor of the coffee value chain. Each player takes on a different fictional role, negotiating and making decisions about the coffee sector in southern Laos.



Parameters and interests

During the game, you must find a balance between various dimensions – the five parameters listed below – of the Lao coffee sector:

	Health of Environment
	Livelihood Outcomes
	Economic Attractivity
	Interconnectedness
	Governance Capacities

Each member is assigned three of these parameters, the combination of which represents the “interests” that each member must pursue throughout the game. Each member has one main interest and two side interests (these are found in the “Role descriptions” document). In the final ranking, the main interest counts double. While its members pursue their own interests, the council must consider the impacts of its actions on the whole of the coffee sector to keep the different dimensions in balance. Throughout the game, the global score indicates how well the council is managing to keep this balance. Details of this feature are explained below.



Players familiarize themselves with their role

At this point, all players should read their respective role descriptions and ask any questions they may have, if they didn't already do so in preparation for the game. The players can create name tags with the name of their characters (if you are playing online, the name of the character can be the player name). Once the players are familiar with their respective roles, start with a short introduction round. Depending on the time available, you can either have the players introduce themselves, or you can assign this task to the narrator. (Having the narrator introduce each role in one or two sentences may be the more time-efficient option). As each player has read only their own role description, they know only their own character's interests but not those of the other players.

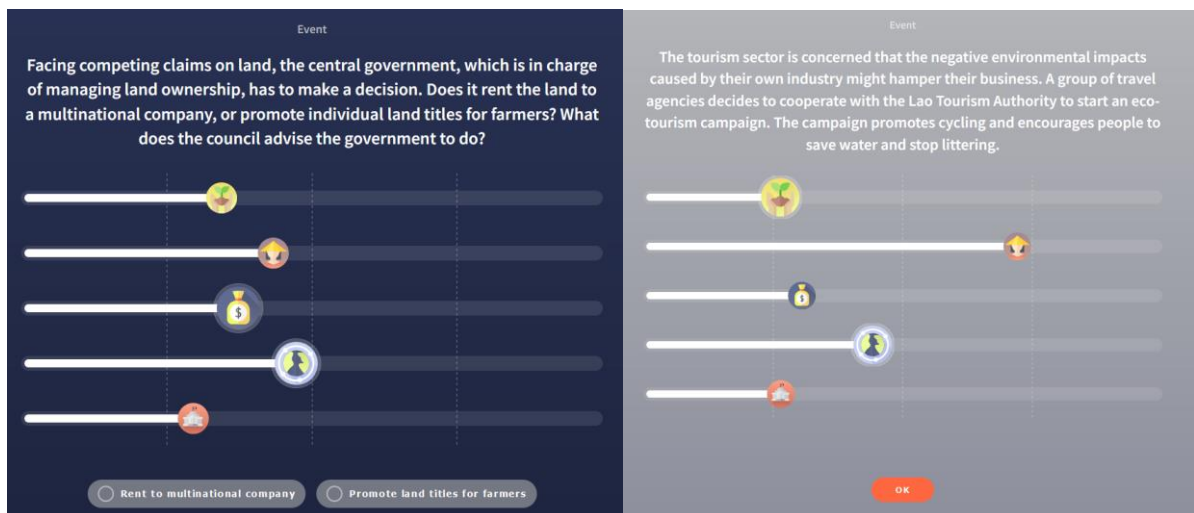
Playing the game

The game starts after the introduction round.

Events and decisions

In each round of the game, the council faces an event. There are two types of event:

1. An event that requires you to make a decision
2. An event that occurs without a decision being made



Events that require a decision (left):

For these events, the council has the power to deliberate and to decide on actions to shape and regulate the coffee sector. The decision will affect some or all of the five parameters in some way (by increasing or decreasing them). The council can discuss this situation and negotiate what to do. The decision that is made may end up benefiting or hampering individual interests. At the same time, the council must be aware that an overall minimum sustainability standard must be upheld, which is represented by the global score. This will be explained in more detail below.

Events without a decision (right):

Some events are beyond the council's control. Sometimes, these events are a consequence of earlier decisions; sometimes they occur independently of the council's actions. Such an event will have consequences. These events are marked in grey, while events requiring a decision are marked in blue.

Discussions and voting:

When a decision is required, the council can debate and negotiate. During these deliberations, the players have various options. They can argue their case in an attempt to convince others; they can abstain from voting if they think the event does not affect them; or they can vote for someone else's proposal or try to further their interests in other ways (e.g. by bargaining bilaterally and in secret). If you are playing online, such bilateral discussions may take place via private chats (if these are available to you).

In connection with certain events, a character may receive a notification that they are excluded from voting, or they have one voice together with other actors, or their vote may carry more weight. Players who are excluded from voting may not argue their case during that discussion.

Due to bad weather, Markus Zumsteg is unable to travel to Laos. Due to poor internet connectivity, attempts to connect via Zoom fail, so he is unable to participate in the meeting.

After the players have formed their opinions, a vote will be held. Everyone who is eligible to vote in this particular round may do so. Not all events are of equal relevance to all members, and players are allowed to abstain from voting at any time. Decisions are made by majority

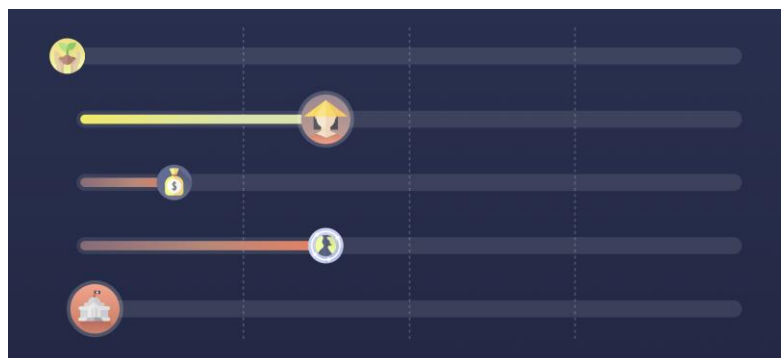
vote. In the case of a tie, Somvang Phethsamone, representative of the District Government Office, has the casting vote.

It is recommended to set a timer to limit the discussion for each event to a maximum of 5 minutes and then hold the vote.

Keep in mind that the “right” choice (i.e. the one that advances your parameters) will not always be obvious. This uncertainty is part of the game and part of sustainability decision-making in general.

Impacts

After each vote, the narrator enters the council’s decision into the app. As the slide bar moves, you will see the impact of the decision on the various parameters. The colours indicate whether a parameter has increased (=green) or decreased (=red). Sometimes, an event affects all five parameters; sometimes only a selection of parameters. The points received or lost by these fluctuations are reflected in the players’ individual scores.



Receiving bonus points or negative points:

On some occasions, the players face events that are beyond their control. Each event affects players differently: some may experience a negative effect, while others may benefit. The bonus points or negative points are added or subtracted to the scores of the players affected.



Global score

The global score indicates how well the council is managing the coffee sector as a whole. Every time the value of a parameter falls below 10%, the global score drops. If, at the end of the game, the coffee beans are used up and the score is below 0, the council has failed to keep the coffee sector in balance.



The end of the game

The game ends either through a decision by the narrator or the collective council, or as defined by the app. The latter will be after approximately 90 minutes. To have a full experience, we recommend playing for at least one hour.

Ranking

If the council has managed to keep the coffee sector in balance, i.e. to keep the global score above 0, the person who has obtained the highest individual score wins. The main interest counts double, but this doesn't mean the other interests should be neglected. In the ranking, the scores are displayed as coffee beans, the number of which indicates how well a player has advocated for his or her interests. The ranking and the scores are always in relation to other players and their performances. The ranking is therefore only informative after a few rounds of play.

You can always check the ranking by pressing the trophy button in the top right corner, to get an idea of how well the different characters are doing.

Debriefing: Reflection round

It is important to hold a debriefing round after the game. This will allow the students to reflect on their experience of playing the game and on what they have learned. Ideally, the debriefing takes place directly after the game. If this is not possible, students should at least take some notes straight after the game, to refer to later.

The debriefing offers an opportunity to reflect on discussions and uncertainties that occurred during the game. It is also a good time to address questions about the subject matter that may arise.

Please remember that this is a fictional game. Processes are much more complex in reality, and the game is not able to address every aspect of the Lao coffee sector.

The following questions may help to structure the reflection round:

- How did you experience the game? What was difficult? What did you like?
- Was anything unclear? Were there things you did not understand?
- What was new or surprising to you?
- What was the main thing you learnt?
- How did you experience the game from the perspective of your role? What were the difficulties for your role? What are potential solutions?
- How were your interests related with other actors' interests and with the community's interests in general?
- What aspects of the game are linked to sustainable development? What were the difficulties in taking into account sustainable development issues? What are potential solutions?
- How is the game related to the United Nations 2030 Agenda? What links do you see to the SDGs?
- Are the findings transferable to other contexts, and if so, how?
- How is the experience of playing this game related to other learnings/subjects from class/course?

Wake up - the Lao Coffee Game - The council members

Description of the roles represented in the game

Vanhmani Keovilay- Farmer

Female farmer from Southern Laos

Vanhmani Keovilay owns a coffee garden, where she grows coffee for the household's income. Being a member of the local cooperative, she sells it part of her production. The rest, she sells to village middle buyers and sometimes also to the buyers of multinational companies. Her income from the sales of the coffee beans fluctuates quite a bit, because the coffee price is not stable and middle buyers' willingness to negotiate depends on the market conditions. Vanhmani Keovilay relies strongly on this income, however, her position in price negotiations is weak, since it is often the buyer who dictates the price. In this context, Vanhmani depends on a strong government and on the support of NGOs to strengthen her bargaining power.

A lot of the work in the coffee garden is still done manually, which makes the workflow slow and difficult. During high season, Vanhmani Keovilay thus needs additional labour force, so she hires both male and female wage workers to handle the workload. Apart from growing coffee, Vanhmani also produces vegetables on her 3 hectares of land and owns a few chickens to have enough resources. With agricultural production being her main livelihood pillar, Vanhmani relies on fertile soils, intact water circulation and decent climate conditions. In addition to her work on the farm, Vanhmani is responsible for the household and takes care of the children. Besides a good education for her children, Vanhmani's prospects for her future are to have a higher and more stable income and to have more support in domestic work, easing her overall work burden.

Main Interest: *Livelihood Outcomes*
Further interests: *Interconnectedness*
Health of Environment

Bounchanh Nanhthavong - Wage Worker

Male worker from Southern Laos

Bounchanh Nanhthavong has migrated from the neighbouring province to a village in the coffee producing region of southern Laos. Here, he works for large coffee farmers and the multinational company in their coffee garden on a daily basis, whenever labour is needed. The payment varies amongst the employers: private coffee farmers provide food and they pay higher wages than companies. However, as the payment is often based on the weight of picked cherries, working for multinational companies is more profitable, since there is more coffee to pick and therefore more money to earn in total.

Along with other migrant workers, Bounchanh Nanhthavong lives in a small compound at the outskirts of the village. They stay in huts they have built themselves, albeit without sanitation nor clean water. The food they eat has to be cheap and is often not nutritious – when it's provided by the employers, it is almost never enough. The employers provide Bounchanh with neither social security, nor a pension scheme or decent working conditions, and the payment of a minimum wage depends heavily on existing and firm governmental regulations. However, these regulations lack in many areas and even where regulatory mechanisms exist, they are often not implemented properly.

Even though Bounchanh works very hard, his income fluctuates strongly because it depends on the situation of the coffee market. He is worried that with his unstable income, he cannot provide for his family, even though his wife also works as a wage worker in the coffee sector. He misses his children a lot, who are staying in the hometown with their grandparents, and he only gets to see them after the high season is over and he returns home.

Main Interest: *Livelihood Outcomes*
Further interests: *Economic Attractivity*
Governance Capacities



The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

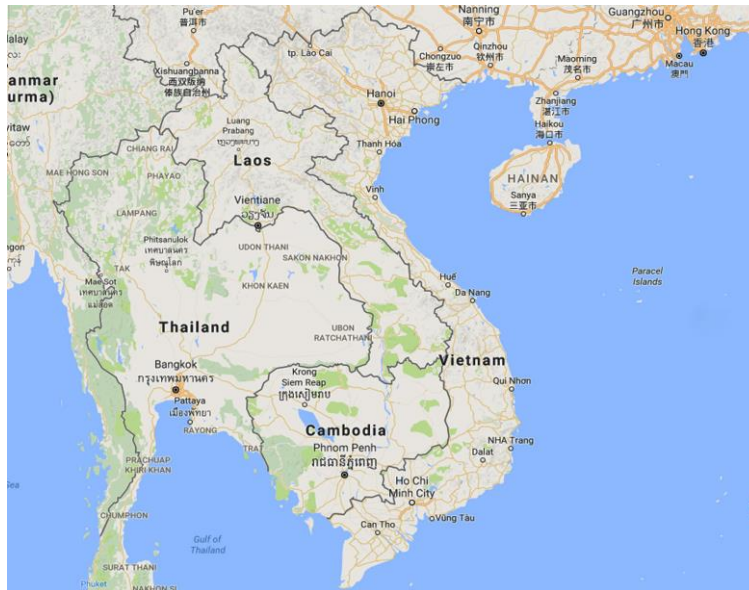


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

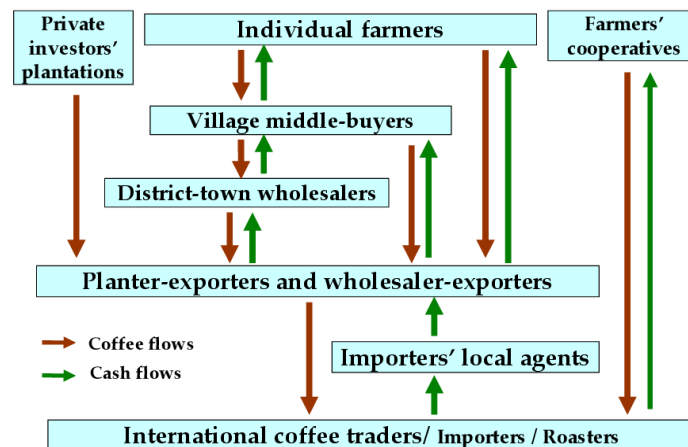


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

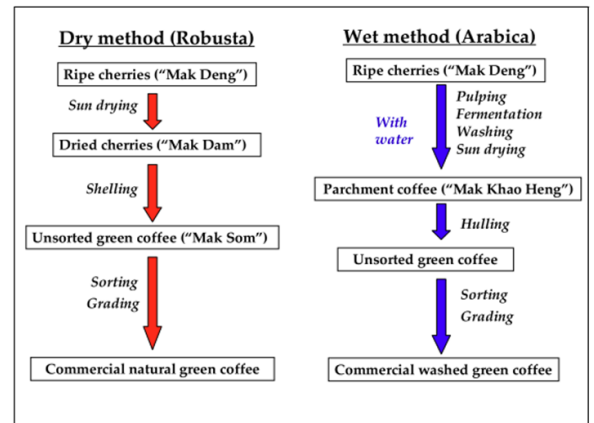


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

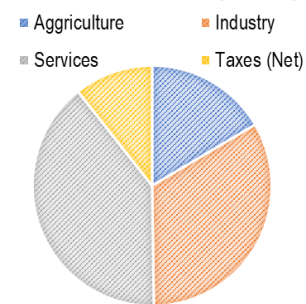


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

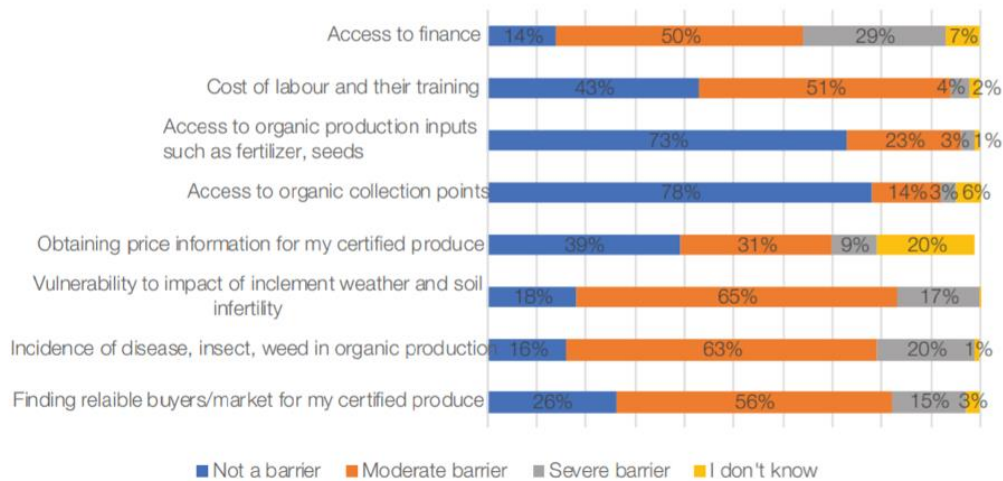


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

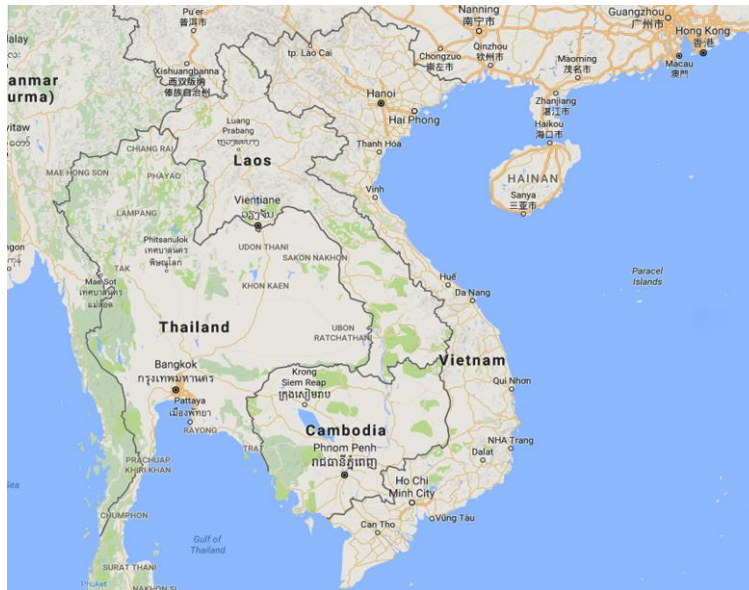


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

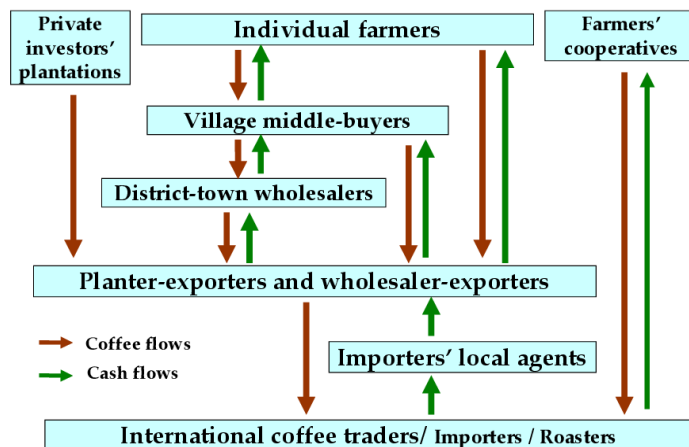


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

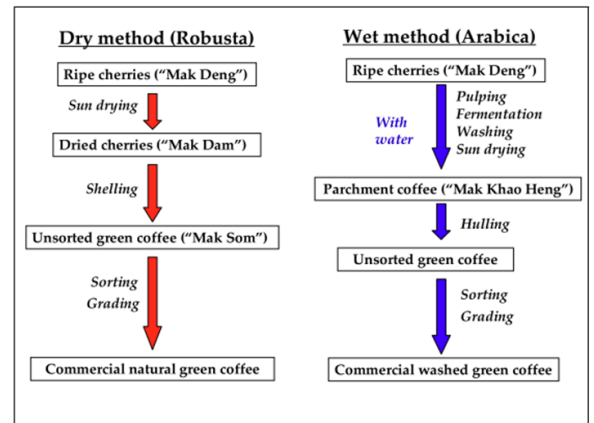


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

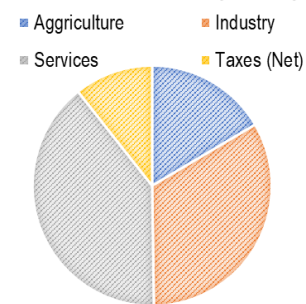


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

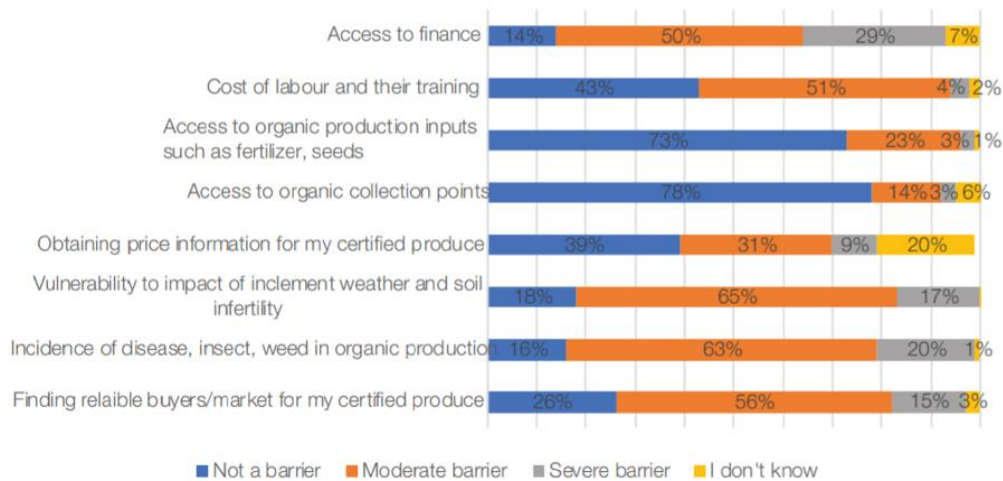


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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May 2022

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

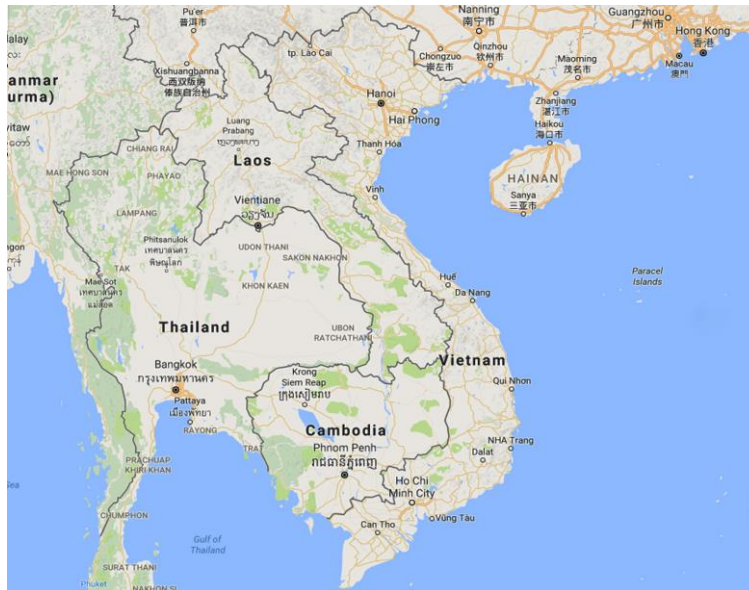


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

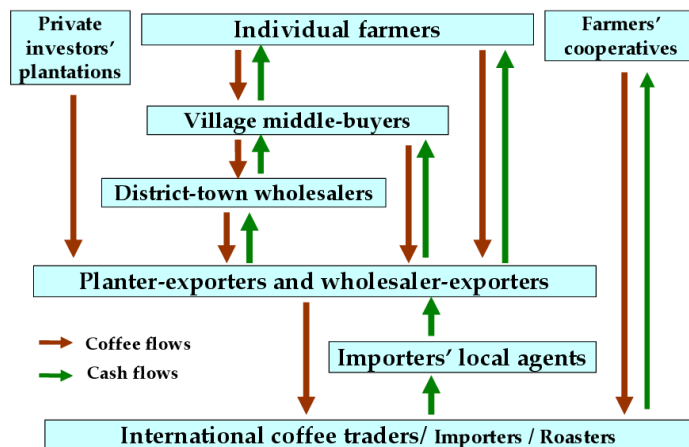


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

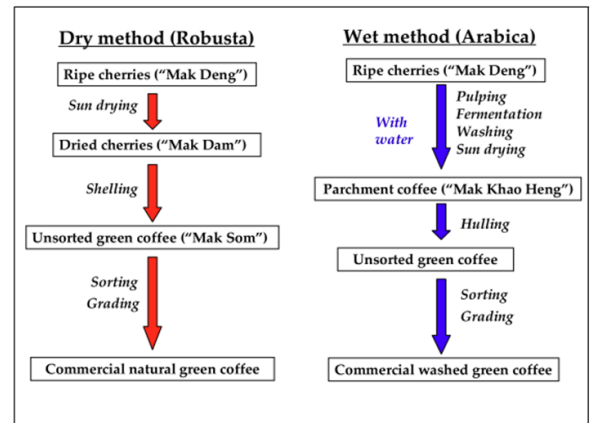


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

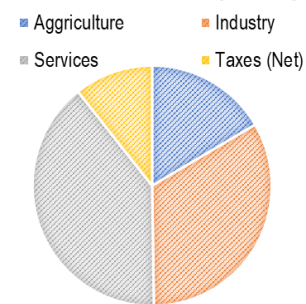


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

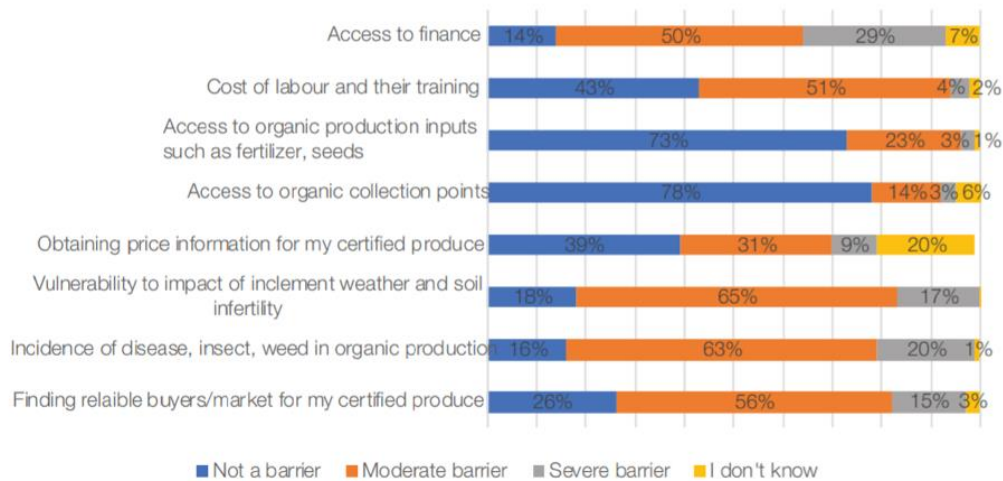


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

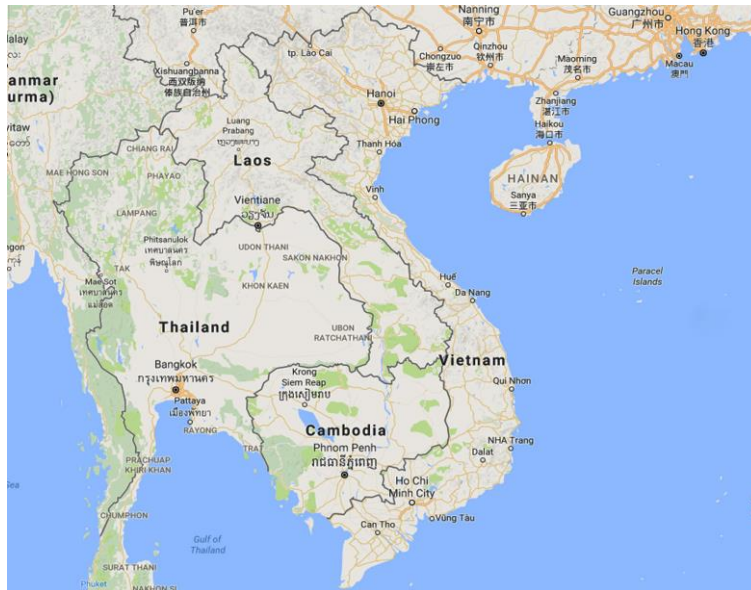


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

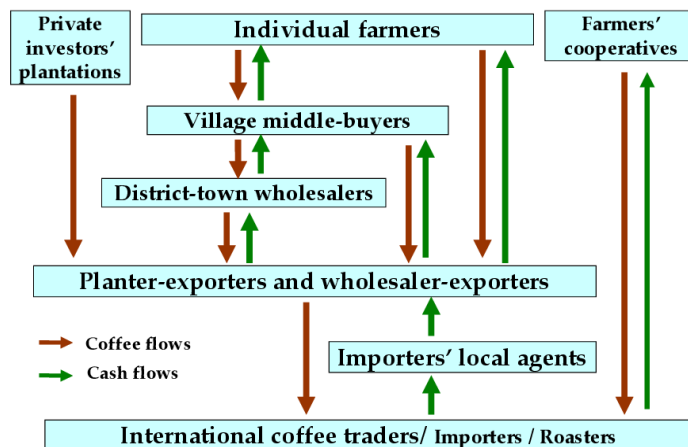


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

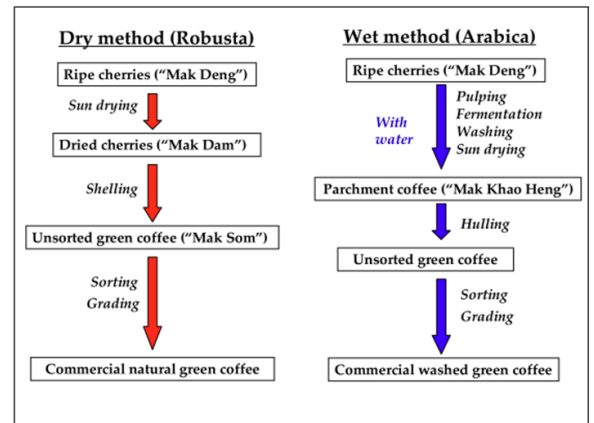


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

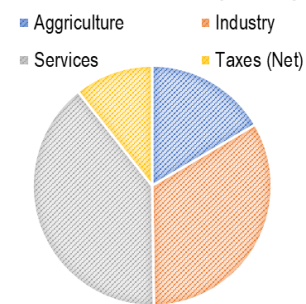


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

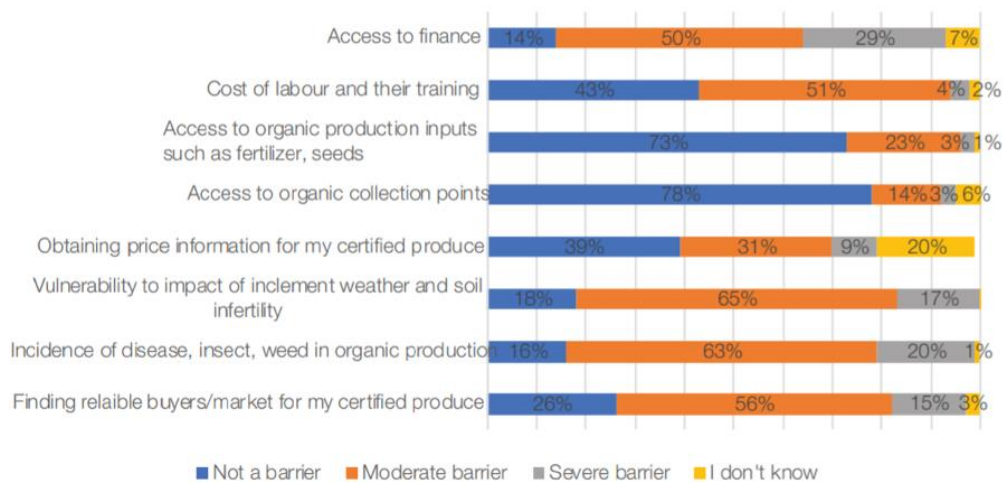


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

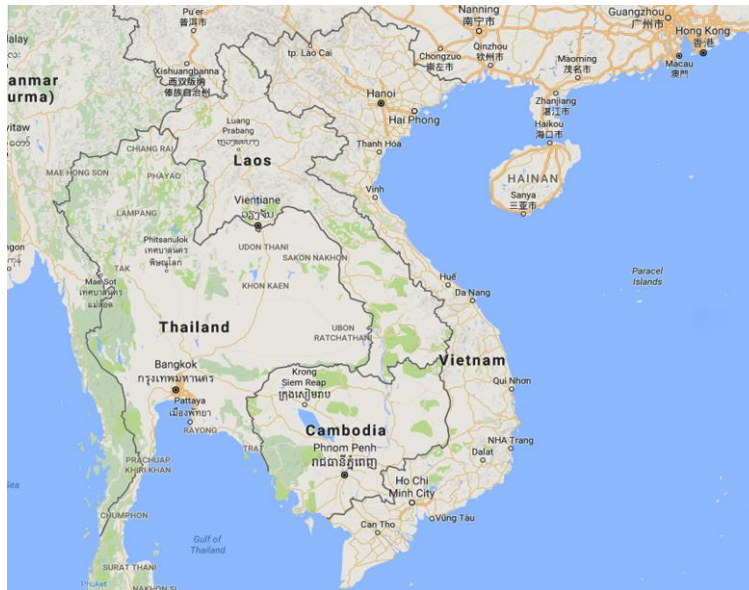


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

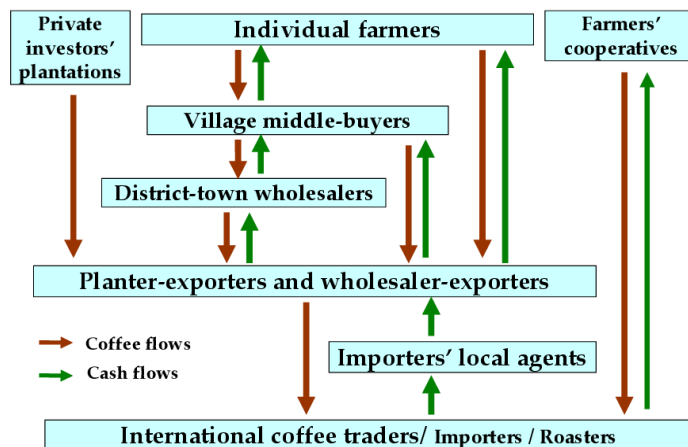


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

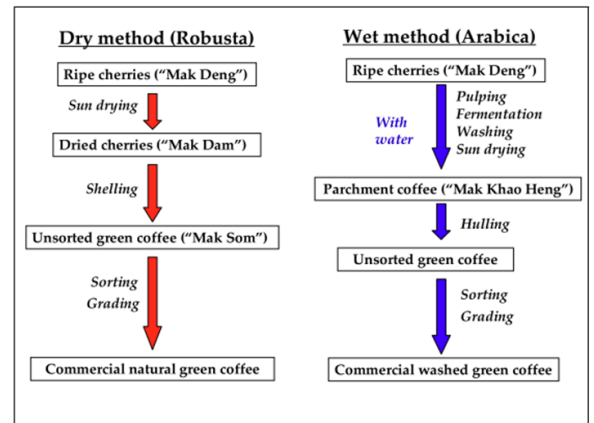


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

LAO PDR GDP (2020)

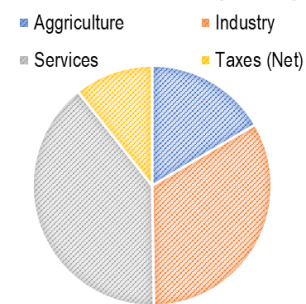


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

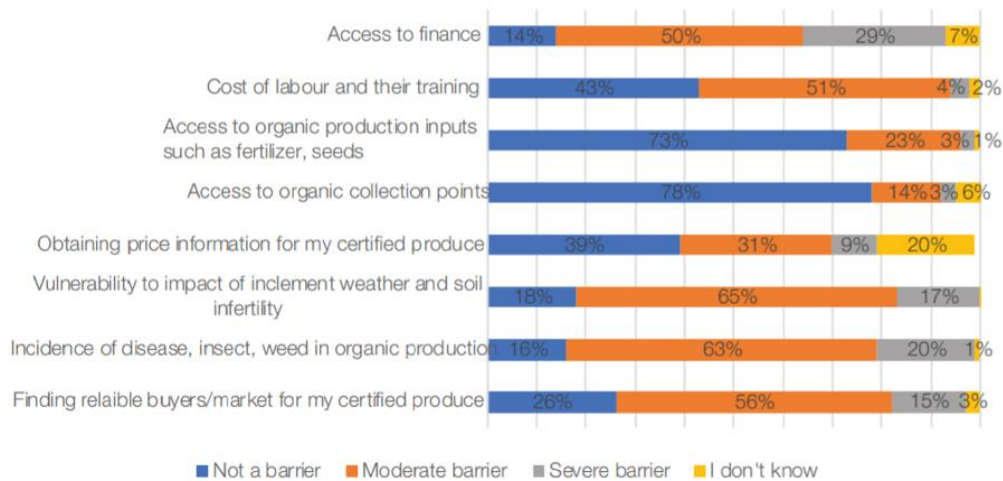


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

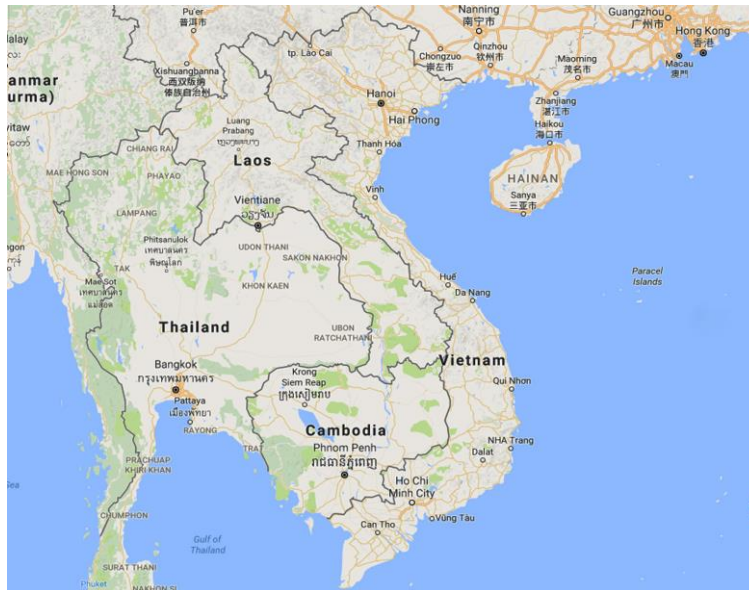


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

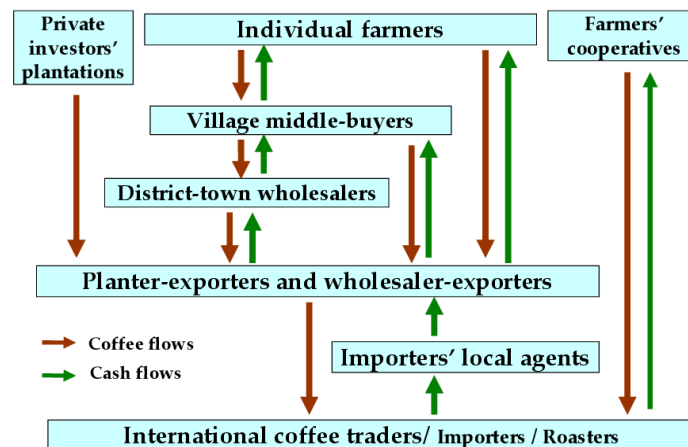


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

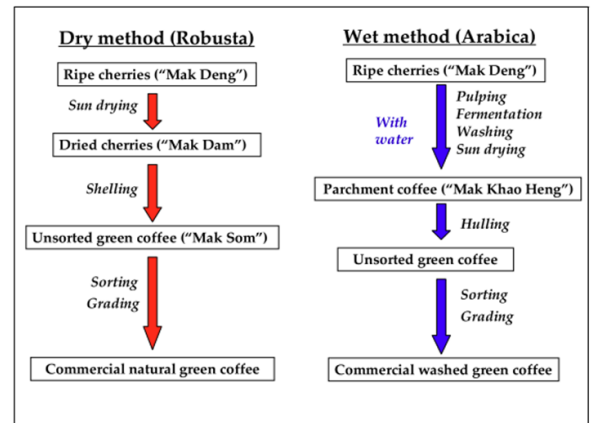


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

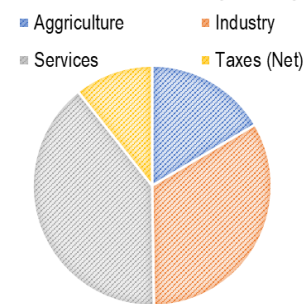


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

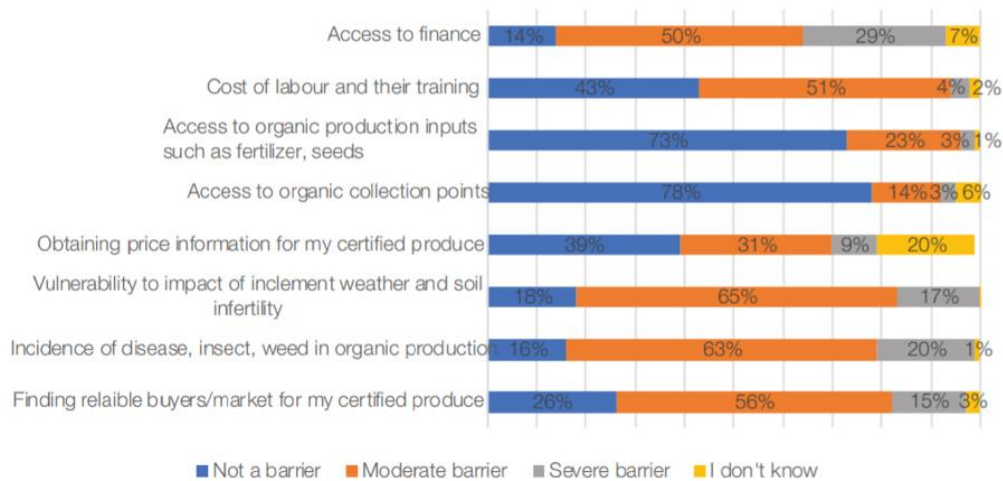


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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May 2022

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

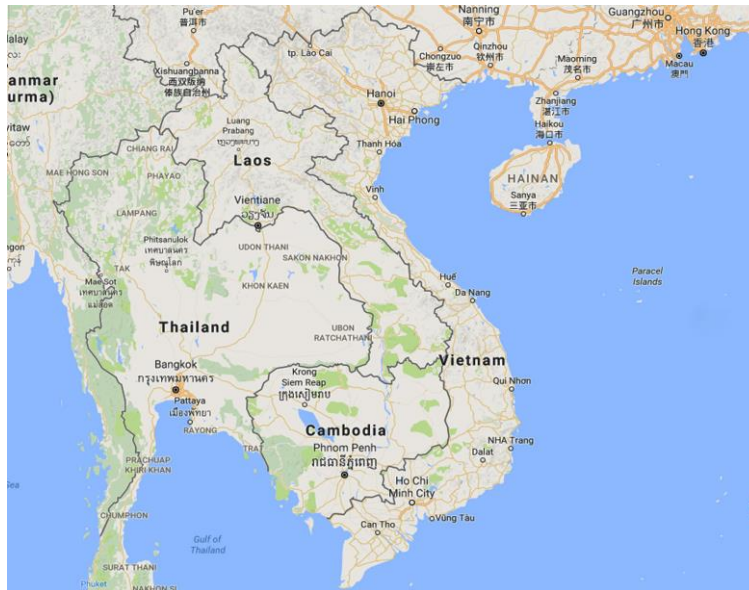


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

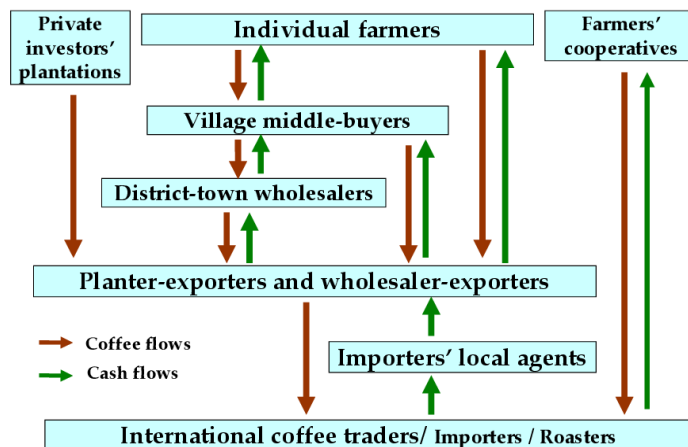


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind. The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

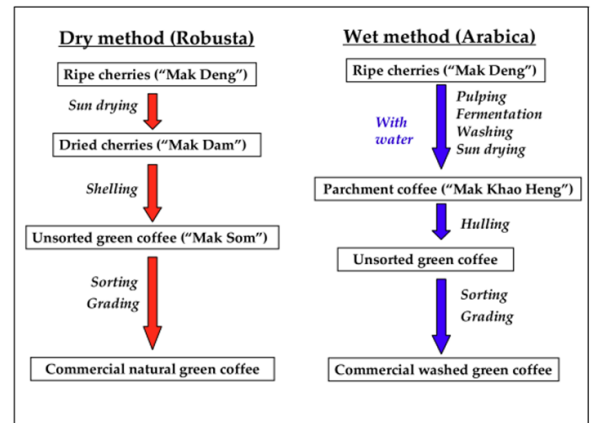


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

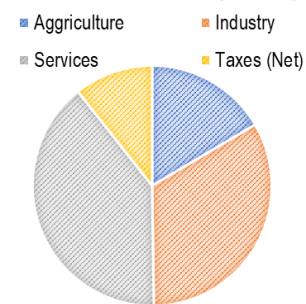


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

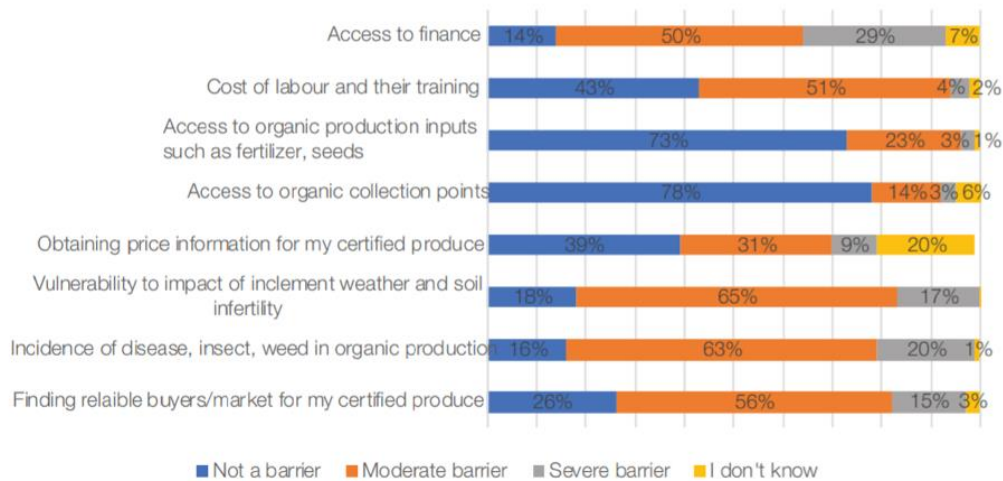


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

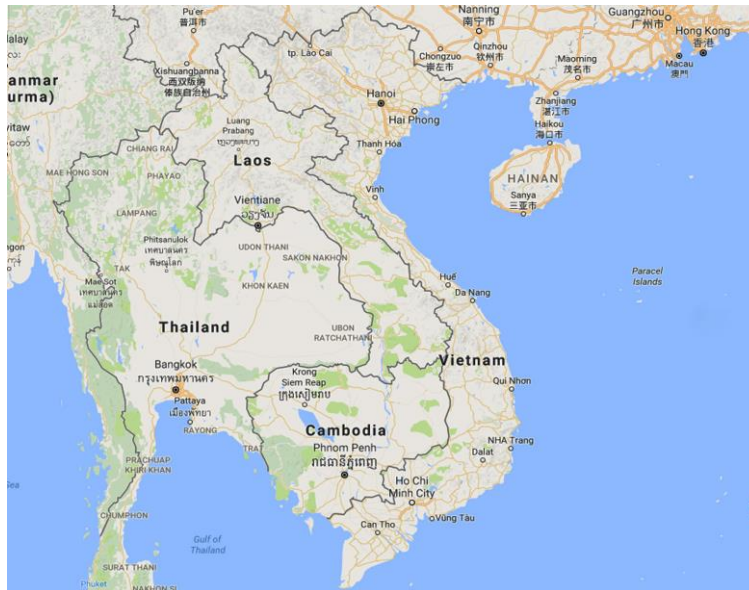


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

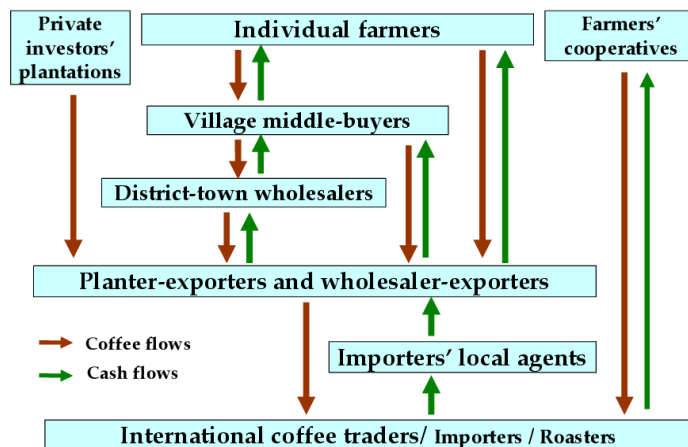


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

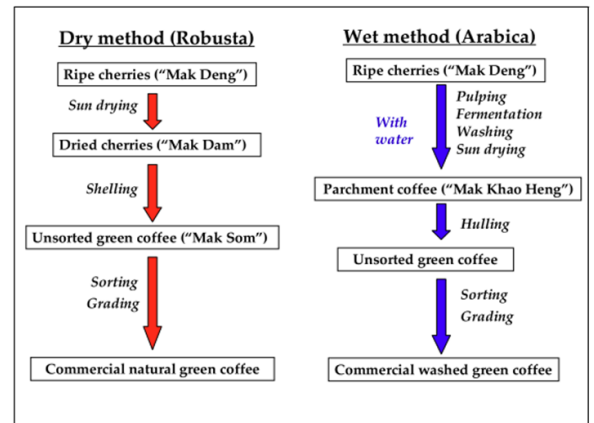


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

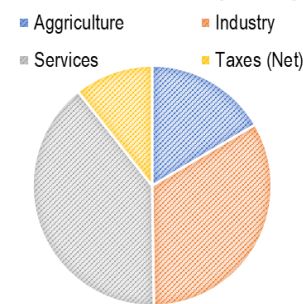


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

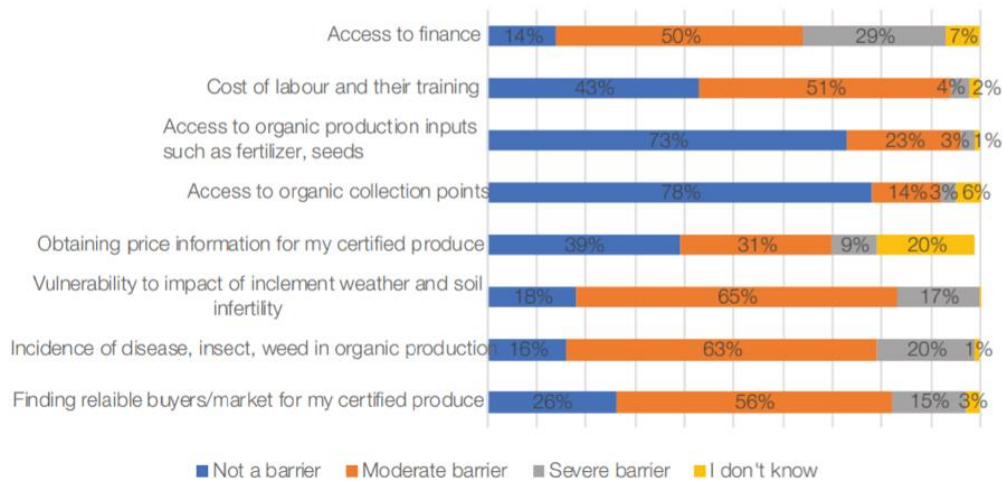


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

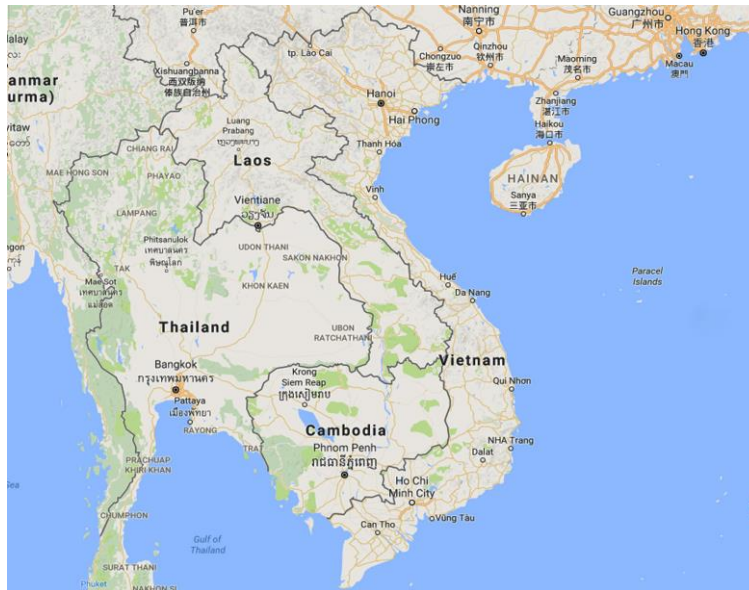


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

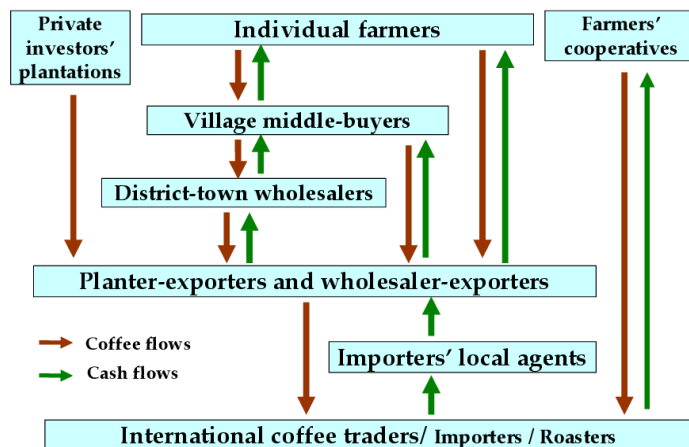


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

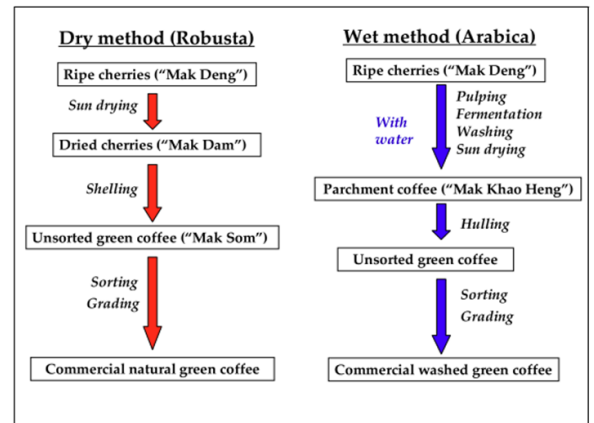


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

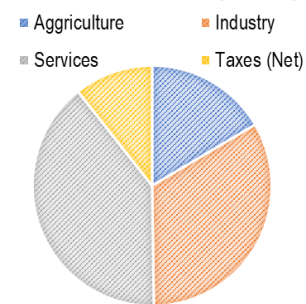


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

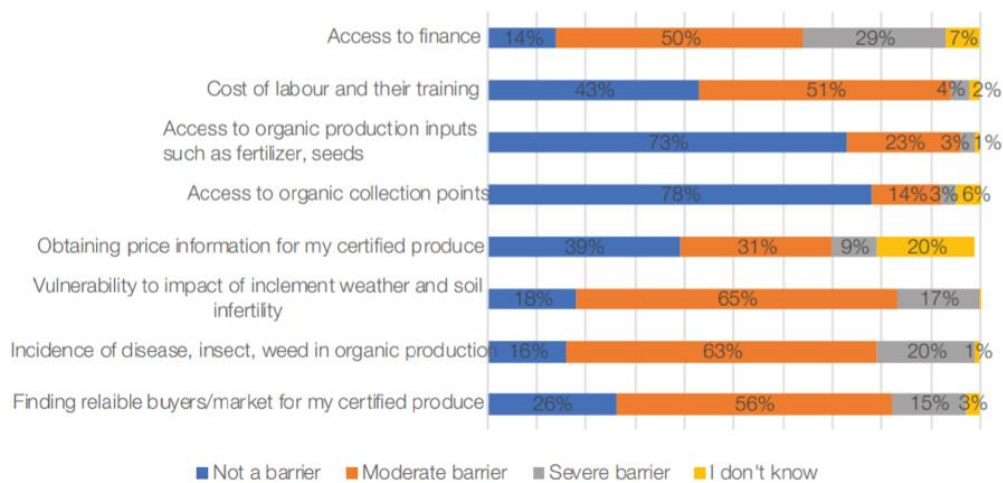


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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The Coffee Sector in Lao PDR – Background Information

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May 2022

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List of Abbreviations

ADB	Asian Development Bank
ASEAN	Association of South-East Asian Nations
BRI	Belt-and-Road Initiative
CHF	Swiss Franc(s)
FDFA	Federal Department of Foreign Affairs
GDP	Gross Domestic Product
GNI	Gross National Income
ICO	International Coffee Organization
INGO	International Non-Governmental Organization
LAK	Lao Kip(s)
Lao PDR	Lao People's Democratic Republic
LDC	Least Developed Country
LPRP	Lao People's Revolutionary Party
NEM	New Economic Mechanism
NGO	Non-Governmental Organization
PRC	People's Republic of China
SD	Sustainable Development
SDC	Swiss Agency for Development and Cooperation
SDG	Sustainable Development Goals
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
USD	United States Dollar(s)
WTO	World Trade Organization

*The exchange rate between the Lao Kip and Swiss Francs are all based on the value of 16.03.22, and sits at 1 CHF = 12,152.6 LAK
(c.f. <https://www.xe.com/currencycharts/?from=CHF&to=LAK>)*

Coffee in Lao PDR - An Overview

The Lao People's Democratic Republic

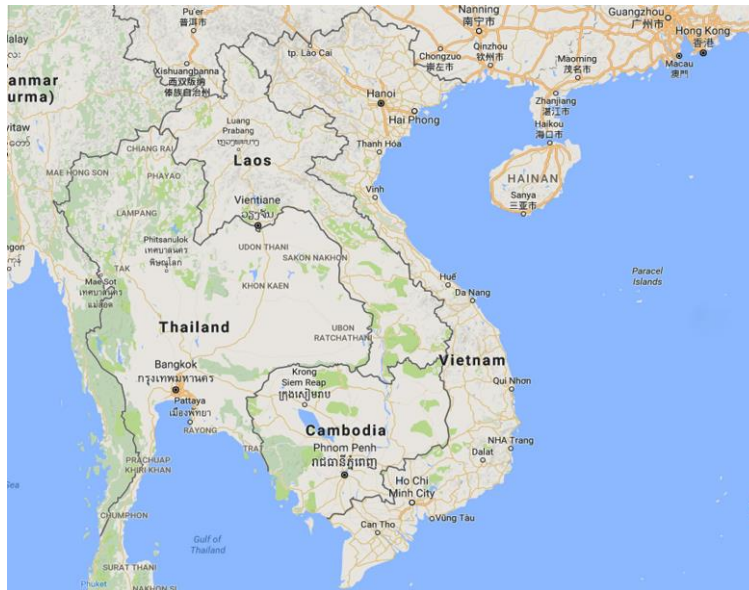


Figure 1: Map of Lao PDR, Source: Google Maps.

In May 1954, representatives of Cambodia, the Democratic Republic of Vietnam, France, Laos, the People's Republic of China (PRC), the State of Vietnam, the Union of Soviet Socialist Republics (USSR), the United Kingdom (UK), and the United States of America (USA) convened in Geneva for the “Conference on the Problem of Restoring Peace in Indo-China [sic]”. Out of these discussions came guidelines for a ceasefire in the region and the departure of foreign military forces from there, effectively putting an end to 60 years of French colonial rule over Cambodia, Vietnam, and Laos. Despite good intentions, the decades to follow would be marked by corruption, violence, and foreign interference, eventually culminating in a civil war, as Laos was torn apart by the ferocious currents of Cold War geopolitics. Concealed from the public for many years, the Pentagon Papers, a collection of confidential CIA files leaked in 1971, revealed the extent of USA intervention in Laos. For a decade, the US Air Force systematically bombed the positions of communist faction Pathet Lao, as well as supply routes to South Vietnam known as the Hồ Chí Minh Trail (c.f. Haney 1972). These bombings had a devastating effect on the population, killing 350’000 people, more than a tenth of the population (Saxon 1975). In 1975, the conflict ended with the victory of the Pathet Lao, which inherited a country ravaged by war and declared the Lao People’s Democratic Republic (Lao PDR), but the plight of the Lao people was far from over. Indeed, it is estimated that 30% of the bombs did not explode on impact, resulting in 30% of the country’s land contaminated with unexploded ordnances (UXO), according to USA-based NGO Legacies of War¹. Since the end of the conflict, these have been responsible for more than 25,000 civilian deaths. It took decades of activism for US authorities to recognize their deeds, with the 2019 UXO Removal Act, which states that “[f]rom 1964-1973 the United States dropped more than 2,000,000 tons of bombs on Laos.” It made Laos, “per person, the most heavily bombed country in history”, according to US President Barack Obama in an official visit to Vientiane in 2016.

In the Mid-1980s, Lao PDR launched a new policy framework, the New Economic Mechanism (NEM), characterized by trade liberalization and market-oriented solutions. Reforms included wider economic

¹ <http://legaciesofwar.org/about-laos/leftover-unexploded-ordnances-uxo/> accessed 12.01.22

cooperation with foreign countries and transnational institutions such as the World Trade Organization (WTO). To date, Lao PDR has a one-party system with Pathet Lao's political party, the Lao People's Revolutionary Party (LPRP) steering the country towards what could be called a compromise between capitalism and socialism.

Based on the three criteria (1) human assets, (2) economic vulnerability and (3) gross national income per capita, Lao PDR is classified as Least Developed Country (LDC) by the UN. However, in 2018, the country met the *graduation eligibility criteria* for the first time, leading the United Nations Conference on Trade and Development (UNCTAD) to recommend graduation to a higher level than LDC. Due to the Covid-19 pandemic, the transition period has been extended. Once re-classified, graduation might have a significant impact on the countries' exports of labour-intensive manufacturing, since leaving the LDC category will mean that the country no longer benefits from LDC-specific special and differential treatment, such as preferential access to markets. (UN DESA 2018; Tavares 2021).

The development of the Lao coffee sector

Coffee with its many varieties (e.g. Arabica, Robusta, and Excelsa) was first introduced to Laos by French colonists almost a century ago (1920). The introduction of the New Economic Mechanism (NEM) in 1986 has propelled the growth of coffee production and export and has fuelled a transformation of the agricultural sector in Southern Laos. In the course of this transformation, coffee has become one of Laos's most important agricultural export commodities and contributes significantly to the value-added of the overall agriculture sector (Rigg 2005; MPI 2016). The export-led growth of coffee has changed local farmers' livelihoods and income sources. The coffee sector is expected to contribute to regional development through two mechanisms. First, by generating income and employment, coffee can be a catalyst for economic development. Secondly, coffee exports increase tax revenues, which allow for public investment, and foreign currency reserves, which are vital to financial stability and exchange rate management (Phommavong 2015).

Making a living from coffee - involved actors

Different actors are part of the globalized Lao coffee value chain:

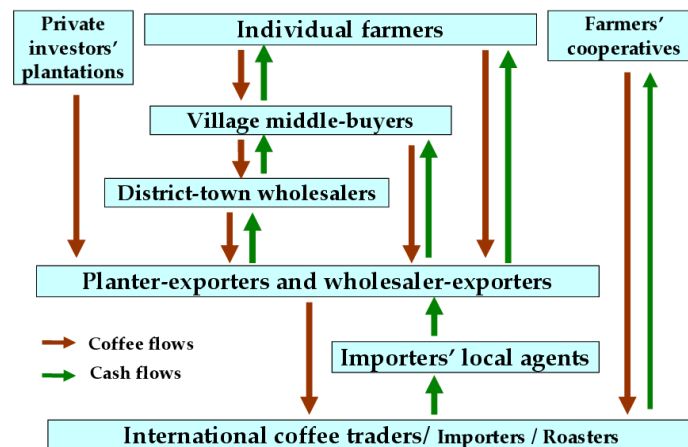


Figure 2: Coffee value chain and their stakeholders.
Source: Galindo and Sallée 2008

A closer look at the production level reveals that coffee producers can be further distinguished into different groups:

1. **Individual farmers** are the primary coffee producers. However, they rely on professional traders, namely village buyers, district wholesalers, and companies, to reach global markets.
2. **(Migrant) wage workers** work for other farmers or on larger coffee plantations. During harvesting season, the peak of labour demand, migrant workers play an important role in addition to local villagers. They mainly come from the neighbouring provinces to Bolaven Plateau to work there in the coffee sector.
3. **Farmers' groups (also known as cooperatives)** supply coffee to the domestic market and export coffee directly to niche markets or fair trade. They will be presented in more detail below.
4. **Private investors** produce coffee on larger plantations. They are mostly foreign companies and only a local private company.

Many local coffee producers combine diverse livelihood strategies. For example, they produce some coffee on their small piece of land and work in the peak time of harvesting for larger farmers or companies, while also keeping some livestock and vegetables for subsistence. Depending on how these coffee producers take part in coffee production, they face different advantages and challenges.

Beyond directly involved actors, there are actors who support and/or regulate the sector, such as **governmental authorities** on different levels and **international development agencies** and NGOs.

Main activities of coffee production



Figure 3: Coffee plantation in Laos, Photo by Stephanie Jaquet.

The Coffee plant is the central element to the whole sector and its stakeholders and takes much effort to treat. In order to gain high quantity and quality products, different factors in all stages must be kept in mind.

The most important coffee production stages are:

1. **Planting:** Preparing the soil and plant the seedlings
2. **Nursery:** Weeding and fertilizing the plants, and pruning the bushes after harvesting Nurse seedlings
3. **Harvesting**
4. **Processing** the coffee after the harvest (mainly peeling and washing). Different methods exist for these processes.
5. **Roasting** the washed coffee

Processing of coffee

In Laos, two main varieties of coffee are grown: *Robusta* and *Arabica*. Depending on the variety, the required inputs in labour, fertilizer and pesticides, the harvesting time, the processing method, and the quality (and thus the price) differ. The *Arabica* variety is of higher quality and, accordingly also achieves a higher price than the *Robusta* variety. However, it is also more complicated to produce and process and needs more inputs in labour and fertilizer. The value chain process requires a pulping machine, a milling machine, and a roasting machine. *Robusta* coffee is processed with the *dry method*, which is not a very complicated procedure. The coffee variety needs simply a milling machine to proceed the green beans as well as a roasting machine to refine the final product. In contrast, *Arabica* coffee is processed with the *wet method*, which consists of more steps than *Robusta* coffee. For the wet processing in particular, it needs a pulping machine that is used to peel the skin of the red coffee cherries while the milling machine proceeds for green beans.

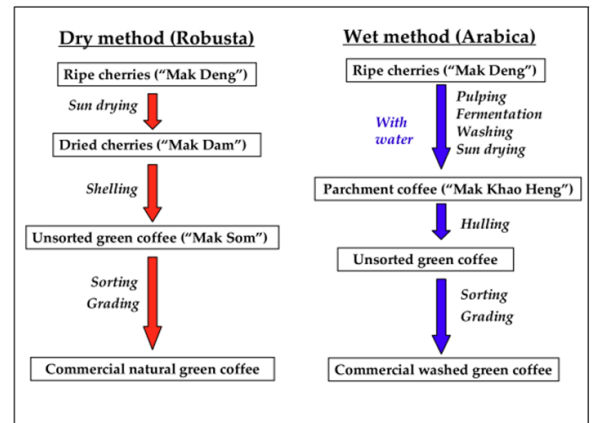


Figure 4: Different stages of each processing method. Source: Galindo and Sallée 2008.



Figure 8: Sun drying of Robusta coffee. Source: Galindo and Sallée 2008



Figure 7: Pulping Arabica Coffee. Source: Galindo and Sallée 2008



Figure 9: Arabica Coffee Fermentation: Fieldwork on 22 November 2016. Photo by Maliphone Douangphachah



Figure 6: Washing Fermented Arabica Coffee. Source: Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah



Figure 5: Sun Drying of washed Arabica Coffee. Source Fieldwork on 21 December 2020, Photo by Maliphone Douangphachah

Sustainable Development

Globally, production and consumption patterns endanger human well-being and prosperity as well as nature and climate. To embed and understand the coffee sector in Laos in the context of (un)sustainable dynamics and (potential) transformations towards more sustainability, some preliminary remarks follow on Sustainable Development (SD). There exist different concepts and definitions of SD, each with their own advantages and limitations. In 1987, the United Nations have defined SD in the Brundtland report as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” (United Nations 1987). In 2015, the United Nations have adopted the Agenda 2030, which identifies 17 Sustainable Development Goals (SDGs) (United Nations 2015).



Figure 10: Sustainable Development Goals. Source: UNESCO 2015

The different goals highlight that SD is a multi-dimensional process that is interwoven in complex system dynamics (Leach et al. 2018; Pham-Truffert et al. 2020). SD can be contradictory and, thus, conflictual; it is context sensitive and is characterized by power relations. In that sense, SD inherently includes negotiations and conflict of interests. While it can generate opportunities for one sector or one group of stakeholders, it can also bear risks for another. Therefore, it makes sense to understand SD as producing trade-offs and co-benefits as well as creating winners and losers.

Areas of Impact

The following part addresses different dimensions of the Lao coffee value chain. It is divided into five sections: (1) Economy of the Lao coffee sector, (2) Environment – Social-ecological interactions, (3) Livelihood situation of local coffee producers, (4) Governance and (5) Interconnectedness with global community. The sections will shed light on different aspects and features of the topic and will help to analyse the circumstances of the Lao PDR coffee sector. Needless to say, these sections overlap, and some issues can and do touch on all dimensions at the same time, which reflects how complex and all-encompassing a topic such as a global agricultural commodity value chain can be.

The economy of the Lao coffee sector

Lao PDR Economy

Lao PDR has a Gross National Income (GNI) of US\$ 2'480, as of 2020, which ranks it amongst the lower middle-income countries, according to the World Bank (2021). As a comparison, Switzerland, a high-income country has a GNI per capita of US\$ 84'310, The Lao economy is one of the fastest growing in East Asia. A booming industrial sector, electricity production and water supply and management are major drivers of this steady growth (Bank of Laos 2021). Although estimates diverge, it seems safe to say that the agriculture sector offers the most employment, with figures ranging between 73% (Central Intelligence Agency 2021) and 31% (Ministry of Planning and Investment 2017) of total employment. The wide gap between these estimates probably owes to the informal nature of most of this work. In terms of GDP however, the agricultural sector only accounts for 16.5% of the total, with industry and services accounting for 33.3% and 39.6% respectively (Bank of Laos 2021). Nevertheless, agricultural products are important for Lao PDR's trade balance. After electricity and mineral resources, they rank third in the most important exports, in terms of commercial value. When it comes to trading partners, 64.81% of exports go to fellow ASEAN countries, most notably to Thailand and Vietnam. Outside of ASEAN, the most important importer of Lao goods is the PRC, with 23.9% of the total. These three countries also happen to be Laos's main import sources, Thailand being in the lead with almost half of all imports (49.66%, for all of these figures and more regarding trade accounts c.f. Lao Statistics Bureau 2021, pp. 149-154).

LAO PDR GDP (2020)

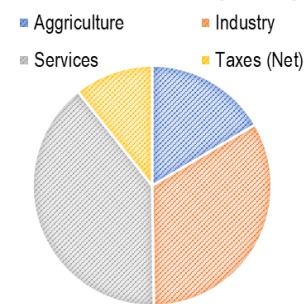


Figure 11: Decomposition of Lao GDP in main sectors. Source: Bank of Laos 2001

Coffee Production

In the context of the introduction of the New Economic Mechanism (NEM) policy programme in 1986, the new variety of *Arabica* coffee was introduced and distributed in the Bolaven Plateau region at the end of the 1990. Since the early 2000s, many local farmers have shifted to the new variety of coffee and have given up rice production, as the new *Arabica* coffee variety has been very labour intensive. In the course of these developments, the total harvested area for coffee increased from 50'600 hectares in 2010 to 93'300 hectares in 2017, while the total production has tripled from 46'300 tons to 150'800 tons (Lao Statistics Bureau 2018; 2011).

In coffee production, different patterns of labour exist (Seneduangdeth et al. 2018): self-employment, seasonal employment, daily paid employment, monthly paid employment, payment as aggregate for the

work performed (that is the worker is remunerated according to the weight of picked coffee cherries), contracting employment and permanent employment. In addition to self-employment in coffee farming, that is farmers who produce their own coffee, coffee production creates employment opportunities for local people and migrants from neighbouring provinces. Large coffee farmers and companies hire people for harvesting, weeding, and fertilizing tasks in the coffee gardens and plantations. While these jobs create an important source of income, working conditions vary greatly.

Global coffee market dynamics

Lao coffee traders sell their coffee on international markets, where its price is denominated in US Dollars (USD). Since they are only a minor actor on the world stage, Lao producers have little negotiation power. Historically, coffee price volatility has always been part of the game, for example because of weather shocks. Since the beginning of the 21st century, however, a few changes in the structure of the global coffee market have occurred. The quality and the quantity of coffee (particularly from Brazil and Vietnam, which are two of the biggest coffee exporters) increased, leading to a market oversupply, which in turn resulted in a decline of the global coffee prices. A consequence of the decline in coffee prices has been a smaller share of the final retail price that is received by producing countries. This has been caused by two factors: First, the coffee roasting and retail industries have made profits by developing new products and by taking advantage of various value-adding activities, such as marketing, branding, differentiation, and flavouring. Second, the non-coffee components included in the retail price of coffee, such as wages, packaging, and marketing, have grown and now represent a much more significant share of the total retail price than the actual coffee itself. Interestingly, a number of countries that import coffee earn billions of dollars annually in taxes from it. In some of these countries, these taxes alone are approximately equivalent to the coffee revenue earned by the producing countries.

Environment – Social-ecological interactions

Land – a resource in demand

Land in Laos belongs to all Lao people as national heritage, according to the state (Law on Land Lao PDR, 2018). However, land is under pressure: it is a highly demanded resource on which various domestic and international stakeholders have their eyes. In this context, land acquisition deals through which land-use rights are transferred to domestic or foreign investors have become an important issue (Nanhthavong et al. 2021). Over the last two decades, the Government of Lao PDR has strongly promoted such land deals and issued many concessions. The primary goals have been to attract investors and generate economic value from “turning land into capital” (Kenney-Lazar, Dwyer, and Hett 2018). Proponents of the policy have expected the deals to stimulate job creation and to establish new markets and infrastructure that will result in increased revenues for the state (Nanhthavong et al. 2021; Hett et al. 2020). However, more recently, the awareness of negative consequences has increased, and the government has started to regulate and limit at least certain types of land deals (Nanhthavong et al. 2021; Hett et al. 2020). The impacts of these land deals are controversial: On the one hand, they create new employment opportunities and therefore provide a source of income for the villagers. On the other hand, the working conditions of these oftentimes seasonal and temporal employments are poor and conflicts due to delayed payments and violations of payment agreements are not unusual (Hett et al. 2020). Furthermore, the income from these salaried engagements is not enough, especially when other sources of income, such as firewood and subsistence farming become unavailable, as a consequence of unsustainable handling of privatized land. This is an issue, because large land acquisitions often entail intense land use management practices, which in turn

lead to environmental pollution from agrochemicals such as fertilizers, pesticides or herbicides. Additionally, they create a negative impact on the already decreased water levels and quality in rivers and streams (Nanhthavong et al. 2021). One of the most severe adverse impacts of these deals, however, is conflicts about land. Land deals often take place in areas where local land users do not have formal land titles but use the land based on local customs. In the worst cases, land deals then lead to displacement and dispossession of local villagers. Needless to say, this has severe impacts on villagers' wellbeing as their livelihoods rely largely on land and natural resources (Nanhthavong et al. 2021).

Tourism

Tourism in Laos has been steadily rising over the past decades, until the global shock of the Covid-19 Pandemic. The biggest market by far is Southeast Asia, from which 67% of tourists come. Even still, Lao PDR earns the highest amount in the tourism sector with visitors from the People's Republic of China (PRC). This is not only based on the sheer number of people coming over, but also on infrastructure projects by the PRC in the context of the Belt-and-Road-Initiative, connecting the two countries with a more-than-400km-long train track. The number of tourists and their *per capita* expenditures are highly dependent on the monsoon weather, when tourists tend to stay away. This is where the coffee sector comes in again: some established coffee brands are marketed locally, hoping that the booming tourism can boost their sales. Certain players, such as the Asian Development Bank (ADB), have argued for the advantages of a transition into more environmentally friendly forms of tourism like agrotourism, with the argument of such a shift leading to an increase in the livelihood outcomes of involved actors (Anderson et al. 2021).

Organic Certificate

Since the 1990's, when international NGOs such as Helvetas started pushing the issue, organic coffee production has gone from strength to strength. In 2005, the Department of Agriculture created the Lao Organic Standard, which sets out the guidelines to receive certification. They cover issues including organic production, land preservation, evaluation, inspection, management, transportation, and labelling requirements. While the extra effort required from producers to comply with the certification guidelines leads to higher costs, certified coffee bags command a premium on international markets, making it a financially viable option. However, for producers there are many barriers to entry. Recently, UNCTAD(2020) conducted a survey asking Lao coffee producers about barriers both in taking the decision to apply for the label and in the implementation. Results are shown in figures 13 and 14.



Figure 12: Laos organic label logo



Figure 13: Barriers in Attitude and Decision-Making, Source: UNCTAD 2020

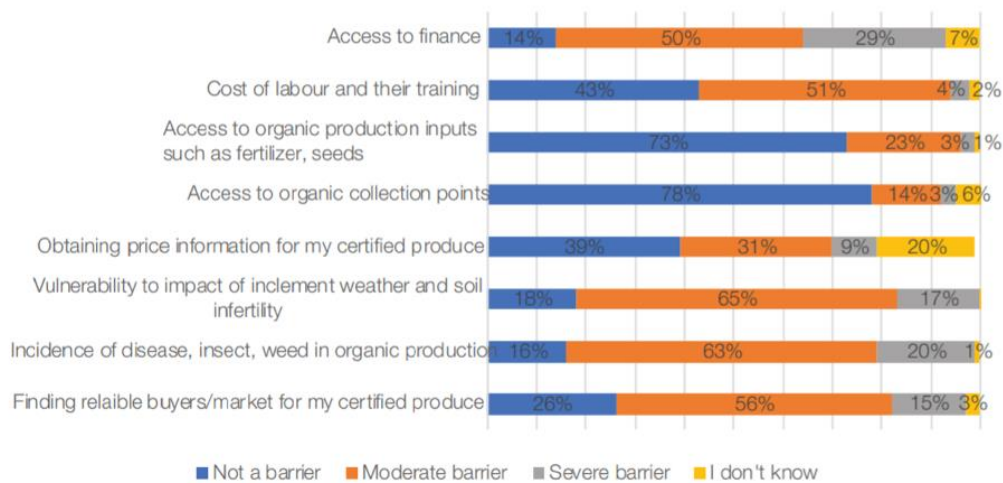


Figure 14: Barriers in the Implementation Stage, Source: UNCTAD 2020

Livelihood situation of local coffee producers

Wage situation

The minimum wage in the Lao PDR stands at LAK 1.1 million per month (Falak 2021). The wage earned for Coffee production in Lao farms is modest, with an average salary of LAK 50'000 /day or LAK 1000/kilogram of coffee harvested, amounting to CHF 4.11 and CHF 0.08 respectively. If we wish to make meaningful comparisons, in terms of purchasing power, however, we must factor in the differences in price levels. According to the World Bank (2020, table 2.1), prices in Switzerland outweigh those in Laos by a factor of 3.589². Therefore, for a day's work, a Lao coffee worker's pay equates on average a purchasing power equivalent to that of 14.75 CHF in Switzerland. Assuming 20 working days in a month, that makes CHF 295 over the same period. This indicative number does of course not apply to all wage workers similarly. The situation for temporary and seasonal workers is oftentimes worse, with employers frequently offering them no more than room and board.

Gender relations in coffee production

Women are an integral part of the agriculture sector in Lao PDR, comprising over 50 percent of the agricultural workforce and contributing significantly to all parts of agricultural production. Despite women's heavy involvement in agricultural work, however, women face significant and persistent barriers to participating fully in the rural sector (FAO 2018). In general, Lao women struggle with lower literacy and education levels than their male counterparts. They face constraints in their mobility as well as difficulties in accessing relevant information for their agricultural activities, agricultural inputs, and financial resources, such as loans. Further, Lao women usually bear the double burden of work on the farms and reproductive work on daily activities. In addition to farming activities the society still assigns work in the reproductive domain such as care and domestic work to women's area of responsibility. Regarding the division of labour and decision-making, women's high levels of participation in the productive and reproductive domains have not led to women's empowerment. The double work burden reinforces unequal gender relations and is an obstacle for women's empowerment as it imposes serious restrictions on women's time and their capabilities to organize their lives and to be active outside the home. While women have a higher decision-making level on daily expenses for household and family, in the farm domain, it is mostly men who decide on agricultural inputs, crop growing, and financial money lending. (Douangphachanh et al. 2021)

Cooperatives

Coffee Cooperatives in the South of Laos are officially certified organic associations, encompassing associations such as the Bolaven Plateau Coffee Producer Cooperative, Jingjhai Coffee cooperative, and Jhai coffee cooperative. Marketing and exporting organic coffee, these cooperatives relate local farmers on the village level with the global market. To access the global markets, cooperatives often collaborate with international NGOs (INGOs). The cooperatives are constituted by their farmer members whom they represent not only in international market channels but also at the government level within coordinative bodies of the Lao coffee sector. The cooperatives provide their members a guaranteed purchase price that results from average world market prices, including the price fluctuation. They pay the farmers once or twice a year. To promote organic production, the cooperatives have high and strict standards that farmers must

² 179.8/50.1 = 3.58882236

produce free from chemicals and synthetic fertilizer, herbicides, and pesticides. Regularly, the cooperatives check that their members comply with the requirements.

Cooperative members appreciate the stable prices and the solidarity and coordination amongst the villagers that the cooperative model fosters. However, being a member is time consuming as the members need to invest extra work to keep the organizations running. Furthermore, though the payment mechanisms ensure stability, they have some challenging consequences: Firstly, it may happen that the coffee fetches a higher price on the world market than the price offered by the cooperative. Secondly, receiving payment only one or two times per year can be difficult. Therefore, some farmers choose to sell their coffee to middlemen instead of to the cooperative, even if the cooperative offers a higher price, because they need to receive the money immediately (Minoo 2017).

Social and financial security: Micro Financing

Smallholder coffee farmers, self-producing and/or employed on larger coffee farms, must make a living based on low, irregular, and unpredictable incomes from multiple sources of occupation. In this context, money management and financial transactions are essential: These transactions are needed for the management of daily cash flows, for dealing with risks, such as accidents, and for saving up in order to mobilize larger amounts of money if needed, for example for investments in agricultural machines. In this context, microfinance institutions provide important services (Collins et al. 2009).

The development of microfinance in Laos started in the 1990s with multilateral and bilateral development agencies supporting the establishment of village-based credit schemes and revolving funds. Four types of institutions are instrumental in that process: the central bank as regulatory authority with overall responsibility for the development of microfinance; the state commercial banks as retailers and wholesalers of microfinance; the Lao Women's Union in cooperation with international NGOs and donors and informal savings and credit groups (Seibel and Kunkel 1999).

Recently, there has been a boom in microfinance institutions (MFIs) (LMFA n.d.). For example, GIZ's project 'Microfinance in Rural Areas – Access to Finance for the Poor V' has achieved that women and men in rural areas have increasingly benefited from financial services through more stable institutions, better financial education, and an improved legal framework. By January 2019, the 670 village banks have reached more than 153,000 members, including 79,000 women.

Governance

Institutions of the Lao government

In the first 15 years after its establishment, the Lao PDR suffered from a lack of central government capacity. The country was ruled without constitution or legal system. The NEM, introduced in 1986, gave impetus to a reform movement, which culminated in the promulgation of a constitution in 1991. The constitution defined the institutions of the Republic including a legislature, as well as executive and legislative bodies. The National Assembly (NA) represents the legislative power. The executive power lies in the hands of the Government, which is headed by the Prime Minister, leading the Council of Ministers. The judiciary power is held by a court system, thanks to which the Government seeks to transform the Lao PDR into a "Rule of Law State".

Social security system

The system is led by the Ministry of Labour and Social Welfare. It guarantees that the insured person and family members receive financial resources to cover basic needs when it comes to health care, employment injury, occupational diseases, maternity leave and other similar ailments. The target groups of social security benefits are civil servants, military, and police officers and employees working in the labour unions. Limited services are available for voluntary insured persons, who have to cover the expenses with their wages.

Farmers and wage-workers can be voluntary insured persons who benefit from the social security system; however, they must contribute 9% of their monthly salary, which is between LAK 1,100,000 (minimum salary) and LAK 2,700,000, to the social security fund for at least three months. That means they must pay at least LAK 99,000 per month to the social security fund. Once they paid their contribution to the social security fund, their family members could benefit from social security, especially health care. At the moment, there are no policies that oblige employers, especially coffee plantation companies, to provide their short-term, temporarily employed migrant workers with insurance for accidents during work or work-related traveling.

Governance Challenges

Laos has solid governmental regulations, but there are challenges in terms of their effective implementation. There is little cooperation between concerned divisions or sectors at central and local levels, particularly in arriving at unified policy support along with budgetary and human resource allocations in the coffee sector. This remains a major disincentive to investment. The result of low or non-existent investment and low resources for the execution of governance functions in general leads to a low rate of policy implementation (Lao Coffee Board 2014).

Investment in the coffee sector has been accompanied by the promotion of Government policies geared to attract both domestic and international capital to the sector. In order to develop and improve the strength of producer groups, there is need for more practical support, personal skills training such as negotiating, and available expertise to improve productivity and to enable producer to be more organized, so that they benefit from consolidated production and access to credit (Lao Coffee Board 2014).

Corruption constitutes a major roadblock for good governance and law enforcement and has crucial social drawbacks. The Lao government has prioritized this issue in its five-year national plan by setting regulations, laws and Party Government's policies promoting anti-corruption. In the plan, the government strives for increasing the effectiveness of public administration through the rule of law and the prevention of corruption. To close the implementation gap, the government seeks to monitor and evaluate the implementation of laws in each period, such as the anti-corruption law. However, the government still faces many challenges to achieve the goal (Ministry of Planning and Investment 2016).

When it comes to the coffee sector, another important challenge that governing institutions face is tax-evasion through mispricing of coffee exports. A research team has recently found a sizable undervaluation of coffee beans exports, equivalent to 260 million US\$ or 77.1% of total coffee exports during the period 2012-2017 (Mehrotra, Nolintha, and Sayavong 2020). The foregone tax returns resulting from these manipulations is a serious threat to the Lao PDR's development model.

Road and Transportation infrastructure



Figure 15: Process of Road building, Photo by Eva Ming

Although Laos is experiencing a huge economic boom, it still struggles with poor road and transportation infrastructure, leaving some rural areas hardly accessible. These large differences in quantity and quality of road and transportation infrastructure have major consequences for market access and prices. For example, there is a 50% difference in the average price per beer bottle between the provincial capitals of Xayabury and Luangaphrabang, which are located only 111 km apart: this large price gap probably reflects high transaction costs due to difficult transport conditions. It is necessary to account for differences in transport costs emanating from uneven road quality, as well as differences related to the degree of competition (or the number of traders) in each location. Looking first at the pattern at the national level, the results are as expected, with the lowest prices in urban villages and the highest prices in rural villages without road access (Andersson et al. 2007).

In recent years, the development of road and transportation infrastructure has picked up speed. Laos has become a part of China's Belt and Road Initiative (BRI). The Lao-China Railway built under the umbrella of this initiative will connect Lao PDR (and later Thailand, Malaysia, and Singapore) to the vast BRI network. Designed as a high-speed railway, the 414-km section connecting the capital city of Vientiane and Boten (at the northern border with China) could provide Lao PDR with a land link to global and regional supply chains, which could make the country more attractive to investors, create new jobs, and accelerate economic growth and increase aggregate income. If Laos implements complementary logistics and trade facilitation reforms, the railway could attract traffic that is currently using maritime and air transport routes and significantly reduce land transport prices by 40-50 percent between Vientiane and Kunming, China and by 32 percent between Kunming and the Port of Laem Chabang in Thailand, thus transforming Lao PDR from a Land-locked to a Land-linked Economy (World Bank 2020a).

Interconnectedness with global community

International organizations

Lao PDR is a member of the ASEAN economic union, which comprises 9 other Southeast Asian nations: Myanmar, Thailand, Cambodia, Vietnam, Malaysia, Singapore, Indonesia, Brunei, and the Philippines. The ASEAN promotes cooperation between its members, as well as economic development and social

progress. Further, Lao PDR is part of the WTO, numerous UN agencies and the International Monetary Fund (IMF) and the World Bank.

Development cooperation

Development cooperation forms an integral part of foreign policy, since at least the end of World War II and the Marshall Plan. In the case of Switzerland, the Swiss Agency for Development and Cooperation (SDC), under supervision of the Federal Department of Foreign Affairs (FDFA) is the main office in charge of this aspect of diplomacy. It will be allocated 84.1% of the total funding for international cooperation over 2021-24 and it is responsible for coordinating the Confederation's efforts regarding development cooperation and humanitarian aid. In Switzerland's International Cooperation Strategy 2021-24, three objectives are given top priority in Central, South and Southeast Asia: climate change mitigation and adaptation, good governance promotion, and economic development (FDFA 2020).

Lao Coffee Board

Locally, the Lao Coffee Board (LCB) coordinates the development of the coffee sector. In its 2025 Strategy (2014), it spells out its vision: "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" (p. 11). However, they identify serious challenges for achieving these goals: a lack of investment in research and development, as well as technical promotion, outdated storage methods and the absence of producer groups in decision-making regarding value-chain development programmes (pp.7-8).

Foreign NGOs

Historically, Lao civil society has been subject to substantial restrictions. Until recently it mainly took the form of mass organizations, which the ABD (2011) describes as "quasi-governmental party organizations" (p.2). The right of association has only been guaranteed since 1991. In 2009 and 2010, ministerial decrees enshrined the rights and obligations of civil society and INGOs, respectively. As a result, INGO involvement has considerably increased over the last decade (ABD 2011).

Epilogue

This short introduction intends to give readers an entry point into the vast web of actors, challenges, perspectives, and interests to which the Lao coffee sector gives rise. We started by painting a picture of sustained economic growth, global integration, and technological progress, but as we saw in the "livelihood" section, the fruits from these positive developments did not fall in all actors' hands in equal proportion. Regarding the environment, we saw that serious challenges remain. This background dossier then informed about the roles, rights, and responsibilities of powerful actors, both in government and in a burgeoning civil society. To conclude, despite its past, Laos seems to offer opportunity and, in a global context where challenges are ever more daunting, many actors are queuing up to benefit from it. Amid these struggles, different interests must be traded off, compromises struck, and decisions taken.

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Wake up - the Lao Coffee Game - The dimensions of the Lao coffee sector

Description of the parameters and interests

Health of Environment

The environment provides us with countless services, of which we have evolved and learned to take advantage. Through photosynthesis, plants and trees remove CO₂ from the atmosphere and they provide us with the oxygen we breathe. Through pollination, insects allow us to grow plants and develop agriculture and with that, food. Just as they serve us, humans, the countless entities that make up flora and fauna provide services to each other. Ecosystems are thus characterized by a dense network of interactions and interdependencies, the fruit of millions of years of evolution. Therefore, damage to one node of this web weakens all others, sometimes threatening precarious equilibria. In the game, "Health of the Environment" refers to the latter's capacity to provide valuable services, without which no organized life is possible. Accordingly, it will be negatively affected by waste and pollution, which degrade the quality of the air we breathe, the water we drink, and can even lead to high concentrations of microplastics in seafood, or of pesticide residues in agricultural products. Another of the services provided by the environment is the presence of extractable resources, like petrol or gas, but also rare earths which play an increasingly important role in modern economies, perhaps most crucially in the production of batteries, photovoltaic panels, and wind turbines, all key assets in any plan to transition away from fossil fuels. These resources have developed over geological timescales and their supply is finite. Their depletion is therefore terminal. By virtue of the aforementioned interdependence between ecosystemic nodes, loss of biodiversity, despite not being a service itself, decreases the health of the environment.

Livelihood Outcomes for Local Coffee Producers (including farmers, wage workers and local middle buyers)

Livelihood represents the capacity for individuals not only to survive, but also the extent to which they are able to satisfy basic human needs, whether physiological, sanitary, social, or psychological. Of course, income plays a determining role in all these facets of livelihood, but that should not obscure other factors. For example, even if her income is higher as a result, an individual living in a less egalitarian society could have a lesser welfare, resulting from a loss of the sense of self-worth or dignity, but also because of the unrest and violence that tends to accompany inegalitarian societies. Other factors to consider are choices, opportunities, and generally speaking, the feeling of having one's life in one's hands and that things can get better as a result. One may also include the sense of security, which stems from reliable income streams through fair and stable markets, for which social security plays an important role, and with it the ability to overcome sickness or injury. Working conditions are yet another determining factor to assess producers' livelihood outcomes, as are employment opportunities, which are a key determinant of income. Important though it may be, these are not the only determining factors. Access to resources, such as land or financial means through loans play an important part in steady income streams. Further, other basic livelihood assets that factor in wellbeing are food security, gender equality, as well as more elaborated notions like social inclusion or the possibility of further education.

Economic Attractivity of the Lao Coffee Sector

The Lao coffee sector's attractivity describes the pulling power it exerts over different stakeholders engaged in the Lao coffee value chain: investors, traders, workers, producers, government, etc. From investors' perspective, the main factors are profitability and stability. Indeed, uncertainty is rarely good for business. Typically, when a sector displays high profits, it easily attracts new investors, who will increase production capacity. If this additional supply is met with demand for Lao coffee, the sector grows. Production volume, total income, exports, and jobs all become more abundant. However, the link between profitability and growth of the sector depends largely on the level of regulation of the coffee market. For instance, even if it displayed high profits, the coffee sector could fail to attract investors if barriers to entry were high. These may be in the form of limitations on the capacities to acquire land, restrictions regarding the influx of foreign capital or exports, as well as of informal factors such as corruption and a weak legal framework to protect private property and profits. In the same vein, one may cite the absence or dearness of factors of production such as labour, which crucially depends on regulations such as mandatory schooling and illegality of child labour, or minimum wage and social charges.

Interconnectedness

Interconnectedness describes the extent to which Lao stakeholders are economically, politically and culturally connected to international actors. Better integration with the global community can be an opportunity for the Lao coffee sector. Obviously, the sector is heavily dependent on foreign demand for its product, but an influx of foreign capital, typically embodied in a multinational company, can also increase the connectivity of the sector, and open new markets. Openness to international influence does not only manifest itself in the private sector, but also in the public. Globalization therefore presents numerous opportunities of international collaboration in the form of trade agreements on import and export quota. These can be bilateral, with foreign national agencies or internationally active NGOs, such as development cooperation offices, or multilateral in institutions such as the United Nations, the World Trade Organisation, and many others. However, interconnectedness, for all its virtues, presents significant risks. Over the past few decades, numerous developing countries have faced financial crises resulting from exchange rate movements. Indeed, their currencies often display high volatility, which means that foreign lenders prefer to loan in other currencies, typically US Dollars. However, if the currency depreciates, the debt burden for local firms increases, leading to mass bankruptcy. This sinister mechanism is associated with the 1997 Asian financial crisis. This episode also illustrates the downsides of the International Monetary Fund's interventions, which was often conditioned on fiscal austerity and privatizations. In general, when a nation relies on foreign capital for its development, it enters a competition with other projects looking to attract investors. To stand any chance, it becomes important to offer the most favourable conditions possible for asset managers. Therefore, costs and risks are often borne by taxpayers. A classic example is highways, which are required to include tolls, the condition of their profitability as assets. These dynamics have been labelled as the "Wall Street consensus".

Governance Capacities of the Lao Government

Governance capacities describe the scope of action of the government to shape and regulate the coffee sector. It includes factors such as public finance and mobilization of financial resources, political stability and popular trust in the government, as well the latter's ability to achieve its goals and enforce laws. Increasing the governance capacity of state institutions is a primary objective for the institutions themselves, for obvious reasons, but it also serves other actors. Civil society is better protected, if the government has the capacity to enforce the law. Foreign investors are reassured by the knowledge that authorities have the means to protect private property, be it physical capital or intangible assets such as contracts. Governance capacity crucially depends on the financial means at the disposal of public institutions. These come from two sources: taxation and borrowing. The former relies on an effective system and a large tax base. In this regard, economic growth, rural development, and poverty reduction are important drivers. For all of these, infrastructure development is key, as is social welfare, which gives more resilience to economic actors. On the other hand, borrowing depends on lenders' trust in the government's capacity to repay its debts. An important factor which undermines governance capacity is corruption, which erodes the state's financial means and therefore its effectiveness, but also trust on behalf of the population, and often leads to crime. In order to gain the people's trust, the government can also propose a long-term vision, for which the development of a green economy and the struggle for gender equality can be mobilizing factors.

Wake up - the Lao Coffee Game - The dimensions of the Lao coffee sector

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Interconnectedness

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Wake up - the Lao Coffee Game - The dimensions of the Lao coffee sector

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Livelihood represents the capacity for individuals not only to survive, but also the extent to which they are able to satisfy basic human needs, whether physiological, sanitary, social, or psychological. Of course, income plays a determining role in all these facets of livelihood, but that should not obscure other factors. For example, even if her income is higher as a result, an individual living in a less egalitarian society could have a lesser welfare, resulting from a loss of the sense of self-worth or dignity, but also because of the unrest and violence that tends to accompany inegalitarian societies. Other factors to consider are choices, opportunities, and generally speaking, the feeling of having one's life in one's hands and that things can get better as a result. One may also include the sense of security, which stems from reliable income streams through fair and stable markets, for which social security plays an important role, and with it the ability to overcome sickness or injury. Working conditions are yet another determining factor to assess producers' livelihood outcomes, as are employment opportunities, which are a key determinant of income. Important though it may be, these are not the only determining factors. Access to resources, such as land or financial means through loans play an important part in steady income streams. Further, other basic livelihood assets that factor in wellbeing are food security, gender equality, as well as more elaborated notions like social inclusion or the possibility of further education.

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Wake up - the Lao Coffee Game - The dimensions of the Lao coffee sector

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