



# Slow forms of infrastructural violence: The case of Vietnam's mountainous northern borderlands

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## ABSTRACT

In Vietnam's northern mountainous borderlands, ethnic minority Hmong and Yao farmers must constantly negotiate the Vietnamese state's aspirations to bring these rural communities under greater control. The state is working hard to integrate this territorial periphery, along with its people, land, and resources, while altering local livelihoods to better fit centralised aims and imperatives. These efforts are closely linked to a number of infrastructure programmes. While scholars have contributed important work regarding the wide-ranging impacts of highly visible rural infrastructural projects such as dams and highways, I focus here on three less-well documented state-driven or encouraged projects. These include the implementation of hybrid seed systems, 'upgrading' or creating new marketplaces that are both spatially and temporally fixed, and the significant expansion of tourism-sector infrastructure. Drawing on conceptual literature from the infrastructural turn, especially regarding infrastructural violence and infrastructural lives, I examine the impacts these projects have on upland ethnic minority livelihoods. While the Vietnamese state appears to be winning in its quest to territorialise and 'modernise' this borderland region, I highlight how minority individuals and households (re)shape specific infrastructural lives with tactics that include subtly disrupting or resisting such state-supported initiatives. I make the case that more attention needs to be paid to infrastructure projects that might be only barely perceptible, but that are nonetheless perpetuating slow forms of infrastructural violence across the Southeast Asian Massif.

## 1. Introduction

The livelihoods of over two hundred million people living in the Southeast Asian Massif, an expansive upland region shared among ten countries that spreads from the eastern edge of the Himalayan Plateau southeastwards, are undergoing important upheavals.<sup>1</sup> These upheavals are caused in large part by agrarian transitions, increasing market integration, and the closing of land frontiers. Relentlessly targeted by state officials and private entrepreneurs for natural resource extraction and agrarian possibilities, local livelihood approaches and land-use patterns are being profoundly impacted across the region (Long et al., 2010; McElwee, 2016; Michaud et al., 2016). In these uplands, where over half the residents are officially classified as ethnic minorities, such

processes have resulted in losses of land access, private land-use rights replacing communal property, conversions from shifting cultivation to fixed-location intensive farming, the dramatic expansion of cash cropping, and important transformations to long-term livelihood portfolios due to new infrastructural projects (Michaud and Forsyth, 2011).

Nonetheless, one can contend that these processes are not new. Over ten years ago, in his provocative book *The Art of Not Being Governed*, political scientist James C. Scott (2009: 4) argued that 'Zomia' (geographically similar to the Southeast Asian Massif) had become assimilated by modern states through "development, economic progress, literacy, and social integration" by the end of World War Two. Since then, the speed with which these uplands continue to be modified and the diversity of actors involved appears to be accelerating, along with

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<sup>1</sup> More precisely, the Southeast Asian Massif is a term proposed by Jean Michaud (1997) which incorporates the highlands of Northeast India east of the Brahmaputra, Bangladesh, Burma (Myanmar), Southwest China, Vietnam, Thailand, Laos, Cambodia, Peninsular Malaysia, and Taiwan, roughly over an altitude of 300 m (Michaud et al., 2016). In comparison, the term 'Zomia' was first coined by van Schendel (2002), and later reworked and made popular by Scott (2009). While van Schendel's conception of 'Zomia' encompasses Tibet and its periphery, Scott's 'Zomia' and Michaud's 'Southeast Asian Massif' cover a smaller but similar geographical area. For Michaud though, 'Zomia' refers more to an historical and political understanding of the upland region, while the Southeast Asian Massif is more appropriately considered a social space/place (Michaud pers. comm., 2021; see also Michaud, 2010).

notable impacts on livelihoods, local environments, and state-society relations. Situated squarely within the Southeast Asian Massif, Vietnam's mountainous northern borderlands, with their complex ethnic diversity and political history, can be claimed to represent an important locale to try to better understand the impacts of these dynamics. These borderlands are experiencing rapid transformations, many of which are directly linked to the arrival of new or expanded infrastructure.

Building conceptually on the critical infrastructural turn which emerged from science and technology studies, geography, and urban studies, scholars are now focussing on infrastructure not only as the physical roads, dams, railways, and irrigation systems that facilitate the circulation of goods and services, but also as the entangled impacts and relationships with ecological, spatial, socio-political, and cultural processes and practices (Amin, 2014). Such a conceptualisation draws attention to the nuanced relationships between infrastructural projects and technologies on the one hand, and specific socio-political and spatial contexts on the other. It also highlights the importance of considering the ongoing impacts of infrastructural violence, the continuous “processes of marginalisation, discrimination and exclusion” through and sustained by infrastructure, either passively or intentionally (Rogers and O'Neill, 2012: 401).

It is highly relevant to examine these conceptual debates in the context of Vietnam's northern borderlands, where the socialist state has implemented a number of important infrastructure projects. These range from the creation of New Economic Zones since the 1960s encouraging lowland populations to migrate to the uplands, to more recent expansions of road networks, highways, the establishment and remaking of urban centers, and hydro-electricity projects. A large number of tourism-linked infrastructure projects, strongly supported by central and provincial officials, are also being rolled out across this region. One could argue that such initiatives are part and parcel of a Vietnamese state territorialisation project for these borderlands, aiming to bring ethnic minority communities living in the country's northern uplands more directly under the state's gaze, while also aiming to change local livelihoods to better fit “strategic state making” imperatives (Chettri and Eilenberg, 2021: 12; see also McElwee, 2004; Turner et al., 2015; Lam, 2020).<sup>2</sup>

Yet to complicate Scott's (2009: 11) assertion that the enclosure of the Southeast Asian Massif is close to complete, with its inhabitants “under firm control”,<sup>3</sup> we can still observe local ethnic minority individuals, households, and communities rejecting important elements of this process. This has included their refusal to accept a number of infrastructure plans; instead carefully reworking and fashioning responses to the state and related actors to fit their own livelihood needs and aspirations. However, in a socialist state with such uneven power relations between upland minority communities and government officials, these infrastructural lives remain complex and in flux.

Drawing on longitudinal, ethnographic fieldwork, in this paper I focus upon three forms of ‘mundane’ infrastructure in northern Vietnam, namely hybrid seed systems, permanent marketplaces, and tourism infrastructure. I analyse how these have assumed a critical role in enacting infrastructural violence – in these cases equating to slow structural violence – upon upland ethnic minority individuals and

<sup>2</sup> In brief, territorialisation refers to projects undertaken by various actors to organise human actions and “to produce bounded and controlled spaces (territory) to achieve certain effects” (Bassett and Gautier, 2014: 2). Common examples of how this has been achieved within the Southeast Asian Massif (and elsewhere) include state projects of land surveying and mapping, the commodification and classification of land, and the assignment of formal land-use or property rights (Vandergaest and Peluso, 1995; Scott, 1998; Sowerwine, 2011).

<sup>3</sup> Here Scott (2009: 5) makes a direct comparison with the English enclosures that “in the century after 1761, swallowed half of England's common arable land in favor of large-scale, private, commercial production”.

communities. By highlighting the specific ways that ethnic minorities have adapted to, negotiated, or resisted such infrastructural violence, I contribute to the literatures on both infrastructural lives and state-society relations in the Southeast Asian Massif. While there has been important work in the Southeast Asian Massif with regards to the socio-economic and political implications of hydro-electric dam infrastructure on local communities (e.g. Dao, 2016; Middleton and Lamb, 2019; Ribó and Calzolari, 2020), and likewise of roads (e.g. Boyle and Shneiderman, 2020), far less is known about how rural upland residents in this region live with and contest *less obvious* forms of infrastructure that impact their everyday lives.<sup>4</sup> I thus work to answer calls made by Star (1999), Ferguson (2012), as well as Datta and Ahmed (2020) that ask scholars to give greater attention to banal and mundane infrastructures and their everyday societal relations and impacts that are often taken for granted. Moreover, by bringing an intersectional lens to the everyday dynamics and responses of local inhabitants to slow infrastructural violence occurring in a rural borderland locale in a socialist state, I hope to make a critical contribution to expanding our understandings of the socio-economic and political geographies of less-obvious, oft-mundane infrastructures.

Next, I introduce the conceptual tools underpinning this study, highlighting debates from the recent infrastructural turn, especially those concerning infrastructural violence and infrastructural lives. I then briefly introduce the socio-economic and political context of Vietnam's northern upland borderlands before turning to focus on three infrastructural agendas that are acting as important vectors of change. I examine how local residents are responding to, negotiating, and contesting these state agendas, and the degree to which residents (re)shape their livelihoods to do so. This work is founded on 20 years of annual fieldwork in the Sino-Vietnamese borderlands, with the latest visit in October 2019, followed by supplemental telephone interviews since then. Data for this paper draws from over 300 interviews, oral histories, and observations with ethnic minority Hmong, Yao (Dao), and Tày farmers; interviews with over 60 other local residents including Kinh (Vietnamese ethnic majority) and ethnic minority Tày and Nùng traders, intermediaries, as well as restaurant and hotel operators and workers; and over 20 state officials at commune, district, and provincial levels in Lào Cai Province (Fig. 1). I further support the arguments put forward here with data obtained from my ongoing fieldwork and related research projects in a number of neighbouring upland provinces (e.g. Adenwala and Turner, 2020; Turner et al., 2020).

## 2. The infrastructural turn and conceptualising infrastructural violence

The infrastructural turn (Amin, 2014; Wilson, 2016; Datta and Ahmed, 2020) has resulted in a notable increase in social science contributions focussing on infrastructure, especially in the urban realm (Rodgers, 2012). Informed by the work of Bruno Latour, actor-network theory, and science and technology studies, the scholarship following this turn has espoused the view that rather than being just about material projects, infrastructure is “a concept and a rubric to tie together examinations of systems that extend across borders and territories, organize communities of users, transform topographies, and allow other things to circulate” (Abel and Coleman, 2020: vi-vii; see also Graham and Marvin, 2001; Graham, 2009). This body of scholarship has challenged conceptions of infrastructure as neutral, natural, or apolitical (Ferguson, 2012; Lemanski, 2018) and has attempted to shed light on the ways in which infrastructure – visible or invisible – is in fact “social in every aspect” (Amin, 2014: 138; see also Larkin, 2013; Rippa et al., 2020).

These arguments connect closely to ‘infrastructural inversion’, a

<sup>4</sup> Although see Endres (2019) regarding marketplace trader negotiations in an upland Vietnamese city.

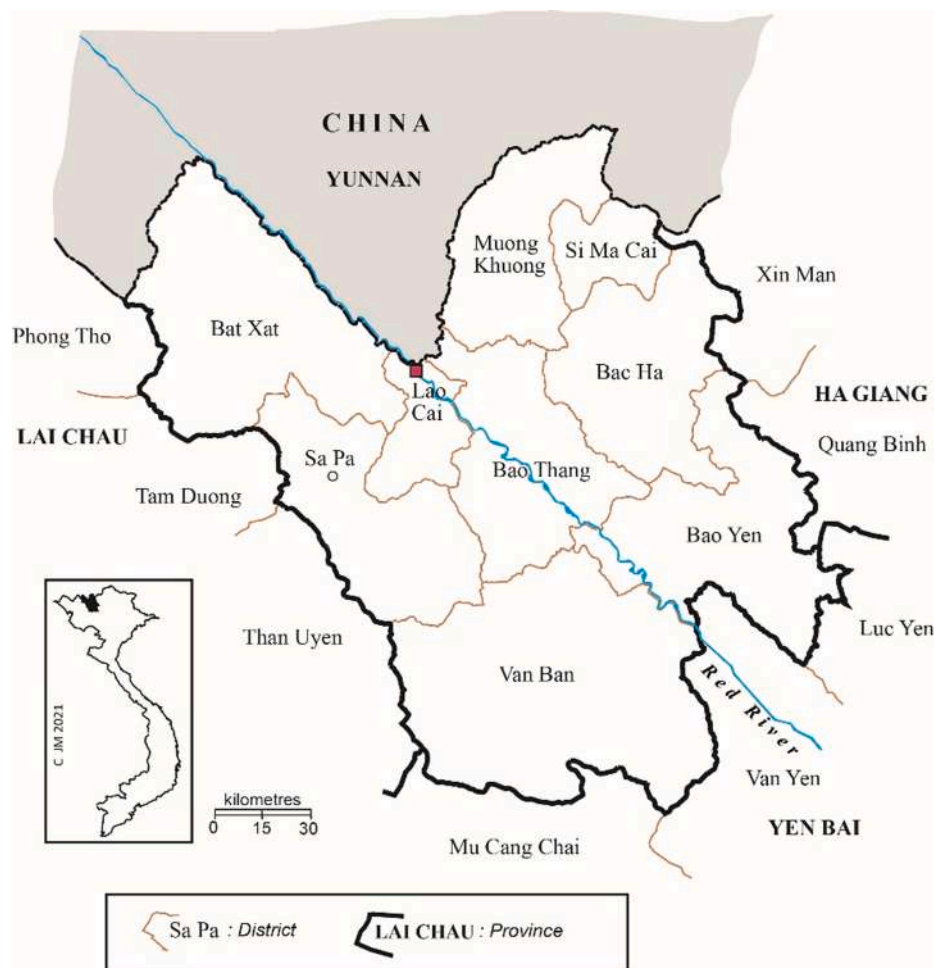


Fig. 1. Lào Cai Province, upland northern Vietnam.

concept that emerged from Bowker (1994) and Bowker and Star's (1999) examinations of technological innovations in communications and information infrastructures. Infrastructural inversion can be considered "the gestalt switch of shifting attention from the activities invisibly supported by an infrastructure to the activities that enable the infrastructure to function and meet desired needs for collaborative support" (Simonsen et al., 2020: 115). Bowker and Star (1999: 34) have similarly noted that it is "a struggle against the tendency of infrastructure to disappear (except when breaking down). It means learning to look closely at technologies and arrangements that, by design and by habit, tend to fade into the woodwork (sometimes literally)". Infrastructural inversion thus concentrates our focus directly on the infrastructure itself, so as to reveal and analyse its inner workings which might include hidden expert negotiations, powerful interests, and complex social relations (Abel and Coleman, 2020). This inversion draws attention "to the silent, unnoticed work done by infrastructures" (Harvey et al., 2016: 3).

The concept of infrastructural violence is a product of this infrastructural turn and has been utilised by researchers seeking to understand how infrastructure creates and upholds marginalization, as well as "abjection and disconnection", either actively or passively (Rodgers and O'Neill, 2012: 402; see also Appel, 2012; O'Neill, 2012; Rodgers, 2012; Desai, 2018; Truelove and O'Reilly, 2020). In their writing on infrastructural violence, Rodgers and O'Neill (2012) have argued that infrastructure is a medium through which 'structural violence' can be enacted. Structural violence, initially coined by Johan Galtung (1969), refers to forms of violence "exerted systematically—that is, indirectly—by everyone who belongs to a certain social order" (Farmer

2004: 307). Namely, certain social structures and institutions (e.g. cultural, religious, economic, political, or legal) exert violence on different individuals and groups leading to "unequal power" and "unequal life chances" (Desai, 2018: 89; see also Benson et al., 2008; Farmer et al., 2006; Benson, 2008). Such forms of violence – that can be realised via infrastructure – target "classes of people and subjects them to common forms of lived oppression", to a "violence of inequity" (Rylko-Bauer and Farmer, 2016: 47).<sup>5</sup> That structural violence is "silent" (Galtung, 1969: 173) and "almost always invisible" speaks to the degree to which it has been embedded within society and naturalised through its institutions (Winter and Leighton, 2001: 1; see also Gupta, 2012; Nolan et al., 2020).

Building on earlier ideas of structural violence, and also on the work of Queer and Feminist scholars, discussions around infrastructural violence have been sensitive to the fact that infrastructure is differentially accessed and experienced according to one's identity, including gender, ethnicity, class, race, and the intersectional experiences of these and other elements (Anand et al., 2018; Lemanski, 2018; Datta and Ahmed, 2020). Scholars working with this framework have asserted that infrastructural violence is a highly intimate process (Wilson, 2016), and that it should be examined at the "scale of corporeality" (Datta and Ahmed, 2020: 68). The increasing recognition of the need to acknowledge ethnicity within intersectional analyses is especially important with regards to the case studies being analysed here. Such research

<sup>5</sup> A classic example is Haussmann's determination to organise much of Paris in the 19th-century with wide, straight boulevards to better securitise the city (Rodgers and O'Neill, 2012).

reveals how a person's ethnicity may lead to their exclusion from accessing state services (Sawas et al., 2020), or increase the likelihood of experiencing violence when accessing such services (Mustafa et al., 2019). Infrastructural upgrades also possess the potential to increase inequalities by reinforcing ethnic hierarchies (Mains and Kinfu, 2016).

In this paper I aim to build upon and extend this broad body of literature while analysing and critiquing specific infrastructural plans and projects currently being implemented in Vietnam's northern upland borderlands. Moreover, going beyond the 'supply-side' dimensions of infrastructure, I want to detail how local farmers "live with, contest, and are subjugated to or facilitated by infrastructure" (Graham and McFarlane, 2015: 2). Therefore, I consider how ethnic minority individuals, households, and communities form 'infrastructural lives' (Graham and McFarlane, 2015). Focussing on people's everyday experiences with infrastructure in this way helps to highlight the power relations involved, including who gains access and who is excluded. This focus also directs a spotlight on how infrastructural practices become normalised and regulated, as well as how they might be contested and resisted, while potentially reshaping rural livelihoods. It is important to note however, that a focus on infrastructural lives does not imply only reactionary behaviour. While addressing how infrastructure might exclude certain people, I also pay attention to how people know and understand infrastructure, and how they manage and experiment with it (Graham and McFarlane, 2015).

### 3. Context: Vietnam's mountainous northern borderlands

There are 54 officially recognised ethnic groups in Vietnam, including the lowland ethnic majority Vietnamese (Kinh). In Lào Cai province (pop. 730,000; Fig. 1), one of the most northern upland provinces in Vietnam and the main focus of this study, Hmong (25% of the provincial pop.) and Yao (14%) constitute the largest ethnic minority groups along with the Tày (15%), while the Kinh comprise 38 percent, half of whom live in Lào Cai City (Socialist Republic of Vietnam, 2019). In the province's high-elevation regions, Hmong and Yao farmers harvest one rice or maize crop per year, and where the climatic and topographic conditions allow for rice production, rice is the preferred staple. Because of the centrality of rice or maize to these upland livelihoods, households unable to grow sufficient quantities for their annual agricultural calendar are usually considered poor by endogenous definitions of wealth. These staples are complemented by small household gardens of fruit, vegetables, and often some herbal medicines. Livestock that households raise commonly include chickens, pigs, and goats, while buffalo represent prized possessions for draught work and for their meat, which is consumed at festivals and funerals. Some rotational swidden plots might also be kept for dry rice or maize (if the staple is terraced wet rice). These households usually collect forest products such as honey, black cardamom, bamboo shoots, mushrooms, and a range of herbs, as well as firewood. Farmers often also trade black cardamom, livestock, home-distilled alcohol, and/or home-embroidered textiles for cash (c.f. Leisz et al., 2004; Vuong Duy Quang, 2004; Turner et al., 2015).

Hmong and Yao are both patrilineal societies with sons inheriting their own fields upon marriage. Combined with slowly declining mortality rates over the last 50 years, this custom is squeezing land availability in some areas, while the state is also discouraging the construction of new rice terraces, especially near national parks or forest reserves. Kinh entrepreneurs are also removing important rice and maize terrain as they migrate to the region with sizeable financial capital and establish new land-hungry enterprises, such as large-scale flower and vegetable cultivation operations and new tourism ventures, analysed below.

Hmong and Yao farmers maintain and diversify their livelihoods in a political context where their practices are routinely considered 'backward' and in need of urgent replacement with 'enlightened, socialist culture' and 'scientific thinking' (Koh, 2002). As such, the state promotes only selective cultural preservation of upland ethnic minority

textiles, dance, music, and other cultural elements deemed politically benign and beneficial to the promotion of tourism (McElwee, 2004; Sowerwine, 2011). This selective preservation is part of a long history of discrimination by the Vietnamese state and many lowlanders towards upland minority groups. In socialist rhetoric – replicating that of neighbouring China – ethnic minorities are considered 'younger siblings' who need to be 'developed' by their 'big brother' ethnic majority Kinh, but only in specific ways that will strengthen nation-building processes (Pelley, 1998; Koh, 2002). Numerous state interventions target upland ethnic minority communities, often promising poverty reduction and increased food security. Yet, such interventions frequently overlook culturally appropriate livelihood approaches already in place (Forsyth and Michaud, 2011; Turner et al., 2015).

One particular state intervention worth mentioning here, albeit there are dozens along similar lines, is the New Countryside Programme (*Nông Thôn Mới*). Initiated in 2009, the Programme seeks to improve or extend local infrastructure and social services in rural Vietnam, while also 'modernising' farm production. 'Decision No. 800/QĐ-TTĐ of the Prime Minister: Approving the National Target Programme on New Rural Construction 2010–2020' specifically notes that the Programme's objective is:

To build a new countryside with a gradual modernisation of socio-economic infrastructure; a rational and structured economic and production organization, to link agriculture with rapid industrial and service development; to associate rural development with urban planning; to ensure a democratic, stable rural society, rich in national cultural identity; to protect the ecological environment; maintain security and order; and to increasingly improve people's material and spiritual life following a socialist orientation (Socialist Republic of Vietnam, 2010: online, my translation).

This programme emphasises eleven key areas of focus, among which the following two relate closely to the state-sponsored infrastructure ambitions at the core of this study. The first is *developing the infrastructure* required for the commodification of agricultural production (such as hybrid rice distribution centres and related transport systems) and developing various industries and small services (such as the tourism sector). The other is *restructuring and expanding the economy* through the greater commodification of agriculture (such as building new marketplaces and designing new policies regarding their operations) (Socialist Republic of Vietnam, 2010: online). If rural communes meet specific criteria with regards to the programme's eleven key foci, they are deemed 'New Communes' (World Bank, 2017). These 'new communes' are then deemed to be "high achievers" by the central government and are rewarded "with funds to build particular items of infrastructure" (Nguyen, 2017: 5). I turn now to analyse how such programme foci and other ongoing policies and plans for the region have unfolded in the northern Vietnamese uplands, directing attention to less-well documented infrastructural projects.

### 4. Vietnam's state-supported infrastructure and local livelihood effects of infrastructural violence

As noted earlier, I chose the three cases focussed upon here – hybrid seed infrastructure, fixed marketplaces, and tourism infrastructure – due to the relative lack of studies across the region regarding such infrastructural programmes, compared to more 'obvious' grand-scale projects such as roads and dams. These three, somewhat mundane infrastructures, nonetheless have important ramifications for individual and household infrastructural lives.

#### 4.1. Hybrid seed infrastructure

The promotion of hybrid seeds for rice and maize cultivation represents one of the most widespread infrastructure programmes

introduced by the Vietnamese state into these borderlands over the past 20 years, and one that directly impacts the majority of Hmong and Yao households (Bonnin and Turner, 2012). Here I follow Morin et al. (2002: 142) in defining seed infrastructure as including “system aspects such as seed production, storage, distribution, and procurement”, as well as information channels. The introduced hybrid seed varieties are distinct from high-yield varieties, being selectively bred by crossing two genetically distinct parents with particular seed traits to produce “heterosis or hybrid vigour” (Husain et al., 2001: 5). Yet these seeds lose their fertility with successive replanting, resulting in farmers needing to buy new seed stock each season (Kloppenborg, 2004). Relentless state propaganda in Vietnam’s northern uplands via extension workers, poster campaigns, and loud-speaker announcements, extols the virtues not only of hybrid seeds, but also of the chemical fertilisers and pesticides required for optimum yields. State-run distribution centres have been built at the commune and district levels across the uplands for farmers to gain access to these agricultural inputs at either market or subsidised rates depending on their state-determined ‘poverty level’ (Fig. 2). The volume of seeds each centre receives is frequently based on outdated statistics regarding field coverage in the communes, while the types of seeds distributed are decided without farmers’ input (farmer and commune official interviews, 2007 onwards). These infrastructures have become a powerful vector for the organisation and control of upland society by the state (Scott 1998). While farmers historically saved land-race seeds from year to year and used organic fertilisers, this programme now strongly encourages them to replace their customary rice and maize cultivation practices, and seed diversity is declining (Corlin, 2004; Bonnin and Turner, 2014a). The programme also aims to reduce swiddening cultivation, which, while banned, is still undertaken by some farmers in steep sloping areas (Fox et al., 2009).

While the state promotes its hybrid seed programme citing food security goals, Hmong and Yao households have a number of concerns. Farmers now increasingly shoulder the burden of securing cash to purchase hybrid seeds annually, along with the necessary chemical fertilisers and pesticides. One Yao man conveyed: “Now we need so much more cash; we need it every year for the seeds and fertiliser. Before we didn’t need so much, just for hospital visits or food for special times” (interview, 2018). This financial outlay continues to rise in tandem with the costs of such inputs. Another concern is that farmers must rely on the state to supply hybrid seeds in the most remote areas, which has led to numerous shortfalls, as well as delays in planting. A Hmong man explained: “We’re far from town, so we always get the seeds at our [distribution] centre last, often two weeks later than when we should be planting. We worry the rice won’t grow in time for the best rains; if it doesn’t, what do we do?” (interview, 2017). Moreover, the varieties provided at state distribution centers are often not optimal for local conditions, as one Hmong woman complained: “One year they gave us a new seed type, it all died because it’s too cold here, but they [state officials] never helped with money or food” (interview, 2009). There are still only limited state efforts to trial and provide hybrid varieties appropriate for upland conditions, rather than assuming that lowland seeds will be viable. This approach has resulted in a number of crop failures, especially when there have been extreme weather events such as prolonged drought – an increasingly common phenomenon in these uplands. Farmers are also not particularly keen on the taste of rice grown from hybrid seeds compared to their own traditional land-race varieties. As one Yao woman detailed, referring to the hybrid seed: “It’s ok, but it’s not that nice. Our rice is sweeter and keeps you full longer” (interview, 2017).

The infrastructure associated with the hybrid seed programme has created a number of new exclusions within and between households and communities, noted earlier as a critical form of infrastructural violence (see also Nolan et al., 2020). For example, distances to state distribution centers have resulted in structural exclusions for some households struggling to find more cash yet again to access transportation (using a motorbike taxi if available or having to buy a motorbike to transport

seed and supplies). Meanwhile, local agro-ecological conditions have afforded some households more success with the new crops than others. A number of Hmong and Yao women have also found themselves more marginalised and socially excluded from household seed decision-making processes than in the past, as extension officers tend to be Kinh and focus only on male farmers in their discussions regarding ‘optimal seeds’. These “negotiations that govern the operation and appearance of technical novelties” (Abel and Coleman, 2020: xi), such as the infrastructural requirements of new seed technologies, become clear through infrastructural inversion. Such negotiations further highlight how infrastructural violence can be “enacted through the everyday practices of bureaucracies” (Gupta, 2012: 33), including specific access to expert knowledge (Abel and Coleman, 2020).

The related need for greater cash supplies has led farmers across these uplands to trial and implement a number of livelihood diversification options. Some farmers have branched out into the trade of black cardamom, home-distilled alcohols, herbal medicines, and orchids, while others have started to plant and harvest *Cinnamomum cassia* (locally known as ‘cinnamon’) or undertake other silviculture, such as growing pine trees for resin and timber (Turner et al., 2015; Po et al., 2020). Such financial pressures have also meant that over the past two decades, a small but increasing number of Hmong and Yao farmers living near the Sino-Vietnamese border have begun to migrate seasonally for wage labour in plantations in Yunnan (Slack, 2019). One young Hmong man explained: “I have a number of brothers who can help my parents on the farm, so I decided to go to China like my cousin and work there. I work on a banana plantation and we put banana bunches in plastic bags all day. It’s boring, but the pay’s good and I can come back to help with the rice harvest here” (interview, 2019). Nonetheless, while large numbers of Hmong and Yao farmers have adopted the hybrid seeds, many continue to be wary of being overly reliant on state infrastructure for the required agricultural inputs. The prudence of such farmers has resulted in a range of tactics (following de Certeau, 1984) to improve their livelihood security that I explore shortly.

#### 4.2. Fixed marketplaces

In the late-1800s, French colonial observers documented the numerous marketplaces and trade networks ethnic minorities participated in across these uplands, with trade extending both to the lowland Red River Delta and across the border far into Yunnan (Michaud, 2015; Michaud and Turner, 2016). French military archival documents have revealed that upland market trade was conducted in basic conditions with goods typically displayed on the ground, sometimes within thatched roofs and bamboo stall structures – an approach that continued in many locales well into the early 1990s. These periodic markets, where farmers could turn up unannounced and sell what and when they wished, are now undergoing important structural and organisational changes. The irony is that while upland farmers have traded informally in this manner for centuries, the state now considers them in need of fixed marketplaces, business education, and vocational training to learn to trade efficiently. As one World Bank document identified: “the misunderstanding that minorities are autarkic has led to an emphasis on markets and infrastructure” in current state policy (World Bank, 2009: 46; see also Bonnin, 2012; Bonnin and Turner, 2014b).<sup>6</sup>

A number of recent state directives strive to modernise or upgrade, stabilise, and formalise marketplaces, including the New Countryside Program. This necessitates eliminating what officials regard as undesirable and uncontrollable elements of marketplace trade. As such, informal marketplaces or trade sites that local residents have initiated – and hence which meet local needs and priorities – are deemed to be in

<sup>6</sup> I also follow Dewar and Watson (1990: 23) here, who argue in their work on urban marketplaces that “markets must be treated as an essential form of urban infrastructure – as essential as roads, schools, or other urban elements”.



Fig. 2. State-run seed and fertiliser distribution centre, Lào Cai Province, Vietnam.

need of formalisation to create “aesthetic order” (Scott, 1998: 227). As unambiguously stated in the 2003 *Decree on the Development and Management of Marketplaces*, “preventing and putting an end to the state of marketplaces emerging spontaneously or built in contravention of planning” is of key importance (Socialist Republic of Vietnam, 2003: online).

These state actions to ‘modernise or upgrade’ marketplaces have frequently hindered and negatively affected ethnic minority traders. Delays have plagued ill-conceived market upgrades and new structures, creating a number of ‘model’ marketplace sites that are incompatible with local trade cultures. One clear example of this is the Sa Pa Town marketplace, in the head town of Sa Pa District. From at least the late-1800 s, the town had a central open-walled marketplace, which served as a weekly meeting place for ethnic minority farmers. These farmers from surrounding villages would buy and sell small amounts of goods and, as importantly, socialise and share news and gossip (Michaud and Turner, 2000). After international tourism began again in 1993, Sa Pa’s market also became a site for ethnic minority women to sell textiles and small trinkets to overseas tourists. In 1997, the market was expanded and ‘modernised’ in the same central location to become a two-storied, fully enclosed concrete building. Ethnic minority traders occupied part of this space selling their hand-embroidered textiles, and as the numbers of traders grew, town officials started to charge them a stall rental fee (Fig. 3a).

Then in 2015, a much larger marketplace was constructed and opened two kilometres from the town centre, far from the streets and restaurants where Western tourists gather (Fig. 3b). All vendors were ordered to relocate, with those who refused finding their goods moved overnight by local officials, in a show of direct infrastructural violence (cf. Rodgers and O’Neill, 2012). One Hmong elderly woman trader remembered with frustration: “There was nothing we could do. We tried to stay where we were for as long as possible, but then one morning my boxes [of textiles to sell] had gone!” (interview, 2016). Despite a congregation of Kinh and ethnic minority vendors traveling to Hanoi to complain to more senior state officials (a rather courageous act for upland minority women, especially given minority-majority relations and

gendered stereotypes), the marketplace move was declared permanent (Turner et al., 2021). Local state authorities had thus won the contest to regulate normative social and spatial relations.

Ethnic minority traders found themselves relegated to the far end of the second story of the new marketplace, well-hidden from foot traffic (which was meagre to any part of the market in the early years of its relocation). One Yao trader bitterly asserted during her first year there: “How are we going to eat now? We need customers so I can buy rice seed. They pushed us away because they think we’re dirty, but foreigners want to buy from us! I hate the market officials” (interview, 2016). While rent was free the first year, stall and electricity fees have risen steadily since, causing significant concerns among Hmong and Yao vendors.

Across Lào Cai Province, the state’s reorganisation and ‘upgrading’ of upland marketplace infrastructure has not only included large concrete buildings, but also newly hired market managers, new trade fees and licenses, and fixed trading days that no longer follow the lunar calendar as in the past. Vendors have criticised the new marketplace designs, noting that the ‘modern’ concrete block marketplaces are far darker and gloomier than their previous makeshift counterparts constructed of bamboo poles and tarpaulins. New marketplace fees have often been implemented before running water or electricity has even been installed (cf. Schwenkel, 2012). In recent years, traders in a number of locations have also been frustrated because they can no longer sell on the perimeter of weekly markets without being charged a fee. A Yao vendor who travelled from her farm to sell chillies and tomatoes at a weekend market exclaimed: “I only have these two small piles of vegetables to sell; why should I pay a fee? It’s crazy! Look at those huge [covered] stalls over there with Kinh traders, they should be the only ones paying fees, not us! If it rains we get wet – who pays to sit beside a road?” (interview, 2018). Additionally, market managers (state employees) now keep an eye out for any trade in illicit goods, including non-timber forest products that might have been harvested in national parks. This social regulation works to increase control and power over minority traders, excluding those who cannot afford market fees or who do not trade the ‘right goods’ at the designated times and places. Thus,



Fig. 3. (a and b). Sa Pa Town's pre-2015 and post-2015 marketplaces.

alongside physical marketplace ‘upgrades’, a conceptual infrastructural inversion approach reveals how “regulation has become ‘infrastructural’” (Lindquist and Xiang, 2017: 153), with state officials determining who can trade what and when via new relations, practices, and forms of governance not previously present in these uplands. As Abel and Coleman (2020: xi) have argued, infrastructures can be part and parcel of “operational routines, they work silently and pervasively not only to manage material circulations but also to enforce classifications and shape ordinary experiences of space and time” (see also Murton, 2017).

#### 4.3. Tourism infrastructure

Tourism infrastructure has been defined fairly broadly as being “related to all those elements in a destination that enable and boost tourism development” (Mandić et al., 2018: 44; see also Swarbrooke and Horner, 2001). Other scholars have added that tourism infrastructure includes all the facilities that tourists use from when they leave their home to their destination and return, indicating that tourism infrastructure is frequently used by local residents as well (Lohmann and Netto, 2017). Drawing on these definitions, I focus on road and air infrastructure that has significantly increased (or plans to increase) the

number of tourists visiting the uplands, along with hotels, resorts, restaurants, and other tourism-focussed amenities.

Supporting the growth of tourism infrastructure in the province is ‘Decision 46/2008 Approved Master Plan for Socio-Economic Development of Lào Cai Province to 2020’. This document stresses that “tourism development becomes the spearhead economic sector, with typical products: travel, climbing, culture, traditional festivals” (Socialist Republic of Vietnam, 2008: online). This has been centrally embraced in the ‘Master Plan on Socio-Economic Development of Lào Cai Province to 2020, with a Vision to 2030’ (Socialist Republic of Vietnam, 2015), which aspires to create amusement parks influenced by Disneyland-type models (VOV.Vn, 2016). This tourism drive is working. In 2013, Lào Cai Province attracted 1.2 million visitors, rising to 2.9 million in the first half of 2019. Meanwhile, Sa Pa Town, the spearhead of tourism development in the province, reported 720,000 visitors in 2013, increasing to 1.65 million in the first half of 2019 (Viet Nam News, 2019).

The opening of a four-lane highway from Hanoi to Lào Cai City in 2014 represents a transport infrastructure enhancement that has stimulated the dramatic increase of visitors to the uplands as a whole, and especially to Lào Cai Province. Halving the driving time to five hours, state officials have heralded the Hanoi–Lào Cai expressway as a grand, modernist achievement. Ultimately, this road is intended to connect to China’s already constructed Kunming–Hekou expressway, and to eventually link Yunnan’s capital city, Kunming, to the Gulf of Tonkin (Tuoi Tre News, 2014). This highway has significantly increased the number of tourists visiting the former colonial hill station of Sa Pa Town, just 33 km away from Lào Cai City.

Since about 2010, powerful corporate and state-supported actors have been involved in a dramatic overhaul of Sa Pa Town and the district’s tourism infrastructure, including the construction of large hotel complexes, resorts, and restaurants. Most notably, in 2016, Sun Group inaugurated a cable car to the top of Fansipan mountain (3143 m), the highest peak in Vietnam. A three-kilometre tramway connects the base of the cable car complex to Sa Pa Town, while the tram’s terminus in Sa Pa Town is the ‘Hotel de la Coupole’ also built by Sun Group. This large hotel has lavish mock Beaux-Arts-style architecture and design features, catering to middle- and upper-class Vietnamese clientele. While Sun Group is privately owned, a number of Sa Pa residents have told me that the company’s top directors must have strong connections with high-ranking state officials given the size of their tourism developments and the speed with which their projects are approved across Vietnam. One local resident surmised that Sun Group probably now owns more than half of Sa Pa Town’s land rights (interviews, 2017, phone interview, 2020; see also An Hai, 2020).

Perhaps crowning this recent drive in tourism infrastructure are the state’s plans to build an airport in Lào Cai Province. While under discussion for decades, this proposal moved closer to reality in 2019 when the central government approved plans to build ‘Sa Pa Airport’. This airport – actually in Bảo Yên District to the east of the Red River – would serve up to three million passengers a year and be a public–private partnership (CAPA, 2020; see also Hirsh, 2016; Harris, 2021 for thought-provoking discussions of airport infrastructure in Asia).

At times, it is hard to believe that 83 percent of Sa Pa District’s permanent population of 65,700 are ethnic minorities, given the overwhelming presence of Kinh (lowland Vietnamese) tourists during weekends and holidays (Socialist Republic of Vietnam, 2019). The state-promoted forms of tourism have catered predominantly to Kinh tourists, and to a lesser degree, tourists from neighbouring Asian countries. Kinh individuals have comprised most of those working in the tourism sector, at least in Sa Pa Town itself, and very few tourism-related enterprises have hired local ethnic minorities, who have been largely bypassed by this tourist boom to date (Michaud and Turner, 2017). Yet, at the same time, ethnic minority households have faced increasing pressure to sell prime farmland to Kinh real-estate developers for tourism projects. Not all do, but the temptation of comparatively large financial returns is high. A number of these farmers have then struggled to find appropriate

alternative land nearby for an affordable price, with some needing to move to neighbouring Lai Châu Province. As one Hmong woman lamented: “I wish Hmong people didn’t sell their land. They think it’s a lot of money and they get excited, but then they can’t feed their families for long if they just go to the supermarket every day! It’s sad to see them struggle, but they don’t listen to me” (interview, 2018).

For the ethnic minority individuals who have tried to take advantage of the new tourism wave to gain some income, they have quickly found themselves sidelined or removed from key tourism sites and access routes by local authorities. We thus witness how “the economic and ecological benefits and burdens of large [infrastructure] projects are often inequitably distributed amongst communities, with money and resources flowing towards those with economic, social and/or political power” (Nolan et al., 2020: 780). Previously, in addition to those selling in the marketplace, a number of ethnic minority Hmong and Yao women offered their embroidered textiles to tourists, predominantly from overseas, while vending itinerantly along Sa Pa Town’s main streets and sidewalks. They would also sit on sidewalks in the evenings to trade, especially in the weekends when the town’s periodic market brought them, and correspondingly overseas tourists, to town. However, in recent years, there has been a notable clamp-down on such activities, with ethnic minority vendors forbidden from many of their favourite trading spots and relegated to state-controlled sites. These locations are frequently changed when town officials deem vendors are getting in the way, especially of new hotel construction or vehicular traffic. Hmong and Yao vendors have complained that these enforced moves are seldom announced in advance and harm their trade, highlighting yet another example of infrastructural violence and regulation through oft-concealed practices. As one Hmong woman vendor expressed in October 2019: “They always move us around; they [local officials] don’t like us, they look down on us, they don’t care; they just want us out of the way”; while a Yao woman vendor added: “They change where we can vend all the time. It’s never to a better place for us”. As Schwenkel (2012: 440) has observed elsewhere in small city Vietnam: “contemporary urban renewal projects...introduce a particular neoliberal mode of urban governance that similarly strives to aestheticize urban space and inculcate ‘proper’ urban practices that are shaped by new moral, economic, and aesthetic regimes”.

Ethnic minority vendors have also raised concerns about the changing ethnic composition of tourists, noting that Kinh tourists are less likely to buy from them than overseas tourists. The vendors have also experienced overt racism from lowland Kinh who, as one Hmong woman noted, “call us cat or monkey all the time; they always look down on us”. As demonstrated in earlier work on tourism in the town (Michaud and Turner, 2006), ethnic minorities have been relegated by both state officials and the majority of lowland Kinh tourists as exotic, primitive folks who must be controlled and placed under surveillance (Fig. 4).

## 5. Infrastructural lives: Living with or contesting state plans

A range of reworked infrastructural lives have emerged from both the active and passive infrastructural violence and the cumulative negative impacts of the state’s infrastructural projects on upland communities illustrated above. It is helpful here to consider Tyner and Rice’s (2016: 50, original emphasis) description of violence, inline with the conceptual discussions earlier: “Violence is any action or inaction that affects the material conditions of another, and in so doing, reduces one’s potentiality to survive: or to put it another way, *violence is any action or inaction that increases vulnerability*”. Many ethnic minority individuals and households have had to significantly adjust and realign their livelihoods so that they can hope to access enough cash to buy hybrid seeds, resulting in the diversification of their livelihoods. While livelihood diversification is often undertaken to reduce vulnerabilities (Ellis, 1998; Bouahom et al., 2004), the options available and choices being made in these uplands have, at times, led to the opposite, namely increased





Fig. 4. Sa Pa Town square teeming with lowland tourists during a weekend, while a state-organised ‘ethnic minority dance show’ takes place, 2019.

livelihood vulnerability. For example, extreme weather events, especially cold winters and snow, have negatively impacted newly relied upon cash crops, such as black cardamom. Meanwhile, farmers taking-up manual labour options have found themselves faced with poor labour conditions, and vendors attempting to sell to tourists have experienced harassment from both officials and lowland tourists. Farmers have also lost access to a number of their land-race seeds and face rising food insecurity and debt due to the unsuitability of several state-supported hybrid rice strains. Fixed marketplaces that are now far more regulated and operated under the careful eye of state-appointed market managers have reduced the flexibility of meeting for trading and socialising, while restricting the places, times, and goods that can be sold easily. An increase in tourism infrastructure has resulted in land grabbing, villages being disturbed, access to services becoming more difficult, and local prices for necessities rising. Concurrently, ethnic minority street vendors have been frequently blocked from trying to sell their wares. These processes, made discernible through infrastructural inversion, are typically anonymous, quiet, and seldom seen from the outside. As scholars working on infrastructural violence have noted, these are some of its frequent traits; infrastructural violence does not have to be obvious to be taking place (Ferguson, 2012).

Yet, despite these upheavals and challenges to upland livelihood opportunities, ethnic minority individuals, households, and communities have not been passive recipients of the complicated and oft-entangled infrastructural changes occurring around them, and they have been pushing back in a number of different, subtle ways. Where and when possible, interviewees have often been undertaking small-scale, informal actions that modify or resist the state’s ambitions (c.f. Scott, 1985). They know that to speak-up or protest vocally will not help their cause given the socialist state apparatus and their position as ‘younger siblings’ of Kinh ‘older brothers’, to whom it is assumed they will look to for guidance and support. Nonetheless, for many ethnic minority individuals and households, quietly challenging facets of these infrastructural programmes or experimenting with adjustments has become increasingly important.

### 5.1. Living with and contesting state expectations regarding hybrid seeds

During interviews, it became clear that Hmong and Yao farmers holding smaller land parcels have tended to adopt the state-encouraged

hybrid seed package due to anticipated increases in yields. However, these farmers have also designed ‘back-up’ plans or alternative ways to access the precise seeds they want. For example, instead of ordering seeds through their assigned state distribution centre, some farmers have decided that it is wiser to rely on market mechanisms to access relevant and trust-worthy seed supplies, even if they have to pay a higher price. These seeds are sold in the region’s local weekly markets by farmers who have typically carried them into northern Vietnam from China, either legally as part of small daily allowances or smuggled. This gives Vietnam-based upland farmers the opportunity to trial a range of seeds, drawing from community knowledge and planting the ones best suited to their field locations – and their taste preferences. One Hmong man reasoned: “If I get seeds in the market here [Bắc Hà], I get the type I want. I pay a few thousand *đồng* more [less than USD.50] per pack but at least I know they’ll grow! When I got seeds from the government before, they weren’t as good as these” (interview, 2018).

State officials are not happy with farmers taking this route, as it contradicts the state’s narrative of providing aid to ‘poor farmers’, reducing the seed-provisioning statistics at official distribution centres, and making it appear that officials support fewer households. This hinders the opportunity for officials to gain financial rewards or promotions for their performance, while providing less quantifiable evidence for district and provincial state officials and departments to proclaim and celebrate their support of upland households (interviews with Hmong and Yao farmers, state officials, and long-time Kinh residents, 2018; 2019).

I have also interviewed a small number of Hmong and Yao farmers over the years who have been determined to maintain their traditional land-race seeds. While the numbers of farmers doing this appears to be slowly diminishing, as the powerful combination of hybrid seed propaganda and increasing land scarcity continues to add pressure to switch to hybrids, these farmers have continued to grow land-races for their preferred taste, or maintain small plots of specific land-race species for festivals and valued herbal medicine qualities. A young Hmong woman explained: “We have to keep sticky rice for Hmong New Year. That’s really important, we can’t buy that. And my Mum still grows rice that’s good for new mothers when they’re breastfeeding...she gives them some when she helps with the births” (interview, 2018). A number of farmers have thus experimented with different facets of the state’s seed infrastructure. They attempt to maintain local biodiversity and connections

with their traditional ecological knowledge in the face of state attempts to rework and control human-nature relations in these uplands (see also Peluso and Watts, 2001; Enns and Sneyd, 2020).

These are all fairly small-scale responses and adjustments to the hybrid seed programme, rooted in everyday life, culture, and livelihood needs – creative responses that some have called the vernacularisation of modernity (Gaonkar, 1999). Farmers undertake these practices that quietly contest the state’s ambitions for the wholesale adoption of the hybrid seed programme, while attempting to avoid drawing attention to their farming practices and decision-making, closely fitting James C. Scott’s (1990) definition of infrapolitical agency. As Scott (1990: 183) has argued: “The circumspect struggle waged daily by subordinate groups [is] in large part by design a tactical choice born out of a prudent awareness of the balance of power”. Minority farmers are well aware that their resistance to the socialist administration cannot be based on force or overt protest; instead, it is “resistance enacted through finesse” (Turner et al., 2015: 13).

### 5.2. Contesting new marketplace rules and regulations

I have noted above that ethnic minority vendors in a number of markets across the province have been frustrated by the ‘upgrades’ their regular market venues have experienced. However, their infrastructural lives include a range of everyday tactics that are either defensive or opportunistic, so as to maintain their ability to trade. In cases where vendors are impeded by new, fixed marketplace stall sizes, they have started to ‘drift’ into neighbouring stall segments if there is space, or share stalls with others and divide the costs. This often causes confusion and frustration for marketplace officials, who become angry and aggressive towards the vendors at times, highlighting the clear power imbalances between the predominantly Kinh men officials and ethnic minority women traders. As one Yao woman at Bắc Hà market explained:

Now they want us to fit a certain size stall, but some of us have small amounts to sell, and some of us have more. Some of us don’t want to come here every weekend. It’s so annoying. The officials boss us around. We tried to explain but they got really angry so now we just lie about whose stuff is where and we pay each other back to cover the fees (interview, 2018).

Vendors have also managed to avoid fees at times, by being observant as to when marketplace officials are arriving in their area of the marketplace and packing up their goods quickly or hiding them under a jacket or other items. They then walk around the rest of the market for a while until the officials leave, before returning to their original spot. Vendors keep an eye out for officials and warn each other, as well as having an informal agreement amongst themselves as to who has the right to sit where. Sometimes those with larger stock, who are thus less mobile, pay the fee, with smaller-scale traders then paying them an ‘informal fee’ to be allowed to sit nearby. Finally, some vendors who sell illicit or illegal goods have switched to trading itinerantly when the construction of a new marketplace has resulted in greater surveillance by marketplace officials. One example is that of vendors selling small quantities of opium poppies, who now visit Kinh restaurant operators directly to sell their illegal harvests. The restaurateurs macerate the opium poppies in bottles of distilled alcohol, before quietly selling their prized blends to lowland customers.<sup>7</sup>

In all these cases, ethnic minority traders have found innovative ‘work-around’ methods to trade their goods, while avoiding a range of inconsistencies and frustrations that have arisen with the building of new marketplace infrastructure and the resulting formalisation of

marketplace trade. Their tactics could be considered soft political acts, quietly challenging the demands and expectations of marketplace officials and regulations.

### 5.3. Contesting or being subjugated by tourism infrastructure

The rapid growth of tourism in Sa Pa Town has resulted in a number of somewhat inexplicable restrictions that hinder ethnic minority street vendors from trading their goods. Vendors have been pushing back against these restrictions, with one response of minority traders being to go mobile. Now, more than ever before, ethnic minority women vendors selling textiles are following day trekkers along the most popular local trekking routes. These treks are usually led by young, ethnic minority women guides. Drawing on social networks with these guides, vendors informally join trekking groups as they leave town and strike up basic conversations en route (the unsuspecting tourists are usually foreigners rather than Kinh, due to historical discrimination from the latter). After a few kilometres of chit-chat in basic English and helping the tourists along the trail, the vendors start a hard sell of their textiles and tourist trinkets. This approach allows vendors to avoid officials in Sa Pa Town and often creates a guilt-ridden relationship with the tourists, allowing vendors to sell their goods fairly easily. Other ethnic minority vendors have set up small stalls in villages that trekkers commonly visit, again unhindered by Sa Pa Town’s officials. Ethnic minority vendors have thus contested and worked around vending restrictions implemented by officials who prioritise a specific vision for the town’s urban spaces.

Across these borderlands, numerous infrastructure programmes are aiming to modernise and integrate the livelihoods of ethnic minority inhabitants into the nations’ economy and direct them towards full market integration. Infrastructural projects are deeply implicated in not only the making and unmaking of individual lives in these uplands, but also in the experiences of community, solidarity, and struggle for viable livelihood options. At the same time, local people work to uphold their claims to what they believe they are entitled to, based on their own understandings of fairness and rights. Embedded in situated knowledges and local cultural values, upland minority individuals and households make many complex livelihood decisions that result in particular, measured engagements with some of these infrastructure projects, such as hybrid seeds and fixed marketplaces. Concurrently, vendors find work-around solutions to reduced street access and make contact with tourists who might buy their wares. Nonetheless, one cannot romanticise the power and influence of ethnic minorities in relation to a state apparatus determined to restructure the uplands. In the case of large-scale tourism infrastructure initiatives, ethnic minority communities appear fairly resigned to many of the actions of the state and state-friendly private enterprises.

## 6. Concluding thoughts: Slow infrastructural violence in Vietnam’s northern borderlands

The infrastructural turn encourages us to contemplate infrastructure not only as an object to be investigated, but also as an analytical lens, and as an instrument of power and governance (Addie et al., 2020). This approach helps reveal the degree to which infrastructure combines materials, networks, and elements of nature, as well as how it contributes to a range of political environments that can be conflictual, supportive, or mediated (Graham and McFarlane, 2015). While also drawing from the more specific concept of infrastructural violence, it seems clear that new forms of marginalisation and exclusion are taking place in Vietnam’s northern uplands through and sustained by infrastructure, either passively or intentionally. These forms of infrastructural violence have had a number of negative and far-reaching impacts on local ethnic minority livelihoods. Yet these effects have not necessarily been immediate nor obvious, often occurring gradually over months or even years. They could therefore be considered examples of ‘slow violence’, namely “violence of delayed destruction that is

<sup>7</sup> While a fascinating case study, I refrain from saying more on this specific topic, including where this is occurring, for obvious confidentiality reasons.

dispersed across time and space, an attritional violence that is typically not viewed as violence at all” (Nixon, 2011: 2). This slow violence is occurring in situations where the impacts may not be observable nor its perpetrators easily identifiable (Datta and Ahmed, 2020; Nolan et al., 2020).

Previous work in the Global South, especially in the urban realm, has highlighted the importance of focussing on the political economy of infrastructure, while recognising the impacts of different geographical and socio-economic contexts. With regards to this case study, being on the political border with China has meant that while some rural infrastructural projects in Vietnam are part of nationwide attempts by the central government to ‘modernise’ the countryside; equally important are infrastructural policies attempting to tighten state authority over these borderland provinces (Scott, 2009). Territorialisation thus continues in these uplands as the Vietnamese state strengthens its control over ethnic minority populations, while also wanting to extend a strong state presence in relation to Vietnam’s dominant next-door neighbour, China (McElwee, 2016). Considering Ferguson’s (1994) ‘anti-politics’ machine, relying on the camouflage of technical interventions (such as infrastructure) to depoliticise state actions, certainly seems applicable in these uplands. Discussions that link infrastructure and state control are of course not new, but the precise ways by which these play out are made ever more complex on a socialist state’s border where the political stakes are high. In this paper I have attempted to illuminate some of this complexity.

The spatial dynamics underway when infrastructural violence occurs across large and oft-isolated regions is also of critical importance here. For example, in an urban environment, it may be easier for knowledge of concerns regarding negative infrastructural consequences to circulate, as well as coping or resistance measures to emerge, perhaps with the backing of local or even global non-governmental organisations. Yet, when one lives in a rural village with difficult terrain, communication with like-individuals experiencing similar negative impacts or having concerns regarding specific infrastructure projects is often hampered by a lack of electricity, cellphone connectivity, or roads. For example, when I was interviewing farmers in different upland villages in Lào Cai Province regarding the impacts of hybrid seeds, they were sometimes unaware of wholesale crop failures that had occurred in villages less than 50 km away.

These spatial dynamics also relate to another finding regarding how information concerning possible responses to infrastructural violence is channeled through quite different avenues in the Vietnamese uplands than those commonly found in urban locales. For instance, knowledge about the most appropriate and hardy seeds for certain agro-ecological conditions and where to procure these is often passed through social networks of ethnic minority women who, following Hmong and Yao exoclanic tradition, marry into their husband’s family and move to their spouse’s village. Maintaining ties with maternal families – often during trips to weekly markets – is an important way of gaining and spreading information. This could even be considered a form of ‘people as infrastructure’ following Simone (2004), albeit one further disrupted by agricultural extension workers predominantly discussing new seed options with male farmers only.

Performing infrastructural inversion to study its inner workings has also allowed me to reveal important dynamics between different stakeholders in these case studies. This uncovers numerous uneven, power-laden relationships between the state, powerful private companies (especially those focussing on tourism), and ethnic minority communities regarding broad discourses and policy ambitions. As these relationships play out on the ground, it is notable that officials at newly constructed or remodelled marketplaces, officials in charge of street patrols and clearances, and officials at seed distribution centres are all overwhelmingly lowland Kinh. The directors of influential private companies investing heavily in the region are also predominantly Kinh. Moreover, Kinh tourists frequently (but not always) openly display prejudicial attitudes towards upland ethnic minorities. Ethnicity hence

plays an important role in the inequalities and social stratification that underscore the relational power dynamics at play here, with ethnic minority Hmong and Yao seldom favoured in infrastructure decision-making (see also Peluso and Watts, 2001; Nightingale, 2017).

As noted earlier, an intersectional approach to examining infrastructural violence is vital. The cases here show the value of such an approach, not only with regards to ethnicity, but also by revealing important changes in local gender dynamics due to infrastructural projects. I have highlighted how ethnic minority women have been sidelined in farming decision-making by Kinh agricultural extension workers, who are overwhelmingly men. Ethnic minority marketplace traders, both men and women, have been pushed out of more controlled market venues by marketplace officials, again overwhelmingly Kinh men. Moreover, marketplace formalisation has resulted in less flexibility for women traders who have reproductive responsibilities at home. Ethnic minority women have also been restricted from itinerant vending on town streets by officials, again predominantly Kinh men.

In a recent book, political scientist Ben Kerkvliet (2019) has observed that the ability of lowland Vietnamese to criticise the state has increased since the late 1990s, and that protests against unfair labour conditions, *peri*-urban land confiscations, and ‘Chinese territorial aggression’ have been fairly tolerated – albeit protests demanding more democratic decision-making far less so. However, Kerkvliet has clearly distinguished that this tolerance has applied to Kinh individuals, and not upland ethnic minorities. Apart from the few ethnic minority women who joined together with a far larger number of Kinh marketplace traders to protest the move of the Sa Pa marketplace in 2015, the cases I have focused on here have not resulted in ethnic minority individuals openly protesting infrastructure impacts. This is not surprising, given the historical distrust that state officials have held toward ethnic minority uplanders on the state’s periphery (World Bank, 2007; Messier and Michaud, 2012). Hence, the possibility of state retaliation plays an important underlying role in shaping possible responses and tactics (see also Yeh, 2013).

To modify Addie et al.’s (2020: 13) quote regarding urban infrastructure, and to widen the lens, a renewed focus on the politics of infrastructure can seek “to expose and address injustices and inequalities emerging at the nexus of infrastructure and [rural] development”. While doing so, the importance of the local political economy and socio-spatial context must be acknowledged, while taking an intersectional approach to studying how infrastructure frequently interconnects with widening inequalities and disjunctures in this mountainous region. It is equally important to remember that people experience infrastructural projects and the slow violence that often comes with them in complex and nuanced ways.

In sum, I have worked to advance current debates on infrastructural violence by combining a focus on mundane infrastructure with infrastructural violence, and by showing how these operate in a borderland region where the state is actively engaged in territorialisation projects and where infrastructure has not been carefully studied to date. In doing so, I have demonstrated how marginalised people are responding and interacting with infrastructural processes using subtle tactics and manoeuvres. This has resulted in dynamic and nuanced infrastructural lives, often in flux as individuals find themselves excluded or dominated by certain elements of state projects, while also able to co-opt or resist others.

In this corner of the Southeast Asian Massif, political actions and motives are diverse and complex, and upland residents’ livelihood approaches are equally multifaceted. It thus becomes clear that further detailed case studies are required across the Massif that focus *beyond more obvious* infrastructure programmes. The impacts on rural livelihoods of immense infrastructural projects such as China’s One Belt, One Road initiative, large-scale dams, and extensive road and railway networks, clearly show the urgency of more infrastructure-focussed studies. Nonetheless, I argue that equally crucial across these vast uplands, spanning ten countries, is the study of more subtle and often far slower

practices of infrastructural violence due to the sheer number of individuals whose lives are being touched and the significant long-term consequences for upland livelihoods.

### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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