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Coffee and the agrarian questions in Laos and Rwanda: Taking a bottom-up perspective

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ABSTRACT

This study systematically explores the agrarian questions of capital, labor and gender in the fast-growing postconflict economies of Laos and Rwanda. In both countries, export-led agricultural intensification is reshaping rural livelihoods. The article uses mixed methods fieldwork to re-think the agrarian questions from the ground up. It discusses the methodological implications of taking such a bottom-up perspective and provides tools for operationalization. The empirical application then traces the effects and manifestations of capitalist development in the political economies and everyday lives of people in the coffee heartlands of Laos (the Bolaven Plateau) and Rwanda (Nyamasheke district). To this end, local accumulation strategies as well as changing rural labor relations and their implications for women and female-headed households are explored using comparative survey and qualitative interview data. The findings reveal mounting land pressures, widespread commodification of subsistence and growing social differentiation, although to a lesser extent in Laos. There, petty commodity producers increasingly expand by multiplication while in Rwanda many are subject to a reproduction squeeze that forces them into classes of labor characterized by precarious wage employment. Finally, women continue to face multiple barriers to accumulation, particularly in Rwanda where land access is often mediated through male family members in practice, women's agricultural wages are systematically lower and female-headed households remain especially vulnerable. The article concludes that the agrarian questions are neither dead nor resolved but need to be re-thought to address the pressing challenges of late development.

1. Introduction

Subject to capitalist pressures, globalized value chains, political reconfigurations and global warning, agrarian change is as relevant as ever. At the most general level, understanding the nature of this change and its socio-economic, political and ecological implications is the fundamental objective of the agrarian question(s) that originated in the Marxist school at the turn of the 19th century (see Akram-Lodhi and Kay, 2010a; 2010b, for an overview).

This article uses primary mixed methods data and takes coffee production as an illustrative example to study localized agrarian change under export-led agricultural intensification. At the methodological level, it outlines pathways to operationalize the agrarian questions of capital, labor and gender for a necessarily limited fieldwork space and to historically contextualize the view from the ground up in contemporary lower-income economies. It therefore responds to Bernstein's (2016, p. 67) query how 'agrarian change in conditions of incomplete transition [is to be] characterised and investigated' and tries to overcome the gap between theoretical conceptualization and fieldwork practice (Illien and Pérez Niño, 2024).

At the empirical level, the study scrutinizes the agrarian questions in two fast-growing, agrarian-based 'least developed countries' (UNCTAD, 2022) by taking a bottom-up perspective in their main coffee-producing regions – the Bolaven Plateau in southern Laos and Nyamasheke district in western Rwanda. It traces the recent evolution of coffee production and discusses the implications of differently organized local value chains – marked by large-scale plantations in Laos and a (now abolished) zoning policy favoring domestic processors in Rwanda. Field data from the coffee heartlands then show how land, labor and gender relations are reshaped at the local level. They reveal rising land pressures and a strong commodification of rural livelihoods that result in social differentiation, particularly in Rwanda where many households struggle to reproduce themselves. Labor relations are key to understanding these processes and the article explicates the functions and power relations underlying

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the diverse labor arrangements encountered at the research sites. Finally, the empirical analysis examines how gendered barriers work in practice to limit land access and employment opportunities for women despite largely equal rights in theory. It pays particular attention to the situation of female-headed households and gives voice to the stories of widowed women in Rwanda.

The article is organized as follows: the first section outlines the methodological implications of taking a bottom-up perspective and details the comparative mixed methods design before operationalizing the agrarian questions of capital, labor and gender for field-based research. After a brief overview of coffee production in Laos and Rwanda, the remainder of the text is then devoted to an empirical investigation of changing rural livelihoods in light of the agrarian questions before concluding with policy implications and thoughts for further research.

2. Research design

2.1. Background

The agrarian questions are concerned with long-term processes such as the development of capitalism and associated structural change (see section 2.5). They are therefore intricately connected to questions of development and industrialization. This makes lower-income countries with fast-growing agrarian-based economies interesting case studies, especially when they are linked to global circuits of capital through high-value agricultural exports. Yet, marked by globalization, contemporary agrarian change unfolds in a very different environment than in the past, raising doubts about the relevance of the agrarian questions today.

Laos and Rwanda therefore provide two pertinent case studies: they are land-locked, agriculture-based 'least developed countries' (UNCTAD, 2022) with rapid and sustained GDP per capita growth rates – averaging close to 5 percent across the last two decades (World Bank, 2023). Both countries emerged from violent civil wars, which culminated in the 1994 genocide in Rwanda. Despite far-reaching post-war transformations, the majority of employment is still in agriculture (World Bank, 2023). Coffee production has been intimately tied to the recent history of Laos and Rwanda and is culturally as well as economically significant. The respective coffee heartlands thus provide a useful entry point to study contemporary agrarian change in fast-growing lower-income economies.

The comparative approach followed here is instructive because it explores the effects of a key policy prescription – export agriculture – in two development 'success stories' with vastly different historical trajectories, demographic characteristics and ideological orientations (centered around socialism in Laos, see Yamada, 2018, and a combination of neoliberalism and state-led developmentalism in Rwanda, see Ansoms et al., 2022; Behuria, 2018). This begs the question what the implications of export agriculture in high-growth economies are in different rural areas, and the agrarian questions provide a framework to answer that.

2.2. Conceptualizing a bottom-up approach

This article proposes a bottom-up perspective that breaks down specific agrarian questions into key elements that can be operationalized for field-based research with the goal of rendering lived experiences visible, locating them in their socio-economic configuration and engaging in empirically based policy dialogue. For this task, agrarian questions can both serve as guiding research questions and as an interpretative framework to study local agrarian formations (in this case the coffee heartlands). functionalist tendencies in agrarian political economy, although relatively rare, neglected agency and belittled the importance of peasant production in the past (see da Corta, 2010; O'Laughlin, 2002). On the other hand, even Bernstein's (1996, p. 46) thesis of the 'death of the agrarian question' suffers from world system determinism as agrarian transitions are ruled out on theoretical grounds in the era of globalization (Byres, 2016). Instead, the starting point of the bottom-up approach outlined here is that

the outcome cannot be read off from theory. The situation, then, is 'open'. Resolution of the agrarian question is *possible*, but not inevitable. To establish whether it is proceeding, careful empirical investigation, within an appropriate theoretical framework, is necessary (Byres, 2016, p. 448, italics in original).

In order to do this, our approach draws on critical agrarian studies and agrarian political economy (see Akram-Lodhi et al., 2021; Bernstein, 2015). It is interdisciplinary in nature and based on a critical realist ontology and epistemology that is interested in the structures and mechanisms underlying open and contingent social systems (Buch-Hansen and Nielsen, 2020).¹ This brings several advantages: it renders local voices visible and accounts for agency, context and contingency while at the same time allowing us to link local manifestations to larger patterns at the macro level. In doing so, our approach remains theoretically informed and places the onus of analysis on the researcher. Moreover, it encourages us to tease out aspects that may not be directly visible and are only expressed indirectly.

Such a view from the ground up has several methodological implications.² First, careful operationalization is needed to make the jump from abstract concepts to empirical observations and vice versa since 'fact-finding without theory ha[s] no direction, [and] theory without fact-finding has no solidity' (Joshi, 1981, p. 456). Operationalization thus reminds us not to abandon our theoretical lens and helps us to not get lost in the jungle of empirical complexity. This facilitates the iterative process of deduction and induction underlying political economy and also enables comparative analysis. Second, the use of mixed methods is advantageous to produce locally representative data (through quantitative methods) and to achieve depth and reveal (power) relations that are only indirectly observable (through qualitative methods). Indeed, Akram-Lodhi (2021a) notes that in critical agrarian studies quantitative evidence is often used to describe a circumstance or process (what is happening?), whereas qualitative evidence tends to be used for explanatory purposes (why is it happening?). Different methods are thus employed for different purposes, but importantly, must be integrated with each other. Third, the inclusion of various economic activities and actors, for example of capital and labor, women and men, companies and, in our case, coffee and non-coffee farmers, is important as agrarian questions require a holistic and relational perspective. While it is useful to describe the key characteristics of a social formation, it is equally important to reveal its diversity. This requires the researcher to 'leave the road' and speak with minority or hard-to-reach respondents (especially the most and the least powerful). A view from the ground up must be interested in lived experiences and diverse local manifestations of larger developments. Fourth, field-based studies are necessarily selective and illustrative, and it is therefore indispensable to insert the findings at the micro scale into meso and macro dynamics. This is a key tenet of critical agrarian studies and requires an embedment in the historic, political and economic context as well as global processes, i.e. it urges us to find connections beyond the local (Akram-Lodhi et al., 2021;

Such an approach stands in contrast to neoclassical economics with its universal and ahistorical deductive reasoning based on methodological individualism (Deane and Van Waeyenberge, 2020; Fine, 2016). It also contrasts with some Marxist readings. On the one hand,

¹ The use of critical realism in agrarian studies is not new, see da Corta (2010) and, for a field-based application, Mtero et al. (2021).

² For a related methodological discussion of field-based agrarian research see Illien and Pérez Niño (2024). Similarly, Mtero et al. (2021) offer case studies that sketch possible ways to implement Marx's movement from the concrete to the abstract and back again in agrarian studies.

Scoones, 2015). The exploration of temporal and spatial aspects (such as migration and mobility) in life histories and village timelines, for example, is thus a valuable complement to the use of secondary literature.

2.3. Sampling and data collection

This article builds on eight months of primary, mixed methods field research in the main coffee-producing regions of Laos, the Bolaven Plateau, and Rwanda, Nyamasheke district (see Fig. 1 and Illien, 2022, for a detailed description). Following the bottom-up approach outlined in section 2.2, this study consists of a quantitative and a complementary qualitative research strand. Both strands are integrated with each other through a mixed methods sampling procedure as outlined in Fig. 2 (see also Teddlie and Yu, 2007).³ In Laos, we purposively selected six Bolaven villages (with and without road access; with and without large-scale concession areas; with different ethnic groups and administrative districts). In Rwanda, we purposively chose four sectors of Nyamasheke district (main coffee-producing areas as well as areas for which detailed secondary data were available to allow for comparisons across time) and then selected two villages per sector using systematic random sampling.

The quantitative strand consists of a comparative household survey undertaken by enumerator teams using hand-held tablets (n = 714 in Laos, implemented between late March and early May 2018; n = 233 in Rwanda, implemented between October and November 2018).⁴ In contrast to a producer survey (e.g. Clay et al., 2018, in Rwanda), we used systematic random sampling at the village level to ensure the representative coverage of both coffee and non-coffee growers and, indeed, landless households. The surveys included two parts. Part 1 contained the household module and questions about individual household members and their activities, paying particular attention to labor relations in all their forms, whether unpaid, paid in kind or paid in cash. It was answered by a person knowledgeable about the household (typically the household head(s), together or alone, depending on who was around). Part 2 was administrated separately to the two household heads, typically husband and wife, if they were available, and contained individual questions about decision-making power, time use, and nutrition, among other things.⁵

In a sub-set of the surveyed villages, purposively chosen to capture a diverse range of key socio-ecological profiles, I conducted several months of in-depth qualitative fieldwork together with my research assistants. The heart of this research strand are semi-structured interviews with village ('target') households that were selected through purposive stratified sampling (Robinson, 2014) according to three criteria based on survey data: village, household headship (co-headed/female-headed only) and landownership (land-rich/land-poor). Additional interviews were undertaken with a large range of actors including plantation and coffee washing station (CWS) managers and local authorities as well as with plantation workers in Laos. Moreover, we conducted life histories with widowed, divorced, or separated women to reconstruct their 'productive biographies' (on the notion of 'productive biographies' see Illien and Pérez Niño, 2024). The interview questions were adapted to each respondent type but generally revolved around coffee production, poverty, work and property relations. In addition to these interviews, the qualitative strand also includes ethnographic methods such as fieldnotes, photography and observation.

This helped build trust with the community, created the opportunity for countless insightful informal exchanges and drew attention to new aspects that would have otherwise evaded us. Finally, we also conducted focus group discussions in Laos based on participatory rural appraisal (PRA) tools such as village timelines (Chambers, 1994, 2015). This resulted in lively discussions about the impact of key processes, particularly the arrival of large-scale plantation companies. The qualitative strand is absolutely crucial for the bottom-up approach outlined above: by making sure to interview people at different ends of a relationship (e. g. employer/employee) it enabled a relational perspective; by asking about experiences, resistance, agency and barriers it provided insight into power relations that may not be visible and sometimes only manifest themselves indirectly; and finally, by asking questions across time, re-visiting some respondents multiple times, and by conducting life histories (and, in Laos, also village timelines), it offered a temporal dimension far beyond what is possible through a cross-sectional survey (see also Illien and Pérez Niño, 2024).

2.4. Data analysis

The survey data of both countries were systematically cleaned to reduce errors and create comparable variables. Using weights to account for complex survey design, this article employs inferential statistics to draw conclusions not just about the surveyed households but about all households in the sampled villages (the reference population): 1873 households in Laos and 1038 in Rwanda. All statistical analysis was undertaken in Stata 18.0. For the qualitative analysis, the operationalization of the agrarian questions (see 2.5) provided the basis for developing a unique coding frame that was applied across 39 semi-structured interviews and 2 life histories in Laos and 40 semi-structured interviews and 3 life histories in Rwanda using MAXQDA 2022 (see appendix A). Coding categories are deliberately large for two reasons: first, to capture meaning in its context and to discern underlying power relations and, second, to allow for comparisons between Laos and Rwanda as well as between different types of respondents. The results of the quantitative and qualitative analysis were then combined as outlined in Table 1 (section 2.5) and interpreted in light of additional secondary sources and key concepts from agrarian political economy to address the agrarian questions.

2.5. Operationalizing agrarian questions

This section defines and operationalizes the agrarian questions of capital, labor and gender for the empirical application below.⁶ The classic agrarian question, which Bernstein (2006) refers to as the agrarian question of capital, 'may be [broadly] defined as the continuing existence in the countryside of a poor country of substantive obstacles to an unleashing of the forces capable of generating economic development, both inside and outside agriculture' (Byres, 2012, p. 13). It has three main meanings or sub-questions (Byres, 2012). The first relates to production and the development of capitalism, the main concern of Marx, Lenin and Kautsky. Using Byres's (2012, p. 13) language, it can be reformulated as follows: 'to what extent has capitalism developed in the countryside, what forms does it take and what barriers does it encounter?'.7 This question can be operationalized through four elements. First is an investigation of property relations, particularly access to means of production. Second, and related, is an analysis of the extent to which subsistence and the everyday lives of research participants

 $^{^3}$ Extensive information on the sampling procedure and data collection is available in Illien (2022).

⁴ These surveys were part of the FATE (Feminization, Agricultural Transition and Rural Employment) project (see https://www.fate.unibe.ch/). The author co-designed the surveys and led implementation in Rwanda.

⁵ The Rwanda questionnaire and selected interview guides are available in Illien (2022).

⁶ It builds on Bernstein's (2010, p. 22) four questions of political economy (who owns what; who does what; who gets what; what do they do with it) but operationalizes them more concretely for field-based research and in relation to each specific agrarian question.

⁷ Capitalism is understood here as a system of generalized commodity production subject to market imperatives (see Bernstein, 2010; Wood, 2009).

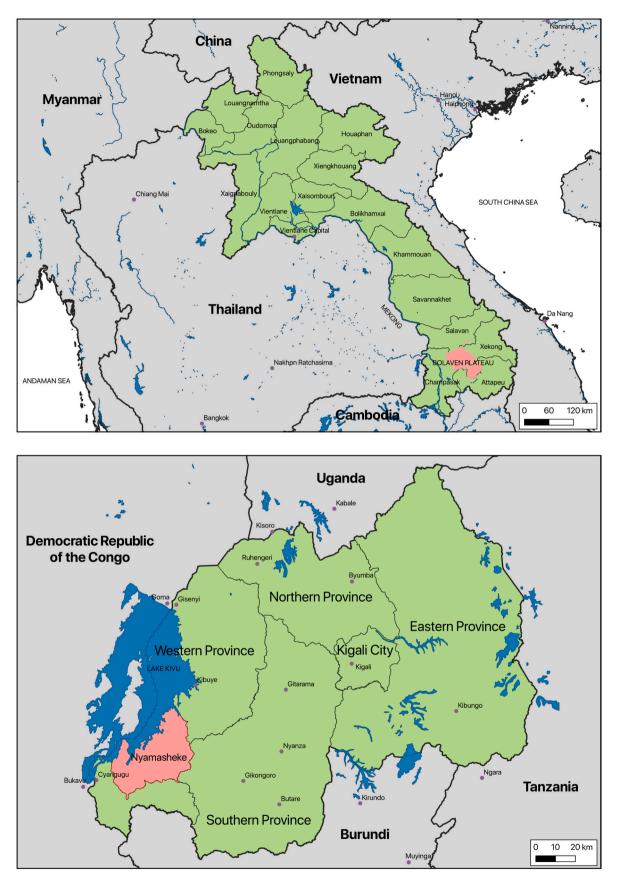


Fig. 1. Locations of the Bolaven Plateau in Laos and of Nyamasheke district in Rwanda. Note: Maps created by author, GIS data from DIVA-GIS (2021) and Natural Earth (2021).

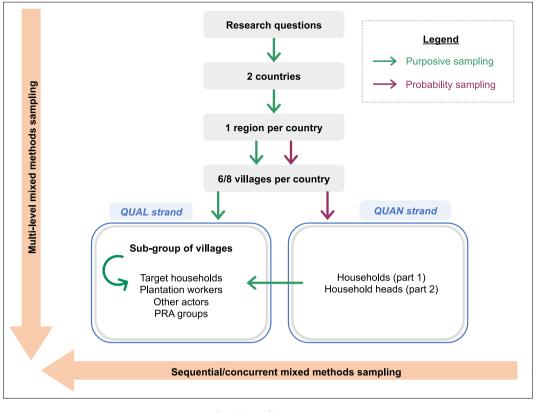


Fig. 2. Sampling strategy.

have become commodified. Here, the extent of market dependencies in relation to production (input and output markets), consumption (markets for food and basic necessities) and labor (see below) as well as the need for non-market cash requirements (e.g. taxes) and levels of indebtedness are pertinent indicators. Third is an assessment of the productive forces including of technology and productivity. Fourth is an examination of the different modes of surplus appropriation within local agricultural systems (Bernstein, 1996; Kitching, 1980), most importantly through exchange (pricing) and production (labor exploitation, treated in the agrarian question of labor below).

The second meaning of the classic agrarian question goes back to Preobrazhensky and asks: 'how can transitions to capitalist agriculture assist in the accumulation of the capital required for industrialization to occur?' (Cousins, 2022, p. 1391). Answering this is beyond the scope of a sectorally or locally limited field-based study and requires a macro perspective. Key indicators would be 'the terms of trade between agriculture and industry ... the development of agricultural demand for industrial products ... the "freeing" of agricultural labour to join the urban proletariat [and] surplus transfer from agriculture to industrial accumulation' (Bernstein, 1996, p. 37). Finally, the third meaning follows Engels and highlights rural politics and collective action: 'what roles do peasant classes and agrarian labour play in struggles for democracy and socialism?' (Cousins, 2022, p. 1391). Here, social and political movements (or their co-optation) and the governance of rural spaces are central. This should also include an investigation of everyday forms of resistance and hidden transcripts. Discursive framings of rural development would be a further avenue to empirically explore this question (see e.g. Huggins, 2017, on the neoliberal government narrative of 'modern farmers' in Rwanda). The present article limits itself to the first sub-question investigating production and the development of capitalism.

In contrast to these classic agrarian questions of capital, Bernstein (2006) proposes a 'new' agrarian question of labor. Although the question of labor is neither new nor detached from the question of capital given their dialectical co-dependence (van der Ploeg, 2008), it nevertheless provides a different focus and offers useful analytical tools. Building on Bernstein (2004, p. 220), it can be reformulated as follows: 'how and to what extent do the often-fragmented classes of labor gain their means of livelihood and reproduction?'. Classes of labor refer to 'the growing numbers ... who now depend - directly and indirectly - on the sale of their labour power for their own daily reproduction' (Panitch et al., 2001: ix, cited in Bernstein, 2010: 110-1, italics by Bernstein). The agrarian question of labor thus urges us to examine processes of social differentiation with a focus on labor relations as they offer a unique window into local class dynamics and how they are experienced. This task can be operationalized by: first, classifying households according to their engagement in labor and output markets (a static snapshot); second, investigating different mechanisms of labor mobilization and their underlying functions, drivers and power relations (a relational approach); and third, asking what the implications for reproduction are, that is whether the scale of consumption (or living standards/poverty) and production is increasing (expanded reproduction), constant (simple reproduction) or decreasing (a simple reproduction squeeze, see Bernstein, 2010) across time. This allows for a concrete engagement with material well-being.

The third agrarian question that will be the focus of this article is the agrarian question of gender or the 'gendered agrarian question' (Akram-Lodhi and Kay, 2009: 26, based on O'Laughlin, 2009, see also

Operationalization of agrarian questions for empirical analysis (sources in text).

Concept	Research Question	Operationalization	Quantitative indicators	Qualitative codes ^a
Agrarian question of capital ^b	To what extent has capitalism developed in the countryside, what forms does it take and what barriers does it encounter? (Simplified version: what is the extent of commodification?)	Property distribution and access to means of production	Lorenz curve and Gini coefficient of land distribution; average land ownership; share of landless households	Land relations; other inputs
	,	Commodification of subsistence	Participation in input, output and labor markets; extent of cash crop production; levels of indebtedness	Commodification of subsistence
		Technology and productivity	Input use; yields; extent of local processing (home-based or in washing stations)	Development of productive forces; value chain structure
		Modes of surplus appropriation	Pricing (labor exploitation is treated in the agrarian question of labor)	Pricing and profitability; value chain structure
Agrarian question of labor	How and to what extent do the often-fragmented classes of labor gain their means of livelihood and reproduction? (Simplified version: what is the extent of social differentiation)	Household stratification	Mueller's simplified household classification (alternatively: Patnaik's labor-exploitation criterion)	N/A
		Functions, drivers and power relations underlying different mechanisms of labor mobilization	N/A	Self-employment; wage employment; sharecropping/ rental arrangements; labor exchange; kuragiza
		Scale of production and consumption	Poverty; land ownership; differences between coffee- growing and non-coffee- growing households	Expanded reproduction; reproduction squeeze
Agrarian question	What are the gender dynamics underlying relations of (re)production and how have they	Extent and terms of access to productive resources	Land distribution; input use	Ownership; intra-household decision-making
of gender	changed with the development of capitalism? (Simplified version: what is the extent of gendered barriers to accumulation?)	Division of labor within and outside the household; entry barriers to different forms of work; working conditions	Time use; labor market participation; wage gap	Labor relations outside household; labor relations within household; intra-household decision-making
		Situation of widowed, divorced or separated women	Differences between co-headed and female-headed only households	Relations with/experience of female-headed only households

Note: The table outlines the empirical strategy followed here but is not exhaustive. Many more indicators and codes can be used, the precise selection depends on the research design, context and available resources. Moreover, this operationalization cannot be applied mechanistically but needs to be embedded historically and theoretically as argued in the main text.

^a The qualitative codes refer to the coding frame displayed in appendix A.

^b This refers to the classic agrarian question in the sense of Marx, Lenin and Kautsky. The classic agrarian questions in the sense of Preobrazhensky (accumulation for industrialization) and Engels (rural politics and collective action) are beyond the scope of this article.

Razavi, 2009). Again, this is neither a new nor a separate issue but pays attention to the gender dynamics, particularly non-commodified work, cutting across the other questions. The agrarian question of gender essentially asks, 'what are the gender dynamics underlying relations of (re)production and how have they changed with the development of capitalism?'. There are many ways in which a bottom-up perspective can approach this question. This text focuses on three entry points. First, in rural Laos and Rwanda land remains the most important means of production, requiring a closer look at the extent to which and the terms on which women can access and own land. Second, labor relations have always been strongly gendered both within and outside the household, notably through divisions of labor and differences in entry barriers and working conditions. Of particular importance is, of course, reproductive (often unpaid care) work. Finally, research has revealed the special position of widowed, divorced or separated women (Oya and Sender, 2009), which is particularly relevant in Rwanda following the genocide which resulted in many female-headed households.

Table 1 clearly maps the operationalization of the three agrarian questions onto empirical data by showing how quantitative indicators and qualitative codes will be used to answer the main research questions. The quantitative data provide a representative but static picture of the sampled villages. Qualitative data will be used to understand relational aspects and to render visible the concrete manifestations of the discussed phenomena in the lived experiences of research participants.

The qualitative strand is therefore integrated with and directly complements the quantitative strand. It is my hope that this detailed operationalization helps remedy the gap between conceptualization and fieldwork practice in agrarian studies (Illien and Pérez Niño, 2024) and provides useful tools for other researchers.

3. Coffee in Laos and Rwanda

Having outlined the research design and operationalization of our three research questions, this section provides a brief background to coffee production in Laos and Rwanda. Coffee is very much a colonial legacy, introduced to Rwanda by German missionaries in 1905 (Kamola, 2007) and around a decade later to Laos by French colonists (Toro, 2012). The early hopes put into export agriculture, along with the physical constraints imposed by the mountainous Rwandan landscape, are probably best captured in the 'myth of origin' as told by Jean-Pierre, an older Rwandan respondent, when asked how he came to be a coffee farmer:

When the whites arrived, they told the farmers who were having big livestock: "Those cows you have, they'll finish. Now this is the cow we're giving you. This cow is the coffee. We're going to give you a cow, which will not fall [off the side of the mountain and die, as sometimes happens]. That cow, you'll own and milk for many years, but that livestock won't help you, no. But the cow which will not fall

Table 2

Land ownership at research sites.

Indicators	Laos	Rwanda	Mean difference and standard error of difference
Average land ownership excluding households with no land ownership (in ha)	3.06 (0.08) (median: 2.5)	0.36 (0.07) (median: 0.06)	-2.70** (0.11)
Households with no land ownership (in %)	2.63 (0.47)	13.94 (2.13)	11.30** (2.18)

Note: Population estimates corrected for complex survey design, standard errors in parentheses.

*p < 0.05, **p < 0.01 based on unpaired *t*-test with unequal variances.

Table 3

Commodification indicators at research sites.

Households hiring workers (in %) 46.21 15.95 -30.26^{**} (2.76) (1.67) (2.19) Households working for others 40.52 52.88 12.36^{**} (3.15) (in %) (1.53) (2.75) Households participated in labor 66.46 64.29 -2.17 (3.28) markets (hiring in or out) in the (1.53) (2.90)	Indicators	Laos	Rwanda	Mean difference and standard error of difference
Households working for others 40.52 52.88 12.36** (3.15) (in %) (1.53) (2.75) Households participated in labor 66.46 64.29 -2.17 (3.28) markets (hiring in or out) in the (1.53) (2.90)	Households hiring workers (in %)	46.21	15.95	-30.26** (2.76)
(in %) (1.53) (2.75) Households participated in labor 66.46 64.29 -2.17 (3.28) markets (hiring in or out) in the (1.53) (2.90)		(1.67)	(2.19)	
Households participated in labor 66.46 64.29 –2.17 (3.28) markets (hiring in or out) in the (1.53) (2.90)	Households working for others	40.52	52.88	12.36** (3.15)
markets (hiring in or out) in the (1.53) (2.90)	(in %)	(1.53)	(2.75)	
	Households participated in labor	66.46	64.29	-2.17 (3.28)
last year (in 94)	markets (hiring in or out) in the	(1.53)	(2.90)	
IAST YEAT (III 70)	last year (in %)			
Farming households sold produce 98.86 72.34 –26.52** (2.77)	Farming households sold produce	98.86	72.34	-26.52** (2.77)
in the last year (in %) (0.27) (2.76)	in the last year (in %)	(0.27)	(2.76)	
Households renting land in (in %) 4.48 20.83 16.35** (2.55)	Households renting land in (in %)	4.48	20.83	16.35** (2.55)
(0.66) (2.47)		(0.66)	(2.47)	
Households renting land out (in 1.94 5.70 3.76** (1.39)	Households renting land out (in	1.94	5.70	3.76** (1.39)
%) (0.43) (1.32)	%)	(0.43)	(1.32)	
Households receiving 9.05 5.58 -3.47* (1.62)	Households receiving	9.05	5.58	-3.47* (1.62)
remittances (in %) (0.91) (1.34)	remittances (in %)	(0.91)	(1.34)	
Households with outstanding 30.80 20.99 -9.82** (2.73)	Households with outstanding	30.80	20.99	-9.82** (2.73)
debt (in %) (1.46) (2.31)	debt (in %)	(1.46)	(2.31)	

Note: Population estimates corrected for complex survey design, standard errors in parentheses.

*p < 0.05, **p < 0.01 based on unpaired *t*-test with unequal variances.

off the mountain and go down into the valley and die: this is the coffee". That's how coffee came here. 8

Since its introduction, the history of coffee in Laos and Rwanda has been closely tied to the respective state-building projects. Particularly in Rwanda, coffee production was closely regulated, encompassing mandatory cultivation under the Belgians (Newbury, 1988) and punishments for inappropriate coffee maintenance under the Habyarimana regime (Verwimp, 2013). The fact that around 300,000 coffee farmers uprooted their trees in the early 1990s speaks volumes about the social and economic crisis the country was in at that time (Newbury and Newbury, 1999). In Laos, the economic opening of the late 1980s and 1990s paved the way for an influx of foreign capital. This was accompanied by the granting of state land concessions to investors, culminating in the 'turning land into capital' policy of 2006 (Kenney-Lazar, 2021). These land deals are characterized by a dominance of foreign investments, a mixed socio-economic record, mediocre investment quality and negative environmental consequences (Hett et al., 2020).

Coffee is the main cash crop at our research sites and almost exclusively produced for sale (Table 4). Over 90 percent of coffee is exported in Laos and Rwanda (Epprecht et al., 2018a; MINAGRI, 2023a), primarily as green bean coffee, but domestic markets and roasting capabilities have been growing steadily (AgriLogic, 2018; UNCTAD, 2020).

Table 4

Production indicators at research sites.

Indicators	Laos	Rwanda	Mean difference and standard error of difference
Households growing coffee (in %)	79.23 (0.69)	47.28 (2.68)	-31.95** (2.77)
Average area of coffee planted per coffee-growing household (in ha)	(0.03) 2.39 (0.07) (median: 2)	(2.03) 0.14 (0.04) (median: 0.03)	-2.25** (0.08)
Average proportion of area of coffee planted to total area used for crop production of coffee- growing household (in %)	87.69 (0.83)	42.53 (2.65)	-45.16** (2.77)
Average coffee production per coffee-growing household (in kg of	12,352 (588) (median:	386.57 (66.25) (median:	-11,965.45** (591.92)
cherries)	(ineulan. 8000)	(ineciali. 107)	
Average yield per coffee- growing household (in t of cherries/ha)	5.3 (0.3) (median: 4.1)	5.4 (0.6) (median: 3.8)	0.1 (0.7)
Average share of coffee sold per coffee-growing household (in %)	98.16 (0.41)	98.37 (1.03)	0.21 (1.11)
Coffee-growing households partially processing their coffee (in %)	66.67 (1.34)	11 (2.93)	-55.66** (3.22)
Coffee-growing households using pesticides or chemical fertilizers (in %)	27.84 (1.56)	69.82 (3.86)	41.99** (4.16)

Note: Population estimates corrected for complex survey design, standard errors in parentheses.

*p < 0.05, **p < 0.01 based on unpaired *t*-test with unequal variances.

There are also several producer cooperatives that process and market their own coffee. While Rwanda's coffee is mostly shipped to Western Europe and the US (NAEB, 2021), over two-thirds of unroasted Lao coffee is sent to Vietnam (World Bank, 2022). There are indications that much of it gets re-exported as Vietnamese coffee (see also Toro, 2012).

In Laos, export volume and value have steadily increased since the economic opening beginning in the mid 1980s, amplified by the rapid arrival of large-scale concession companies (CCs), particularly since the mid-2000s (Fig. 3). Nevertheless, most coffee is still produced by smallholders.⁹ In Rwanda, on the other hand, exports have barely increased and remain far below pre-genocide levels. Indeed, the rise in export earnings has, until recently, been largely due to favorable international prices (see Guariso and Verpoorten, 2018, and Fig. 5 below).

Rwanda produces almost exclusively Arabica, primarily bourbon, coffee (NAEB, 2019). In Laos, Robusta, Arabica (Typica and since the 1990s Catimor) and, to a smaller extent, Liberica varieties are grown (see Galindo and Sallée, 2007). Recently, Arabica has overtaken Robusta production (World Bank, 2022).

The remainder of the text applies the operationalization shown in Table 1 to the agrarian questions of capital, labor, and gender in the coffee heartlands of Laos and Rwanda.

4. Questions of capital

4.1. Ownership and access to means of production

Changes in ownership of the means of production, first and foremost land, are a key indicator of the capitalist penetration of the countryside. Across the last two decades, Laos and Rwanda have implemented wide-

 $^{^{\}rm 8}$ Jean-Pierre, Nyamasheke, December 2018. All names were changed to protect the respondents' identities.

⁹ There are no precise disaggregated data, but it was estimated that 75 percent of the production area is owned by smallholder farmers (Lao National Coffee Council, 2012).

2020

National and international coffee prices

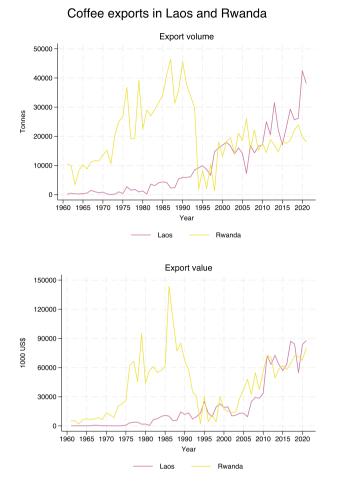


Fig. 3. Evolution of green coffee exports in Laos and Rwanda. Source: FAO (2023). We use export, not production, volume as we suspect the latter to be unreliable (there is a massive discrepancy between production and export volume in Laos in the last ten years, highly unlikely in country where over 90 percent of coffee is exported).

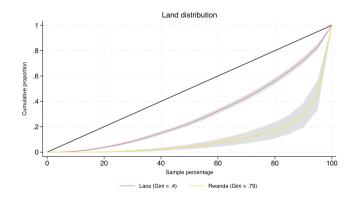


Fig. 4. Land distribution at research sites. Note: Land ownership including households with no land ownership (n = 686 on the Bolaven Plateau; n = 190 in Nyamasheke).

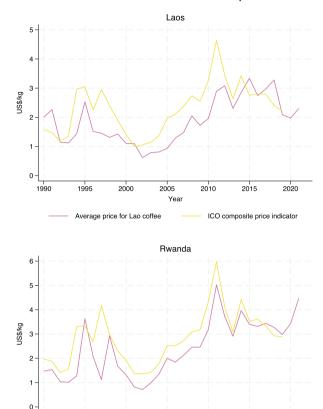


Fig. 5. Evolution of green coffee prices. Sources: FAO (2023) and ICO (2022). Average national prices are approximative and calculated by dividing export value by export volume.

2005

Year

2010

2015

ICO arabica mild price

1990

1995

2000

Average price for Rwandan coffee

ranging land reforms and titling programs that have facilitated the commodification of land. This coincided with growing pressures on land driven both by state-led and private investments as well as by population growth, particularly in Rwanda. The resulting land distribution in Nyamasheke is highly unequal (Fig. 4). Average land ownership is 0.36 ha per land-owning household and 50 percent of households own less than 600 sqm (Table 2), making them marginal farmers at best. As a result, they are pushed into precarious wage labor and unequal share-cropping arrangements. Josephine, a widowed mother of two children, explained that 'she doesn't own [much land]. So, when she is asked to do sharecropping, she says, "I don't think about other things, I just go, because it is not a choice. I don't have to think"¹⁰

On the Bolaven Plateau, land ownership is more equally distributed and significantly larger (although still relatively small), averaging 3.06 ha per land-owning household with a median of 2.5 ha. Nevertheless, large-scale investments in coffee plantations, mining and hydropower projects have displaced smallholders and reduced land availability (Delang et al., 2013; Kenney-Lazar et al., 2023). Farmers had little means to protest the loss of their land as part of state-granted land concessions to (predominantly) foreign investors. When we asked a

¹⁰ Josephine, Nyamasheke, November 2018. Following Edwards (1998), quotes are usually in third person speech to render the important role of research assistants/interpreters explicit.

village leader whether he knew of someone who had objected to giving land to CCs, the answer was no: 'he said it's not something that they can say no to, that they can reject. He said it's been agreed upon by the authorities above and the areas have been designated already. Even though they didn't want to give the land to them, they had to follow'.¹¹ Indeed, villagers had to count themselves lucky if they managed to receive compensation, often considered too low. This is because many had not registered all their land, parts of which they held for free since they cleared it in the 1970s through *chapchong* land tenure (Phommavong and Douangphachanh, 2016). While CCs provide (mostly short-term) employment opportunities, many respondents complained that promises regarding investments for village development were not met and that companies tend to hire labor from outside the village (see also Nanhthavong et al., 2022).

4.2. Commodification of subsistence

Under capitalism, producers are subject to market imperatives (Wood, 2009). This engenders the commodification of subsistence 'through which once largely self-sufficient farmers come to rely increasingly on markets (commodity exchange) for their reproduction' (Bernstein, 2010, p. 65). Three qualifications are in order as this process is often misunderstood. First, commodification of subsistence does not necessarily require land dispossession. Second, interviews showed how market dependencies may, ironically, also be created by non-market cash needs for services (for example schooling) or taxes. Indeed, colonial taxation frequently required cash payments and was an important impetus for commodification in Laos and Rwanda (Newbury, 1988; Stuart-Fox, 1997). Third, and in reverse, commodification does not necessarily require a strong cash economy either: in a context of limited monetization such as Nyamasheke, cash-strapped employers regularly resort to in-kind payments or sharecropping.

This article argues that subsistence has been largely commodified in Nyamasheke and, albeit to a lesser extent, on the Bolaven Plateau. Table 3 shows the high participation rates in labor and output markets. There is also a relative high share of indebted households, particularly in Laos where credit markets have been mushrooming and many coffee farmers take out loans from traders (Toro, 2012). Furthermore, land scarcity and inequality have resulted in frequent land leases in Nyamasheke, especially sharecropping. Finally, the analysis of social differentiation in section 5.1 demonstrates that subsistence farming in the strict sense is negligible.

Two further observations underline that these are systematic features indicative of market *dependency*, not merely sporadic market engagements. First, levels of self-provision are declining in Laos as commodification and land pressures have reduced the availability of non-timber forest products. Vilayphone is a mother of seven and, together with her husband, owns 4 ha of coffee among other pieces of land. When asked how her food situation had changed over the last ten years, she replied that it had worsened: 'Before they could get food form the forest. They would just go into the jungle. ... But now there's no forest, there's no jungle to go to. It has been transformed into a coffee farm and the stream changed to a kind of power station'.¹² Moreover, spillover effects of CCs may restrict access. A couple living in a village affected by CCs also reported that their food situation has deteriorated:

Before they could easily find food from the stream, from the river back there and from the jungle there. But now the companies arrived, they blocked the road, they blocked the way people go to the stream, they blocked the way people go to the river. ... Even worse, the companies sometimes throw the coffee waste into the stream, so people don't want to eat their food from the river. It destroyed the quality of the food that they have. 13

Second, coffee farmers on the Bolaven Plateau are directly marketdependent because they dedicate almost 90 percent of the area used for crop production to coffee (Table 4). The share in Rwanda is significantly lower because landholdings are so much smaller and food production is prioritized. This does not indicate less market dependence but suggests that commodification expresses itself differently in this context, for example through increased land leases (Table 3) or higher levels of casual agricultural wage employment (Table 5). Indeed, by selling their labor power for hard manual labor, workers sell their physical capacity and as such working bodies themselves become commodified. This is evidenced in respondents' testimonies highlighting a direct link between able-bodiedness and employment. Solange is a widowed mother of six and heavily dependent on casual work and sharecropping in Nyamasheke. Once, she worked away for a week:

[As] it was far to come back every day to her house and go back early in the morning, she requested a shelter for everyone. Every evening, she would go and beg for a shelter and sometimes she would sleep without eating and then the next day, since she had no force to work, she would sometimes risk being chased away from her work.¹⁴

The immediate link between health, employment and food security continues to limit her options. She told us that 'she didn't manage to look for a job so that she can provide food for her family, because she's sick and nobody is willing to hire her when she's not in good health'. As a result, 'she's really struggling and can't afford a daily meal'. Older persons face similar obstacles. Jean-Pierre is 73 years old. When he tried to earn some money from the public works (VUP) program in Rwanda, he was told 'Go home, you're old, you can't do anything'.¹⁵ Bad health, older age and food insecurity are thus major barriers to work and perpetuate a vicious cycle of poverty.

4.3. Development of productive forces

Another key concern of the agrarian question of capital is the development of productive forces in the countryside. Table 4 outlines key features of coffee production at the research sites and underlines the significantly larger production scale in Laos.

Cherries are typically processed through one of three ways resulting in either unwashed coffee, semi-washed or fully-washed parchment coffee, which is then hulled by a secondary processor/exporter to obtain green coffee.¹⁶ Unwashed coffee is processed using the dry method whereby beans are sun-dried immediately after the harvest, often by farmers themselves. This method is primarily used for Robusta in Laos but mostly absent in Rwanda. Fully-washed coffee is obtained by using the wet method whereby the coffee is pulped, fermented and washed before being dried. This is the procedure followed for most Arabica in Laos and can be undertaken by individual farmers as well as CCs. In Rwanda, fully-washed coffee is exclusively produced by CWSs (also called wet mills) whereas, in this context, semi-washed coffee refers to the manual depulping and drying undertaken by farmers. Fully-washed coffee is generally of higher quality and the best may be sold as specialty coffee (as opposed to ordinary coffee).

Improved processing technologies provided by large companies and CWS, along with the regulated distribution of fertilizers and pesticides in Rwanda (Gerard et al., 2018, resulting in over two-thirds of coffee-producing households using pesticides or fertilizers, see Table 4),

¹³ Khanthaly and Phouvieng, Bolaven Plateau, February 2020.

¹⁴ Solange, Nyamasheke, March 2019.

¹⁵ Jean-Pierre, Nyamasheke, December 2018.

¹⁶ This paragraph is based on Galindo and Sallée (2007), Guariso et al. (2012), JICA (2014) and UNCTAD (2020).

¹¹ Village head, Bolaven Plateau, May 2018.

¹² Vilayphone, Bolaven Plateau, February 2020.

have undoubtedly improved quality. Nevertheless, it is unclear whether yields have significantly increased.¹⁷ While CCs on flat areas of the Bolaven Plateau try to exploit economies of scale through mechanization, yields have not skyrocketed as many coffee concessions have failed to become operational or remain surprisingly unproductive (Schönweger and Messerli, 2015), although little is known about smallholder productivity across time. Mechanization is largely absent in the hilly terrain of Nyamasheke where smallholder farmers are found to be more productive than largeholder producers as they exploit themselves out of sheer necessity (Clay et al., 2018).

4.4. Pricing and value capture

In both countries, national prices are strongly driven by international prices but could be boosted in recent years (Fig. 5). The infamous price penalty for Lao coffee (see Galindo and Sallée, 2007) has been overcome. Similarly, Rwanda's strategy of exporting higher-quality fully-washed coffee seems to finally bear some fruit. Given major investments in rural infrastructure in both countries, especially roads that brought down transportation costs, these price increases likely reflect gains in quality and reputation.

The determination of farmgate prices is strikingly different in Laos and Rwanda but what they have in common is that coffee farmers have very little room for negotiation. In Laos, coffee prices are not regulated. Instead, they are determined by CCs and local traders that both buy cherries or parchment coffee directly from farmers who are usually paid in cash upon delivery. There are few price differences between different buyers but there can be additional premiums depending on quality and certification. In contrast to Rwanda until recently, farmers are relatively free to decide how to produce and process and whom to sell to. Over 80 percent of coffee households in the Lao survey population sell directly to traders and about 9 percent to private companies. In either case, only about 3 percent of households engage in contract farming with a predetermined quantity or price. Prices fluctuate throughout the year and can change daily. A big concern are the terms of trade between coffee and rice as explained by an assistant village leader when asked what the biggest challenge for the village is: 'The biggest challenge regards the livelihood of the people. ... Because this village is not a village to grow rice, they usually buy rice. So, people get problems when the price for coffee is dropping and the price of rice is increasing'.¹⁸ Indeed, there are signs that Lao coffee exports are undervalued (Mehrotra et al., 2023).

The Rwandan case is unique. The government introduced a zoning policy in 2016 whereby, in a prime example of 'state-imposed contract farming' (Huggins, 2014, p. 367), all farmers were required to sell their coffee cherries to the CWS of their zone that bought it at a fixed price set by the corresponding district (with the option of making second payments later in the season, see Gerard et al., 2023). Farmers were not allowed to process their own coffee anymore. This policy and its effects are critically discussed in appendix B. While the policy has been abolished in 2023 and unrestricted trading is once again allowed throughout the country (Nkurunziza, 2023), the argument here is that the portrayal of Rwanda's coffee sector as a success story of economic liberalization (see e.g. Boudreaux, 2011) is misleading. First, production has been

stagnating (Fig. 4). Second, arguably the most remarkable success has been the increase in domestic processing capabilities and that has been achieved with strong donor and government intervention (see Behuria, 2020; Booth and Golooba-Mutebi, 2012; Gökgür, 2012). Third, and with good reason, the government continues to set a minimum price for coffee cherries (Nkurunziza, 2023, see also appendix B). Fourth, to the extent that the zoning policy improved quality and local value addition, it did so through the exact opposite of liberalization as farmers had both lost their right to freely sell their coffee and to process it themselves. In short, liberalization has mainly allowed international prices, which happen to be increasing, to pass through (see also Guariso and Verpoorten, 2018).

What does the evidence presented imply for the relevance of the classic agrarian question? Has it indeed been bypassed in the wake of neoliberal globalization as claimed by Bernstein (2016, 2006)? The Lao case certainly illustrates how external forces can reshape entire economies and, sometimes forcefully and through accumulation by dispossession, introduce capitalist farming. The Rwandan case, on the other hand, shows that Bernstein's (1996, p. 46) proclamation of the 'death of the [classic] agrarian question' is inadequate. In a context marked by strong regulation, by petty commodity production (i.e. the combination of capital and labor within one production unit, see Bernstein, 2010) and the absence of mechanized plantations as well as by national (party) capital and emerging domestic capitalists that spearhead processing investments, internal dynamics and sources of accumulation remain key.

The locally grounded analysis presented here indicates strong impulses of an 'accumulation from above'. This, however, seems not primarily predicated on the transformation of a landlord class into capitalist farmers, but is rather the result of government regulations (e.g. the zoning policy in Rwanda) as well as of the penetration of global capital (Laos) or of national (party, military or private) capital together with global capital (Rwanda).¹⁹ Nevertheless, social differentiation and interviews with large farmers and domestic processors suggest that there is a simultaneous, although possibly less important, 'accumulation from below'. The precise articulation of the two pressures is unclear. Indeed, enterprise histories and investigations into the trajectories of rural capitalists, such as Oya's (2007) study in Senegal, are missing in Laos and Rwanda. In any case, linear descriptions of 'transition paths' may not adequately describe agrarian histories in contexts marked by violent pasts with massive population displacements and repeated changes in land relations.

5. Questions of labor

5.1. Social differentiation

Social differentiation is a key aspect of agrarian change, both as a driving force and a consequence, but its measurement is challenging (Illien and Pérez Niño, 2024). This section uses a simple quantitative approximation to stratify households in Laos and Rwanda before enriching the picture with a discussion of labor relations.

Following Mueller (2011), we differentiate five groups of households: 'rich farmers', who hire labor but do not themselves work for

¹⁷ Yield data, requiring information of harvested area as well as production volume, are notoriously unreliable. It has already been noted in Fig. 3 that FAOSTAT production data in Laos are highly unrealistic. Calculating yields based on export volume reveals that yields have largely stagnated over the last two decades. This is similar for Rwanda until around 2015 from which time onward an unlikely decrease in harvested area, coupled with rising production in some years, caused yields to explode (see also Heinen, 2022, on the systematic overreporting of production volumes and yields in Rwanda) – yet even a recent government report notes that 'coffee productivity is still low (average of 2.8 kg of cherries/tree)' (MINAGRI, 2023b, p. 9).

¹⁸ Assistant village head, Bolaven Plateau, February 2020.

¹⁹ Landlordism has been largely absent in Laos (Evans, 1995). In Rwanda, successive violent and political turmoil reshaped land relations to such an extent that any attempt to identify a unique or stable landlord class is futile. For example, the social revolution of 1959–1961 abolished clientship institutions that under various forms existed in pre-colonial and colonial times (Newbury, 1988), but landlordism increased again in the 1980s with large landholdings increasingly concentrated in the hands of bureaucratic and commercial elites (Uvin, 1998) – and that is without even mentioning the mass violence and displacements of the civil war and 1994 genocide or indeed the land-sharing policies of the post-conflict period.

others; 'poor farmers', for whom the opposite it true; 'middle farmers', who hire labor in and out; and two further groups: those that do not participate in labor markets but sell part of their output ('simple commodity producers') or do not sell any output ('subsistence farmers'). We added a group of 'landless' households that either have no access to land for agricultural production (be it owned or rented/sharecropped) or have access to less than 100 m² (functionally landless).

The resulting distributions in Fig. 6 highlight some distinctive features of our research sites. First, almost all households have access to some land. This is, however, frequently only a small (possibly rented) plot and far too little to provide a living, particularly in Nyamasheke where most households remain marginal farmers dependent on at least occasional wage employment. This is captured in Bernstein's (2010) notion of 'classes of labor' for which Mueller's 'poor farmers' provide a crude approximation. Second, ideal-type subsistence farmers are also negligible, underscoring again the extent to which livelihoods have become commodified. Third, simple commodity producers are the largest single group in Laos. Even though, most households participate in labor markets in one way or another. This highlights the inadequacy of the undifferentiated smallholder trope (Ova and Pontara, 2015). Fourth, in stark contrast to Laos, very few households in Rwanda hire workers, partially because of land scarcity. In Laos, the 'rich' and 'middle' farmer categories are much larger, underlining the relative wealth of the Bolaven peasantry.

There are three main limitations of this analysis: first, the amount of labor hired is not considered. Second, all types of wage work are lumped together but as we will show, the type of job is crucial. A more complex quantification taking these limitations into account is provided in Illien et al. (2022b) for Nyamasheke based on Patnaik's labor-exploitation criterion (Patnaik, 1987). Third, stratification does not reveal the functions, drivers and power relations underlying different mechanisms of labor mobilization that underpin social differentiation. This is what we turn to now.

5.2. Mechanisms of labor mobilization

Historically, the extraction of unpaid work has been a crucial component of political power. Colonial regimes in Laos and Rwanda have made wide used of much-despised *corvée* labor (Newbury, 1988; Stuart-Fox, 1997). Moreover, various patron–client relationships were commonly practiced in precolonial and colonial Rwanda until the social revolution of 1959–1961 (Newbury, 1988). These were often the basis for antagonisms between Hutu and Tutsi, antagonisms that were reinforced by Belgian authorities and later mobilized in the horrific genocide of 1994. Post-colonial regimes have also deployed means to selectively mobilize agricultural labor. Two noteworthy instances are the communist collectivization campaign in Laos in the late 1970s and the current use of community work (*umuganda*) on the last Saturday of each month in Rwanda.

Today, households mobilize outside labor through a variety of mechanisms. At both research sites, labor exchange is sometimes practiced with friends and family members and relatively reciprocal. In Nyamasheke, sharecropping and cattle-sharing are also widespread forms of labor mobilization (Illien et al., 2022b). Sharecropping (nyiragabana) is experienced as strongly unequal but indispensable for many land-poor households. Interestingly, it has been introduced relatively recently and largely replaced land renting by cash. On the one hand, this is likely a sign of increasing land scarcity and inequality that shifts power in favor of landlords. On the other hand, it may also be symptomatic of growing precarity for households unable to hire workers and/or unable to farm the land themselves due to disability or older age. Cattle-sharing (kuragiza) is similar to sharecropping but holds the possibility for cattle caretakers to acquire their own means of production upon birth of an offspring. On the Bolaven Plateau, land renting is rare and sharecropping and cattle-sharing are practically inexistant possibly because land and wage employment is more readily available.

The most import labor institution, used by households and companies alike, is wage employment. Rising land scarcity and commodification pressures have undoubtedly increased the prominence of wage employment in recent decades, although it continues to be neglected in the literature on Laos and Rwanda. Roughly two-thirds of households at our research sites either hired workers or worked themselves for others during the last year (Table 3). Interviews and focus group discussions revealed in both cases that the ability to hire workers is a key marker of wealth and that wage employment is subject to power imbalances (see also Illien et al., 2022b).

Rural labor markets in Laos and Rwanda are characterized by informal casual employment and strong seasonal effects (a few higher skilled permanent positions are provided by CCs and CWSs). As labor demand declines after the coffee harvest, many households are unable to find enough days of paid work in the lean season when their own fields are also bare, resulting in alarming levels of food insecurity. Moreover, daily wages for casual agricultural labor on local farms may fall from RWF 800 (\approx US\$ 0.91) to RWF 600 (\approx US\$ 0.69) in the lean season in Nyamasheke.²⁰ These effects are felt throughout the local economy. Emmanuel, a local bar owner, essentially rephrased Keynes in his analysis:

He is saying, the big challenge is poverty. The business he is involved in depends on the economic situation of the population around. It's seasonal because there are seasons where they have money so that they can buy and sell and then the business can prosper. But there are other seasons where they experience losses because of the economic situation of the population around. That's the challenge he faces. It's like his business mirrors the economic situation of the people around.²¹

Seasonal effects are less severe on the Bolaven Plateau. Larger ownaccount production provides a stronger buffer against income shortfalls. In addition, there are more employment opportunities thanks to better mobility (for daily commutes with motorbikes, or even for temporary migration), a larger non-agricultural sector and bigger landholdings which generate more agricultural employment.

Modes of payment vary widely. In Laos, cash payments are the norm but in Rwanda we also find frequent use of in-kind payments (typically subsistence crops). The latter are symptomatic of both the limited monetization and heightened precarity: on the one hand, employers may not have the necessary cash, and, on the other hand, food-insecure households sometimes prefer to avoid the transaction costs involved in going to the market. When asked why she prefers in-kind payments over cash, Claudine, who participates in several work arrangements, said 'because when she doesn't have the food to eat ... they give her the food she's going to cook. [If you are paid in cash] you have to walk to the market to buy. [Being paid in kind], you don't have to spend your time and energy going to the market'.²²

The basis of payment is a daily wage for most tasks such as planting, weeding, pruning, fertilizing and sorting.²³ There are two exceptions: coffee harvesting is typically paid per kg (although some local farmers also pay on a daily basis in Rwanda). Second, task-based payments are common (and often preferred by workers) in Laos, both on local farms and even more so on CCs where a contractor negotiates a deal with the company and is then responsible for organizing and paying the workers

²⁰ This is based on the exchange rate as of 1 November 2018 accessed at https://www.xe.com/currencytables/?from=RWF&date=2018-11-01#tabl e-section.

²¹ Emmanuel, Nyamasheke, November 2018.

²² Claudine, Nyamasheke, December 2018.

 $^{^{23}}$ The timing of payments, however, depends on the type of employer and the type of activity. CCs in Laos as well as CWSs and public works programs in Rwanda typically pay wages every one or two weeks, whereas local farmers often pay out daily.

needed to complete the task on time.

While wages and modes of payment are key, the respect employers show their workers is also important. Showing respect can involve paying on time, sharing food, allowing breaks, providing loans when in need or having a considerate attitude in dealing with employees (this is particularly an issue with foreign bosses on CCs in Laos). Souksakhone prefers working on her own farm but needs to supplement her income with wage employment. She has worked for many different companies over the years and told us:

Some employers may pay LAK 1,000 [\approx US\$ 0.12] per kg, but they don't talk nice to people. So, people don't like to go and work there. The other company pays LAK 800 [\approx US\$ 0.10] per kg, but many people go and work with them because they know how to talk to people. And they come with the tractor to pick people up to go to work, but the other company doesn't really want to do that.²⁴

At both research sites, provision of equipment to casual workers is minimal and many are expected to bring their own boots and gloves (Laos) or hoe (Rwanda). In CCs, protective gear for dangerous tasks such as the spraying of pesticides is theoretically provided by the companies but there are many reports of insufficient protection in practice. While some CWSs and CCs have worker representatives, they serve more as middlemen between workers and management (relaying instructions and reporting problems) than any genuine form of collection action or worker organization, which is generally absent.

Recruitment mechanisms and associated spatial patterns differ strongly between research sites. In Rwanda, there have been important population movements related to the conflict dynamics of the Great Lakes region, most importantly the displacements (and subsequent returns) following the social revolution in 1959–1961 and the 1994 genocide, which have greatly affected land relations (see e.g. Leegwater, 2011). It is then somewhat surprising that rural labor markets in Nyamasheke are strongly localized. While there are at times temporary workers sleeping in the villages (for example permanent staff on CWSs), it was uncommon for respondents to spend a night away for work.

Coffee labor markets in Laos differ in two regards. First, in addition to local employment among village farmers and neighbors which is predominant in Rwanda, there is the employment provided by CCs in Laos which overshadows CWS employment in Rwanda. Second, there is strong (and under-researched) seasonal internal migration from, presumably relatively poorer, lowland rice farmers to the Bolaven Plateau for work on CCs and village coffee farms (Table 3 shows the significantly larger amounts of hired labor in Laos). Accommodation in company camps is usually provided for free but standards vary and are sometimes deplorable. For example, Bounmy is 14 and has been living in a workers' camp for around seven years together with her parents. The roof is made of plastic and often leaking, bathrooms are shared with multiple other people. She has never been to school and has already started working on the plantation about a year ago.²⁵

Coffee farmers also provide free accommodation for migrant workers and sometimes even food. They often build long-term relationships with their workers and rehire them the following year. While hiring is typically done on an individual basis in Nyamasheke, companies frequently hire groups of casual workers through intermediaries or contractors in Laos. This group element is likely even stronger for internal migrants. Before or around harvest time, some migrant groups also travel to the Bolaven Plateau themselves in search of work.

At both research sites, social networks are key for accessing work and in Rwanda the importance of location was also highlighted. The woman in a young, functionally landless couple that relies on wage employment and sharecropping in Nyamasheke remarked:

Their house is nearby the road where people will pass. They'll greet them and then they will get the information. Not only the general information about the village, the news, but also in case they're looking for help. Some people will pass, and they will tell them "tomorrow you can come work for me" and they can go work for them.²⁶

According to her husband, 'if they were living in hills where people are not passing, they would not get that chance'.²⁷

5.3. Reproduction²⁸

Changes in production and labor relations have impacted the scale of reproduction.²⁹ In Laos, the incidence of monetary poverty decreased nationally from about 35 percent in 2005 to roughly 25 percent in 2015 along with the number of people living below the poverty line (Epprecht et al., 2018a). On the relatively wealthy Bolaven Plateau, however, the number of poor people almost doubled as the population grew

Table 5

Differences between coffee-growing and non-coffee-growing households at research sites.

Variables of	Coffee status				
interest	Coffee-growing households	Non-coffee-growing households	Difference		
Households are	MPI-poor (in %)				
Laos	14.06	19.29	5.23 (3.74)		
Rwanda	38.10	49.72	11.61 (6.29)		
Average land ov	wnership excluding hou	seholds with no land owners	ship (in ha)		
Laos	3.26	2.12	-1.14**		
			(0.18)		
Rwanda	0.56	0.20	-0.36*		
			(0.15)		
Female househo (MDD-W, in %	-	age does not meet minimum	n dietary diversit		
Laos	72.70	74.08	1.38 (6.23)		
Rwanda	96.83	96.74	-0.09 (2.81)		
Households hiri	ing workers (in %)				
Laos	50.19	22.30	-27.89**		
			(3.92)		
Rwanda	25.16	8.15	-17.01**		
			(4.52)		
Households with	h at least one job in cas	ual agricultural wage emplo	yment (in %)		
Laos	17.83	25.05	7.21* (3.51)		
Rwanda	32.59	45.11	12.53* (6.04		

Note: Population estimates corrected for complex survey design.

*p < 0.05, **p < 0.01 based on bivariate regressions using the linearized (robust) variance estimator, standard errors in parentheses.

Details on the construction of the locally adapted Multidimensional Poverty Indices (MPI) and of the Minimum Dietary Diversity Index for Women (MDD-W) can be found in Illien et al. (2022a) and in FAO and FHI 360 (2016) respectively.

²⁵ Bounmy, Bolaven Plateau, May 2018.

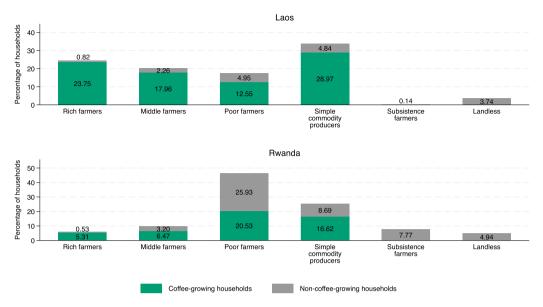
²⁶ Rosalie, Nyamasheke, March 2019.

²⁷ Ildephonse, Nyamasheke, March 2019.

²⁸ Following Bernstein (2010, p. 18), reproduction is understood here beyond social reproduction as 'reproduction of the means of production (land, tools, seeds, livestock), of current and future producers, and of the social relations between producers and between producers and others'.

 $^{^{29}}$ An overview of the poverty profiles at the two research sites can be found in Illien et al. (2022a).

²⁴ Souksakhone, Bolaven Plateau, February 2020. This is based on the exchange rate as of 1 April 2018 accessed at https://www.xe.com/currencytabl es/?from=LAK&date=2018-04-01#table-section.



Household Classification

Fig. 6. Household distribution at research sites using Mueller's classification. Note: Population estimates corrected for complex survey design (n = 635 on the Bolaven Plateau; n = 185 in Nyamasheke).

substantially and the incidence of poverty increased from roughly 15 to 18 percent in the same period, underlining increasing livelihood pressures (data available at https://www.k4d.la/). Coffee production remains a central accumulation strategy of households on the Bolaven Plateau and may act as a retaining factor that explains the lower levels of labor migration to Thailand in comparison with the lowlands in southern Laos (on the latter, see Manivong et al., 2014). Yet, in light of increasing land pressures and competition from large-scale producers, the scope for expanded reproduction seems to be shrinking for the majority of farming households, many of which expand by multiplication rather than by accumulation and complement their incomes with wage employment.

The extent of poverty reduction in Rwanda is strongly debated (Okito, 2019). Even by official data, which suggest a decline in national poverty levels, monetary poverty has increased in Nyamasheke from around 61 percent in 2010/11 to almost 70 percent in 2016/17 as it remains the poorest district of the country (NISR, 2016, 2018). Our findings underline that in a context of widespread land scarcity and few stable employment opportunities, most households are subject to a worrying reproduction squeeze where casual wage work and/or share-cropping is a necessity for most and insufficient for many. The food situation in particular is alarming as revealed both by respondents and the lack of minimum dietary diversity (Table 5). In these circumstances, barter exchanges, neighborly help and Rwanda's large-scale social protection programs, for all their flaws, make an important difference in the everyday lives of people, but the agrarian question of labor is far from resolved.

Undoubtably, coffee farming remains one of the most important income-generating activities in both regions. On the one hand, this enables also less wealthy households to meet some of their basic needs, even though few manage to significantly expand their production. On the other hand, the poorest face barriers (capital investment and means to cover the growing period, see Illien et al., 2022b) that prevent them from producing coffee, particularly in Nyamasheke where only 47 percent of households grow coffee (Table 4). The combined effect is that coffee farmers are on average wealthier than non-coffee farmers. This is demonstrated by their lower poverty levels, larger average land ownership, stronger capacity to hire workers and smaller dependence on casual agricultural employment (although dietary diversity is equally lacking, see Table 5).

Overall, the findings presented in this section suggest that social differentiation is less advanced on the Bolaven Plateau than in Nyamasheke. This is evidenced both in the wider availability and more equal distribution of land as well as in the presence of a larger share of viable petty commodity producers in contrast to the large mass of marginal farmers subject to an acute reproduction squeeze in Rwanda. Even though, differentiation has been proceeding faster than anticipated. In stark contrast to Rwanda (see Newbury, 1988), Evans (1995, p. 71) observed that 'Lao peasant society has remained remarkably undifferentiated' (a view already questioned early on by Rigg, 2005). However, the last two decades have witnessed not only increasing land pressures but also growing classes of capital and of labor with a concomitant slow but steady decline in viable petty commodity producers (see Nguyen et al., 2023, for an overview of studies documenting increasing social differentiation in Laos). Indeed, Evans's (2008, p. 518) assertion that 'one finds no real long-term inequalities within Lao rural villages' needs to be refuted, especially for the Bolaven Plateau where the Gini coefficient (based on household expenditure) at the village level increased from a population-weighted average of 0.26 in 2005 to 0.32 in 2015.³⁰ While Evans is correct in highlighting the importance of demographic cycles (Chayanovian pressures) in explaining inequality at any point in time, he severely downplays the internal differentiation of the peasantry (Leninist pressures) that has gained ground with increasing commodification in addition to the obvious dislocations induced by CCs.

³⁰ Respective national averages are 0.27 and 0.28, however, when the Gini is calculated at the national level for all Lao households, the figures are 0.33 and 0.35 with the southernmost provinces showing the largest increase in inequality (see Epprecht et al., 2018a, parts of the data are available at https://www.k4d. la/).

6. Questions of gender

6.1. Land access in practice

Understanding agrarian change from a bottom-up perspective requires us to scrutinize how gendered land and labor relations have been reshaped. Formally, women and men have equal land and inheritance rights in both countries today but in practice women continue to face multiple barriers to land access and ownership.³¹ First, powerful social norms limit women's access to inheritance in Rwanda (Bayisenge, 2018). In Laos, customary patrilineal or matrilineal systems continue to be practiced by some ethnic groups, resulting in weaker land rights for women in patrilineal communities (Somphongbouthakanh and Schenk-Sandbergen, 2020, although the matrilineal system is predominant on the Bolaven Plateau). Second, registered marriage is a precondition for joint titles in Rwanda. About a third of marriages, however, are not registered, often due to a lack of funds for related traditional ceremonies or because the respective woman is the subsequent wife in a polygamous relationship (Bayisenge, 2018). Access to land is thus precarious for these women (Bigler et al., 2019). Third, and partially as a result of the above barriers, female-headed households (FHHs) have consistently weaker rights over their land (Isaksson, 2015). Alice's story exemplifies these obstacles:

She said that she didn't get married officially since ... they had no means to organize a marriage. So, ...they decided to go and live together ... [but] she didn't have a better life because the husband brought a second wife and then the husband gave most of the property to the second wife. Later, the husband passed away and the second wife passed away. She remained with some of the children of the second wife, the *co-épouse*, and then she took care of her own children and the children of her husband. Later on, since most of the property was given to the second wife, when one of the children of the second wife grew up ... he came back for land and they went to court but since that son of the second wife was rich, he took all the property. And now, she's living a misery life with almost no land.³²

Other times, widowed women may benefit from more supportive family members, but their tenancy remains precarious. Faustine is a mother of eleven who had fled to the DRC and lost all documents. Upon her return to Rwanda, she found that other people had taken her land. Nevertheless, she managed to claim some inheritance from her parents thanks to the new inheritance law, but the plot is small and infertile. Instead, she depends on sharecropping and casual work and on the land provided by her brother-in-law. Faustine recalls:

When she came back in 2013, she was welcomed by the family of her husband because she can remember that one of her brothers-in-law ... divided the farmland, the cassava, in two pieces and he gave her one part so that she can have cassava to cook for her children. And she was afraid that they may not accept her in their family because she's back without the husband, but she said although they are poor, they do whatever they can.³³

Divorced, separated or widowed women thus depend for access to land on what they could acquire through marriage or on what their or their husband's families afford them, leaving them in a weaker position and often at the mercy of male family members.

6.2. A triple burden in labor relations

Around 23 percent (Bolaven Plateau), respectively 31 percent (Nyamasheke), of adult women engaged in some form of wage employment in the previous 12 months of our survey. This is likely an increasing trend: while some women can benefit from better education opportunities to engage in formal employment, many have been pushed to take up more precarious employment as a result of rising land pressures or the loss of a partner due to widowhood, separation or divorce.³⁴ Changing labor relations have resulted in a triple burden for numerous women, particularly female household heads. In addition to the infamous double burden of productive and reproductive work, they often face discrimination in the labor market as higher paying and more stable jobs (notably in the non-agricultural sector) are frequently reserved for men. Moreover, women are systematically paid less than men for the same agricultural day job in Rwanda (see Bigler et al., 2017, and Illien et al., 2022b). Meanwhile, the bulk of reproductive (particularly care) work remains with women. This results in a higher overall work burden for women as evidenced in time-use studies (Bigler et al., 2019; Douangphachanh, 2020) that correct Evans's (2008, p. 524) statement that 'detailed studies of this issue are lacking, but those that do exist do not show a dramatic gender imbalance'. Although gender equality remains low in practice, women's decision-making power within the household has increased in Laos (Douangphachanh et al., 2021) and, to much more limited extent, in Rwanda (Bigler et al., 2017).

6.3. The plight of female-headed households

The situation of FHHs and indeed the usefulness of headship categories has been subject to debate. FHHs are a heterogeneous group and evidence regarding their relative poverty compared to male-headed households is mixed (Bradshaw et al., 2017). In sub-Saharan Africa, for example, poverty has been falling faster for FHHs than for male-headed households in recent decades (Milazzo and van de Walle, 2017).

FHHs are of special interest here because of the high labor participation rates of widowed, divorced or separated women (Oya and Sender, 2009) and because of the high proportion of FHHs in Rwanda (30 percent of rural households, see NISR, 2023a), partly as a result of the genocide (Newbury and Baldwin, 2000).³⁵ Despite their diversity, FHHs are poorer on average in Laos (Epprecht et al., 2018a) and Rwanda (NISR, 2023b). We argue that this is the result of barriers they face in the productive sphere, that is of the combined effect of precarious land access and a triple burden compounded by the relative lack of male adult labor. In the words of Solange, who is currently building her own house after renting for years, 'if the husband might be here, she might have a house. He might make a roof and everything. The husbands do hard work, they can even go far, looking for money or working for the family'.³⁶ Indeed, Table 6 shows that FHHs in Rwanda have significantly smaller landholdings and scales of production and tend to enter labor markets on more unfavorable terms, while disposing over much less male adult labor. As a result, poverty levels are much higher among FHHs households in Nyamasheke, although dietary diversity is so deficient across the board that there is no large difference. Trends are similar but less strong in Laos where the share of multidimensionally poor households is smaller among FHHs.

³¹ The post-genocide regime in Rwanda is often noted for its commitment to gender equality, but the transformative potential of its top-down policies remains limited (Debusscher and Ansoms, 2013).

³² Alice, Nyamasheke, February 2019.

³³ Faustine, Nyamasheke, March 2019.

 $^{^{34}}$ Some women in Rwanda reported entering the labor market for the first time after their husbands' deaths.

³⁵ In Laos, only 8 percent of farm households are female-headed (Epprecht et al., 2018b).

³⁶ Solange, Nyamasheke, December 2018.

Table 6

Differences according to household headship at research sites.

Variables of interest	Household status				
	Co-headed	Female-headed only	Difference		
Average land ownership excludin	g households with no land ownership (in ha)				
Laos	3.11	2.27	-0.84** (0.20)		
Rwanda	0.46	0.15	-0.32** (0.10)		
Households grow coffee (in %)					
Laos	78.79	80.50	1.71 (4.38)		
Rwanda	53.37	34.44	-18.94** (6.44)		
Average coffee production per co	ffee-growing household (in kg)				
Laos	12,480 (median: 8000)	10,348 (median: 6500)	-2133 (1868)		
Rwanda	498 (median: 200)	91 (median: 60)	-408** (91)		
Coffee-growing households using	pesticides or chemical fertilizers (in %)				
Laos	29.30	18.38	-10.92* (5.52)		
Rwanda	76.24	56.43	-19.81 (10.13)		
Households hire in labor (in %)					
Laos	46.56	44.56	-2.00 (6.43)		
Rwanda	21.12	4.61	-16.51** (3.84)		
For households hiring out labor: 1	households with at least one job in casual agricul	tural wage employment (in %)			
Laos	51.29	56.14	4.85 (11.38)		
Rwanda	68.18	81.84	13.66 (7.42)		
Households contain adult male (i	n %)				
Laos	100	66.57	-33.43** (6.54)		
Rwanda	100	42.37	-57.63** (5.90)		
Female household head of reprod	luctive age does not meet minimum dietary diver	rsity (MDD-W, in %)			
Laos	72.55	75.18	2.63 (18.41)		
Rwanda	97.27	96.16	-1.12 (3.57)		
Households are MPI-poor (in %)					
Laos	15.83	7.99	-7.83* (3.81)		
Rwanda	36.43	63.58	27.15** (6.77)		

Note: Population estimates corrected for complex survey design.

p < 0.05, p < 0.01 based on bivariate regressions using the linearized (robust) variance estimator, standard errors in parentheses.

Around 9 percent in the Bolaven and 32 percent in the Nyamasheke survey population are female-headed only households. Details on the construction of the locally adapted Multidimensional Poverty Indices (MPI) and of the Minimum Dietary Diversity Index for Women (MDD-W) can be found in Illien et al. (2022a) and in FAO and FHI 360 (2016) respectively.

Interviews showed that female household heads do not necessarily experience social stigma per se but nevertheless feel that they are in a vulnerable position that limits their agency. In Rwanda, Solange remarked that she is not in a position to 'start conflicts with neighbors', while in Laos a woman in a similar position told us that she's 'afraid to talk' to the sons of the previous wife of her deceased husband.³⁷ Hardship in relation to widowhood is first and foremost perceived as a deeply felt sense of loneliness and even disorientation stemming from the absence of a partner. According to Pascaline, who lost her husband in the genocide, 'there is no life for a single person. She's saying when you have your partner, you do talk, you do converse, they do advise you ... but when you're single ... you can misbehave but no one redirects you. She said you feel the loneliness'.³⁸ Relatively rigid gender norms intensify the already enormous workload and responsibilities of single parents. In Faustine's view, 'being alone is something very bad, because all the kids, they are looking at her like a husband, like a man, like a woman, and she's not both'.3

7. Conclusion

Rapid agrarian change, violent conflict and state-building projects have massively transformed rural lives in Laos and Rwanda. Taking a bottom-up perspective, this study took lived experiences in the coffee heartlands of Laos and Rwanda as an entry point to investigate the agrarian questions of capital, labor and gender. It proposed new ways to operationalize these questions for mixed methods fieldwork with the goal of linking local manifestations of agrarian change to wider structural dynamics. Indeed, the micro cannot be conceived without the macro and vice versa.

The article showed how capitalist relations of production have been established on the Bolaven Plateau and in Nyamasheke and how subsistence has become largely commodified, particularly in Nyamasheke. While the presented evidence is necessarily locally bound, similar processes are ongoing across rural Laos (see e.g. Friis et al., 2016, on rubber plantations in the North) and Rwanda (see e.g. Huggins, 2014, on pyrethrum and maize production in Northern and Eastern Province respectively). The data revealed, however, that petty commodity producers have not been the transitory phenomenon they were often predicted to be, simply awaiting their differentiation into capitalist farmers and a rural proletariat. Nonetheless, when there are few possibilities to accumulate through the concentration and centralization of capital, many petty commodity producers 'persist and expand by multiplication into yet further small-scale operations' (Harriss-White, 2018: 357; see also Harriss-White, 2014). Even more, in contexts marked by strong commodification pressures and the absence of alternative livelihoods like Nyamasheke, many households cling to whatever land they have left to ensure a minimum of subsistence and must combine their own-farming activity with various forms of (disguised) employment as 'classes of labor'. Therefore, in-kind payments and sharecropping should not be interpreted as archaic or feudal institutions in Nyamasheke but as the expressions of increasing land pressures and limited monetization under predominantly capitalist relations of production.

The story of coffee in Laos and Rwanda then illustrates the contradictory impacts of capitalist development: the development of productive forces and basic services has occurred alongside increased social differentiation and vulnerability exemplified by acute land scarcity and an alarming food situation in Nyamasheke as well as the brutal

³⁷ Solange, Nyamasheke, March 2019; Manivanh, Bolaven Plateau, May 2018.

³⁸ Pascaline, Nyamasheke, November 2018.

³⁹ Faustine, Nyamasheke, December 2018.

disruption of livelihoods by large-scale plantations on the Bolaven Plateau. Nevertheless, the baby should not be thrown out with the bathwater: export agriculture remains vital not only for the national economy but also for the livelihood of many. Coffee's high labor intensity and potential for value addition is promising. Still, there are no magic bullets and 'crop essentialism' (Hall et al., 2011, p. 88) should be avoided. Indeed, this article revealed how the organization and socio-economic effects of coffee production can differ vastly. The implication of this diversity is that there is space for policy initiatives and collective action in harnessing the pro-poor development potential of coffee. This should be informed by an export strategy prioritizing, first, the safeguarding of the assets of poor households, above all land; second, productive employment, particularly working conditions and the number of paid working days; third, local value addition as in Rwanda's investment in local CWSs; fourth, measures to attenuate price shocks, possibly in the form of floor prices for coffee similar to Rwanda (crucially, price regulation does not require zoning); and fifth, the sustainable management of natural resources, especially pressing in Laos. Beyond this export focus, there is an urgent need for Rwandan authorities and donors alike to address the food and nutrition insecurity in Nyamasheke.

Further research in Laos and Rwanda should examine agriculture-industry linkages (the agrarian question in Preobrazhensky's sense) as well as rural politics and collective action (the agrarian question in Engels' sense). In addition, we need to learn more about the emergence and long-term trajectories of today's capitalists and domestic companies (see for example Oya, 2007) in order to get a clearer picture of the respective agrarian transitions.

I close by appraising the relevance of the agrarian questions today. If properly specified, agrarian questions of capital, labor and gender can serve as a guiding political economy framework to analyze agrarian change. While this project is historically and theoretically ambitious, it has two major limitations. First, it often remains abstract and a poor guide to fieldwork. This article therefore outlined operationalization tools for an empirically grounded bottom-up perspective that traces the effects and manifestations of capitalist development in the everyday lives of people and in the restructuring of local, regional and national political economies. It argues that, thanks to their analytical depth, the agrarian questions are a useful investigative tool that can also be applied to field-based research: both as the starting point as well as an interpretive framework. Crucially, this demands not simply a rich empirical description of the social context but also of its material and historical embedment as well as a theoretical analysis that is able to discern patterns and structural changes beyond the individual. Second, policy implications are often unclear in the agrarian change literature or limited to systemic criticism. The potential for policy advice, that would not solve world-historic contradictions but could nevertheless impact the lives of many, is underutilized. The article has shown both the contradictory effects of capitalist development as well as implications for policymakers based on empirical findings. Although stimulating, debates about the 'resolution' of the classic agrarian question seem somewhat beside the point when large parts of the population remain or have become malnourished and natural resources are exploited beyond recovery. Calls to breathe new life into the agrarian questions (Shattuck et al., 2023, p. 499) and renewed interest in the agrarian questions of food (McMichael, 2013) and agroecology (Akram-Lodhi, 2021b) are thus welcome and should inform future research.

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Declarations of competing interest

None.

CRediT authorship contribution statement

Patrick Illien: Conceptualization, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing.

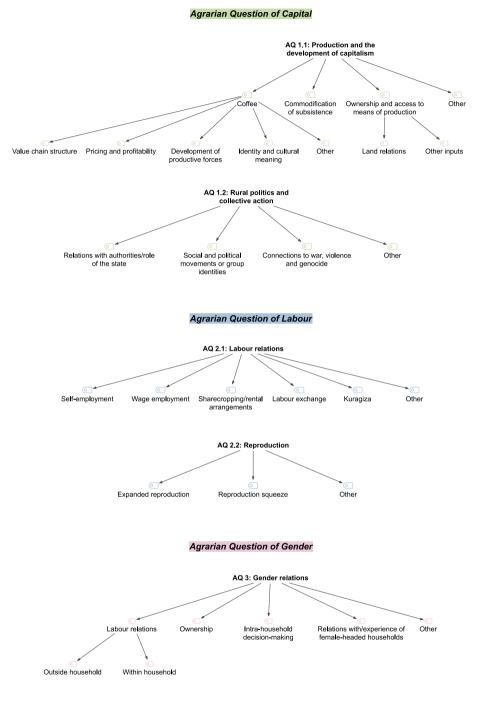
Data availability

The data that has been used is confidential.

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Appendix A. Coding frame for qualitative analysis



. Irrelevant

Appendix B. The zoning policy in Rwanda (2016-2023)

In an effort to increase quality and fetch higher prices, the government of Rwanda has spearheaded the expansion of domestic processing capabilities through party or military investment companies and extensive donor support (see Booth and Golooba-Mutebi, 2012; Gökgür, 2012; Behuria, 2020). This strategy paid off and the number of CWSs increased from 2 in 2000 (Boudreaux, 2011) to 313 in 2021/2022 (MINAGRI, 2022).⁴⁰ The production of semi-washed coffee has been heavily discouraged (NAEB, 2020), not least through coercive measures (Behuria, 2020) such as the collection of hand-operated pulping machines (JICA, 2014). In a sense then, the solution to Macchiavello and Morjaria's (2015, p. 1) paradox that 'despite rapid expansion of the capacity of coffee washing stations (CWSs) in recent years, only 30–40% of the exported coffee is washed' simply was to enforce wet-processing. Currently, 85 percent of exported coffee is fully washed (NAEB, 2022) and only 11 percent of coffee households at our research sites undertake some coffee-processing activities (Table 4). The aspired increase in average prices for Rwandan coffee (beyond international prices) has, however, only started to materialize very recently (Fig. 5) and CWSs continue to operate below processing capacity (Jenkins et al., 2023).

From 2016 to 2023, the government of Rwanda implemented a zoning policy whereby all farmers of a zone had to sell their cherries to a designated CWS.⁴¹ This was a form of 'control grabbing' (Huggins, 2014, p. 367): farmers were prohibited from selling to any other CWS and, in turn, CWSs had monopsony power but were forbidden from buying from farmers outside their zone. As a result, independent middlemen were eliminated. Farmers either directly brought their cherries to the CWS or to a CWS-licensed buyer ('*acheteur*') at strategic locations throughout the respective zone that then took them to the CWS.

Prior to zoning, side-selling and increasing competition between CWSs had led to a breakdown in relational contracts, limiting CWS profits and coffee quality (Macchiavello and Morjaria, 2021). The zoning policy was supposed to reverse this trend by strengthening CWS–farmer relationships, ensuring appropriate service provision to farmers and a steady supply of high-quality cherries to CWSs. It undoubtedly reduced side-selling, eliminated independent traders and benefitted CWS operations (Clay et al., 2018; Gerard et al., 2022; Jenkins et al., 2023). Indeed, the zoning policy allowed processors to intervene in production decisions without carrying the bulk of the risk (although they did take on more risk than in conventional contract farming arrangements as they were not allowed to buy from outside their zone). For example, some CWSs only accepted certified coffee, therefore, all coffee farmers in their zone were effectively forced to attend trainings and become certified. In short, the policy shifted the balance of power in favor of CWSs.

Impacts at the farm level, on the other hand, were ambiguous. There was no evidence of increased investments by coffee farmers (Gerard et al., 2022). While there were signs of improved CWS service provision, particularly in relation to training, credit and transportation, and of farmers receiving or being promised second payments (see Gerard et al., 2022), this evidence is limited: data on service provision stem from interviews with mill managers but not with farmers and data on second payments are only binary and limited to promised payments – they do not capture the level and distribution of actually received payments.⁴²

At any rate, these positive indications are dwarfed by evidence of widespread precariousness among coffee farmers and the inadequacy of the fixed cherry price until recently (Clay et al., 2018). In fact, as a result of the zoning policy, coffee farmers lost any control over the extent of their value capture and were entirely dependent on the regulated price and CWSs' willingness to provide second payments.⁴³ This comes out clearly in the testimony and recommendations provided by Albert, a large-scale coffee farmer and *acheteur* of a local CWS. He argues that the zoning policy did not improve relationships with CWSs but introduced unfair regional disparities as farmers were at the mercy of second payments offered by the CWS.

Farmers are putting too much input, but the output is small compared to the input. So, the first recommendation is that the farmgate price should increase so that farmers can benefit. He said that, second, those coffee washing station owners, they are benefitting more compared to what farmers are earning. And yet, they are living far from farmers, there is no relationship between them and farmers. ... Third, he said that farmers are not happy with the zoning system. The zoning system would be ok if the price is the same for every coffee washing station. [But now prices differ] and yet farmers use almost the same input and face almost the same challenges. They must pay school fees for their children, but the output is not the same and yet they are providing the same input. The zoning system won't survive unless the price is the same for every coffee washing station. So, what he can advise is that farmers should have the freedom to sell wherever they want and that will allow coffee washing stations to increase the price because they are attracting farmers. ... Now that farmers are not happy with the price, they don't take good care of coffee trees.⁴⁴

Side-selling at least enabled farmers to sell to the highest bidder and home-processing, while neither very profitable nor a viable strategy for productivity growth, was nevertheless an important saving strategy (Macchiavello and Morjaria, 2021).⁴⁵ Indeed, as one village leader reported: 'farmers are not happy [with the zoning policy], they are like in prison, they are forced to go and sell even if they are not happy'.⁴⁶ Survey data by Gerard et al. (2017) corroborate the largely negative perception of the zoning policy by farmers.

To conclude, the promise of increased quality and productivity through zoning came at the price of weakening the position of farmers even more. Although investments in domestic processing capabilities are crucial, particularly if they catch higher international market prices, what matters most to coffee growers, as revealed in numerous interviews, is the farmgate price. A *de facto* mandatory floor price that is above market prices and costs of production is therefore an important mechanism to protect farmers. The extraordinary 65 percent increase of the government-set minimum farmgate cherry price in 2022 to 410 RWF (maintained in 2023) is reason for hope (Ntirenganya, 2022, 2023) but it seems to have been the result of the international price hike rather than of the zoning policy.

44 Albert, Nyamasheke, March 2019.

⁴⁰ About two-thirds of CWSs are privately-owned and about one-third are cooperatives (AgriLogic, 2018). Multinational companies have only entered the processing stage in 2012 and own a small but increasing number of CWSs (Macchiavello and Morjaria, 2022).

⁴¹ Gerard et al. (2022) provide the most detailed description of this policy and its effects to date (but see also Jenkins et al., 2023).

⁴² The government-set cherry price was RWF 240 (\approx US\$ 0.27) per kg in 2018 (our survey year). The average price received by coffee households in our survey population was RWF 251 (\approx US\$ 0.29) per kg. 64 percent of households received higher prices than RWF 240, on average RWF 280 (\approx US\$ 0.32) per kg, although 29 percent only received an average price of RWF 189 (\approx US\$ 0.22) per kg. We do not have data on coffee payments before the introduction of the zoning policy.

⁴³ The Rwandan government fixed the annual farmgate price (districts could set higher prices) and encouraged CWSs to pay bonuses as second payments at the end of the season (Gerard et al., 2023).

⁴⁵ Similarly, coffee farmers in Ethiopia prefer keeping dried coffee because it is a more rewarding savings instruments than saving in formal institutions (Tamru and Minten, 2023).

⁴⁶ Village head, Nyamasheke, March 2019.

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