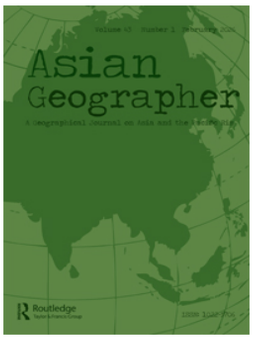

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The dominance of collectors in fresh green tea value chain: an empirical analysis from tea farming in Central Vietnam

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ABSTRACT

Tea farming is highly significant for farmers' livelihoods in Vietnam. Most tea is produced by smallholders who rely on collectors to market their tea, which can lead to strong, one-sided dependencies and unequal bargaining relationships. This research aims to explore the governance of fresh green tea value chains in Central Vietnam by analysing the relationship between collectors and small-scale tea farmers. Qualitative research was applied in this study: A total of 58 semi-structured interviews with small tea growers, collectors, and key informants were conducted in Thua Thien hue Province. In addition, publicly available documents and statistics were reviewed. The study uses the analytical framework of value chain governance to investigate the relationship between small tea growers and collectors. The research findings indicate a dominant bargaining position of collectors and the mutual relationship is simultaneously shaped by characteristics of captive and relational value chain governance types. Business relationships tend to be long-term and based on trust. The relative dominance of collectors leads to entrenched relationships with farmers, who have few options to develop independent marketing channels and capture only small shares of the generated value. Unless addressed by effective policy initiatives, the unequal relationship between farmers and collectors tends to be self-reproducing.

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Collector; small tea grower; tea value chain; Truoi tea; Vietnam

Introduction

Tea plants (*Camellia sinensis*) are grown in tropical and sub-tropical areas (Meegahakumbura et al. 2018). They emerged as an important agricultural product in terms of employment and export earnings, providing millions of livelihoods through tea picking and processing (Nguyen, Takahashi, and Yabe 2016). Vietnam is among the top five tea-producing countries globally, with a total tea farming area of about 121,000 ha in 2024. Tea production was over 1,154,000 tons, and export value reached USD 250 million (0.4% of total agricultural exports) in 2024 (GSO 2023). Tea production is developed in 34 of the 63 provinces across Vietnam, from north to south. The sector is fragmented, as 70% of the tea farming area in Vietnam is farmed by small tea growers

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(STGs) on small plots of land (Ha 2014; Hung, Quyen, and Hoa 2019; Nguyen, Nguyen, and Nguyen 2018). 400,000 households are active in tea farming, which provides about 1.5 million jobs in Vietnam, covering production, processing, trading, and services (Doanh, Thuong, and Heo 2018; Hong and Yabe 2015). Tea production and marketing have contributed to increasing household incomes, and among those farmers who grow tea, it provides the main income source, typically covering about 50% of overall household income (Nguyen, Nguyen, and Nguyen 2018).

In Vietnam, tea leaf producers, dry tea processors, dry tea traders, wholesalers, retailers, and exporters are the main actors in the tea value chains (Nguyen, Chu, and To 2015). Despite the importance of tea for their income, they face various challenges which hinder their development. These include weak market linkages, poor access to capital, lack of training, and low access to processing facilities. Added up, these challenges result in generally low bargaining power of farmers (Vinning and Chinh 2008). In particular, low tea-processing and marketing capabilities of STGs are reasons why they capture only small parts of the generated value (Hung, Quyen, and Hoa 2019). These problems have led to a decrease in the tea production area by hundreds of hectares (Dang and Lantican 2016; Tinh 2018), indicating that STGs are dissatisfied with the conditions of tea production, pointing to a need to improve their profit margins and their position in tea value chains.

A problematic issue in the tea value chain is the unequal distribution of power, costs, and margins between actors (Nguyen, Chu, and To 2015), which is due to the mostly informal nature of transactions and market in transparency (Hong 2016; Nguyen, Nguyen, and Nguyen 2018). Moreover, the STGs are disproportionately vulnerable to price fluctuations as their unit production costs are fixed, while collectors, processors, and retailers determine their purchasing prices based on retail price developments. As a result, profit margins of STGs fluctuate, while margins of other actors remain relatively constant (Dang and Lantican 2016) and are considerably higher, as the empirical material of this study shows.

Informal arrangements and especially a high dependence of smallholders from collectors have been identified as development barriers for smallholders in various geographical contexts, for example in olive production in Turkey (Schwabe and Hennig 2023), white shrimp production in Vietnam (Van Nguyen, Schwabe, and Hassler 2021), or smallholders in Ethiopia (Abebe, Bijman, and Royer 2016), just to name a few examples. Collectors (elsewhere also termed as middlemen; Van Nguyen, Schwabe, and Hassler 2021) or traders (Schwabe and Hennig 2023) function as intermediaries for smallholders as they buy produce and further distribute it to processors, wholesalers, and retailers. Their profit equals the difference between the buying and selling prices. They usually act independently and often maintain trust-based, exclusive relationships with smallholders, leading to one-sided dependencies (Van Nguyen, Schwabe, and Hassler 2021; Witjaksono et al. 2023). Informality and dependence on collectors can lead to quality problems of produce and low-income paths among smallholders which are difficult to escape from. Horizontal coordination, e.g. in the form of cooperatives, efforts to improve productivity and formalization of transactions, and establishing direct market linkages have been highlighted as possible attempts to decrease one-sided dependencies of smallholders from collectors (Ha, Bush, and Van Dijk 2013; Nam and Thien 2017; Schwabe, Van Nguyen, and Hassler 2021).

Analysing the relationships within tea value chains can therefore provide insights into existing power asymmetries and their root causes, and provide a basis for developing tailored interventions and support mechanisms. In the context of Thua Thien Hue province in Central Vietnam, this is an important topic because Truoi Tea has been identified by the provincial government as a key agricultural product, while, at the same time, the farming area for tea has decreased in recent years (Phu Loc District People's Committee 2022). Given the importance of collectors in relatively informal market environments, such as in Vietnam, this article puts a particular focus on the relationship between STGs and collectors with the following broad research questions: (i) How can the relationship between STGs and collectors be characterized? (ii) What are the root causes of unequal bargaining relationships?

This study uses the value chain governance framework developed by Gereffi, Humphrey, and Sturgeon (2005) for analysing the relationship between STGs and collectors. The research questions were explored qualitatively, using field data obtained in Thua Thien Hue province. A total of 58 semi-structured interviews were conducted for this research with STGs, collectors, and key informants at research sites. The interviewees were chosen through a snowball approach (Noy 2008), as they facilitated further contacts within their network. Furthermore, statistical data on tea farming area and productivity, as well as other publicly available information, were compiled for this study to complement the primary material gathered in the interviews. The following sections provide a literature review on the organization of tea value chains and the issues of STGs, as well as an introduction to the research methodology. Afterwards, the empirical findings are outlined and discussed.

Tea value chains and challenges faced by small tea growers

Tea production plays an important role in creating employment and increasing income for farmers (Mohan 2016). 32 countries in the world are participating in tea farming, covering over 2.5 million hectares in farming area. India, China, Sri Lanka, Kenya, Indonesia, and Vietnam are the top producers, which account for 75% of the world's total tea production and 80% of the world's tea exports (Das and Mishra 2019). India, Vietnam, Indonesia, Uganda, Malawi, Tanzania, and Rwanda are major exporters of black tea. Notably, Vietnam, along with China, has seen a rise in green tea exports in recent years, illustrating a shift in the global tea market (FAO 2022).

Value chains for tea consist of smallholders, intermediaries, processors, marketers/blenders, retailers, and consumers. Typically, value chains for tea are fragmented, with large numbers of smallholders and processors selling produce to fewer actors downstream (Mohan 2018). While arrangements of tea value chains vary across countries (such as the number of intermediate layers through which tea is distributed (Adhikari et al. 2017)), they tend to be characterized by weak bargaining positions of smallholders who have little control over upstream processes, with collectors capturing disproportionally high shares of the generated value (Das and Mishra 2019; Sen 2019). Issues in tea production include high production cost, old age of tea plants, lack of infrastructure for storage, processing, and distribution, high labor cost in relation to selling prices, and a lack of expertise about production techniques (Arya 2013; Das and Mishra 2019;

Goowalla 2015; ; Mohan 2016; Mohan 2018). The combination of these issues particularly affects smallholders and limits their options to improve products and processes.

The concept of global value chains governance by Gereffi, Humphrey, and Sturgeon (2005) is often employed to analyze interactions between actors in agricultural product value chains (e.g. Mishra and Dey 2018; Schwabe and Hennig 2023; Trienekens 2011; Van Nguyen, Schwabe, and Hassler 2021). This framework identifies five main types of value chain governance, namely market, modular, relational, captive, and hierarchy. Originally, those types were thought of as mutually exclusive ways of how a lead firm (buyer) organizes its subsequent supply chain, based on transaction complexity, supplier capability, and codifyability of the input (Gereffi, Humphrey, and Sturgeon 2005). It is in particular the "captive" and "relational" types of value chain governance which are relevant for characterizing supplier-buyer relationships in this study. The relational type of value chain governance points towards transactions which are based on personal trust and which can therefore occur in an informal environment or be based on tacit agreements which replace formal contracts (Gereffi, Humphrey, and Sturgeon 2005). Meanwhile, the captive type of value chain governance points towards high power asymmetries and one-sided dependencies of (fragmented and replaceable) suppliers from their buyers, who often control markets through high purchasing power and control of distribution channels, allowing them to demand price concessions (Dallas, Stefano, and Timothy J 2019; Ponte and Sturgeon 2014). These two governance types need not be mutually exclusive, and elements of both can be observed when examining relationships between smallholders and intermediaries (Van Nguyen, Schwabe, and Hassler 2021).

Using the assumption of the captive and relational aspects of value chain governance being present in the relationships between smallholders and collectors as a starting point of this research, we characterize the geographic and relational framework conditions that produce and reproduce these relationship types, which entail significant power asymmetries. To this end, this study aims to explain the constraints of smallholders by reconstructing their framework conditions, including their household and farming characteristics, transactional arrangements, and generated revenue, and by examining the behavioral logics of collectors.

Methodology

The study area, Thua Thien Hue province, is known as the cultural centre of Vietnam, featuring typical tea products such as Royal tea and Truoi tea. Truoi tea has special features compared to other teas from the northern and southern provinces of Vietnam. The name is a combination of "Truoi" (the name of the region where tea plants grow) and the "tea" plant. Truoi tea plants are larger and taller than most other tea plants. Only old tea leaves of Truoi tea plants are used as raw material for producing fresh green tea. The tea buds remain for the growth and development process of the plant for future seasons. Hence, Truoi tea is a valuable regional product of the study area.

Within Thua Thien Hue province, Loc Dien and Loc An communes in Phu Loc district were selected as research sites. Loc Dien and Loc An communes are located in close proximity. The total land area of Loc Dien commune is 11,534 ha, of which agricultural land accounts for 64%. In 2020, the total population of the commune was

17,171 people, with a labor force of 10,303. The agricultural sector accounted for about 60% of the labor force. The land area of Loc An commune is 2,678 ha, 60% of which is agricultural land. The population number is 15,223 people, with a working population of 6,300 as of 2020. Agricultural labor made up 55% of the total working population (Phu Loc district portal 2024). The distance from Loc An and Loc Dien communes to their nearest local market is about 8 km and 12 km, respectively, and about 30 km to Hue City, the provincial capital of Thua Thien Hue. The cultural life of local people in both communes is associated with the history and value of Truoi tea. Hence, in the local development planning issued by the government, these two communes are considered the core Truoi tea production areas of Thua Thien Hue province. The study area is displayed in the map of Figure 1.

The study follows a qualitative approach with semi-structured interviews as the main method of gathering primary empirical data. Overall, 58 interviews were conducted with various stakeholder groups, including smallholders (48), collectors (6), and other actors such as representatives of commune governments and village heads (4). The purpose of the interview is to allow a characterization of stakeholder relationships that is as detailed as possible. Therefore, the interview guidelines were generally similar across the interviewees and, in line with the research questions outlined in the introduction, centered upon the nature of the relationship between STG and collectors, the reasons for the dominance of collectors, and the interaction between actors.

At the same time, the flexibility of a semi-structured form of interview allows for an adaptation of interview guidelines depending on the expertise of the interviewee. The interviews were generally conducted in a fashion that would allow the interviewees to elaborate on issues which may not have been part of the original interview guideline, but which appeared to be relevant to the interviewees in relation to the questions of this research. The following presentation of the results is based on our primary data collection as well as a review of publicly available statistics and documents. In the following empirical sections, the general characteristics of Truoi tea farming, as well as the

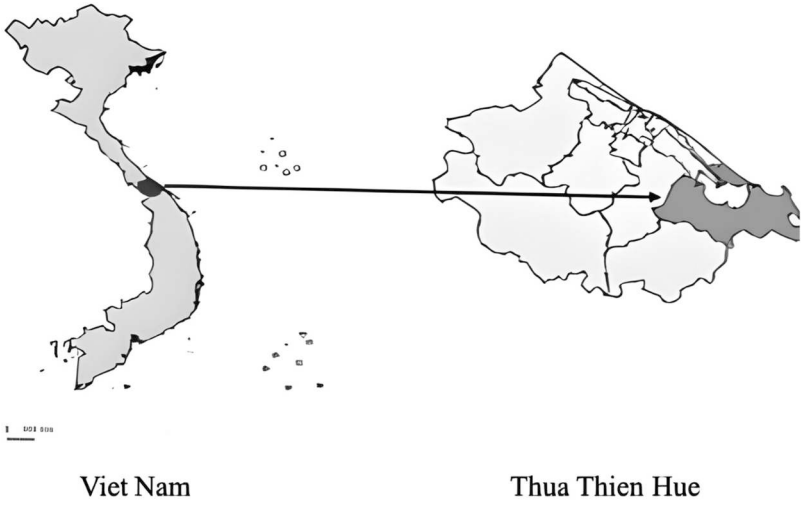

Figure 1. Research location.

transaction mechanisms and power relationships between tea farmers and collectors are outlined. The research questions are then discussed with relation to the theoretical framework in the discussion and conclusion.

Results

Characteristics of Truoi tea farming in Thua Thien Hue province

Tea production has a long history that dates back 4,000 years in Vietnam (Thuy et al. 2023). Vietnam is located in the monsoon region of Southeast Asia, where it has suitable conditions regarding rainfall (1,700 - 2,000 mm/year), temperature (21–22.6°C), air humidity (80-85%), and fertile soil to develop tea production (Thuy 2021). With the aim of cultivating high-value agricultural products, the Ministry of Agriculture and Rural Development of Vietnam approved a project to develop key industrial crops until 2030. In this project, tea is considered one of the six main crops aimed at increasing export turnover value in the agricultural sector, with the development orientation of the tea production area throughout the country set at 125,000 ha by 2030 (MARD 2024). Tea production is organized at the enterprise, cooperative, and household levels, while the Vietnamese Government supports planning, finance, and capacity building in this regard (Government of Vietnam 2013).

As a result, over 170 tea varieties were grown in Vietnam, such as Shan, Truoi, PH1, LDP1, LDP2, PT14, PT95, Kim Tuyen, Bat Tien, and Tu Quy Xuan, which are predominantly developed in the Northern midlands and mountains, and Highland and Central regions of Vietnam (Thuy 2021). Among these varieties, Truoi tea stands out as a typical variety in Thua Thien Hue province. In the land use planning for the period 2021–2030 of the district government, Truoi tea was confirmed to be one of the key local products used for livelihood development and tourism promotion, contributing notably to the local economy and cultural identity (Phu Loc District People's Committee 2022). The research results indicated that Truoi tea was grown at the research sites about 30–50 years ago. Initially, it was grown by smallholder farmers for self-sufficiency. At a later stage, the Truoi tea farming area was expanded for commercialization. The farming area owned by each household ranges between 0.15 and 0.3 ha. The producers are mainly STGs, most of whom are over 60 years old. Their education is typically at the primary school level, and an average of 1.5 laborers per household farm tea.

Normally, the harvesting time of Truoi tea is three years after planting. Each year consists of three harvesting periods, with three months between each harvest. But the harvesting schedule for each household varies, depending on individual household practices and the demand from buyers. Demand for Truoi tea in the summer season is higher compared to the winter season due to the increased demand for fresh green tea water during high temperatures. Truoi tea farming does not follow a specific cultivation season; instead, STGs only replace old tea plants when they die. Truoi tea farming creates low costs. Fertilizer is used after harvesting, and laborers are hired for weeding, watering, or harvesting. Truoi tea differs from other teas in the Northern regions of Vietnam, where tea buds and young tea leaves are harvested to produce green tea or black tea.

Transaction mechanisms between small tea growers and collectors

Fresh green tea value chains in Thua Thien Hue province involve STGs, small collectors, large collectors, wholesalers, and retailers. Large and small collectors are particularly important in purchasing and distributing harvested tea leaves in the research area. They can be distinguished by their purchasing capacity and relationships.

Small collectors usually reside in the same village as STGs, and the majority of small collectors are also STGs themselves. They transitioned to work as collectors to engage with the output market for their product and earn extra income from collecting and selling green tea leaves. Normally, each small collector can provide 30 to 40 kg/day of green tea leaves to large collectors. The small collectors are organized into groups, with each group comprising two or three collectors, who collectively purchase green tea leaves from growers. Each commune consists of several different groups, and each group will divide its territory by villages or the number of STGs who are willing to sell tea leaves to them. The relationship of STGs and small collector groups within their territory is long-term and based on tacit agreement on an exclusive business relationship: Farmers will not sell to other collector groups, and a collector group will not purchase tea leaves outside of the agreed territory.

Large collectors, residing in the same district as STGs, possess the capacity to purchase all harvested green tea leaves in the locality to distribute them to subsequent buyers. The number of large collectors is lower than that of small collectors, with only two large collectors overall present at the research sites. The distinction between small collectors and large collectors lies in their purchasing ability and connection to retailers and wholesalers. Large collectors can buy about ten times more green tea leaf harvest, which they purchase from smallholders as well as small collectors.

The data on the productivity of Truoi tea farming in the research sites is limited. STGs did not record the data because harvesting occurs repeatedly, and both the timing and quantity of green tea harvested vary from day to day. The quantity of green tea typically fluctuates from 5 to 7 kg/day. The output of Truoi tea farming is not restricted by quality and food safety requirements, standards, and certification for green tea leaves (Archer and Elliott 2021; KIPPRA; Sen 2017), and most harvested green tea leaves of STGs are bought by collectors. Truoi tea farming follows two conventional transaction types when selling to collectors: STGs sell green tea leaves to collectors after harvesting, or a concession of the entire annual harvest of a STG's farming area to collectors. In the former case, STGs can gain higher income (about USD 1,071/ha/year), but they often lack the labor capacity to harvest the green tea farming area.

In the latter case, STGs rent their Truoi tea farming area to the collector at a price level of about USD 824/ha/year. In this arrangement, collectors have the right to collect and sell all harvested tea leaves of the farming area. Collectors do the harvesting by themselves, while STGs water and fertilize the area. In this case, collectors have full rights to decide about harvesting time, number of harvesting days, and harvesting yield. This transaction type ensures a stable income source for STGs who do not need to be concerned about the harvesting quantities and prices. It proves to be popular in our research sites: it is preferred by many smallholders because of the relatively stable income it provides to farming households, while they need not be concerned about area productivity, market fluctuations, spending time on harvest, or hiring laborers. At the same time, this

practice can be problematic, as collectors tend to be interested in maximizing harvest within a short time period to minimize labor cost, while neglecting tea plant protection. STGs do not benefit from tea price increases in this arrangement, as the renting price of the entire harvesting area of a given year is fixed. Also, the low engagement of farmers in harvesting may hinder the initiative of STGs to improve harvest quality, develop new sales channels, or explore new ways of adding value to the product. These issues have been described by an interviewed farmer:

> Normally, if I harvest tea leaves by myself, I will select suitable leaves and the rest will be kept; and I will also trim dry plant branches or plant branches with fewer leaves. All these activities contribute to better aiding tea plant development. But, if buyers harvest tea leaves, they do not care about these activities, even they cut all branches to harvest faster. (Small tea grower in Loc Dien commune, June 14, 2023)

STGs typically sell green tea leaves to small collectors in the form of renting farming areas for the whole year, as described above. Afterwards, small collectors pass the leaves to large collectors before they distribute them to wholesalers, retailers, and consumers. Alternatively, STGs directly sell green tea leaves to large collectors who then further distribute them. In some cases, STGs can sell green tea leaves to retailers or consumers directly, but they must transport the product to the local market, making this mode highly sensitive to transport distance. Managing transport and transactions with local retailers is often too costly and time-consuming. There is also a possibility of small collectors directly selling their leaves to wholesalers and retailers (bypassing large collectors in the process), but this rarely occurs because small collectors are controlled by large collectors through their purchasing power. Direct transactions between small collectors and retailers happen only when small collectors are able to conceal their transactions, or when large collectors are unaware of the transaction activities of small collectors, as an interviewed large collector described (Figure 2):

> Small collectors can directly sell tea leaves to wholesalers and retailers. But if I know, I will not buy the product from them. During the rainy season, they will not know where to sell

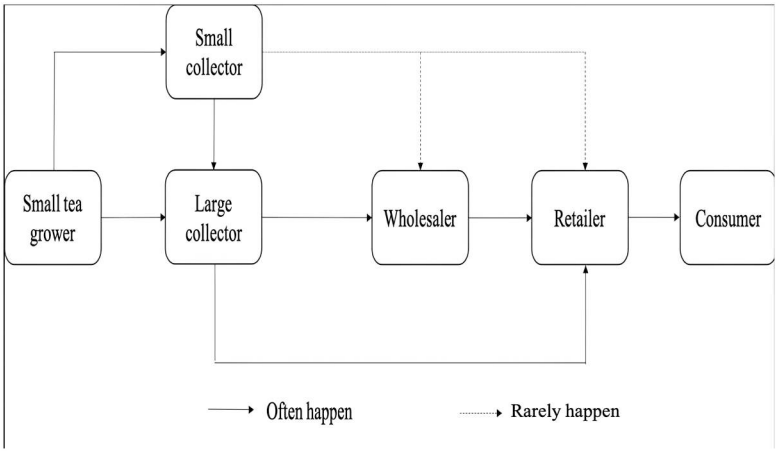

Figure 2. Truoi tea value chain (own adaption based on stakeholder interviews).

> because the demand for green tea leaves decreases. (Large collector in Loc An commune, June 16, 2023)

As a result, about 90% of harvested green tea leaves from STGs and small collectors pass to large collectors before they are distributed to retail or wholesale. Large collectors are particularly important as they control the quantity and price of green tea leaves and typically generate the highest profit in the value chain. Large collectors buy green tea leaves from growers and small collectors at a similar price, in a range of USD 0.3–0.4/kg. STGs obtain a net added value of about 25.4%. The price of green tea leaves increases to about USD 0.5/kg – 0.6/kg when large collectors sell to wholesalers and retailers. Their net added value at this stage is about 44.1%. The final price selling to consumers is USD 0.8/kg, twice as high as the selling price of STGs. This buyer-seller relationship points towards a self-reinforcing dependency between large collectors and their sellers, as a large collector typically monopolizes access to produce and sales channels within its area. They purchase tea leaves at prices that they determine, leaving farmers with low profit margins, low bargaining power, and no option but to accept the price offer.

The structure at the research site sharply contrasts the selling price of STGs in the Northern provinces of Vietnam, which is about USD 0.75/kg, because STGs in Northern provinces have farming contracts with enterprises to provide an output market at more attractive prices (Khanh et al. 2023). This leads to dissatisfaction among STGs and a lack of interest in developing tea farming activities. It also led some STGs to switch part of their tea farming area to planting acacia, even though this also does not offer immediate relief in terms of income (harvesting time for acacia is at least three years). Meanwhile, STGs lack the technology for growing acacia and are uncertain about the output market. These factors pose potential risks when switching to this crop. Moreover, if they want to return to Truoi tea farming, they must wait up to three years to harvest green tea leaves, making the conversion both difficult and costly. An interviewed farmer expressed his dissatisfaction like this:

> We are the ones who produce and supply tea leaves to consumers. We also spend time caring for and harvesting them, but the prices are unstable, and the economic value we receive is too low. It is only the collectors who benefit the most. (Small tea grower in Loc An commune, June 19, 2023)

Large collectors as power holders and gatekeepers in Truoi tea value chains

The division of collectors into two layers is a typical feature in the fresh green tea value chain in Central Vietnam. Large collectors have the capacity to purchase large quantities of tea leaves from both STGs and small collectors. Hence, they become a key actor in the chain, wielding the power to decide and control the flow of green tea leaves. Moreover, large collectors have established networks of wholesalers and retailers, who are consistently prepared to purchase all green tea leaf quantities from them. These two elements contribute to the consolidation of large collectors' position within the chain. Large collectors follow strategies to maintain their status within the chain. First, they regulate the purchasing quantity of tea leaves in a day, which fluctuates from 430 to 500 kg/day. To reach this quantity, large collectors engage in discussions with sellers regarding the daily

purchasing volume, aiming, in principle, for mutually acceptable agreements. Because green tea leaves can be harvested within one month, sellers are not under pressure to sell immediately. Second, large collectors consistently purchase green tea leaves, thereby making them predictable buyers and providing market stability:

> Small tea growers reside nearby, which makes it convenient for them to sell tea leaves to me. Moreover, the price is similar among large collectors while I buy the product fairly according to the market price. Good tea leaf has a high price, bad tea leaf has a low price, so they give me priority to sell it to me. (Large collector in Loc Dien commune, June 26, 2023)

Despite fluctuations in price, market demand consistently absorbs the entire production of green tea leaves, which fosters a strong linkage among STGs, small collectors, and large collectors. This linkage is rooted in long-term business relationships, the established reputations of collectors and STGs and their interdependence. However, in terms of value chain governance and value capture, large collectors possess disproportionate power over small collectors and STGs, which have developed significant dependencies. Yet, this structure has been tacitly accepted by all parties involved. The following quote indicates the difficulty of smallholders to choose between sales channels:

> Other collectors from outside of the locality can offer at a higher price than large collectors. But they typically make only one-time purchases or may not consistently buy the tea leaves. (small tea grower in Loc An commune, July 6, 2023)

Large collectors also establish their own reputation with wholesalers and retailers through factors like transparency and fairness in business practices, and by consistently meeting buyer demand. These elements are an important foundation for long-term business relationships between large collectors and their buyers. Transparency and fairness mean that large collectors reliably provide accurate information about the quality and quantities of available green tea leaves. Responding to the demand of buyers indicates that large collectors consistently strive to supply the required amount and quality of the product to satisfy their buyers. In cases where large collectors are unable to meet demand, they promptly inform their buyers. This proactive approach allows buyers to explore alternative options and ensure effective business operations.

Discussion and conclusion

The empirical results outlined above illustrate high power asymmetries and inflexible relationships in Truoi tea value chains in Thua Thien Hue province. These conditions result in relatively low incomes for farmers and small collectors, limiting their opportunities to improve earnings within the tea value chains andwhich hinder initiatives for product and process upgrading. The main factors contributing to these outcomes are (1) the characteristics of Truoi tea farming which features low product diversification, and (2) the large collectors' use of their market power to monopolize access to sales channels.

As discussed earlier, the biological characteristics of Truoi tea plants limit production to fresh green tea made from older leaves, distinguishing Truoi tea farming from northern tea producing regions such as Thai Nguyen and Phu Tho province, where tea farming areas are developed to produce green tea and black tea from tea buds and young tea leaf

(Hung, Quyen, and Hoa 2019; Nguyen, Chu, and To 2015). The differences in tea production methods are part of the reason why value chain arrangements differ: In the context of Northern Vietnam or India, a tea value chain includes STGs, processors, marketers, and retailers, with the important roles of processors and marketers often being highlighted (Dang and Lantican 2016; Das and Mishra 2019; Mohan 2018). In some cases, STGs enhance the value of green tea by processing it themselves before selling it to marketers (Hung, Quyen, and Hoa 2019; Nguyen, Chu, and To 2015). There are various forms of STGs in Northern provinces, such as independent farmers, contract farmers, farm laborers, and farming cooperatives (Nguyen, Chu, and To 2015), providing STGs with multiple options in establishing sales relationships and preventing the development of strong, one-sided dependencies. In contrast, STGs in Thua Thien Hue face far more limited marketing options, enabling large collectors to exercise monopoly power in the value chain.

Another specificity compared to tea value chains in Northern Vietnam or also in Nepal and India (Adhikari et al. 2017; Das and Mishra 2019) is the observed hierarchy in the intermediate layer, in the form of large and small collectors, whereas large collectors possess a powerful gatekeeping function as they exert control over market access of STGs on the upstream end of the value chain while managing relationships to retailers and wholesalers on the downstream end. Large collectors actively apply strategies to maintain exclusive access to wholesalers and retailers, while ensuring that they collect most produce within their locality. The exclusivity of large collectors' relationships to wholesalers and retailers prevents vertical mobility insofar as small collectors cannot emerge as large collectors due to their inability to develop independent sales channels, while at the same time STGs can emerge as small collectors. Small collector groups enable and perpetuate the position of large collectors by forwarding them all tea leaves collected from their territory.

The structures of Truoi tea value chains outlined in this study, which are dominated by large collectors, resemble a picture of entrenched, informal relationships that make it difficult for STGs and small collectors to switch business partners within the green tea value chain. Furthermore, switching to other agricultural products, while generally possible, is associated with economic costs and risk and therefore remains an unattractive option. These results bear similarity to the study of Van Nguyen, Schwabe, and Hassler (2021) on smallholder-middlemen relationships in Thua Thien Hue and indicate that the persistence of such one-sided dependences across different products stem from the characteristics of farming in Central Vietnam in general, while conditions for horizontal coordination for farmers in South and Northern Vietnam appear to be more favorable (Suzuki and Nam 2018). Traditional farming practices based on tacit knowledge, common practice of cash payments, informal business relationships, small plot areas, and intransparency of retail and wholesale markets are common characteristics of farming in Central Vietnam, which favor the self-reinforcing dependences of farmers on intermediaries as they provide transport, convenient transactions, and purchase stability, while imposing no strict quality requirements.

The relational and captive aspects of the inter-stakeholder relationships indicate that the types of value chain governance outlined by Gereffi, Humphrey, and Sturgeon (2005) are not mutually exclusive, but that aspects of various governance types can be applied to describe aggregated supplier-buyer relationships at a certain value chain stage in a

particular geographical and product context. The relationality is expressed through the predominant role of tacit, informal agreements based on which actors along the value chain organize business. The foundation of this is established trust and emotional bonding between individuals who live in the same communes and have known each other for years, or even decades. This, however, results in farmers being captive within their current production arrangements regarding tea harvest, which means that the barriers to independently developing their tea business and switching to viable other markets are high. Similar studies of tea farming like Adhikari et al. (2017), Das and Mishra (2019), Goowalla (2015), and Mohan (2016) also identified power imbalances and dependence of smallholders on intermediaries as prevailing issues, but the low potential of Truoi tea farming for product improvements and absence of contract farming exacerbate the issue of dependency in this particular context. The absence of food processing, high fragmentation of generally small Truoi tea farming plots, and harvesting that extends over a period of about one month also make it difficult to organize horizontally, e.g. in the form of cooperatives. This is in contrast to tea farming in Northern Vietnam, where plots are larger and less fragmented, and farming practices are more uniform (Figure 3).

Even though Truoi tea farming has been identified as a key agricultural product in the provincial development planning, support for farmers to develop independent sales channels has thus far been lacking. Experience from other tea producing areas in Vietnam but also from other agri- and aquacultural product contexts may point towards measures of how to address the issues of Truoi tea farming in Central Vietnam, improve production effectiveness, develop more dynamic product marketing, and enhance the motivation of small tea growers to take initiative in this regard. Better horizontal coordination of farmers through cooperatives could allow them to develop direct marketing channels to retailers, as experiences in Northern Vietnam and for other agricultural products show (see also Ha, Bush, and Van Dijk 2013; Schwabe and Hennig 2023; Schwabe, Van Nguyen, and Hassler 2021), however, this would require consolidation of the currently fragmented Truoi tea farming sector and more uniform farming practices. Such significant changes in established routines are difficult to

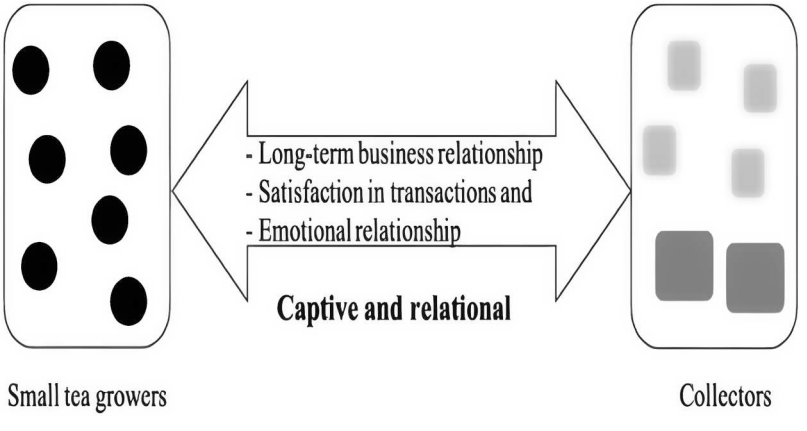

Figure 3. The relationship between small tea growers and collectors (own adaption based on stakeholder interviews).

achieve and require training and government support. The diversification of tea products, combined with the development and integration of farmers into digital platforms for marketing tea (as is already being practiced for other agricultural products in Thua Thien Hue province), can create transparency about product demand. Such efforts can be accompanied by enhancing the expertise of farmers through dedicated training. If implemented, they need to be introduced with sensitivity to the established social relationships of farmers and collectors in order to avoid disruptions to these existing relationships.

This study provided a detailed perspective on the role of intermediate layers on Truoi tea farming in Central Vietnam, confirming the self-reinforcing nature of informal and unequal relationships that can also be found in other contexts. The characteristics of Truoi tea farming, with high fragmentation of plots and no diversification of production processes, make this sector particularly susceptible to the one-sided dependences described in this study. This article contributes to a better understanding of agricultural development dynamics in Central Vietnam and the barriers to cultivating Truoi tea as a regional specialty product. While some possible policy interventions have been proposed, going forward, a deeper analysis of effective policy measures and government support schemes promoting equitable partnerships would be a viable direction of further research.

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No potential conflict of interest was reported by the author(s).

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