Land acquisition through *Bricolage*? Politics of smallholder acacia plantation expansion in upland Central Vietnam

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Abstract

Commodity booms can lead to intense pressure to access land resources. We investigate a case in which villagers, far from being passive victims of land grabs, acquire land themselves by navigating between customary institutions and state policies seeking to foster a forest transition and rural development. Based on fieldwork in an upland forest-rich commune in Central Vietnam, we describe specific mechanisms of enclosure, encroachment, theft, and re-claiming by which villagers re-territorialize forest spaces to their advantage. These mechanisms change and adapt over time, notably in response to a closing of the forest frontier, illustrating the challenges facing locals seeking livelihoods and state officials managing forests. The paper challenges dominant assumptions about local villagers' positionality in the global land rush and calls for rethinking the nature of contemporary peasant politics worldwide.

Keywords: Land access and control, enclosure, encroachment, forest transition, agrarian transformation, smallholder plantations, acacia, Vietnam.

Introduction

Land acquisitions are often pushed by demand for commodities. Research on the recent wave of such 'land grabs' have typically focused on the agricultural, biofuel and mining sectors (Heinimann and Messerli 2013; Kröger 2014). Attention is most focused on large-scale[1] and long term[2] land deals (Friis and Nielsen 2016). They emphasize land acquisitions driven by large-scale, non-local actors, such as foreign and domestic state entities or private sector groups (Hall 2011). Research demonstrates that the resultant changes in land control and land-use have strongly affected villagers' livelihoods and in many cases, alienated them from the land they previously used or potentially could use, leading to resistance (Hall 2011; Hall, Hirsch, and Li 2011; Li 2014; Borras and Franco 2013; Mamonova 2015; McKay and Colque 2016).

The dramatic growth of acacia plantations in Vietnam in the past twenty-five years (Cochard et al. 2020) suggests a different set of patterns in a case of commodity-boom land acquisitions. It embraces several anomalies (cf. Sikor 2012). First, the acacia boom is strongly characterized by small-scale land acquisitions by a broad swath of rural households, on land previously state-controlled or formally unclaimed. Second, rural households are active and willing participants, rather than resisting these far-reaching transformations. Third, the phenomenon involves the forestry sector, which has not typically involved smallholders but instead state forest bureaucracies and private companies. Fourth, the role of the state as a strong initial instigator, and constant yet evolving institutional presence and partner, complicates the analysis of actors and institutions shaping the process.

This paper seeks to learn from these anomalies by documenting the dynamics of small-scale land acquisition in a case of rapid smallholder forestry expansion in Vietnam. Specifically, we analyse the *mechanisms* by which rural households have been able to access land resources to grow acacia. We show how those mechanisms evolve over time – in a context of changing state policies, developing market demand, increasing local experience and interest – and how they draw from institutional registers rooted in ethnic traditions as well as state policy. We describe this as a process of *bricolage*, whereby local farmers opportunistically adapt local customs and state rules to access land.

In doing this, we contribute to investigations of land dynamics under commodity booms. Instead of providing a facile 'reversing' of the narrative of 'from above' land grabbers and local victims, we deepen recent more nuanced investigations into agency 'from below', by local villagers (Borras and Franco 2013; Hall 2011; Hall et al. 2015; Peluso and

Lund 2011; Scott 1976). We also contribute to documenting the processes underlying a 'forest transition', or a turn-around in forest cover, from deforestation to reforestation, linked to social, economic, and political change (Kull 2017; Mather 1992). While researchers have proposed several different constellations of driving forces and actors behind forest transitions – such as a state forestry policy pathway driven by perceived scarcity or crisis, or a smallholder tree-based land-use intensification pathway driven by livelihoods (de Jong et al. 2017; Lambin and Meyfroidt 2010) – less attention has been paid to the types of detailed, fine-grained processes of land access underlying these pathways. A forest transition, whether considered as a description of past and ongoing dynamics, or as a normative prescription for a possibly sustainable future, requires attention to how it unfolds on the ground.

This paper begins by reviewing the conceptual bases for our investigation of land control politics in the case of a forest transition and commodity boom. We then outline our fieldwork methodology and introduce the case of Vietnam's acacia boom and its broader contextual background. We then move to a detailed case study in the mountainous Huong Nguyen commune (Thua Thien Hue province, central Vietnam), starting with the history of ethnic minority settlement and continuing up to today's dynamics of commercial acacia plantations. This is followed by our presentation and analysis of the different mechanisms and tools by which villagers gain access to and control land for acacia production. The final section discusses the findings in the context of broader processes of agrarian transformation and forest transition in contemporary Vietnam.

Land access dynamics in smallholder forestry frontiers

Our focus is on the institutional mechanisms, power dynamics, and historical unfolding of land access dynamics in a particular set of circumstances: a tree-based commmodity boom shaped as much by state forestry policy as market demand. This can be seen as a case of frontier dynamics that reconfigure existing social and institutional orders (Rasmussen and Lund 2018).

Land acquisitions gained attention after the wave of large-scale 'land grabs' incited by the 2007 global food price crisis. Research on commodity booms more generally have documented that they are typically accompanied by consequential dynamics in who controls and accesses land to grow the commodity in question, including various forms of accumulation or dispossession (Mintz 1986; Nevins and Peluso 2008; Peluso and Lund 2011). Most research on land deals focuses on food production. However, booms in tree cultivation, whether for timber, pulp, or other economic products, also merit scrutiny

for their impacts on land access dynamics. All the more so given enormous current interest in climate mitigation and other ecological services through tree planting (Holl and Brancalion 2020; McElwee and Tran 2021) in an emerging 'bio' or 'green economy' (Kröger 2014; Peluso and Vandergeest 2020).

Whether involving agriculture or forestry, commodity booms often lead to new forms of land control, new actors and new mechanisms to acquire land. In many cases, researchers have documented enclosure and/or accumulation of land by certain groups of actors, and in consequence the alienation or dispossessions of others (Borras et al. 2012; Borras and Franco 2012; Hall 2011; Mintz 1986; Nevins and Peluso 2008; Peluso and Lund 2011; White et al. 2012). What is unusual in the case of Vietnam is that the acacia boom appears to have empowered rural smallholder households, a category of actors usually considered as victims in cases of land acquisition. This suggests that too much focus on 'outside grabbers' and a romanticization of resistance by local people can obscure more complex and broader ranges of land acquisition processes in practice, and that smallholders are frequently overlooked as key actors in land acquisitions in crop boom (Bersaglio and Cleaver 2018; Hall, Hirsch, and Li 2011). In practice, as local actors negotiate and capture aspects of interventions from above, they insert their own motives and desires in order to influence the extent to which external actors are able to 'prescribe activities within spatial boundaries' (Vandergeest and Peluso 1995, 388).

While forestry has typically involved state agencies or private companies, in recent decades, smallholders have increasingly come to play a role in forest restoration and forest plantation efforts worldwide (Chazdon et al. 2017; Nawir et al. 2007). A pattern of smallholder forest expansion has occurred in settings where smallholders found sufficient value in forest products to invest the labor to plant trees. Such trends have been documented in parts of Africa, Latin America and Southeast Asia for at least three decades, sometimes facilitated by ambitious policies for forest landscape restoration involving smallholders (Holmgren, Masakha, and Sjoholm 1994; Kull 1998; McElwee and Tran 2021). According to Del Lungo, Ball, and Carle (2006, 24), a third of global productive planted forests were owned by smallholders in the early 2000s, compared to less than 10% in 1990. This trend has continued recently with the convergence of environmentally-motivated tree plantation programs and high market demand due to the emergence of a forestry sector in Southeast Asia (Overbeek, Kroger, and Gerber 2012; Kröger 2014).

The increased participation of smallholders in forest commodity plantation booms leads to new land dynamics. Based on work with other types of commodity crops in Southeast Asia, Hall, Hirsch, and Li (2011) show how villagers have actively sought means to assert new

forms of land control, acquiring land from village commons or another actors' land, or even 'intimately' among neighbors and kin. These are 'from below' land grabs (cf. Borras and Franco 2013; Hall 2011): new ways in which processes of land accumulation work at a local scale. Such acts may cover small plots individually, taking place day-by-day in piecemeal ways, but their cumulative impact may come to thousands of hectares and be equivalent to the scale of large land acquisitions (Friis and Nielsen 2016; Xu 2018). Our study shows that these dynamics also take place in forestry booms.

In order to unpack these local land access dynamics, we rely on the theory of 'access' developed by Ribot and Peluso (2003). Their framework allows us to examine how villagers' ability to benefit from resources is not only based in formal rights (property and tenure claims) but also in a larger array of institutions and political-social-economic relations. In addition, their framework allows us to identify and describe specific types of strategies, mechanisms and relations of access among those who control and those who seek to gain or maintain access – through co-operation, competition, conflict, and negotiation (Peluso and Ribot 2020).

In addition, the concept of 'bricolage' (Cleaver 2000; cf. Dressler et al. 2012) allows us to make sense of the way in which access rights are negotiated opportunistically at the intersection of state programs and policies with local norms and traditions. As regulatory, political, and socio-economic conditions evolve, the villagers stay acutely aware of the nuances of their access rights and what powers, discourses, technology, and capital they could mobilize to produce new access opportunities (cf. Sikor and Lund 2009; Ribot and Peluso 2003; Peluso and Ribot 2020). The strategies and mechanisms we describe can be labeled as *land acquisition through bricolage*, in that the ways in which villagers get access to land for growing acacias are 'borrowed or constructed from existing institutions, styles of thinking and sanctioned relationships' (Cleaver 2002, 16). Through a process of tenurial bricolage, villagers have taken advantage of the points of convergence between the state and the local tenure institutions to produce their own new access opportunities and new mechanisms to secure land for acacia.

Methods

This research builds on a case study of Huong Nguyen commune, which is found within A Luoi district, a mountainous area of Thua Thien Hue province, Central Vietnam. Based on available government forestry and socio-economic data and preliminary fieldwork in the summer of 2017, we determined that this case is a particularly dynamic example of the acacia frontier. The lead author lived for a total of three months in the site between August

2018 and June 2019. Specific methods included observations, interviews, focus groups, a survey, and collection of documents, reports, and government statistics.

Eight focus group discussions facilitated the exchange of ideas and encouraged interaction among the participants to understand historical contexts and map out dynamics of forest and land-use changes at the local level. Formal and informal interviews were conducted with key informants, including four local communal authorities, two local forest rangers, 11 leaders of community forest protection teams, three representatives of nearby state forest owners, four village headmen, four village elders, and 20 male and female villagers.

We conducted surveys with 91 households in all four villages of the commune covering both quantitative livelihood data and open questions on land access. Participating households were purposively selected through a stratified sampling approach to reflect the range of socio-economic levels (see Table 1); including 21 female-headed households (equivalent to 23% of the household surveyed). The survey helped generate quantitative data to describe the differences in material conditions and benefits those different villagers derived from access and control over land for their livelihoods.

Table 1: Characteristics of households (HH) surveyed in Huong Nguyen commune

(Source: Huong Nguyen CPC and household survey, 2019)

Village	No. of HHs	No. of people	% Ethnic minority people (mostly Katuic)	No. HH surveyed	Classification of a multidimensional socio-economic status for HHs in Huong Nguyen Commune					
					Poor HH	Poor HH surveyed	Near-poor HHs	Near-poor HHs surveyed	Medium HHs	Medium HHs surveyed
Mu Nu – Ta Ra	108	416	100%	23	38	n = 10	18	3	56	10
Chi Du – Nghia	72	281	98.6%	24	19	n = 10	7	2	46	12
Giong	84	344	97.6%	21	16	n = 6	4	2	64	13
A Ry	84	321	76.1%	23	15	n = 7	3	2	66	14
Total	348	1362	93.39%		88	N = 33, 26.07 % of total poor HHs	32	N = 9, 28.12 % of total near poor HHs	232	N = 49, 21.12 % of total medium and rich HHs

Interviews, surveys, discussions and observations were held in various settings, including in fields, forest, and offices, but most commonly in the community meeting hall, or in villagers' houses during lunchtime or the evening when people finish their working day. All interviews, surveys and discussions were conducted face-to-face by the researchers in

the Vietnamese language (this was not a barrier as most of the respondents – of the Katu ethnic minority – were fluent in Vietnamese). Informed consent was generally sought orally, as written consent from villagers was either impractical due to poor levels of literacy or considered too invasive.

Background: the rise of smallholder tree plantations in Vietnam

Over the past twenty-five years, plantations of fast-growing trees have swept across Vietnam (Cochard et al. 2020). According to the latest official data, fully 13% of Vietnam's territory is under tree plantations, of which 65–85% is acacia (MARD 2020). Acacia, locally known as *keo*, is native to Australia, and represented mainly by two varieties: *Acacia mangium* and a locally-bred hybrid of this species with *A. auriculiformis.* Millions hectares of bare land and shrublands that local communities lived off have been replaced with monoculture plantations (Sikor 2012; McElwee 2016). Smallholders[3] account for 52–64% (Sikor and Baggio 2014) or nearly 70% (MARD 2020) of the total tree plantation area. According to Midgley, Stevens, and Arnold (2017), smallholder planting areas may be even larger than captured in government data. They identify at least 600,000 ha of unaccounted acacia smallholdings and informal plantings in areas not designated as forestlands, such as gardens, agricultural land, roadsides, or illegal encroachments in natural forests.

Household tree plantations have become a significant contemporary land-use across rural and upland regions in Vietnam (Do and Mulia 2018, Nambiar, Harwood, and Kien 2015; Ohlsson et al. 2005; Sandewall et al. 2010) and form the backbone of the wood supply economy (La, Darr, and Pretzsch 2020). The plantations are cultivated on small plots measuring anything from less than a single hectare to a few hectares (Sikor 2012). In rural areas such as in the mountains of Thua Thien Hue province, acacia plantations are the main source of income for villagers (La, Darr, and Pretzsch 2020). Vietnam now produces some 10–12 billion USD of wood products for export per year based, contributing 6-7% to the national economy (MARD 2020).

The development of smallholder tree plantations over the last three decades in Vietnam took place in a context of major transformations to rural agrarian economies as a result of the country's post-socialist transformation (Kirkvliet and Porter 1995, Sikor et al. 2011, Tai and Sidel 2013, McElwee 2016). Rural villages increasingly benefit from better services and infrastructures, their reliance on both cash-crop and non-agricultural income has increased, and migration for studies or jobs is common, though more for better-off households (Tarp 2017). Vietnam's political and economic reforms have accelerated the

shifts in upland crops, labor and land-based resources (Sikor et al. 2011). However, unlike purely market-oriented agricultural commodities like cassava (To et al. 2016), smallholder acacia plantations also fit into broader state strategies to increase forest cover, boost timber processing industries, and create economic development opportunities for improving rural livelihoods (Sowerwine 2004; To 2007; Auer 2012).

Specific state strategies included allocating forestland to households and communities; large-scale planting programs; identifying target landscapes and suitable tree species; and finally facilitating a wood products economy. We review each in turn.

First, the government-led land tenure reforms that transferred agricultural and forest land to non-state actors and private hands, including households. Around 7 million ha of forestland – most of it barren and in need of reforestation – were allocated to non-state units, mainly local households. This tenure reform was made possible by the 1988 and 1993 Land Laws, the 1991 Forest Protection and Development Law (FPDL), and various supplemental decrees. Land recipients were granted rights to exchange, transfer, lease, inherit, and mortgage the land for 50 years, with land-use certificates (LUCs) issued by the local government. The government expected that by giving local people more access to land, with clear tenure rights, they would be motivated to invest in the land, benefitting them, the country's forest cover, and the economy (To 2008).

Second, at the same time, the Vietnamese forestry sector underwent a crisis. Forest cover had dramatically declined from perhaps 43% of national territory in 1943 to 16–27% in 1993 (estimates vary: Cochard et al. 2020). This crisis spurred profound changes in the Vietnamese forestry sector, shifting its emphasis from timber extraction into forest production and protection (McElwee 2004, 2016; Nguyen 2009), through implementing several ambitious nationwide policies and programs for forest protection, restoration and tree plantations (Bartlett et al. 2017). In particular, with the support of international donors, the country embarked on successive large-scale environmental restoration plans to reforest much of the uplands with small-scale tree plantations by villagers. These included subsidies and concessionary loan schemes to get smallholders involved in tree plantations. The first major program, named 'PAM' in the late 1970s, invested in planting nearly 450,000 ha of forest (Ministry of Forestry 1991). Smallholders, mainly in the North and Central Coastal Region, were provided with food or cash and tree seedlings. The next major program, the 327 Program, ran from 1992 to 1998 and created policies to bring barren land into effective use. The follow-on 661 Program, launched in 1998, aimed to create five million ha of new forest (3 million were for wood production through afforestation) in the country by 2010. Unlike the PAM and the 327 Program in which the local people were passive participants,

Program 661 considered local people as the main actors in forest planting and main beneficiaries of these activities. Between 1990 and 2010, the country expanded its total tree plantations from less than 1 million ha to 3.3–3.5 million ha (MARD 2011; To and Tran 2014).

Third, as part of these programs and its general forestry planning, the government identified priority zones for tree plantation investments. These included nearly a third of land areas in rural and upland regions, mainly steep mountain slopes denuded by human activities like shifting cultivation and logging, or hilly regions with bush, scrub, or grassland vegetation (McElwee 2016, 154). The process also encompassed different strategies for replanting forests, such as surveying, boundary demarcating, mapping, land-use planning, issuing policies on land-use and land management; implementing policies on land allocation; then delineating how and by whom these activities can be carried out; as well as market, financial and technical supports to help the process take off.

Fourth, the government identified suitable tree species for planting. The dominant trees were mainly fast-growing acacias and eucalypts (Tran et al. 2020). They can be grown on rotations shorter than those employed for other species, such as pine, teak, or other native species, and are versatile in use (Nambiar, Harwood, and Kien 2015). In the beginning, villagers had no particular interest in acacias. They planted trees in priority areas defined by the government, largely to claim land during a brief phase when the country radically shifted from state planning to privately held land ownership (Pietrzak 2010). The short rotation times (three to six years) and lucrative market prices for acacia wood – together with its tolerance of diverse soils and its suitability for small plantations (0.1 ha and up) made it a favorite of smallholders.

Last but not least, the market has played an important role, facilitated by state encouragement of the forest processing industry. The Government's Program 147 (2007–2015) encouraged commercial forestry activities through investment in nurseries, roads, forest product processing mills, and factories. Powered by increased global demand, the wood processing and export industry has been steadily expanding, especially since the 2000s, promoting rapid growth of land devoted to plantations using fast-growing species (Tran et al. 2020).

Sparked by this raft of policies, villagers around the country quickly engaged in planting and integrating exotic trees into their land-use systems. Much commentary has focused on the financial profitability of small-scale tree plantations and on questions related to subsidies and technical supports for the expansion of the tree plantations (Pietrzak 2010; Nambiar, Harwood, and Kien 2015; Maraseni et al. 2017; La, Darr, and Pretzsch 2020).

Less attention is paid to the underlying land access dynamics, and how they build on and diverge from the above-listed government initiatives. For that, we now turn to our case study.

Huong Nguyen case study

Settlement history and livelihoods

We now zoom in to Huong Nguyen commune, located in A Luoi district, Thua Thien Hue province. The commune spans a number of valleys in the Truong Son mountains, with the current settlement found in a hilly basin at the northern end of the communal territory. The commune stretches across 32,700 ha but is quite small in terms of population. It consists of four villages with 1360 people in 348 households. Villagers in Huong Nguyen mostly belong to the Katu ethnic group – traditionally a forest reliant group considered the first settlers in the Central Truong Son mountains.

Elders in Huong Nguyen recalled that their ancestral villages in a remote stretch of the Huu Trach river valley were created approximately a century ago, during the 'time of the French' (*thời người Pháp)* by a few small groups migrating from Nam Dong and Quang Nam (see Figure 1). Since then, the Huong Nguyen settlements have relocated several times. At the height of the war in the late 1960s until late 1976, they moved out of the valley. Those who returned, together with some new Katu immigrants, officially established Huong Nguyen commune under the Hanoi-based government. The second move occurred in late 1996 when the A Luoi District People's Committee ordered villages to relocate close to national road QL 49 to enable easier management and facilitate other environmental and development plans, such as hydropower development and the creation of a nature reserve. The current location, called *Ta Luong,* was previously part of the adjacent Hong Ha commune, also home to Katu people. When the villagers moved in, they joined about 12 households already present. Resettlement has interrupted villager's ties to traditional forest landscapes and practices, as elsewhere in Southeast Asia (Hall, Hirsch, and Li 2011).

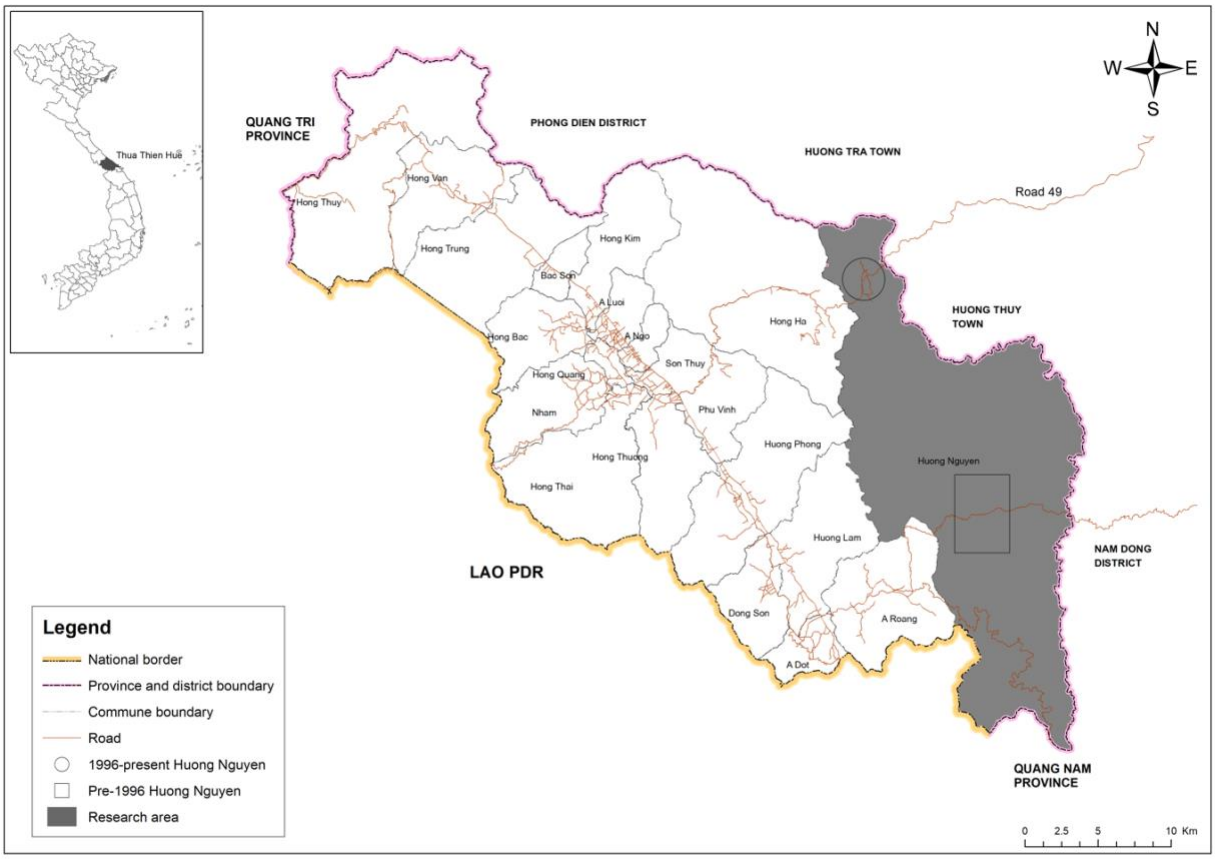

Figure 1. Huong Nguyen commune in A Luoi district of Thua Thien Hue province (Source: Produced by authors)

Katu institutions, social structures, religious beliefs, and livelihood strategies were traditionally strongly linked to the forest landscape in which they live (Arhem 2014). In the old Huong Nguyen village sites, people practiced a subsistence economy, primarily based on slash-and-burn rice farming and animal husbandry (mainly buffalo and cows left freely in forests). They also planted *lồ ô* bamboo along the river, collected non-timber forest products, and used timber for their houses. After the war, villagers started to use flat areas with good water access to build terraces for wet rice production. Some outsiders came to prospect for gold; local people participated in these activities along streams and tributaries. Being deep in the forest and lacking a road connection, the river was the main trade route for goods like forest products and gold.

When the villagers moved to the new Huong Nguyen, 'the landscape was completely different', the village head revealed [Interview #87, April 2019]. The landscape at that time of the new village site, as described by elders, was mainly bare, or forestland with low-value timber trees and bushes on it; rich natural forest still existed far to the South, towards

the old Huong Nguyen, but belonging to the State. The forest in the new site, particularly along the road and river corridors, was strongly damaged by bombing and chemicals during the war (Biggs 2018). Thus, with the government's support, villagers had to start building a new place. They built wet-rice paddy fields, planted *lồ ô* along the small streams, and cleared nearby forest areas to grow crops like hill-rice, cassava, and maize. Animal husbandry could not be developed due to several reasons: (i) villagers could not bring their cattle from the old villages and (ii) did not have money to buy new ones; (iii) there was no fodder as the grass cover was very flammable in the dry season and was burned by locals for cultivation or to locate war-related scrap metal to sell; and (iii) due to the cramped landscape, the cattle could damage swidden crops of other villagers and create conflicts.[4]

In the past, villagers had their own forest classification and access regimes. The forests were classified into three categories. *Ghost/spirit* forests, which were of spiritual importance, and *headwater forests* which protect water sources were communally protected and typically consisted of rich forests. Cutting timber in these forests was only allowed for communal purposes. Meanwhile, *forests for exploitation* – normally young and relatively poor forests – were central to livelihoods via swidden agriculture (cf. Bayrak, Tu, and Burgers 2013). These forests were divided and allocated among different clans by the council of elders and the village patriarch. The clans, consisting of five to ten households, would distribute land among their households (ibid.). Once the land was allocated and cleared for cultivation, the household's private claim was established and maintained even when the land was left to fallow for a few years. Clans were the strongest social structures in the village, rather than the village as a whole, particularly concerning land and labor exchange [FGD #1, Jan 2019]. The above land access institutions continue to play a role in land dynamics, as we will see below.

In new Huong Nguyen, villagers recalled that the Government allocated 1 ha of residential land and 1 ha of wet-rice paddy to each household during the latest resettlement, but no swidden land. This State land distribution was not based on household size: 'the State allocated land was not enough to cultivate food, especially for households with a large number of children', one elderly household shared [Interview #60, March 2019]. At this time, Huong Nguyen had 100–110 households [Interview #87, April 2019]. Households established after resettlement had to cultivate their parent's allocated land, seek suitable areas for new terraces, or open new swidden fields in the nearby forests. Such new paddy fields and swidden lands were established under traditional access and ownership regimes as described above.

Just over 34%[5] of the households are today classified as poor or near-poor making the commune among the province's poorest communes (see Table 1). According to our survey, the poor and near-poor households consist mostly of newly established young couples (average age 25–30) or women-headed households with a lack of labor force. The main sources of income in Huong Nguyen come from tree plantations (rubber and acacia), forest protection subsidies, NTFP collection, and acacia-related labor wages (see Table 2). Unlike many other rural communes in Vietnam (cf. Tarp 2017; Simelton, Duong, and Houzer 2021), off-farm work is uncommon despite some programs encourage villagers to diversify their livelihood activities. Likewise, even if some members of the younger generation seek better education in nearby cities, the percentage staying in the cities or out-migrant for work is insignificant, accounting for 5.4% of total commune's population (Huong Nguyen CPC 2019). Most of them prefer to return to work locally, 'work in the city can get pay higher, but the cost is also expensive and unsafe. Go back home and plant acacia/rubber maybe better' [Interview #42, March 2019].

Table 2. Key socio-economic characteristics of Huong Nguyen commune

Source: Huong Nguyen CPC, 2019; focus groups and household survey, 2019

Total Households	348
Total population (no. of people)	1362
Household size (no. of people)	3-4
Total paddy land (ha) (for wet rice, dry rice, corn, cassava, etc.)	156.5
Paddy land per HHs	0.49
Rice per capita (kg)	299
Total forest plantation area (ha)	258
Forest plantation land per HHs (average)	0.74
Total rubber plantation (ha)	428.7
Rubber plantation land per HHs	1.23
Main sources of household income	Tree plantation (acacia and rubber) – 46%, acacia-related labor wage

	(34.8%), state subsidies (10.4%), non-timber forest product collection (3.48%), forest protection contract (1.7%) and others (3.62%)
Total household annual income (million VND)	15

State control over forests in Huong Nguyen

The presence of state forestry was not felt in old Huong Nguyen due to its remoteness. After the war, the forest areas surrounding the (future) resettlement village sites and extending far to the south (even over the old village sites) were allocated to managed by two State Forest Enterprises: A Luoi SFE and Huong Giang SFE. However, after a long period of industrial timber exploitation, in the 1990s, under new state policies and programs, these SFEs shifted their focus to restoring and replanting forests. Among other things, after Huong Nguyen's resettlement, in order to support people to stabilize their lives and attracting their participation in forest landscape restoration programs, villagers were still free to access forests to open new swidden fields or participated in tree planting activities within State entities' forest boundaries.

Around 2005, a new forest inventory and new policies led to a further suite of changes. A Luoi SFE was transformed into a protection forest management board (PFMB), focusing more on watershed forest management and protection duties. Those areas classified as production forests were redefined as protection forests, with stricter rules. At the same time, Huong Giang SFE was dismantled and merged into an adjacent SFE, becoming Nam Hoa State Forest Company, which focuses on acacia production and completely stopped logging on natural forest areas. In 2013, Saola Nature Reserve (NR) was established from parts of A Luoi PFMB territory and this forest area was upgraded from protection forest to special-use forests, with strict protection rules. Saola NR is managed by a state-owned management board which strictly prohibits any swidden and forest clearance activities by villagers.

For these reasons, villagers have increasingly restricted access to forests and land. Over 93% of Huong Nguyen commune's total land area is classified as forestland (A Luoi FPD 2019). Most of these forestlands (92.38%) continue to be managed and protected by State forest owners (A Luoi FPD 2019). A small portion of those forestlands (4.38%, about 1300 hectares of natural forests), was re-allocated to groups of villagers under Thua Thien Hue's provincial forestland allocation program in 2010 (see Figure 2).

Figure 2. Villagers' acacia plantation areas and other forestland owners (Source: Official spatial forestland ownership data (A Luoi FPD 2019) and authors' field observation).

The combination of Katu traditions of land access, state-organized resettlement and land allocation, and evolving controls over forestlands by diverse state entities have co-produced fuzzy and complicated tenure regimes over every single piece of forestland in Huong Nguyen. It is in this landscape that the forestland acquisitions for acacia are taking place.

The arrival of acacia and state-led tree planting programs

Acacia appeared in Huong Nguyen shortly after resettlement in the late 1990s, around the time that the SFEs began implementing reforestation programs. The goals were three-fold: (i) to re-green barren land and increase forest cover in the area; (ii) to provide livelihoods, economic growth, and poverty reduction and (iii) to increase the future supply of wood (cf. Nguyen and Gilmour 1999). Villagers were enrolled in acacia plantation in two ways. First, the SFEs employed villagers on short-term contracts or food-for-work programs to participate in acacia tree plantation on the SFE's land. Second, the first Forest Land Allocation (FLA) activities were implemented to distribute 'barren' production forestland to individual households, requiring recipient households to plant tree seedlings (mostly acacia, but also cinnamon) chosen and provided by the state.

At this time, acacia was a completely new crop to villagers. They did not like acacia at first, elders said, because they had no particular economic nor environmental interest in it (Interview, #42, March 2019). Villagers participated in planting acacia out of curiosity and due to incentives offered by the SFEs, such as cattle for breeding, labor cost subsidies, foods, or being allowed to continue swidden cultivation if planting trees. During this period, villagers still focused on their wet-rice and swidden cultivation on the hillsides surrounding the villages and planted acacia trees only in areas planned by the State.

As a result, the total area planted in Huong Nguyen under the state-led tree planting programs was reported as over 1110 ha, but most of this area (96%) was on the SFEs' land. Only 34 ha was planted on the villagers' allocated forestland (Thua Thien Hue FPD 2019).

The situation changed dramatically over the last two decades, as villagers invested massively in commercial tree plantations, especially acacia. In our surveys, 90% of households confirmed they have acacia plots, with areas ranging from 0.1 to10 ha. Medium and rich households have at least 2–3 ha of acacia farm, excluding rubber and other crops. In contrast, for the poor households, their acacia cultivation area normally less than 1 ha

and fragmented, consisting of several plots in different locations. Villagers recounted that this practice had been unimaginable to them, even until 2005 when acacia was still perceived as a forest tree planted for the state purposes. Seventy three percent of households stated that they only started planting acacia on their own land after 2005.

On which land are the villagers growing their acacia? Just as in some other localities in Thua Thien Hue province (cf. La, Darr, and Pretzsch 2020), surveyed households shared that their acacia farms could be established on different types of land: post-war barren and degraded land, old swidden fields, or converted from other land-uses, such as: wet rice paddy, home gardens, along village roads or most recently rubber plantation areas and even in natural forests. All 91 households also expressed their interest in planting more acacia were more land available. At current trends, it is clear to all that the area of acacia plantations will continue to increase in coming years [Interviews, Feb–April 2020].

Officially, according to the Huong Nguyen CPC, at the end of 2019, the area cultivated with acacia by villagers reached 650 ha, 19 times more than the area planted in 1996. The local forest ranger, however, stated 'I am sure the area is much larger. But with the current method, it will be tough to determine exactly. Villagers usually make use of every single piece of land, everywhere and often convert their other cropland to acacia' [Interview #20, January 2019].

So why have acacia plantations taken off in Huong Nguyen? Acacia was attractive to villagers after they saw their kin and neighbors succeed. As one former village head explained,

> My family planted acacia in 1997 with the seedlings supported by A Luoi SFE. In 2003, the trader came and paid me 35m VND (2200 USD)[6] for my acacia. It was the biggest amount of money I had ever seen. The benefits from acacia not only inspired my family to continue our next rotation but also our relatives and neighbors to follow suit. [Interview #15, Feb 2019].

The livelihood rationale for the farmers to undertake acacia plantations is clear. For households who had already harvested acacia, the gross revenue represented about 25–50% of total income, making acacia the most significant and stable income source for Huong Nguyen's households. In addition to the benefits of selling one's own acacias, the regularly available wage labor for planting, nursing, or harvesting acacias – well paid around 200,000–250,000 VND/day (8.6–10.7 USD)[7] – has provided a significant additional daily cash income for households and the main source of income for the poor and landless (who account for 36.26% of surveyed households). As a result, many villagers no longer

emphasize their own food crop subsistence needs. Out of our respondents, around 20% do not have or save land for food crops anymore, while most buy foods from village stores for 3–12 months per year.

The uptake of acacia has been facilitated by its ease of cultivation, by the ways in which it can be integrated into local cultivation systems, and by state and project subsidies. Villagers rely on techniques born out of their traditional slash-and-burn practices. To open new fields, this involves cutting and burning the vegetation, using the resulting ash as fertilizer. During the first years, when acacia seedlings have not yet closed their canopy, villagers grow food crops like rainfed rice and casava between them. Acacia was found to be very easy to grow and easy to manage, even with limited financial and technical resources. Based on our interviews, not only the rich, well-off households, but also the poor are likely to participate in acacia plantation, although the scale maybe smaller. Villagers can easily purchase seedlings from traders, or from Binh Dien town 20 km down the road. In cases where people do not have money to buy seedlings, they can use seeds from previous crop or from their neighbors. Acacias seed well on their own, especially after fire: 'I had no intention of planting, but when we burned our farms, it grew on its own. When the tree got older, I just pruned or removed the stunted trees', one villager shared [Observation, March 2019]. Acacias in Huong Nguyen are often planted at a higher density than recommended by silviculturalists, around 4000–6000 seedlings/ha. According to the villagers, a higher density will generate a larger quantity of timber at harvest. Trees are often harvested at the age of 3–6 years. Afterwards, villagers start a new cycle in the same location, burning the slash and re-seeding or replanting acacias.

Over the past three decades, the wholesale uptake of acacia tree farms has transformed livelihoods and landscapes not only in Huong Nguyen but also in many (if not most) villages away from the coastal plains in central Vietnam (Tran et al. 2014; Sandewall et al. 2015; Maraseni et al. 2017; La, Darr, and Pretzsch 2020). Villagers have transitioned from being subsistence-oriented swidden cultivators to being enrolled in the highly market-oriented production of this commercial crop. These dynamics were initially catalyzed by changes in the larger political-economic environment, as well as resettlement programs or state-led forest use and management policies. Yet, these state-led interventions were embedded into a local context, and appropriated by local actors, leading to dynamics influenced by diverse local factors, like livelihood aspirations and power relations. Villagers are not passive state subjects but instead key political actors embracing new opportunities available to them, as the following section illustrates.

Land acquisition through bricolage in the boom

The acacia boom developed in Huong Nguyen simultaneous to state policies seeking to close the forest frontier. Increased land hunger in a context of reduced access led to diverse strategies for land access. These strategies, combining formal measures and daily piecemeal actions, have taken place all around the commune. To better understand these bottom-up processes, we describe here the different mechanisms by which villagers gain access to land and the tools they used to maintain or secure their land control acacia production.

Villager land acquisition has, over the past 25 years, relied on both traditional tenure institutions as well as state-led programs and procedures. The convergence of evolving informal and official tenure institutions gave rise to 'tenurial bricolage' (Cleaver 2002, 16), in which villagers, instead of resisting or sparking conflicts (To 2007), take advantage of the points of convergence – between state and local existing tenure institutions – to produce new land access opportunities. Such evolving strategies can be gathered under what we call land acquisitions through 'bricolage' (Table 3). They include (i) Enclosure, or the privatization of previously state or common land, particularly at the early stages of the boom; more intensified and competitive approaches as land hunger increases such as (ii) Property Fraud and (iii) Encroachment; and more recently, a larger scale and strategic approach through (iv) Reclaiming Negotiation. We detail each below.

Table 3. Mechanisms of land acquisition observed in Huong Nguyen; see text for detailed explanation (Source: Synthesized by authors).

Mechanism	When	Type of land	Scale (ha)	No. of households involved (out of 91 surveyed)
Enclosure				
Customary assignment				
• *Traditional swidden access*	1996-2005	Swidden land	3-7 pieces, or more small pieces/HH	91
State land allocation				
• *Land allocation after resettlement*	1996-1997	Residential land	1 ha/HH	5
• *Forestland allocation for re-greening barren hill program*	1996-1997	Forestland	1 ha/HH	6

• *Land allocation for rubber plantation program*	2003-2005 2008-2009 2011-2013	Agricultural land	0.2 – 5 ha/HH	81
Mixed enclosure approaches				
• *"Untitled but not informal"*	2003 - 2014	Unused land (Barren hills or forests)	0.2-5 ha/HH	46
Theft and Fraud				
• *Property Fraud*	1996-2014	Old swidden fields	0.2–5 ha/HH	11
Encroachment				
• *Intimate encroachment on private land*	2014	Acacia farms	Some lines of acacia	7
• *Intimate encroachment into community forest*	2011	Natural forests	0.1-2 ha/HH	5
• *Encroachment into state forests*	2014	Natural forests	Some lines – 2 ha	4
Reclaiming negotiation				
• *Collective Reclaiming*	2016-present	State Forestland	Large areas (100 – 1000 ha	91

Enclosure

The enclosure of state or common land for private acacia plantation has occurred since the resettlement in 1996 and brought a significant modification to the overall land distribution in Huong Nguyen. We distinguish beteween several forms of enclosure, based on the use of different formal and informal tenure systems, including (i) customary assignments, (ii) state land allocation programs, and (iii) a patchwork between them.

Customary assignment

When acacia arrived in Huong Nguyen, all of the villagers still subsisted mainly on swidden cultivation. The custom-based claim that the 'land within Huong Nguyen's territory belongs to villagers' [FGD #1-8, April–June 2019] served as the primary foundation for determining villagers' access to a new swidden land. All villagers were seen to have rights to acquire land freely for swidden cultivation, based on the rule of 'first come, first serve'. Once a specific plot of land was chosen and cleared for cultivation, it automatically belonged to the household that worked on it. This claim was then maintained not only during the cultivation period but also during subsequent following (cf. Bayrak,

Tu, and Burgers 2013). Villagers used natural boundaries, such as rocks, big trees, streams, etc., to mark and relatively define their land. Villagers' claim to land were mainly guaranteed through word of mouth and witnessing by nearby villagers and village councils without any official documents.

Opening new swidden fields is a significant labor investment and linked closely to family size (cf. Sikor 2001; Sikor 2004). Households with more labor resources or hired labor could, therefore, acquire more swidden land. Fallowing practices also mean that households have multiple plots. Individual plots were typically not very large, enough for household self-sufficiency. As a result, when these swidden lands were converted to acacia, a fair number (42% of those surveyed in our interviews) were of small size, less than 1 ha. Most households (87% of respondents) have 3–7 or more pieces of acacia land acquired this way.

The initial asymmetries in land access influence later generations, especially when land becomes scarce as it is today. Land access is considered very important for the security of future generations: ' … when our children get married, we give them 1–2 plots of land' [Interview #25, Feb 2019]. At least 30% of our interviewed households indicated that some of their acacia lands were inherited from their parents. However, some complained that

My parents do not have much land and we have many brothers and sisters. For those who got married first when there was a lot of available lands, they inherited and also had opportunities to occupy more land … in our turn, there was not much land left. [Interview #20, Feb 2019]

These original swidden fields have now been converted to different land-uses, especially acacia plantation. This mechanism was most relevant at the time when villagers were resettled to new Huong Nguyen, when they could justify their actions to the state by citing their subsistence needs.

State land allocation mechanism

State-led enclosure mechanisms have played an increasingly crucial role in villagers' access to land in Huong Nguyen. Through three main programs, including Resettlement (1996–1997), Forest Land Allocation for Forest Rehabilitation (1996–1997), and Smallholder Rubber Plantation (2003–2010), the district authorities allocated and then provided official land-use certificates to a large proportion of 'unused'[8] land to villagers.

The state-led enclosure mechanism took place first in the form that applied the principle of egalitarian distribution and allowed households to register for their own plots. For example,

villagers received temporary land certificates, so-called Green Books, for the forestland that had been allocated to them by the district-level forest protection unit and nearby SFEs in 1996–1997. The households could later request the issuance of Red Books through several other government rural development programs or self-finance. The situation was similar for the residential and rice paddy plots allocated under the resettlement program. As a result, only a minimal amount of residential land (1%) or rice land (8%) currently does not have a Red Book.[9]

It was different with swidden fields. Villagers retained only customary claims to those lands at least until 2003–2004, when the first smallholder rubber plantation program was implemented. Since Red Books were required as a pre-condition for access to plantation loans, many customary swidden fields were formally converted into fixed agricultural land recognized by the State. The result is a high rate of formal documentation of rubber land (81%[10]) and acacia land (46%) in the swidden areas enclosed under customary assignment above.

Although most of these programs were not initially related to commercial acacia plantation, they provided villagers with opportunities to access land resources. Unlike customary assignment, this state-led mechanism provided a strong guarantee for household land claims through Red Books. The land title is valid for 50 years with specific maps, boundaries, and areas. Each landowner is given clearly defined and exclusive rights to the land, including exchange, transfer, inheritance, mortgage, and lease. This formal system nowadays has gradually demonstrated its advantages and is valued by villagers as a powerful tool to maintain and guarantee access to land, 'with Red-book, the land is our property. It is legal. We can also use this red book to mortgage the bank to get money in production' [Interviews #38, March 2019]. The result is that villagers have a new perception of the land value.

'Untitled but not informal' or gray enclosure

Signs of this third, different type of enclosure had begun to emerge in 2003–2004, as the new rubber program was being implemented, and concurrently, villagers had begun to see acacia's economic value. ' … Responding to the local government's call, we contributed our land to plant rubber. But it takes up to 8 years to get income from rubber. We need land for other crops, such as food crop and acacia', according to group discussions [FGD #1-8, April and June 2019]. To achieve the program's goals while abundant land existed for conversion, local authorities agreed for villagers to open new farmland. So until 2010, there was generalized 'free-for-all' on land within Huong Nguyen territory.

More than 13,000 hectares of land, defined as unused in 2006 (CRD 2006), have been converted into other land-uses. Due to errors in official statistics and maps between the forestry sector and land-use management, it is difficult to determine exactly what this area is nowaday. However, it clearly involves a large proportion of the A Pro and Khe Tom valleys, two of the main acacia plantation zones of Huong Nguyen (see Figure 2). 52% of our respondents confirmed that part of their acacia land was established during this period and located in these production areas.

However, our household data also reveals that more than half (54%) of acacia plots in these areas, despite existing for over a decade, are yet to be officially certified. Why? What happened was that people often tended to expand their land claims around their registered rubber planting areas, in order to save land for their children. Much of these areas were natural forests or barren lands intended for forest development in the future. Local authorities, therefore, fell into a dilemma. On the one hand, they could not issue certificates for areas that are in a state of 'conflict' with the Government planning, thus creating a precedent for land grabs; yet it was also impossible to force villagers as a whole to give up and rehabilitate their forests they had destroyed. The local authorities, therefore, tacitly accepted the status quo. 'Untitled but not informal' is what we called this situation.

The mechanism thus combines customary assignment and state-led allocation. In particular, the state programs were used as a strategy to pave the way to gain access to land, while customary traditions legitimized household claims to adjacent land they had cleared based on their available resources. ' … when a lot of (forest)land is still available, those households that have access to information about acacia, better labor condition, or financial capital to buy equipment (such as chainsaw) or hire labor'have a first mover advantage' [FGD #4, March 2019], they could get the 'first-mover advantage' to enable them to occupy more land for their farm. Land areas involved in this enclosure mechanism were as a result larger than in the previous period, with many plots in the range of 3–5 ha.

Under this mechanism, with neither a legal guarantee of land-use rights, nor relevant customary rules, villagers created new tools to maintain their control of the land. For example, they built fences – and in some cases trenches – around their land. Impermanent or vague boundary markers for swidden fields – like for instance trees which could be cut or might lean one way or the other – have thus been replaced by fixed and delineated ones. Households also constructed shelters at their fields and stayed there during clearing, planting, and harvesting time to save time but also to ' … asserted their sovereignty over land and avoided encroachment by other villagers' [Interview #15, Feb 2019].

Theft and property fraud

Due to the fuzziness and co-existence of these two systems, property fraud emerged as another mechanism. Under the customary system, cultivated land, even during the fallow period, still belong to the initial cultivator. Yet official procedures ignored such rights; customary land claims were recently considered illegal and had no value compared to State land-use certificates. In the land rush for acacia, several households resorted to formal regulation when the latter became stronger in order to steal land from each other. 'This area belonged to my family. It was in the fallow period. We do not know since when … but our neighbor has a red book for that land. Of course, by law, it's theirs now. We cannot get it back', shared by a villager at a focus group discussion [FGD #3, March 2019].

Encroachment

The boom in acacia plantations faced a new set of challenges related to the further tightening of the forestland frontier starting in 2010. This included policies and actions like the new round of forest planning and new State forest conservation intiaitives (Dang, Turnhout, and Arts 2011). Villagers felt that all remaining land, including natural 'poor' forests considered suitable for acacia plantation, were now been placed under protection. This situation, combined with population growth (2–3%/year[11]) and the completion of land distribution under the mechanisms described above, reduced opportunities to access new farmland for villagers. The result was that villagers started to expand their farms through gradually encroaching into adjacent areas.

In contrast to the enclosure mechanisms, encroachment is completely illegal whether according to the customary or state system. Based on our household interviews, encroachment happens on land with diverse types of owners: villagers' farmland, community forests, and state forests. It could manifest as a few rows of trees into an adjacent household's plot, or a patch of acacia planted in the middle of the forests and then further encroachment around. Encroachment takes advantage of acacia's characteristics as a fast-growing tree with good survival, in that the species itself has become a vital 'tool' or 'green machete' to take down other crops (cf. Rocheleau and Ross 1995). One could thus say that it is not only about land for acacia, but also acacia for land.

This mechanism is often piecemeal and difficult to detect. In the case of enroachment into state or community-owned natural forests, the typical strategy includes several steps. Villagers usually plant acacia on deforested land, grasslands or in poor-quality forests (without big trees) as less labor is required. Or, in natural forest areas, villagers initiate illegal logging to cut down all big trees before planting acacia (they may do the work

themselves, hire people to do so, or facilitate outside loggers). As a result, acacia plots are established and can even be expanded annually. For their efforts, villagers can gain the income from their acacia for at least 1 or even 2 rotations without any permissions or property rights, neither in formal or informal systems. As a result, acacia plots are found scattered around the forestlands, like spots on a leopard skin.

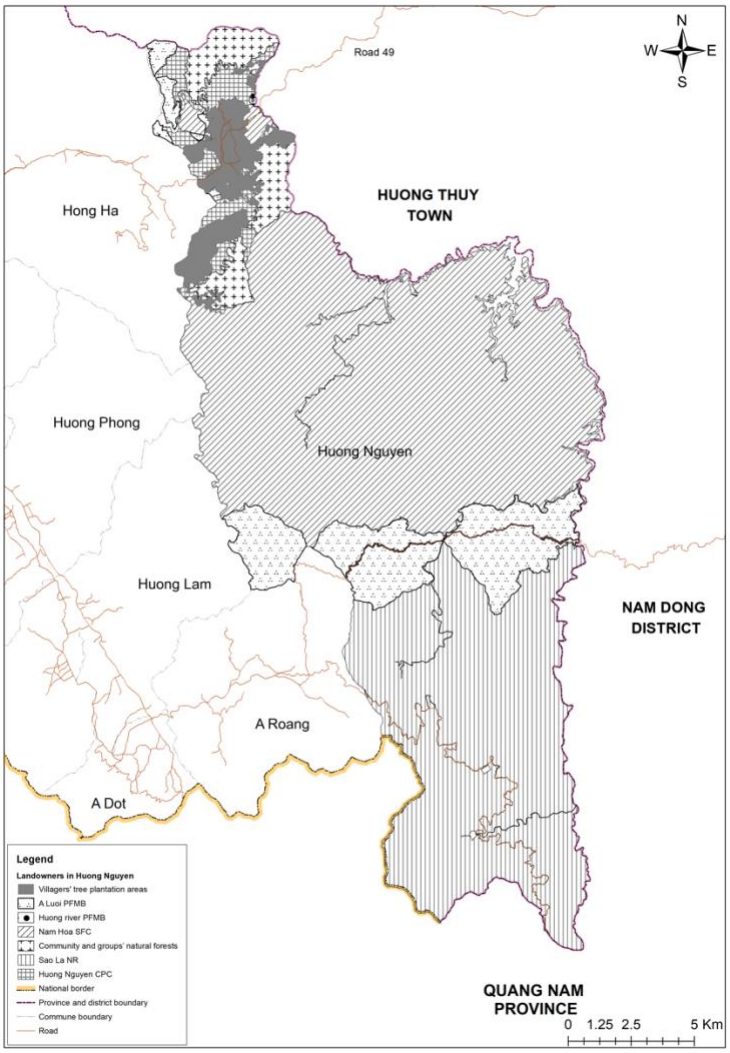

Figure 2. Villagers' acacia plantation areas and other forestland owners (Source: Official spatial forest-land ownership data (A Luoi FPD, 2019) and authors' field observation).

The rejection of the new state forest protection rules and intimate social relation among villagers have contributed to their ability to implement this mechanism. First, the risk of being caught while clearing forest is small. Other villagers and even the state forest owners do not have enough resources to enforce the protection legislation effectively. According to community forest protection team leaders, with the forest protection subsidies (600.000

VND/ha/year), we can only patrol forests once a month. Villagers often take advantage of the remaining days to clear forests and plant acacia. And it is impossible to identify who did, and villagers even protect each other. [Interview #32, Feb 2019].Second, it is difficult for villagers to inform the authorities when the offenders are their neighbors or relatives. The 'ghost owners' are how the local forest rangers call these villagers.

Reclaiming

A final mechanism we have identified could be called 'reclaiming'. As mentioned above, the high financial benefits have rushed villagers to hunt for land to expand their individual household acacia farms. Not only households themselves, local authorities, and local forest management agencies have realized that land hunger is present here. In fact, the local villagers themselves have initiated some solutions to regulate land among siblings, such as lending land, sharing, sparing, or inheriting. At the same time, local authorities, since 2017, with the supports from district authorities and NGOs, have also tried to come up with some solutions to limit the expansion of acacia expansion and toward sustainable land-use management through diversifying livelihoods strategies, promoting off-farms activities programs, or new local rules on land. According to Huong Nguyen CPC's resolution 2017, each household is only allowed to have no more than 3 ha of acacia plantation. The excess area will be re-distributed by the government for landless or poor households. However, all of these solutions are low efficiency or completely unenforceable, 'it's really not easy to get people to give up their individual financial interests, even among their relatives or family members' [Huong Nguyen CPC officials, Feb 2019].

Consequently, with more than 92% of Huong Nguyen's land under the management of the nearby State owners, this 'land bank' becomes the only source of hope to satisfy the villagers' land hunger. Huong Nguyen villagers, recognizing and playing on recent political developments, are increasingly adopting a much more strategic mechanism. 'The traditional land of Huong Nguyen was very large, accounted one-third of A Luoi district … but the State occupies almost it while we are bounded in the middle … Such a paradox!!! The State should give land back to people because we are hungry for land' – is the message that Huong Nguyen's villagers repeatedly send to the authorities at all levels through various channels, through NGOs that have projects in their village, through the press, through forest rangers and through annual meetings with National Assembly members [Observation, April to June 2019].

One result of such claims was in 2016, when A Luoi FPMB gave back about 167 ha planted forest to the commune. The area is where villagers had participated in the reforestation program under contracts since the late 1990s. The local authority had planned to

redistribute these areas in an egalitarian way to households lacking land, mostly the newly established ones. However, as those land become more valuable and scarce, the plan met opposition from many other villagers who tried to re-claim their parent's contribution to that land. No consensus has been reached for 4 years. Villagers again rejected the attempt to redistribute land. Instead, they insisted on reviving customary assignment, especially the 'first come first serve' rule, to retain that control over that land.

After nearly 20 years of land privatization for commercial acacia plantation, one might assume that all customary rules on land in Huong Nguyen have been gradually replaced. In fact, in the context of land hunger, the customary rules and perceptions about traditional territory have recently return and become stronger. According to the people, they did not use to pay much attention to boundaries and territories. However, as land became increasingly scarce, especially as the forest territories of state owners become stricter and tigher and with the emergence of mobile technology and maps, then this is when villagers know for certain the extent of Huong Nguyen's territory. 'I did not know where Huong Nguyen's land was until the government recently surveyed and allocated the forest to our community … It turns out that a lot of Huong Nguyen's land was occupied by people in Hong Tien (neighboring commune) who then occupied and planted acacia', shared by one leader of forest protection group [Interview #10, January 2019]. According to villagers, land within Huong Nguyen's territory should be held by Huong Nguyen people. Villagers can decide among themselves how land can be distributed among members, exclude outsiders (like Kinh people[12] or people from another commune) and regulate land-use. The village councils made rules stating that outsiders are not allowed to own cultivation (acacia) land in Huong Nguyen. Villagers are not allowed to sell land to outsiders. ' … we don't have land … If we keep selling, we will not have land for the future', one elder emphasized [FGD 1-8, April–June 2019]. Households in violation will no longer be involved in any land distribution plan, neither state or customary assignment in the future. In the cases where outsiders are found to be planting acacia within Huong Nguyen's territory, the village council requests the return of land even if they already have a formal land-use certificate. If they do not comply, villagers will wait for the harvesting period, or even they destroy them, and then they quickly plant their own acacia – as a new way to assert sovereignty and take the land back [Observation, April 2019].

Additionally, in some villages, some small public common lands are still available for collective management. These lands exist for several reasons: through a set-aside at the time of founding of the village, through the village working collectively to clear or claim new lands, or through allocation to groups of households for forest protection. These common lands are managed by the collective and for raising money. For example, in Chi

Du village, a small area is retained collectively and planted with acacias for raising money for their village feasts and celebrations [Observation, January 2019]. The same occurs for forest protection lands managed allocated to groups of households. A total of 13 groups of households and one village received 1300 ha of natural forest and received payment for forest environmental services (PES) as a subsidies for their efforts to protect forests. These areas are managed collectively by groups and benefits are also shared based on the participation of each member.

Discussion and conclusion

The case of Huong Nguyen highlights the complex dynamics of land acquisition by upland ethnic smallholders operating in a booming forest sector linked to state efforts to develop and transform the economy, society, and the forest environment. Acacia plantations initially arose three decades ago due to state-led interventions for reforestation and re-greening barren hills, coupled with a devolution process that awarded property rights to individual households. In the past decade and a half, acacia plantations have boomed in tandem with the forest products economy, and villagers have been front and center in this process. The villagers, whether better-off or poor, whether old or young, are hungry for land. They have thrown themselves into a land hunt with intense competition among neighbors and kin and with nearby state landowners. To acquire land for acacia, villagers are navigating and making creative, resourceful use of multiple formal and informal relations, traditional and regulatory institutions, all in an evolving historical context.

Our analysis reveals the subtle ways that small-scale land acquisitions occur through bricolage, in which villagers make use of a repertoir of formal and traditional institutions, resources and tools in order to access to land for commercial acacia plantation. The resulting mechanisms – ranging from customary assignment to formal state land allocation, and from encroachment to collective negotiations to reclaim land (Table 3) – emerge at different periods in time and with respect to different geographical territories. Our focus on 'bottom-up' agency showed in detail how villagers have opportunistically sought strategies for land access across these periods and territories. They practised tenurial bricolage, mixing and matching local claims anchored in custom or social proximity and formal claims arising from national laws or regional policies. This bricolage allowed villagers to build (or rebuild) their land access portfolios, in part by creating gray areas at the convergence points between the customary and the formal. It is a fluid, fast-evolving arena where activities are carried out piecemeal and (re)produced based on the understandings of villagers about the existing tenure institutions, their local power relations and their suitable application to different parts of the landscape they are living. Another

way to look at it is to see villagers as involved in a process of 'co-production' (Forsyth 2020), where state strategies are translated through scaled institutions and interests, then becoming embedded in and part of local strategies to support local aspirations for poverty reduction and development, and then produce new land access opportunities.

Two points of relevance emerge for discussions of 'land grabbing'. For one, in the context of commodity booms, rural smallholders can be key land acquisition actors to pay attention to. In this case, such a phenomenon was made possible under certain political and economic frameworks somewhat unique to Vietnam. Attention to the unfolding of mechanisms of land acquisition by local villagers provides a crucial window into land access dynamics that – in their cumulative effects – can cover large areas and touch many people.

Second, state interventions to forward economic development and environmental conservation by drawing boundaries in the forest and specifying activities that are allowed or not allowed are often perceived as 'from-above' resource grabs. Yet our case shows that sometimes such interventions are embraced with local complicity and participation. This is in contrast to other regions of Vietnam, where case studies in the northwest highlands (Sikor 2011, 2004; Hall, Hirsch, and Li 2011) and in Ha Tinh province (McElwee 2011) recorded that these state-led interventions were perceived as 'robbery', as large-scale land acquisitions. Indeed, in some areas, authorities colluded with village-level officials to manipulate and keep locals from gaining access. This exclusion sparked resistance efforts to state schemes. The case of Huong Nguyen, however, demonstrates an opposite outcome: state-led reforms do not necessarily result in the exclusion of upland villagers, and villagers do not necessarily respond with resistance. Rather they seized the opportunity to build and shape their individual land portfolios. Twenty-five years after resettlement, people in Huong Nguyen, are not passive subjects or victims excluded from land access for state plans, but key political actors in the land acquisition process, a process enacted 'from above' by the State at the beginning but then implemented and expanded 'from below' by villagers (cf. Hall et al. 2015).

These new dynamics reflect and are reflected in transformations to rural agrarian lives and livelihoods. De-collectivization, privatization under devolution, neoliberal economic restructuring, and market forces have presented challenges and opportunities to rural Vietnam (McElwee 2011; Leisz et al. 2011; Nghiem and Yanagisawa 2011; Sikor et al. 2011; To, Mahanty, and Wells-Dang 2019). The mechanisms for land acquisition that we document here suggest that villagers are making numerous economically-based decisions at the same time as they continue to value the local moral economy (such as labor

reciprocity, traditional access institutions, or collective efforts at reclaiming state forestlands). However, even if most villagers are participants in the acacia boom, there are clearly winners and losers in the scramble for acacia land (for e.g. La, Darr, and Pretzsch 2020). Such dynamics of social differentiation merit further attention in future research.

Concerning 'forest transition', the dynamics we detail in this paper are also an important contribution to understanding the processes underlying a transition from deforestation to reforestation. The development of smallholder tree plantations has been recognized as a main driver of increased forest cover, though in some cases at the detriment to natural forest (Cochard et al. 2020; McElwee and Tran 2021; Meyfroidt and Lambin 2008; Rudel et al. 2020). We reveal the complex land access mechanisms behind the acacia boom, unearthing a variety of forestland governance processes and issues 'under the canopy', so to speak, of the statistics of increased tree cover. Furthermore, we show that a trend to greater tree canopy under expanding forest can be representative of local empowerment (under certain conditions).

State reforestation strategies, one could argue, have been almost too successful, sparking a commodity boom and land rush linked to a single exotic tree. Acacia has undoubtedly been a motor for local livelihoods, but it has also led to fragmentation of natural forests, land struggles among villagers, and conflicts with forest protection and conservation efforts. We conclude that a stabilization of land access – in ways that are recognizant of the interests, future visions, and historical claims of upland residents, and that are equitable among them – accompanied by support for more diverse livelihoods will be crucial to the development of a sustainable, multi-functional landscape in future.

A take-home message for on-going campaigns, such as Bonn Challenges, 10 billions trees or zero-deforestation as we see across the globe is that they need to seriously consider the mechanisms and land dynamics underlying how restoration and reforestation will occur in a diversity of local contexts.

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Notes

1 By large scale researchers typically look at land acres over 200–100 ha.

2 Long term: over 30–50 years, even 99 years (Antonelli et al. 2015).

3 By smallholders, in the case of tree plantation participants in Vietnam we refer to rural households with plots of less than a single hectare up to 10 ha.

4 Reasons for lack of uptake of animal husbandry were discussed in focus group discussion [FGD #1-8, 2019].

5 Huong Nguyen Commune People's Committee (CPC). 2019. The Annual Social-Economic Report of Huong Nguyen.

6 1 USD = 15.868 VND, according to Vietnam Foreign Trade Bank in the end of 2003. Source: https://bit.ly/3drQcv9.

7 1 USD = 23.230 VND, according to Vietnam Foreign Trade Bank in the end of 2019. Source; https://bit.ly/3y6K3MQ.

8 Unused land is understood as the type of land that has not been assigned to anyone, nor in any other land-use plan. According to the official system definition, even people's swidden land is said to be unused land (cf. McElwee 2016).

9 Calculated based on the land area survey of 91 interviewed households, not on the whole commune.

10 As above.

11 Huong Nguyen CPC, 2019.

12 Kinh people is majority group of Vietnam. Kinh people in Huong Nguyen are quite few, making up only 1–2% of the commune's population. They often work at the Committee or open shops to sell basic necessities.

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