



Coffee producer country profile: Vietnam

An overview of the economic model of Vietnamese coffee farms

REPORT

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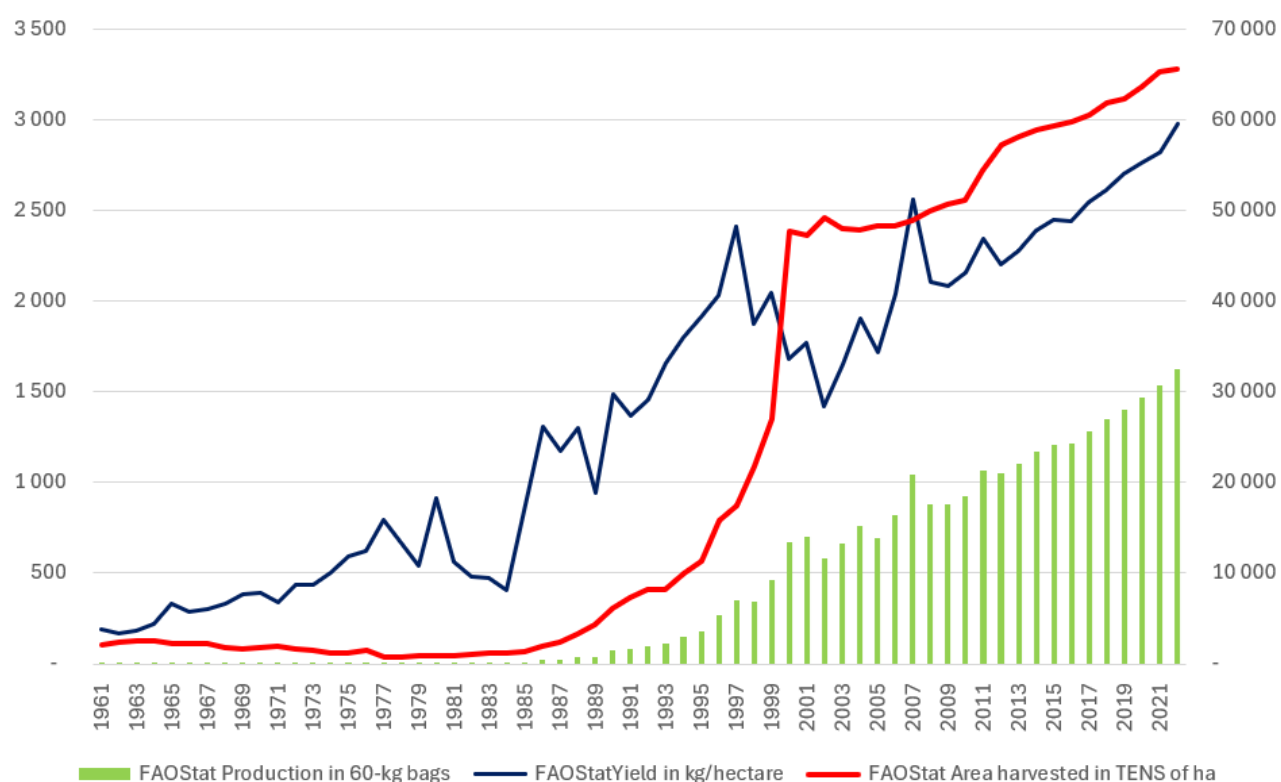
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1. Relevant context regarding economic viability

1.1. Production and export profile

Vietnam is the world's no. 2 producer of coffee and no. 1 producer of Robusta. Vietnam has been second only to Brazil in world coffee exports since 2002. It produces around 30 million bags of coffee per year (1.8 million tonnes), of which 95-97% are Robusta and 3-5% are Arabica.¹ According to the Vietnam General Statistics Office, total estimated planted size was 705,900 hectares as of 2021, of which 93.9% was Robusta (FAO statistics on harvested area are slightly smaller).² Coffee production has been on a near-continuous increase since the late 1980s, driven in large part by increases in yields (see Figure 1).



¹ USDA Foreign Agricultural Service, "Vietnam: Coffee Annual," June 2022; ICO, "Coffee Country Profile: Vietnam," 2019; also Sucafina, "Sucafina origins: Vietnam," 2023 and AgroInfo (Government of Vietnam). "In 2023, Coffee Will Be Exported To Many Large And Potential Markets." 26 December 2022.

² General Statistics Office of Vietnam, "Planted Current Area of Main Perennial Crops by Items, Main Perennial Crops and Year," 2023.

Figure 1. Estimated yield (left axis), area harvested in (right axis), and production (right axis) in Vietnam. Source: BASIC, based on FAOSTAT³

Remark: the decision to represent TENS of hectares was so as to make it clear on the chart to what extent it is both yields and surface area which have driven Vietnam's ascendancy to the world's second-largest coffee producer. The rise in production in response to both of these variables is also significant and easily seen.

Historically, coffee has competed with rice for the position as no. 1 value in foreign exports from Vietnam. Export value in 2019 was 2.7 billion USD,⁴ making coffee a significant source of foreign exchange for the Vietnamese economy.

Currently, approximately 90 to 95% of the coffee crop is thought to be exported.⁵ Dynamic growth began in the 1980s with commercial agreements with Eastern Europe,⁶ and then with the rest of the world in the 1990s. Although exports to Asia have blossomed as tea drinkers turn to coffee,⁷ Europe remains Vietnam's largest coffee export market: it accounts for 33.8% of total export volume and 58.9% of total export turnover.⁸ Germany is Vietnam's first coffee trading partner, capturing 18% of the total value of coffee exported from Vietnam.⁹ The EU-Vietnamese Free Trade Agreement has eliminated all import tariffs for all unroasted or roasted coffee products from Vietnam, creating an advantage for Vietnamese coffee.¹⁰

Vietnam, like many countries in East and Southeast Asia, is generally a tea-drinking country. However, there is a growing domestic market for coffee. This is evidenced by, for instance, the presence of numerous roasting companies in the country,¹¹ as well as the rise of a variety of local coffee shop franchises.¹² It is reported that in terms of markets, the high-end segment is dominated by foreign companies, but mid- and low-price coffee is dominated by local brands.¹³

1.2. Overall farming context

Vietnam is characterized by a strong tradition of coffee smallholders who occupy small (less than 2 ha) parcels of land. According to national statistics in 2019, 91% of farmers farmed less than 2 hectares, and 61% farmed less than 1 hectare.¹⁴ The average farm size for coffee smallholders in the

³ FAOSTat link : <https://www.fao.org/faostat/en/#data/OCL> .

⁴ Hivos, "Coffee Barometer 2020," 2021 and Thăng, "The Role of Vietnam in the Global Coffee Value Chain." 2022.

⁵ ICO 2019, op. cit.

⁶ World Bank, and IPSARD, "Vietnam Coffee Supply Chain Risk Assessment: Draft Report," August 2011.

⁷ ICO 2019, op. cit.

⁸ VietnamCredit, "Top 10 Largest Coffee Exporters In Vietnam In 2021." 2021.

⁹ UN Comtrade, 2023.

¹⁰ Ibid.

¹¹ Vietnam Briefing News, "Vietnam's Coffee Market Faces Challenges Despite Strong Exports," 2022.

¹² Ibid.

¹³ Ibid.

¹⁴ Unfortunately, it is not clear from the data whether this is total acreage or total coffee acreage. Vietnam's General Statistics Office, which was the original source for this estimate in 2019, has ceased publishing the data on farm size distribution both online and in the Vietnam Statistical Summary Book of Vietnam, so one can only rely on the numbers given in Nguyen and Drakou, "Farmers Intention to Adopt Sustainable Agriculture Hinges on Climate Awareness: The Case of Vietnamese Coffee." 2021.

Central Highlands in Vietnam, the country’s “coffee-basket,” is 1.3 ha.¹⁵

Coffee farms tend to exclusively produce coffee, although some practise intercropping with shade or non-shade crops; these can be an additional source of on-farm income.¹⁶ Intercropping is recommended by the UN-REDD+ framework as a way of improving coffee farms’ net income.¹⁷ While it takes several years for the benefits to begin to be felt, intercropping provides additional sources of income and can serve as a buffer when coffee prices are low, in addition to other positive environmental and climate-resilience impacts.¹⁸

Among the costs to Vietnamese farmers, synthetic inputs – specifically fertilizer – are the single largest cost on average (discussed in section 3). Next down the line is hired labour (also discussed in section 3). There is a genuine problem of overuse of synthetic fertilizer over the years, resulting in land degradation and causing the soil to lose its fertility and be infested with fungal diseases and nematodes.¹⁹ Coffee trees are growing old, and rejuvenation may not be proceeding at a fast-enough pace – although Vietnamese coffee farmers in some provinces have applied techniques of grafting branches for the rejuvenation.²⁰

FOB price capture by smallholder producers in Vietnam is remarkably high – reaching 95% or more in some years.²¹ This has only been the case since the first decade of this century, when various factors contributed to diminish the cut of coffee value taken by middlemen, which was historically around 35% to 40% of the FOB price (see inset on Middlemen below).²² In addition, Vietnamese farmers typically process their coffee all the way to green bean, which entails higher FOB capture as the only

¹⁵ BASIC Interview with Vietnam coffee sector experts, 27 February 2023 and 4 May 2023 (same organization).

¹⁶ This is notably the case in Dak Lak province (BASIC interview with Vietnam sector experts, January 2024). The options for intercropping include pepper, avocado, durian, macadamia, mango, or cassia; the legume genus *Crotalaria* is also recommended to fend off pests and diseases. Although cassia is seen as not yielding benefits until the full maturity of the tree for timber, it can be used as a support for pepper, which is a vine. UN-REDD. “Addressing Smallholder Resilience in Coffee Production in the Central Highlands, Viet Nam: The Business Case for Intercropped Coffee Production,” April 2020; Agergaard et al., “Global-Local Interactions: Socioeconomic and Spatial Dynamics in Vietnam’s Coffee Frontier.” 2009; BASIC Interviews with Vietnam coffee sector experts, 3 March 2023, 4 May 2023 and 5 May 2023.

¹⁷ UN-REDD 2020, op. cit.

¹⁸ Depending on how quickly the transition is made and on which crops are chosen for intercropping, the break-even point is a minimum of 6 years and can reach 14 years for coffee/cassia. UN-REDD 2020, op. cit., p. 14. As to benefits, intercropping can improve soil structure and moisture retention, promote biodiversity, and provide shade to coffee trees. This may provide economic benefits by reducing farmers’ dependence on fertilizer and irrigation, and it makes farms more climate resilient. UN-REDD 2020, op. cit. and Alliance Bioversity International - CIAT. “Toward a Sustainable Coffee Future in Vietnam’s Central Highlands,” 29 January 2021.

¹⁹ UN-REDD 2020, op. cit.

²⁰ In 2019, ICO reported that about half of the coffee trees in Vietnam are at their most productive (between 10 and 15 years old). However, for the remainder “nearly 30% of coffee trees are between 15 to 20 years old and about 20% are more than 20 years old.” Their output will decrease season by season; replacing them is costly and time-consuming (ICO 2019, op. cit.). Further, existing government replanting programmes have come under criticism for targeting inappropriate areas and abandoning farmers who have too little capital to apply for credit. ICO 2019, op. cit. and Hung Anh et al., “Smallholders’ Preferences for Different Contract Farming Models: Empirical Evidence from Sustainable Certified Coffee Production in Vietnam,” 2019.

²¹ World Bank 2005, cited in Mai et al., “Testing Vertical Price Transmission for Vietnam’s Robusta Coffee.” 2018; Lee, “Coffee Middlemen in Dak Lak, Vietnam: A Key Stakeholder of Coffee Value Chain as an Intermediary of Changes in Local Economies.” 2013; Hivos 2021, op. cit.; World Bank and IPSARD 2011, op. cit.

²² During the period 1991–2003, “coffee growers in Vietnam, on average, received only 62 per cent of the export price (and falling as low as 31 per cent in 2003).” Mai et al. 2018, op. cit.

thing left to do for the exporter is polishing, removing final defects, and grading.²³

Focus on: Middlemen in Vietnam

Middlemen play a critical role in the coffee value chain in Vietnam. Either self-employed, salaried by an exporter, or working for a state-owned farm/exporter, a network of 2,000²⁴ to 3,000²⁵ middlemen-collectors visit villages and collect what coffee there is to buy. Middlemen come in different sizes, and smaller ones sometimes resell to larger ones.²⁶ Respondents to a survey on coffee in Vietnam (among other countries) conducted in 2019 showed that virtually all producers (>95%) said they only sell to middlemen, as opposed to other intermediaries.²⁷ In addition, international companies in Vietnam are by law prevented from buying directly from farmers. This is one of the main reasons why middlemen play such a crucial role.

These middlemen are also involved in the production side of the equation, as they provide inputs to up to 75% of the farmers they deal with, alongside access to finance and storage of coffee until sold.²⁸ Most middlemen buy already hulled green coffee.^{29,30} Several interviewees stated that middlemen are essential to their business, as it would be too complicated to deal with individual farmers who have only a few tons to offer each.³¹

Interviewees reported that both middlemen and traders sometimes lack transparency in their practices and they may, for instance, capture and not redistribute the premium for certified or specialty coffee.³²

2. Producers' archetypes

Methodological remarks

In sections 2 and 3 we examine the production costs and income dynamics for different archetypes of farms in Vietnam. It should be underlined that Vietnam, like other countries, has an extraordinary diversity of farm profiles and that modelled figures are just that – our best model to translate a

²³ BASIC interview with Vietnam coffee sector expert, 21 August 2023.

²⁴ World Bank and IPSARD 2011, op. cit.

²⁵ IDH and Enveritas. "An Analysis of the Role of Middlemen in Coffee Supply Chains," 2020.

²⁶ Ibid.

²⁷ Ibid.

²⁸ In Enveritas's 2019/2020 survey (Ibid.), it was found that 72% of middlemen offer inputs and that 75% of farmers purchased inputs from them. In addition, 74% of middlemen were reported to offer loans, but only 11% of farmers took advantage of them (Enveritas. "An Analysis of the Role of Middlemen in Coffee Supply Chains," 2020). Nonetheless, EU-REDD reports that on the informal credit market run by traders and collectors "Many smallholders borrow money to spend in January and repay the loan when they finish harvesting coffee from October to December." EU-REDD 2020, op. cit., p. 26.

²⁹ Some, however, purchase raw cherries and conduct drying in addition to hulling; others pass the baton to small processors who then sell the green coffee to exporters or domestic buyers. Lee 2013, op. cit.

³⁰ BASIC interview with Vietnam coffee sector experts, 21 August 2023 and 3 October 2023.

³¹ BASIC Interview with Vietnam coffee sector experts, 3 October 2023 and 21 August 2023.

³² BASIC Interview with Vietnam coffee sector experts, 3 November 2023 and 1 December 2023.

complex reality. Second, when discussing labour, we clearly distinguish between hired labour and family labour. In Vietnam, for instance, most of our citations concerning labour are for hired labour, which is explicitly stated in the text. Third, we make a distinction between total farm coffee income and net farm coffee income. Total farm coffee income per kilogram is based on the coffee farmgate price obtained from a dedicated database.³³ Net farm coffee income is calculated as total coffee income minus costs of coffee production.

Given the limitations of data that we were able to collect, three farm archetypes were modelled for Vietnam: smallholder farms of less than 2 hectares, small private farms above 2 hectares, and state-owned plantations farmed by smallholders.

Farm profile	Economic model	Economic performance
<p>Smallholder farms</p> <p>Mainly under 2 ha</p> <p>≈90% of private farms (not state-owned farms)</p> <p>INCLUDED IN THE MODEL</p>	<ul style="list-style-type: none"> - Family labour + hired labour for the harvest - Obtain inputs and sometimes credit from middlemen - High use of fertiliser - May use irrigation - Naturals processing – own a hulling machine or rent it³⁴ - Marketing via middlemen - Non-coffee or off-farm income to make ends meet 	<ul style="list-style-type: none"> - Top cost structure elements: fertilizer and labour - Yields: up to 3,750 kg/ha. National average 2,825 kg/ha - Farmgate: 1.23 €/kg (Oct 2020-Sept 2021 average)³⁵
<p>Medium size private farms</p> <p>Mainly 2 to 10 ha</p> <p>≈9% of private farms</p> <p>NOT INCLUDED IN THE MODEL</p>	<ul style="list-style-type: none"> - Family labour + more hired labour for the harvest - Likely obtain inputs from middlemen - High use of fertilizer - May use irrigation - Naturals processing – own a hulling machine & rent it out as a service - Marketing via middlemen 	<ul style="list-style-type: none"> - Top cost structure elements: fertilizer and labour - Farmgate and yield unknown (this model is a minority in statistics)

³³ Farmgate prices are taken into account for the period September 2020 to August 2021, and costs of production from July 2020 to June 2021 (average of 2020 and 2021 costs).

³⁴ According to ICO, wet processing also takes place in Vietnam, but it is rare compared to the dry/naturals processing. ICO 2019, op. cit.

³⁵ The year used for the purpose of this study is October 2020 to September 2021, so as to accommodate the different calendars at which coffee is harvested in the four different countries.

State-owned farms cultivated by smallholders Several hundred hectares each (at a minimum) NOT INCLUDED IN THE MODEL	- Contract farming with smallholders	- Top cost structure elements: fertilizer and labour - Farmgate and yield unknown (this model is a minority in statistics)
	- Family labour + hired labour for the harvest	
	- High use of fertilizer	
	- May use irrigation	
	- Natural processing	
- Vertical integration with state-owned stakeholders for processing and export		

Table 1. Overview of the main farming archetypes identified in Vietnam. Source: BASIC, based on bibliography and interviews

Note: While stakeholder interviews and bibliographical review made it possible to identify farmer archetypes based on their economic model, these sources were not specific enough to enable segmenting yield or farmgate price by farm archetype.

Archetype 1 is substantial enough to warrant inclusion in the quantitative model, as it represents nearly 90% of farms in Vietnam³⁶; the second and third archetypes are set aside because they represent relatively smaller fractions of coffee production in Vietnam.

- **Smallholder farms (under 2 hectares).** The number of these farms is estimated at around 640,000 farms.³⁷ They tend to have intensive use of inputs, especially synthetic fertilizer. They rely mainly on family labour, except during harvest time, when hired labour is required, either from the local village or migrant workers. Migrants mainly come from coastal or central Vietnam and carry out the harvest from September to January.³⁸ Most smallholder farmers dry, then hull, their coffee before selling it as green coffee to middlemen/traders. Reliable statistics on off-farm income are hard to come by, and they vary significantly from farm to farm.³⁹ However, research has shown that when coffee prices decrease, migration to urban areas increases, with migrants sending remittances back to their families.⁴⁰
- **Medium sized private farms (about 2 to 10 hectares).** These farms above 2 hectares represent approximately 11% of private coffee farms in Vietnam and 8% of farms in Dak Lak province, the heart of coffee-growing in Vietnam.⁴¹ It is expected that they may be more capital-intensive, deploying irrigation and possessing hulling machines – the latter of which they also rent out to

³⁶ For this number, too (see footnote 14), it is unclear whether total farm size or coffee farm size is meant. See Nguyen and Drakou 2021, op. cit., citing Vietnam General Statistics Office, 2019. Based on the available information, the differences in production cost structure were not sufficient enough to warrant breaking down this category into two smaller ones.

³⁷ ICO, “Country Coffee Profile: Vietnam,” 2019.

³⁸ BASIC Interview with Vietnam coffee sector expert, 4 May 2023.

³⁹ According to a BASIC Interview with a Vietnam coffee sector expert, off-farm income can range from as little as 10% to as much as 90% of net income. BASIC Interview with Vietnam coffee sector expert, 1 December 2023. Another interviewee stated that 30% to 35% of farmers work off-farm. BASIC Interview with Vietnam coffee sector expert, 3 December 2023.

⁴⁰ Narciso, “Crop Prices and the Individual Decision to Migrate,” 2020.

⁴¹ For this number, too (see footnote 14), it is unclear whether total farm size or coffee farm size is meant. See Nguyen and Drakou 2021, op. cit., citing Vietnam General Statistics Office, 2019.

smaller farmers to hull their coffee. These farms rely on hired labour for the harvest as well as plot maintenance for the remainder of the year. They too typically sell their coffee to middlemen.

- **State-owned farms cultivated by contract farmers.** These farms represent a minority phenomenon. Estimates of the size of state-owned plantations stand at around 27,000 hectares to 30,000 hectares, amounting to about 4% of coffee-farmed land.⁴² On these farms, producers are contract farmers: every year, they commit to giving the state-owned enterprise a fixed quantity of coffee.⁴³ State-owned enterprises selling coffee are often vertically integrated, with their own network of buyers/intermediaries, milling facilities, and the capability and the right to export green coffee.⁴⁴

In terms of yields, Vietnam has some of the world's highest productivity per hectare, reaching 2.825 tons/ha in 2021 (47,000 60 kg bags).⁴⁵ However, much land in Vietnam may already be “maxed out” in terms of synthetic fertilizer, and ageing trees threaten to decrease yields. When coffee trees reach their peak productive years, yields can reach 3,750 kg/ha,⁴⁶ and in some regions (Bao Lam, Lam Dong and others) yields reach 7 to 8 tonnes per hectare.⁴⁷ In addition, there is still potential for increasing yield through improved varieties.⁴⁸

To try to obtain a better price for their coffee, some farmers have demonstrated increasing interest in producing high-quality coffee; by introducing higher-cupping varieties,⁴⁹ for instance, or applying “good agricultural practices” and post-harvest techniques. However, this entails changing practices and new costs.⁵⁰

Due to a shortage of labour and time,⁵¹ it is common practice for smallholders in Vietnam to strip their coffee (the entire crop is picked in just one pass), decreasing the value of the crop.⁵² There have been improvements in the past decade in terms of post-harvest infrastructure,⁵³ but this progress is not

⁴² BASIC Interview with Vietnam coffee sector experts, 21 August 2023, and 4 December 2023.

⁴³ BASIC interview with Vietnam coffee sector expert, 21 August 2023. According to one source, contracts can also be multi-year (5 to 6 years on average). Hung Anh et al. 2019, op. cit. Also Lee 2013, op. cit. Note that one interviewee contradicted this report, saying that farmers on state-owned farms are paid as employees (BASIC Interview with Vietnam coffee sector expert, 3 December 2023).

⁴⁴ ICO 2019, op. cit.

⁴⁵ BASIC interview with Vietnam coffee expert, March 3, 2023.

⁴⁶ BASIC Interview with Vietnam coffee sector expert, 6 December 2023.

⁴⁷ BASIC Interview with Vietnam coffee sector expert, 17 January 2024.

⁴⁸ The local research institute (WASI) has released new clonal Robusta varieties that present numerous improvements including increased yield of up to 4 to 6 tons per hectare, thanks to a combination of characteristics. The variety provides good quality beans and also presents suitable size beans, resistance to *Hemileia vastatrix* disease, and an even pattern of ripening; the cherries also reach maturity later in the year, which is better from the standpoint of irrigation, harvesting and drying. Hung Anh et al. 2019, op. cit.

⁴⁹ ICO 2019, op. cit.

⁵⁰ Higher-quality coffee requires substantial effort by farmers – switching to higher-grade varieties and replanting; better pruning/canopy management techniques; improved harvest and post-harvest processing methods; investments in fermenting, washing, and drying infrastructure; targeted use of composts or biofertilizers over chemicals; and building internal quality sampling and control capacity.

⁵¹ One interviewee stated that on average there is a 40% labour shortage, which leads to stripping. BASIC Interview with Vietnam coffee sector expert, 3 October 2023. Also BASIC Interview with Vietnam coffee sector expert, 3 December 2023.

⁵² ICO 2019, op. cit.

⁵³ BASIC Interview with Vietnam coffee sector expert, 5 February 2024.

uniform.⁵⁴ Where progress has not been made, this has a negative impact on potential farm net income.

3. Results of the model

In 2021, Germany was the top destination for Vietnamese coffee exports, accounting for about 17% of the value of exports.⁵⁵ Germany was labelled the fastest growing market for Vietnamese coffee exports between 2020 and 2021 according to Vietnamese interviewees. This trend is coherent with information gathered through interviews with German industrial stakeholders, according to whom coffee products sold to German consumers had an increasing share of Vietnamese Robusta.

Within the scope of this study, Vietnamese Robusta is present in each blend sold to German consumers,⁵⁶ as it is the sole Robusta origin within the selected four producing countries. There is no Vietnamese Robusta single origin product currently modelled in the study.⁵⁷ While Comtrade data indicates that Vietnam accounted for 19% of German green coffee imports in 2021, IRI data suggests that all Vietnamese coffee is sold without any mention of origin in German supermarkets. We estimate that it is most often blended with a certain amount of Arabica to adjust for taste and strength.

3.1. Farm level

This section presents the results of the quantitative model of the distribution of costs and net farm coffee income in the Vietnamese coffee chain, at the farm level.

One important point needs to be underlined at this stage. The data we could obtain for labour costs exclusively relates to hired labour. This means that family labour is not included in the labour cost category in our model, which only takes into account salaried work. Moreover, coffee farmers of the archetype included in the model are self-employed. The cost of production in this model does not capture family labour which is paid according to the net income generated by the coffee.

Figure 2 shows the breakdown of costs to farmers at the coffee cultivation stage per kilogram of green coffee equivalent, in euros, for smallholder farms of archetype 1 (the only archetype included in the model).

⁵⁴ There are still reports of post-harvest infrastructure being inadequate for producing high-quality coffee. Specifically, the criticism is that harvested coffee is mainly dried in the yard, but in many cases “the area for the drying yard is not adequate, leading to the coffee being dried too thickly or piled up, not ensuring the drying and preliminary processing of coffee within 24 hours after harvest.” Thăng 2022, op. cit.

⁵⁵ UN Comtrade database.

⁵⁶ Typical blend modelled for this study is 60% Arabica and 40% Robusta (see more details in research report).

⁵⁷ Circana did not gather data in Germany 2021 on Vietnamese Robusta single origin. Potentially, there are coffee products sold in Germany which are 100% Vietnamese Robusta but if they are not labelled as such, the data is not gathered by Circana and therefore it cannot be modelled in the study.

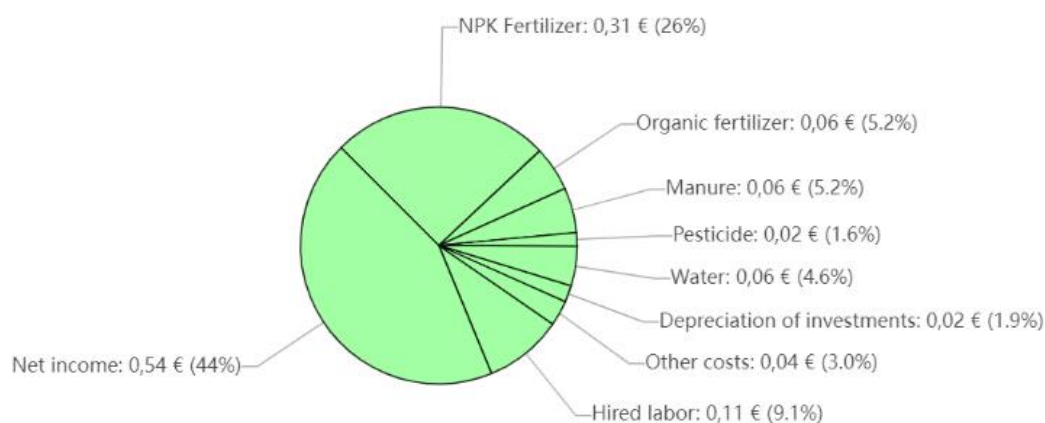


Figure 2. Main costs of production and income for a smallholder farm in Vietnam in 2021. Source: BASIC, based on Hung Anh et al. 2019⁵⁸

The total value of the pie chart corresponds to the total farmer gross income. Some of this total gross income makes it possible to cover the costs of producing coffee, which are detailed individually (including hired labour, but excluding family labour); the remainder is net income (= total gross income minus costs).

The single most expensive cost to Vietnamese farmers is synthetic fertilizer.⁵⁹ In 2019, NPK fertilizer cost amounted to 0.31 euros/kg,⁶⁰ i.e. 26% of sales/farmgate price. Over the years, the cost of fertilizer has increased significantly.⁶¹ In spite of this, its use has been found to exceed the amounts recommended by local authorities and research institutes by 30% to 50%.⁶² Current application practices are such that the crop takes up only one-third to one-half of fertilizer nutrients, while the rest leaches into the environment.⁶³ As to other synthetic inputs, relatively little is spent on pesticides. Nonetheless, a study in the heart of the Central Highlands (Dak Lak province) found that “there were still over 60% of coffee farmers in the province using pesticides for the entire farm even if pests or diseases only occur in a small production area.”⁶⁴

The second highest cost to Vietnamese farmers is hired labour. Hired labour costs approximately 0.11 euros/kg; that is, 9.1% of sales/farmgate price.⁶⁵ The value is high as there is a shortage of labour, due to rural-to-urban migration and lack of interest in the difficult work of coffee picking.⁶⁶ One

⁵⁸ Hung Anh et al. 2019, op. cit., p. 9.

⁵⁹ Ibid. It should be noted that according to research conducted by one interviewed organization, labour is the single largest cost, at 50 to 53%, while fertilizer comes in second, at 33 to 36% of total costs. Interview with Vietnam coffee sector experts, 5 February 2024.

⁶⁰ Hung Anh et al. 2019, op. cit. It should be noted that while Hung Anh et al. refer to synthetic fertilizer as NPK fertilizer, this is shorthand for different synthetic fertilizers. The actual fertilization regime on coffee uses a variety of non-organic substances, including lime, urea, calcium phosphate (the P component of NPK), and KCL (the K component of NPK). UN-REDD 2020, op. cit., p. 32.

⁶¹ The international price of DAP fertilizer has increased 68% since 2017. This was taken as the indicator because DAP fertilizer is the most commonly applied to coffee trees in terms of weight, and because its price tracks closely with that of other fertilizers, notably urea (the N component in NPK fertilizer). The World Bank’s Fertilizer Price Index has increased by 60% in the last ten years, with a peak in April 2022 at 293% of the end-2013 price (see YCharts (paywall), <http://tinyurl.com/yw8vvh7n>).

⁶² IDH and True Price, “The True Price of Coffee from Vietnam,” March 2016.

⁶³ UN-REDD 2020, op. cit.

⁶⁴ Hung Anh et al. 2019, op. cit.

⁶⁵ Ibid.

⁶⁶ BASIC Interview with Vietnam coffee sector experts, 3 November 2023 and 3 December 2023. According to the second source, some farms report high levels of absenteeism, which delays operations and jeopardizes the harvest.

interviewee reported that some farms have started to invest in mechanization to compensate for lack of labour, but this development is still in its infancy.⁶⁷ Finally, a small proportion of Vietnamese farmers who work in forested areas (not included in the model) pay rent on their land.⁶⁸

Once all the production expenses – including fertilizers, pesticides, hired labour, etc. – are covered, all that remains is the net income. As it stands, **net income** of the Vietnamese family coffee farms included in the model is the amount of money left for them to remunerate the work of the farmer who is self-employed and the work of his/her family members but also to invest on the farm, to face contingencies and emergencies, etc. Beyond these costs borne by coffee farmers' families, the information collected in this study did not allow any estimate of “net profits” at the level of Vietnamese coffee farmers, in large part because of their self-employed structure. Therefore, the available data did not make it possible to come up with any estimate of “net profits” for the archetypes of Vietnamese coffee farms included in the model. This contrasts with the model of business actors situated downstream in the coffee chain for which all labour is salaried, and that generate net profits (after all costs have been paid) which are documented in their annual published accounts.

3.2. Collection and export level

Estimating the costs of doing business at the collection and export level is challenging, for many reasons. First, the road from farmgate to FOB is incredibly diverse both within countries and across countries. Stakeholders on this rung of the value chain can include small private independent traders, medium-sized independent traders, traders working for international exporters, state farms, international companies, etc. In practice, all these actors have different business models and costs, making it difficult to build a single estimate of costs at this stage of the chain (in this case, the Collection and export stage of the model). Furthermore, data on this subject is virtually non-existent in the public domain. To our knowledge, there are no official statistical databases on exporter costs, taxes, and net profit margins – only isolated information in academic papers, “grey” literature, or the websites of parastatal agencies that regulate, survey, or are otherwise associated with the coffee sector. Finally, being an exporter or an importer is all about taking risks and managing uncertainties. Our understanding from interviews is that the core of the work done by exporters and importers is to foresee the high volatility of the coffee market, make stocks, lose money on sales sometimes and make money at other times, trying to equate profits of sales with the costs of borrowing capital. In our understanding, only a national statistical agency with the power to hold confidential and exhaustive business data could make a statement on profit levels and taxes of coffee exporters.

For Vietnam, we were able to identify costs, but not taxes or net profit margins for exporters. The total value-add at the export stage is 0.09 euros/kg for the 2020/21 season, and this represents the cost of transport and other costs incurred by traders and exporters. The value is low because Vietnam is known to have very high levels of FOB capture (94% in our estimate for the 2020/21 harvest; it has been both higher and lower at various times in recent years).⁶⁹

⁶⁷ Ibid.

⁶⁸ BASIC Interview with Vietnam coffee sector experts, 5 February 2024.

⁶⁹ The maximum difference between years is in the order of about 10 percentage points.

At the exporter level, the value of the main additional costs are as per Figure 1 below. The 94% represents the estimated FOB capture over the period. Apart from transport, the main other costs are middlemen’s cut, storage, cleaning, grading, and other fees and risk management. We were unable to establish whether Vietnamese middlemen/exporters make a significant net profit margin or pay taxes, so taxes and net profit margins do not appear in the pie chart.

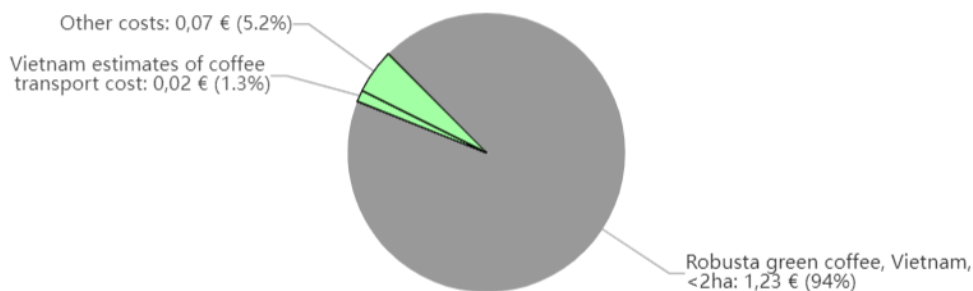


Figure 1. Main production costs for an exporter of coffee from Vietnam in 2021.
Source: BASIC, based on interviews with Vietnam coffee stakeholders (2023)

3.3. Certifications

An estimated 25% to 30% of the coffee cultivated in Vietnam is certified under various sustainability standards.⁷⁰ Alongside 4C and Fairtrade, the Rainforest Alliance certification is well established in Vietnam. There is evidence in the academic and grey literature of a positive impact of certifications on farmer welfare, in terms of yields,⁷¹ prices,⁷² net profit margins,⁷³ and net income.⁷⁴

Nonetheless, there are criticisms of some certification schemes: the key ones are that most producers cannot afford the certification process, that premiums are too low and fail to offset increased production costs, and that the hired labourer’s wage is not taken into account.⁷⁵ Reportedly, volumes of certified coffee in Vietnam *overall* have decreased in the last ten years (in individual regions, they may have increased).⁷⁶

⁷⁰ The exact share of Rainforest Alliance coffee, which is found on the German market, is unknown; cf. BASIC Interview with Vietnam coffee sector expert, 1 December 2023.

⁷¹ According to one study of certified coffee, producers with sustainable certifications have significantly higher yields: 3.2 tonnes for certified producers versus 2.9 tonnes for non-certified producers. Hung Anh et al. 2019, op. cit.

⁷² Hung Anh et al. 2019 (Ibid.) found that certified farmers earned a price that was significantly higher than the price received by non-certified farmers (34.82 thousand VNDs/kg vs. 33.14 thousand VNDs/kg).

⁷³ “Certified farms are on average 13% more profitable than conventional farms, with a yearly profit of € 1,695/ha vs. €1,472/ha.” IDH and True Price, “The True Price of Coffee from Vietnam,” March 2016.

⁷⁴ Reportedly, certified farms have a higher net income than conventional farms (€2,800 vs. €2,380 per family respectively). They also make a higher net income per hectare.

⁷⁵ EU REDD Facility, “Reducing the bitterness of coffee from Vietnam’s Central Highlands,” 20 June 2022.

⁷⁶ BASIC Interviews with Vietnam coffee sector experts, 1 December 2023, 3 December 2023, 3 October 2023, and 27 February 2023.

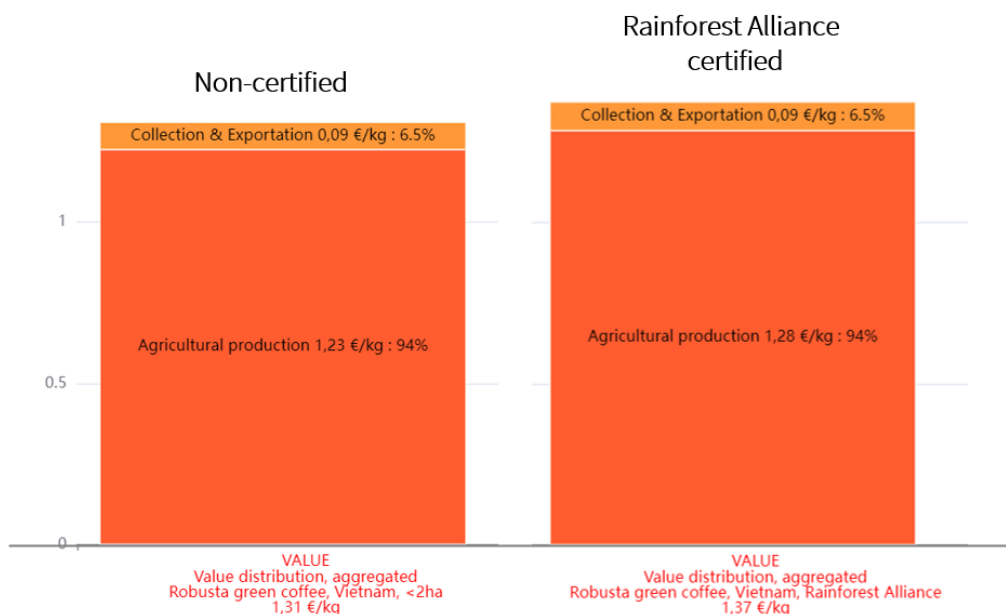


Figure 2. Distribution of value for non-certified (left) and Rainforest Alliance certified (right) coffee sourced from Vietnam, for farmers (in red) and collectors and exporters (orange).

Source: BASIC, based on bibliography and interviews (2023)

Figure 2 shows the distribution of value for non-certified (left) and for Rainforest Alliance-certified (right) coffee exported from Vietnam. The FOB value for Rainforest Alliance certified coffee stands at 1.37 euros/kg, approximately 0.06 euros/kg higher than conventional coffee, and the difference in price is picked up mostly by the farmer (achieving a 1.28 euros/kg farmgate price as against 1.23 euros/kg for conventional coffee). In German supermarkets, most Rainforest Alliance product references are blends, and it is estimated that a fair proportion of the blend comes from Vietnam (around 40%).

Regarding the Fairtrade certification, while it is present in Vietnam, it was not included in the model because it is estimated that there is no or almost no Fairtrade coffee from Vietnam sold in supermarkets in Germany. This conclusion is based on the observation that, to the best of our knowledge based on available data, all Fairtrade coffee in German supermarkets is single-origin coffee, but Vietnam is not one of the countries for which there is single-origin Fairtrade coffee in German supermarkets. Indeed, Circana data indicates that less than 3% of Fairtrade sales are blends (with potentially Vietnamese coffee in the blend), the rest being single origin from other countries (Brazil, Colombia, Peru, Honduras, or others). We conclude that if Fairtrade Vietnam coffee in fact reaches the German consumer, it must be through channels other than supermarkets.

4. Comparison between net income and costs of decent living

For Vietnam, we unfortunately have not been able to compare the net actual income generated by the coffee farms included in the model to the costs of decent living of Vietnamese coffee growers' households. This is because, while estimates of a cost of decent living for rural regions of Vietnam are available,⁷⁷ we have not found hard data on the proportion of the income from coffee to reach the living income threshold. Therefore, it is not possible to compare the net income from coffee farming calculated in the model to the share of costs of decent living covered by coffee farming.

⁷⁷ Global Living Wage Coalition, "Living Wage Update: March 2020 Rural Vietnam," March 2020. https://www.globallivingwage.org/wp-content/uploads/2018/04/Update-Report_Rural-Vietnam_2020-FINAL.pdf.