

Territorialisation and the Politics of Highland Landscapes in Vietnam: Negotiating Property Relations in Policy, Meaning and Practice

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This article examines the making of post-socialist forest property relations in highland Vietnam in policy, meaning and practice, and the resultant implications for patterns of resource use, local power relations, and forest biodiversity and cover. It utilises the framework of political ecology to explore how macro-level institutions and ideologies intersect with local understandings and practices to regulate resource access, use and control. Specifically, this article examines changes in farmers' de facto and de jure rights in land and land-based capital in response to institutional and market changes, and the micro-processes through which those relations are constituted and contested. It explores how forest lands are imagined by the state and made legible through various mechanisms of surveying, classifying, mapping and registering forest land parcels, a set of processes defined as territorialisation. It extends the analysis beyond the nation-state, demonstrating the role of international environmental capital in facilitating those processes. State territoriality, however, has not resulted in the uniform transformation of forest property arrangements into private control. Rather, existing social structures, land use practices and social(ist) networks may in fact alter or subvert forestry reforms in ways not envisaged by the state. This article explores the particularities and unintended consequences of forest reforms through a comparison of two highland Dao villages in northern Vietnam at the turn of the millennium.

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INTRODUCTION: THE POLITICAL ECOLOGY OF PROPERTY MAKING

BEGINNING IN THE late 1980s, the Vietnamese government launched a series of 'economic renovation' strategies collectively referred to as *doi moi*, which shifted away from administrative central planning towards a more market-oriented economy in an effort to revitalise the stagnating economy and maintain political stability.¹ This shift involved the implementation of a range of economic liberalisation policies and programmes relating directly to the forests and peoples of the highlands including the following: (a) decollectivisation, classification, allocation and titling of forest and agricultural land to individual households; (b) economic investment into montane area development to intensify fixed cultivation and sedentarisation of ethnic minorities, as well as reforestation of so-called barren lands; and (c) liberalisation of domestic and foreign markets, creating new patterns of investment into and consumption of the highlands.

During this period of economic reform much of the Vietnamese highland landscape is being surveyed, mapped, parcelled and allocated or contracted to individuals and organisations as 'forest land' for reforestation, production and protection purposes with the implicit goal of stabilising people's livelihoods and highland forests through sedentary production. The outcomes and responses to land titling and associated forest management programmes, however, are highly uneven across the highland landscape and often diverge from policy intent. They have been influenced by a vast discrepancy between state classification and regulation of forest lands, and local visions of and tenure relations in that land. They have also been shaped by local power relations and locally specific ecological conditions and customary practices that intersect with new economic opportunities in ways that produce novel tenure arrangements parallel to or outside the confines of state delineation. I refer to these new forms of tenure as innovative customary property relations.²

Part and parcel of the 'post-socialist' transformation has been a radical shift in the value and meaning of 'forest land' and resources therein. This shift can be attributed to global conservation ideologies and capital, state territorial strategies and the development of new markets.³ With the opening of markets and increasing normalisation of relations with the West, there has been a tremendous influx of foreign capital into environmental management, forestry development and biodiversity conservation initiatives. International environmental aid has not only fuelled the direction and extent of forest land reform, including the establishment of numerous national parks, but inadvertently legitimises state territorial strategies, deepens distributional inequity and paradoxically undermines or threatens to undermine biodiversity.⁴ In contrast, a surge in both domestic and international demand for certain non-timber forest products (NTFPs) from the highlands is creating new and in some instances more egalitarian patterns of access and accumulation in relation to specific NTFPs that lie in the shadow of state-sanctioned forest property arrangements.⁵

This article examines the making of post-socialist forest property relations in highland Vietnam in policy, meaning and practice, and the resultant implications for patterns of resource use, local power relations, and forest biodiversity and cover. It utilises the framework of political ecology to explore how institutions like the state, market and property rights intersect with micro-politics, history and ecological conditions to regulate resource access, use and control (Blaikie 1985; Blaikie and Brookfield 1987; Bryant and Bailey 1997; Carney 1996; Neumann 1992; Peet and Watts 1996; Peluso 1992). Specifically, it examines changes in farmers' de facto and de jure rights in land and land-based capital in response to institutional and market changes, and the micro-processes through which those relations are constituted and contested. Borrowing from Ribot and Peluso's theory of access, this article explores particular 'mechanisms of access', or 'the means, processes and relations by which actors are enabled to gain, control and maintain access to resources' (2003: 159–60).⁶

This article contributes to regional debates about the relationship between forestry, territoriality and state making in South and South-East Asia (see, for example, Bryant 1996; Peluso and Vandergeest 2001; Rajan 1998; Saberwal 1999; Sivaramakrishnan 1997, 1999). Specifically, it explores how forest lands are imagined by the state, made legible through various 'scientific' mechanisms of surveying, classifying, mapping and registering of forest land parcels, and systematically policed; a set of processes broadly defined as territorialisation (Peet and Watts 1996; Vandergeest and Peluso 1995). It also extends the analysis beyond the nation-state, demonstrating the role of international environmental institutions and capital in legitimating and facilitating those processes (Luke 1997; Neumann 1998; Peluso 1993a; Peluso et al. 1995; Schroeder 1993, 1999; Turnbull 2003). The recent re-configuration of administrative divisions, bureaucratic authority and institutional regulations related to forest property can also be understood as a form of state making or remaking in response to both internal and external pressures; a set of processes that are integral to the formation, tactics and legitimations of government institutions and governmentality (Foucault 1978a; Peluso and Vandergeest 2001; Sivaramakrishnan 1999:2). Following Sivaramakrishnan, this article contends that modern state making is fundamentally about the ways in which 'culture, nature and power are spatially constituted and expressed' (see also Scott 1998).

State hegemonic control, however, is not totalising nor unidimensional, but is limited by social and ecological vagaries of places or, as Sivaramakrishnan (1999:2) calls them, 'socio-ecological geographic entities'. The implementation of new forest policies in Vietnam has not resulted in a comprehensive transformation of local land relations toward uniform private control. Rather, we see a plurality of alternate claims in different spaces within the state-encoded 'forest land', which are shaped by local power relations, historical memory and practice, and ecological specificity. Romm and Dang's (1996) insightful article makes similar claims, suggesting that the diverse effects of economic reforms on villages in the midlands of Vietnam are shaped not only by the layers of organisation through which the

policies pass before reaching the land users, but also by the variability in productivity, diversity and riskiness of village natural environments. State property regimes are also being met with various forms of explicit everyday forms of resistance (Scott 1985) and implicit non-compliance by those on the economic margins. This article demonstrates that the micro is not merely an expression of or determined by macro-level structures, policies and ideologies, but is heavily influenced by political and cultural contestation intertwined with economic struggles at the locality (Burawoy and Verdery 1999). It compares the diversity of local response to national forest policy reform in two ethnically similar 'highland' Dao villages, suggesting that property relations are not legally, culturally or regionally determined, but are shaped by a dynamic interplay among specific historical, ecological and social conditions.⁷ In fact, existing social structures, land use practices and personal networks may actually alter or subvert forestry reforms in ways not envisaged by the state.⁸ The particularities and unintended consequences of the reforms are explored in detail within the two case studies later in this article.

The Uniqueness of Forest Property Relations

Most of the literature on rural property rights under transition in Vietnam focuses predominantly on the decollectivisation of wet rice agriculture lands or other annual and perennial croplands, particularly in the lowlands among the ethnic Kinh (Dao The Tuan 1997; Fforde and de Vylder 1996; Kerkvliet 1995; Kerkvliet and Porter 1995; Kerkvliet and Selden 1999; Luong and Unger 1999; Watts 1998).⁹ Less research has been done on the nature of *forest* property relations under transition in Vietnam, particularly in the highlands, where 24 million people live in or around forests and derive a substantial part of their food and income from forests and forest lands (Nguyen and Gilmour 2000).¹⁰ Most analyses are quite general, based on rapid appraisals and/or quantitative figures regarding the amount of land allocated.¹¹ Some suggest that forest land allocation provides greater tenure security (see, for example, Apel and Pham 1998). Few examine the micro-politics around forest land allocation, and the resultant implications for livelihood strategies and forest cover through in-depth case studies.¹² This article examines those micro-level dynamics that critically define the limits of state territoriality.

Of the roughly 8 million ethnic minorities in Vietnam, 3 million live 'in the forest' and practise some form of shifting cultivation as their primary source of livelihood (Nguyen and Gilmour 2000). Much of these lands, classified as 'forest land' by the state, are in fact swidden fields that were never, or were only loosely, organised into collectives for a short period of time for swidden production.¹³ The remaining 'forest lands' *with* forest cover were primarily managed by State Forest Enterprises for timber production and by the Forest Inspection Department for conservation purposes, during which time they were heavily exploited. Villagers continued to utilise those forests for grazing, fuel wood and other non-timber harvesting practices as well.

Analysing forest property relations in transition from socialism poses a tremendous challenge, as the object of analysis is blurry with overlapping boundaries and claims at multiple levels. In contrast to wet rice lands, in which land, labour and capital were acutely managed by the state, so-called forest lands were on the margin, beyond existing state capacity for direct managerial control, absorbing renegade labour during the collective period to contribute to the household economy.

Forest tenure that has emerged in two highland Dao villages since the onset of 'economic renovation' bears little resemblance to property relations in wet rice land, highlighting the importance of disaggregating the 'rural' in studies of post-socialist property transformations. In contrast to relatively even and egalitarian post-socialist property arrangements found in wet rice agriculture in northern Vietnam (Sikor 1999; Watts 1998), property relations on sloping lands are subject to intense debate, fluctuating and overlapping claims due to inequitable allocation and at times violent struggles. This can be explained for a number of reasons. First, the meaning of and designs for sloping lands diverge significantly between uniform state visions of 'production' and 'protection' forests, and flexible local patterns of land use for multiple purposes. Second, in contrast to wet rice lands, boundaries around specified forest land types were never clearly demarcated nor explicitly managed under socialism such that 'restitution' or allocation would bring about clear tenurial boundaries. Third, central state guidelines for 'forest' land allocation are often contradictory and ambiguous, allowing for diverse interpretations at lower levels of the administrative hierarchy. Fourth, the economic benefits linked with forest regeneration and protection contracts result in distributional inequality. As a result, by 1998, 86 per cent of wet rice land had been allocated, yet only 10 per cent of forest land had been successfully allocated (WFP 2000).

The surprising absence of studies on forest property relations, despite the geographic scale and critical importance of forest lands to farmers, the state and international environmental agendas, suggests the need for more in-depth case studies in forest lands to better understand the socio-economic and ecological implications of post-socialist reform.

The Privatisation of Forest Land or Embeddedness in Social(ist) Networks?

Most discussions of post-socialist property arrangements contend that rather than a wholesale shift from public to private property ownership, what is emerging is a complex hybrid of the two (Burawoy and Verdery 1999; Oi and Walder 1999; Stark and Bruszt 1998; Szelenyi 1998; Verdery 1996). In highland Vietnam multiple and shifting vertical (hierarchical levels of governance) and horizontal (spatially disjunct) claims to land over time confound efforts to consolidate rights in private property—namely, exclusive control over land either by individuals or by corporate groups (Berry 1993: 17).¹⁴ Different social actors hold different bundles of rights,

and the definitions of the status of property are blurred and ambiguous (Verdery 1999: 54). Thus, to assume that state titling and contracting of forest lands make land rights more secure is questionable. Rather than replacing existing tenure relations, officially titled rights often conflict with customary rights in ways that cause confusion and contestation, or may in fact simply be ignored in practice (Shipton and Goheen 1992: 316).

Post-socialist forms of property are part and parcel of specific power arrangements in which specific actors and relations are recognised or privileged (Verdery in this volume). Rights, or more broadly access, are entangled with power relations, social identities and embeddedness in social networks (Agarwal 1994; Berry 1989; Li 2000; Verdery 1996, 1999), which serve as important channels of access to the state as well as to local resources (Berry 1993: 16; Blaikie 1985; Ribot and Peluso 2003: 165; Romm and Dang 1996; Wank 1999).¹⁵ Building on these notions of property, I demonstrate that access to forest land in Vietnam is mediated through current or former membership in various social institutions and networks, including party and government affiliation, cooperatives, marriage and kinship. Under socialism, administrative rights to land were granted to actors at lower levels who utilised their position to build social capital and extract resources for personal gain (Verdery 1996). As this 'hierarchy of administrative estates' dissolved with the allocation of state land to private individuals, the local elite often utilised their position of power to reassert control over resources intended for lower-level proprietary claims (Verdery, in this volume).¹⁶ Those with political capital, a position of authority and accompanying connections that could be used to acquire economic resources (Verdery 1996: 159) benefited the most from forest land reform.

In their analysis of household differentiation, Romm and Dang (1996) make similar arguments pointing to the critical relationship between density of social relations within which households are embedded and their access to political, social and economic capital. In a similar vein, Rambo and Cuc (1996) indicate the crucial role that access to capital plays during this time of transition as a means to differentially invest in and secure forest landholdings.

While the forms of property have changed with economic liberalisation, the power structure remains intact such that efforts to democratise rights in forest land have resulted in precisely the opposite effect—that is, the *formal* consolidation of economically beneficial forest land in the hands of the elite.¹⁷ These power relations are entwined with specific visions and values of the landscape generated by state and conservation discourses, which formally silence alternative visions of and claims to the landscape. In fact, a constellation of other customary and emergent claims to so-called forest land, based on innovative entrepreneurialism and networks of marriage and kin, overlaps with and sometimes undermines the intentions of formal (legal) tenure arrangements. In this article I build upon Burawoy and Verdery's (1999) contention that contemporary forest property relations are not mere blueprints of national policy, nor are they strictly informed by their socialist antecedents, but exhibit innovative reworkings of colonial, customary and socialist discourses and institutions, as well as direct responses to

new market opportunities. I also stress the centrality of the land and land-based capital itself, imagined and real, in shaping the trajectory of the myriad 'forest' property and access arrangements in the highland landscape today.

Forest Policy Reform or Environmental Territorialisation?

Since *doi moi*, there has been a marked shift at the central level in forestry objectives and values from that of production and exploitation to one of rehabilitation and conservation. During the socialist period forest production was oriented toward serving agriculture and industrial production as well as national defence to aid in the construction of a socialist economy. Intertwined with forest policies were social policies designed to settle highland minority populations and control swidden agriculture, which was falsely attributed to the decimation of the forests, largely for national security purposes.¹⁸ Following Vandergeest and Peluso's (1995: 388; also Peluso and Vandergeest 2001) definition, state forestry under socialism (pre-1986) matches the classical 'internal territorialisation' argument in which the state exercised ultimate authority over all forest affairs through the demarcation of forest land territories, the claim to all resources within that territory, and the patrolling of this territory with forest guards and police, albeit with limited scope due to scarcity of resources.

With the onset of economic renovation, forest policy shifted toward developing forest resources based on socio-economic needs and environmental protection (Nguyen 1993), in concert with regional (Peluso et al. 1995) and global trends.¹⁹ Emphasis shifted away from state forestry towards household forestry, which involved the surveying, mapping, allocation and registration or contracting of forest land to individual households and organisations for more 'efficient' use and management.²⁰ Yet, rather than devolve control over land and management autonomy to local farmers, I argue that a new form of territoriality is emerging that operates within the discourses of environmental conservation and community stability in ways that concentrate the state's authority to regulate and control the movement of people and use of resources in less overt ways. These take the form of indirect controls such as resettlement of people to permanent plots within or outside of forested areas altogether, spatial limitations on cultivation, the regulation of land use including species selection, vegetative cover and yields, and increased surveillance through the devolution of policing authority to lower levels of governance. While many of these practices are not new, they have been reinvented and are now cloaked in and arguably legitimated by social and environmental ideals and capital.

Rather than improve distributional equity and forest productivity, forestry reforms silently control people's movement and land use activities, concentrate lucrative forest contracts in the hands of the elite and degrade diverse ecosystems. The restriction of people's spatial mobility indicated above threatens to undermine customary rotational agricultural practices that form the basis of most household economies in the highlands. Placing spatial limits on landholdings threatens to

degrade those lands in which households have been granted long-term tenure as fixed cultivation tends to deplete soil fertility and vegetative regenerability (Charley and McGarity 1978; Zinke et al. 1978). Restrictions on movement threaten to undermine both systems of knowledge and ecological processes related to medicinal and other useful plant diversity that are critical to rural livelihoods and require disturbances and movement across the landscape for their reproduction (see Sowerwine, forthcoming). In her evaluation of social forestry projects and policies in Java, Peluso (1993b) similarly illustrates how social forestry programmes intended to benefit the rural poor in fact enabled certain branches of state government to renegotiate control over land, trees and people, and reduced the sustainability of teak plantations.

Resource access is profoundly shaped by the power to produce categories of knowledge (Foucault 1978b, cited in Ribot and Peluso 2003: 169). The systematic 'scientific' classification of the northern highlands as 'barren' or 'unused', attributing barrenness to 'backward' agricultural practices, reflects a particular state environmental imaginary of the highlands devoid of vegetative cover and with a devalued agrarian history.²¹ This dominant representation of forest-dwelling people and landscapes has shaped forest policy and development directives in many upland areas of South-East Asia (see, for example, Li 1999). British and Dutch colonial discourses around 'wastelands' in South and South-East Asia respectively had similar social, political and ecological intent and effects. Common lands used for extensive grazing, long fallows and firewood collection in India were derided as wasteful, demarcated and refashioned into 'productive' landscapes through their enclosure and titling to the economic and politically powerful (see Chakravarty-Kaul 1996). Under the Agrarian Law of 1870, all native land in Indonesia was classified as 'unclaimed, uncultivated, virgin, no man's, or wasted land', becoming subject to direct proprietary authority of the colonial state (Peluso and Vandergeest 2001: 775; also see Burns 1989; Fasseur 1992; Holleman 1981, cited in Peluso and Vandergeest 2001; Hooker 1978). In a similar vein, Williams (1996) illustrates the power of Chinese discourse on 'waste' land (*huang*) in rationalising state incursions into the inner Mongolian steppe; transforming extensive grazing, perceived as 'obstacles in the path of national progress and economic development' into intensive livestock production through enclosures. The social construction of 'barren' landscapes or wasteland for political imperatives has been effectively challenged from a number of perspectives, including the field of ethno-science/ethno-ecology, which details the productivity and diversity of those landscapes,²² as well as from a critical geography perspective (see, for example, Fairhead and Leach 1996; Williams 1996) in which the power relations inherent in false readings of the landscape are illuminated. Despite these rich counter-narratives, dominant landscape discourses and related policies of control have become almost 'path dependent' and are reinforced by global conservation ideology and capital.

In contrast with the 'barren' trope, Conservation International has declared Vietnam one of the world's twenty-five 'biodiversity hot spots', placing it in the spotlight among international conservation donors.²³ State discursive strategies

that 'scientifically' represent the highlands as degraded are converging with radical conservation ideologies to elicit notable investment from the international environmental donor community to settle shifting agriculturalists and reforest or protect the 'remaining' forests.²⁴ This discourse becomes a powerful tool that effectively legitimates and enables state interventions in highland provinces to control both resources and people.²⁵ Peluso (1993a) illustrates brilliantly how certain state interests embrace the 'ideology, legitimacy, and technology' of environmental conservation as a means of increasing control over both valuable resources and recalcitrant populations in both Kenya and Java. Global environmental ideologies and capital in effect reinforce state territorial practices.²⁶ This new form of environmental territoriality, operationalised through a plethora of new laws and decrees,²⁷ is transforming both the materiality and value of highland landscapes and property rights, deepening unequal power relations and rendering invisible diversity enhancing land use practices.

Part of my argument, however, is that property relations in highland Vietnam are not merely circumscribed by macro-level policies embedded within territorial ideologies and practices, but rather are influenced and at times confounded by historical, ecological and institutional particularities of the locale, as well as local understandings of the processes of change. Detailing the dynamics of forest property arrangements during this period of rapid reform in the case studies that follow provides alternative readings of the highland landscape and greater insight into the contours of power, representation and territoriality.

The Politics and Particularities of Forest Land Classification

Apparently mundane land use classifications are in fact powerful mechanisms for state control. Systematic efforts at planning for the forestry sector date from the early 1980s, but national criteria for forest land classification were formalised in the 1991 Forest Protection and Development Act.²⁸ Of the 33 million ha of land in Vietnam, 19 million were classified (for intended use) as 'forestry land', of which only 10.8 million ha have actual forest cover. Nearly 40 per cent of the total land area (12 to 13 million ha) has been classified as 'barren land' (Poffenberger 1998). That translates into about 60 to 65 per cent of the land in the northern highlands designated as 'barren'. So-called barren lands are the primary targets for reforestation initiatives to promote environmental stability, socio-economic development and national revenues through timber production. Not only are state classifications internally inconsistent, as different agencies use different criteria, but state visions of and projections for land cover and land use conflict with local visions and realities.²⁹ Contrary to official figures and maps, the highlands are not 'barren' but are highly productive and rich in biodiversity. This 'misreading' of the highland Vietnam landscape (Fairhead and Leach 1996) based on 'scientific' knowledge may ultimately undermine state efforts to conserve biodiversity, as biologically diverse landscapes, classified as 'barren' or 'unused', are converted to monocrop forest plantations or 're-greened'. Using the production and trade of medicinal

plants from the highlands as an indicator of biodiversity, numerous studies have shown that a steady stream of medicinal plants from these regions supply domestic and international markets for herbal medicines. Approximately 70 per cent of the medicinal plants traded in the market originate from the northern highlands (Rake et al. 1993). Hundreds of thousands of people are dependent on the medicinal plant industry for employment (Luong 1991: 13). Income generated from the trade of non-timber forest products from these highland areas often exceeds income derived from the sale of agricultural products such as rice (de Beer 1993). Much of the land classified as barren is under highly sophisticated land tenure arrangements revealing a rich mosaic of active and fallow swidden agricultural fields, managed for agro-forestry and grazing purposes, and provides vital fibres, medicines and fodder for household consumption (Sowerwine, forthcoming). Both case studies provide further evidence that counters state hegemonic visions of the highland landscape as uniform and degraded. This tension between competing visions of and practices within the highland landscape plays an important role in shaping how localities interpret and respond to national policy in relation to property rights.

The Politics and Particularities of Forest Land Allocation

Since the onset of *doi moi*, there have been three major programmes that relate directly to the reforestation of highland areas and involve the allocation of forest land: The United Nations' World Food Programme's (WFP) reforestation initiative, Programme 327 for the re-greening of bare hills, and its follow-on, the '5 million ha programme'. All three programmes are explicitly forestry related; however, they also exhibit implicit patterns of social control. The WFP programme involved the allocation of forest land to the village cooperative for village economic development and reforestation. While administered as forestry projects, a portion of the funds from the latter two programmes was earmarked for fixed cultivation and settlement through forest allocation to households in order to stabilise their economies and consolidate national security.³⁰ All three programmes received large capital investment from international donors.³¹ A major principle guiding all three programmes was the active involvement of people's participation to 'ensure democracy at the grass roots level' (MARD 1998, cited in Nguyen and Gilmour 2000). However, as seen in the case studies below, what constitutes 'people's participation' is subject to debate.

The Forest Resources Protection and Development Act (Socialist Government of Vietnam 1991) provides for the allocation of forests and forest land to organisations and individuals for 'protection, development and utilisation'. The promulgation of Decision No. 327 (Socialist Government of Vietnam 1992), the passing of the new Land Law (Socialist Government of Vietnam 1993; the law was amended in 1999) and the Government Directive 02 (Socialist Government of Vietnam 1994), recently replaced by Decree No. 163 (Socialist Government of Vietnam 1999), provide the procedures and guidelines for forest land allocation.

There are two main types of forest land allocation outlined in the decree. The first involves the titling of so-called *degraded lands and bare hills* to organisations, households and individuals for *production* purposes under a land tenure certificate (red book) with potentially renewable rights lasting fifty years. These landholdings are registered and recorded by the village people's committee and stored in the district land administration office. While many villagers in the highlands have received titles to specific forest land parcels, the content, use and meaning of the red book remain fuzzy, as many villagers are illiterate and are unfamiliar with both the process of allocation and rights associated with this new form of property. The second form of allocation involves the contracting of watershed forests (critical and semi-critical), special use forests (national parks), and land with existing 'natural' or 'planted' forests, to households and individuals for protection or natural regeneration under a management contract with annual compensation of 50,000 dong/ha.³² Villagers who contract land for reforestation within national parks are to be paid 3.2 million dong/ha. Because of the numerous and contradictory legal documents pertaining to forest land classification and allocation, the rights, benefits and obligations associated with these new land tenure arrangements remain ambiguous both in policy and practice. Village elite, many of whom are government cadre or party members, are therefore in a position to garner lucrative forest protection and regeneration contracts more readily, as the allocation of land is administered through the village people's committee. Because land allocation procedures are based on ambiguous classification of land and are mediated by elite village cadre, the new forestry policy actually provides the legislative basis for even greater control over forest land and its use and management by the state, rather than providing farmers with greater tenure and livelihood security and management autonomy. However, as indicated above, various forms of non-compliance and resistance to state-instituted property forms reveal a complex parallel configuration of diverse land tenure arrangements within so-called 'forest lands' beyond the regulatory surveillance of the state. The following case studies illustrate these claims.

CASE STUDY 1: BA VI

Ba Vi mountain lies within an arm's reach of Hanoi. Because of its proximity to the nation's capital, its cool mountain environment and rich forests, numerous claims to its land over time have altered its social and ecological landscape. While the mountain-top remains a popular tourist destination for Hanoians today, Ba Vi village, located in the degraded base of the mountain, is home to 1,675 Dao. The Dao of Ba Vi represent numerous waves of migrants from diverse northern locations, and have been subjected to varying government policies, including resettlement, education and conscription in the army. Social relations are highly monetised such that most social transactions, including labour, ritual performance, weddings and loans, are based on the exchange of money rather than on a pledge of reciprocity characteristic of pre-capitalist societies (Polanyi 1957). They speak fluent

Vietnamese, are visually indistinguishable from the Kinh and many identify themselves as 'Kinh-Dao'—a self reference that distinguishes themselves from other Dao who are less integrated into the national culture. Their society is based on principles of individualism, perhaps associated with the imposition of state assimilation policies, the influx of non-related people into the community and level of integration into the monetised economy. That is, many of the actions by local villagers appear to be motivated by self or household interest rather than in the interest of the community.

Land Tenure and Land Use under Colonialism and Socialism

Spanning an area of 7,377 ha, Mount Ba Vi rises sharply to an altitude of 1,296 m from the agricultural plains 70 km north-west of Hanoi. Ba Vi was formally established as a national park in 1992; however, it was managed sequentially as a forest reserve under the French, a series of state forest enterprises under the Vietnamese and most recently as a protected area. Because of its proximity to Hanoi, Ba Vi has been a popular escape from the summer heat of the city since the colonial period. Under the French, Ba Vi was a hill station resort with more than 200 villas at the height of its popularity. Today, Hanoians seek repose beneath the canopy of the acacia plantations and in the cool mountain streams at Ao Vua, a popular tourist attraction at the mountain's base. Historically, Ba Vi was also an important source of timber. As a result of its desirous and strategic location and important resources, the Ba Vi mountain has come under multiple, overlapping and shifting land uses and tenurial arrangements throughout history resulting in a patchworked landscape of uncertainty and degradation today.

During the colonial period, logging operations cleared forests from 50 m to 400 m elevation. In 1932 Ba Vi mountain was declared a forestry reserve. The boundaries of the reserve were delimited at the 100 m elevation mark surrounding the mountain. Fires, swidden agriculture and grazing were prohibited; however, villagers surrounding the park were allowed to harvest wood, bamboo, herbs and tubers for personal consumption. From the 1960s through the 1970s Ba Vi came under the management of forestry agencies, state enterprises, cooperatives and vocational schools. Some of these organisations engaged in timber exploitation, including the Productive Forest Enterprise that felled 30,000 trees for telephone and power poles, and other timber-based industries (Association for Research and Environmental Aid et al. 1993). In 1962 two state forest enterprises (SFEs), Van Son and Minh Quang were established with the purpose of planting pine and eucalyptus plantations (Gilmour and Nguyen 1999). These two SFEs then combined to form the Ba Vi State Forest Enterprise. In 1977 management objectives shifted towards greater protection of the natural ecology of the area under the title of the Ba Vi Forest Reserve. In 1983 Ba Vi SFE was divided into many units. By July 1986 strict protection and reforestation had again become priorities as management was transferred from SFEs to the Ba Vi Forest Reserve Management Board under the Forest Department of Hanoi City. In 1992 Ba Vi formally became

Vietnam's eighth national park, and management responsibility was transferred to the Ministry of Forestry (now the Ministry of Agriculture and Rural Development). At that time all agricultural and livelihood practices within the boundaries of the park became illegal, effectively criminalising villagers' everyday practices.

Park management zones today are delineated according to elevation; boundaries that were indiscriminately applied from the French era.³³ According to the management plan, the *strictly protected zone*, which extends upward from the 400 m contour, contains all the primary forest remaining in the park, totalling 1,544 ha. Within this area, less than 950 ha is undisturbed or only slightly affected by human use. The *particular use or rehabilitation zone* extends from the 400 m to the 100 m contour level, and is designed primarily for rehabilitation and development. Extending for 1 km below the 100 m elevation is the *buffer zone*, which is designated as the habitation and agricultural area for the populations surrounding the park. The main functions within this zone include reforestation, agricultural production, agro-forestry and integrated home garden systems, and firewood plantations. Based on land use statistics in 1998, 30 per cent of Ba Vi land was classified as barren. These visions of the landscape as articulated in management plans are abruptly shattered when one views the mountain from the road circumambulating its base. Billowy smoke plumes upwards from numerous fires within the 'strictly protected zone'. Huge expanses of red soil dotted with eucalyptus and acacia trees appear within the 'rehabilitation' zone. Upon closer inspection, rows and rows of tiny cassava saplings blanket the under-storey of the sickly trees. While state management zones are clearly demarcated on maps, they remain unmarked and unheeded by the local population, revealing the gap between state visions of and local practices on the landscape described below.

While the Ba Vi mountain was sequentially logged and subjected to varying forms of rehabilitation by different state entities throughout the colonial and socialist periods, a sizeable population of Dao, who had migrated in various waves to the mountain from north-eastern Vietnam in the early 1900s, actively cultivated the landscape. Escaping disease and soil fertility decline in their homelands, the Dao viewed Ba Vi mountain as a refuge. They established more than seven villages in the higher elevations and engaged in intensive rotational swidden agricultural production, producing dryland rice, corn, cassava, canna and other vegetable crops. They also raised pigs and chickens, and collected medicinal plants for home use and minor trade. During the wars against the French and the Americans, the Ba Vi mountain became an important strategic military ground for North Vietnamese soldiers. Dao women herbalists treated Vietnamese soldiers who were stationed in Ba Vi for war injuries and other ailments with plants collected from around their homes. Reminiscing about these and other stories of healing reflects a sense of pride in the past and entitlement to future harvests to sustain the tradition; claims that are invoked in contemporary struggles over access to medicinal plants bound within the park.

Because the population density was relatively low, there were few regulations governing land tenure. Medicinal plants were considered open access, yet close

proximity and customary practice ensured long-term supply. Only small amounts of leaves, bark or vines were harvested at any one time, leaving the rootstock intact. Swidden fields were cultivated by individual households for three to four years until the yields began to drop, then new fields were opened, allowing the former to regenerate. As the distance to their new fields became greater, they moved residence. Prior fields became open to subsequent farmers once the vegetative cover was sufficient for clearing as long as new lands continued to be available. As new families arrived and populations grew, permission had to be obtained from the former 'owner' of the swidden plot to reopen the plot.

Resettlement of the Dao off the mountain began in the mid-1950s. The process intensified in the mid-1960s, when the Dao population was relocated from 800 m elevation to 400 m. The Dao were permanently settled below 100 m in 1991, coinciding with the advent of economic reforms and the influx of conservation aid for the establishment of national parks and other conservation areas.³⁴ With each resettlement, former claims to land and land-based capital such as bamboo and fruit trees persisted while new land claims emerged. By 1968 most of the Dao were settled into cooperatives at the base of the mountain and encouraged to cultivate wet rice for the first time on land appropriated from a neighbouring village. However, the area to which the Dao were resettled was and still is heavily eroded, lacking sufficient land and water to meet household needs. Till today, despite introduction of new irrigation technologies, rice varieties and chemical inputs, paddy yields only meet subsistence needs for two months of the year.³⁵ Nevertheless, all members of the new village had to join the cooperative and contribute a share of 50,000 dong per individual in the form of buffalo, cow, wet rice or money. Wet rice land was managed collectively from 1963 to 1982. Upon dissolution of the cooperative, each person was to be compensated 45,000 dong, for their initial contribution. However, in the two study hamlets, only half the villagers received any compensation. The remainder was kept by the village to develop a 'purchasing and sale' cooperative. After two years the cooperative went broke, yet the money was never repaid. The villagers assert that the former cooperative accountant kept their money. The wet rice land itself has been redistributed four times, in surprisingly egalitarian fashion, based on household demographics. Yet, because the quantity and quality of the wet rice land is so low, villagers still depend on swidden agriculture on sloping lands within the national park to reproduce the household economy.

During the 1960s some upland fields theoretically were collectivised. However, that process was largely ineffective because local farmers continued to engage in swidden production on their own lands. Throughout the collective period the primary source of food came from upland fields near their former villages (600–800 m elevation) as well as from their initial resettlement location (100–400 m). As populations grew and new markets for agricultural products developed, villagers began to compete over previously unclaimed lands by planting trees to establish claim. They also began to delineate clear boundaries among their existing upland agricultural plots with rocks to signify tenure. As the quality of the soil declined,

due to shortened rotations, villagers altered their cropping patterns from rice and corn for consumption to canna and cassava for sale. Thus, despite resettlement by the state with the intention of regenerating the forest reserve, the Dao continued to maintain claims to multiple swidden agricultural fields and to medicinal plants for sale from within the park.

Land Tenure under Economic Liberalisation

Beginning in the late 1980s, a series of conservation and rehabilitation initiatives began to alter both the physical and tenurial landscape on the Ba Vi mountain, as well as to increase social divisions within the Ba Vi village. Conditions of access to land and land-based capital began to change as boundaries of exclusion were systematically drawn and registered. Sloping land became subject to multiple and overlapping rights, obligations and claims due to wide fluctuations in government policy and cleavages between state visions and local practices.

The new market economy played a central role in transforming the value of land and land-based capital within the park, in direct contradiction with state and international conservation and rehabilitation values. In response to a new market demand for cassava powder by the biscuit industry, the Dao began to intensively crop cassava within the lower elevations of the park in order to maximise the economic return from their labour.³⁶ The value of medicinal plants had also risen as subsidies for socialised medicine evaporated, generating increased domestic demand. As a result, Dao women of all social strata began tapping into historical and new trade networks, intensifying the collection and sale of herbal medicines from within the park (Sowerwine, forthcoming).

In the 1980s the then Ba Vi Forest Reserve received funding through the World Food Programme to 're-green barren land' from 100–800 m elevation with eucalyptus, acacia, pine and fruit trees. Designed as a food-for-work programme, it was to provide support for villagers who had been displaced from within the reserve boundaries. Ironically, each household contributed labour to effectively reforest their customary swidden fields. In exchange for their labour, they were to receive 2.5 kg of rice per five-hour workday (WFP 2000) and ultimately have rights to 80 to 90 per cent of the harvest once the trees reached maturity (Association for Research and Environmental Aid et al. 1993). Yet results turned out differently. Not all villagers were able to participate due to their 'lack of capacity' to organise labour. Those who did participate failed to receive rice because national park officials sold it at the port and retained the profits as 'administrative fees'.

Trees planted under the WFP project in 1987 had reached maturity by 1995. However, local farmers received conflicting stories from the village cadres regarding benefits. Some were told the trees now belonged to the national park (established in 1991) and were to be protected; others were told they would receive 30 per cent of the revenue from their harvest sale 'when the time was right'. Despite approval from the district, the national park refused the right to harvest, arguing that the trees fell within their jurisdiction. Due to the uncertainty of benefits,

many farmers began harvesting the trees illicitly, one at a time for fuel wood or for construction of houses. When a new reforestation initiative by the central government was launched in the 1990s, the remaining trees were quickly felled as a new source of funds for reforestation became available. Some of the trees were harvested by those who had invested their labour through the cooperative. Other trees were harvested and sold by the village people's committee, from which they retained 70 per cent of the profits and distributed the remaining 30 per cent to the farmers. As with the inequitable distribution of profits from the WFP harvest, access to participate in and receive benefits from the new reforestation initiatives was equally uneven.

Beginning in the mid-1990s, 'Programme 327' was launched, again to re-green the 'bare lands' of the park, and to improve the socio-economic conditions of the buffer zone inhabitants. The Land Law and Decree 02 on forest land allocation state that forest land within the 'rehabilitation zone' of special use forests (national parks) is to be contracted to *local farmers* for protection and reforestation. According to Article 8, Decree 02, the procedure for reforestation within the rehabilitation zone is for the park management board to contract with households to plant, tend and manage the trees. The contract recipient is to receive 2.5 million dong for each hectare planted, to cover labour, seedling and tending expenses for three years. Inter-cropping and harvesting of the under-storey growth is permitted until the canopy cover closes. Reduction of tree density is permitted by the park management. However, no coppicing or pollarding is allowed (Association for Research and Environmental Aid et al. 1993). According to the regulations, 60 per cent of the future products was to go to the state and 40 per cent to the household (Apel and Pham 1998). In return, the villagers were obliged to invest their time and labour to plant, tend and protect the seedlings to maturity. What emerged was a complex hierarchy of overlapping rights, marked by competing visions and claims that had unexpected socio-economic, ecological and political consequences.

Unintended Social Consequences

The intentions of 'Programme 327' and '5 million ha' to allocate lands to the poorest shifting cultivators are largely circumvented by local and regional powerful elite.³⁷ As arbiters of the land allocation process, members of both the village and district people's committees use insider knowledge to acquire forest contracts for themselves and their kin, contracts to which those lesser knowledgeable might have better claims (Verdery 1996: 161). The poorest villagers are, therefore, losing rights to their swidden fields as their lands are formally contracted to village leaders and converted into forest plantations. Rather than an open bidding process, those who receive the lucrative forest protection and reforestation contracts are the village political elite with social and economic capital derived from their party affiliation, position during the cooperative period or kin ties thereto. Membership in social(ist) networks of power guarantees access to contracts and associated economic benefits. According to the current village leader, the criteria for receiving

a contract are 'you must be intelligent, rich and have the capacity to organise'. Of the nearly 200 households in the two study hamlets, only fourteen were awarded contracts, of which more than three-fourths were well off or politically powerful individuals and their immediate relatives. The former village party secretary, currently the head of the village militia, holds the largest reforestation contract acreage at 260 ha. The former cooperative accountant mentioned above holds 70 ha. The village policeman and land administration official hold over 100 ha above 600 m. Rather than receiving the full 2.5 million dong/ha, however, these village elite received between 900,000 dong/ha and 1.8 million dong/ha based on flexible notions of 'success'. Several contractors actually paid national park officials 100,000 dong or more per ha to obtain the contracts. These forms of 'administrative fees' or patterns of patronage reflect social practices inherent in the socialist system that have enabled local government cadres access to resources, thereby expanding their power. The link between legal rights in land and economic benefits results in increased economic differentiation as capital accumulated by socialist cadre subsequently serves as high-interest loans to those without access.

Reforestation contracts are, in essence, a new property grid superimposed on villagers' customary property arrangements. Socialist cadre with regeneration contracts were able to mobilise the unpaid labour of their social subordinates to plant trees in exchange for temporary cultivation rights. This allowed less powerful villagers to continue growing cassava as an under-storey cash crop for three years until the canopy of those plantations closed and prohibited further cultivation. Those who refused to 'reforest' their swidden fields, or whose reforestation results did not meet national park requirements, were threatened with eviction. Some managed to negotiate financial compensation for their labour, although at less than one-third of the original intended payment. Most villagers, however, received no payment, and some actually had to pay the contractor to maintain access to their land. Only limited conflicts emerged, however, because customary claims were already tenuous as they had fallen under the jurisdiction of the national park, and villagers were fearful of drawing attention to their 'illegal' practices. Customary access to agricultural lands, critical to household reproduction, was systematically undermined by settlement programmes intended to improve the socio-economic conditions of local villagers.

Drawing on sources of social(ist) networks and power imbued in their social position, local leaders capture lucrative environmental and development aid contracts intended for highland stabilisation and development. This is also the case with forest *protection* contracts. Article 8 says that people living in strictly protected zones can establish contracts with the management board for protection of the area. Protection contracts for special use forests, according to Decree 661, should be given as priority to poor households or households involved in fixed cultivation and sedentarisation. In Ba Vi, however, recipients of contracts are mostly non-local officials from the district towns of Son Tay, Quang Oai and other areas outside of the buffer zone. Several have built second 'vacation' homes to *nghi mat* or escape the heat of the lowlands and 'rest in the coolness'. As in the case with

reforestation contracts, local recipients tend to be government cadre and/or wealthy village men. They first contract with the park to plant trees, receiving 3.2 million dong/ha, followed by 50,000/year/ha to protect the trees. The contract lasts for fifty years. Because this is so lucrative, some recipients actually paid between 400,000 and 800,000 dong to national park officials to obtain the contract in the first place. This kind of inequitable allocation of protection contracts to well-off and non-local individuals further marginalises the most needy households within the buffer zone, and contributes to instability of land tenure and intensifies pressures on forest resources within the park.

International environmental aid strengthens state territorial processes, undermining local control of land and local biodiversity despite intentions to enhance both.³⁸ One must disaggregate ‘the local’, however, as village elite utilise social networks to manipulate reforestation programmes to their own financial benefit, while common villagers struggle to maintain access to their swidden fields. Rather than stabilising poor farmers’ livelihoods, regeneration and forest protection contracts are widening the gap between prosperous socialist cadre and the poorer majority of farmers who remain subject to the vagaries of the National Forest Policy and cassava markets.

While forest property rights are marked by vast social divisions, parallel regimes of access to medicinal plants and benefits derived from their trade appear to be more egalitarian. Influenced neither by formal property rights nor by political and economic status, access to medicinal plants is shaped by other ‘mechanisms of access’ or social groupings including gender and knowledge. Knowledge of medicinal plants and their healing properties is held primarily by women of the village, regardless of socio-economic background. Women herbalists from poorer households often venture to the forest and to the market with women from wealthier households, defying park restrictions, and exchanging knowledge, plants and sometimes clients. Incomparable to the revenue flows associated with formal forest property, income derived from the sale of medicinal plants is still quite substantial and steady, providing women with the necessary funds to purchase food, clothing and school materials for their families, as well as providing economic security during times of scarcity. This ‘shadow economy’, or set of income-generating activities that fall outside the gaze of the state, illustrates the nuances of resource access and accumulation strategies in achieving livelihood security beyond property rights alone, and the limits of state territoriality.

Unintended Ecological Consequences

The distributional inequity of forest contracts and resultant insecurity of land tenure leads to increasing everyday forms of resistance (Scott 1985) and forest degradation within the national park. Food insecurity combined with accumulated debt obligations drives villagers to expand and intensify cassava production. As the acreage of cassava production expands regionally, prices drop, forcing villagers to aim for ever greater yields. Intensive weeding to maximise output involves the

removal of all vegetation, resulting in highly erodable red soil and a reduction of medicinal plant diversity. An elder woman healer stated, ‘The young people don’t know medicine; when they weed, they pull out all the medicinal plants.’ Increasing signs of resistance to the newly imposed constraints include various forms of ‘illegal’ activities. Mature plantations are selectively harvested for fuel wood and timber. Saplings are purposefully neglected, uprooted or grazed in order to hinder canopy closure. Because of increasing constraints on their cultivated lands, farmers are now being pushed into the higher elevations or ‘restricted zone’ of the park to clear, burn and cultivate new fields where regulatory surveillance is weakest.

New market opportunities are also accelerating the harvest and trade of medicinal plants by Dao women from within the park. Because of spatial separation from the resource base and fear of being caught by park authorities, the women engage in fewer, more intensive, but less efficient harvesting expeditions, undermining the regenerability of many of the plants (Sowerwine et al. 1998). For example, in the past, the Dao used to harvest only a few leaves or branches of a plant or vine for immediate preparation, knowing they could return any time. Today, Dao women uproot the entire plant, suspecting that someone else may do so or they may forget its exact location. Instead of taking the entire plant, they often discard much of the bulky foliage opting instead to carry home the denser roots, tubers and stems for processing, stating that the essence of plant is more concentrated in the latter. This practice ensures a lower volume–weight ratio, making their parcels less conspicuous should they encounter a park official. Sometimes, due to time constraints, they harvest only the base of a vine that is immediately accessible, leaving the remainder of the valuable vegetation, trapped up high in the canopy.

In addition to the effects of intensive cassava production, farmer resistance and increased medicinal plant trade, the actual *establishment* of forest plantations is having notable unintended effects on the biodiversity and forest structure of the national park. The creation of forest plantations involves clearing and burning all existing vegetation followed by planting exotic species, predominantly acacia and eucalyptus, in rows. This process disrupts the natural regeneration cycle inherent in swidden fallows that harbour a rich diversity of plants useful for household uses. Ethno-medicinal transects conducted within twelve different land use types on the Ba Vi mountain found that the highest number of medicinal plant species considered ‘most important’ to the villagers were found in regenerating fields and old forests. Eucalyptus and pine plantations had relatively fewer ‘most important’ medicinal plant species (Sowerwine, forthcoming). This suggests that rehabilitation technology may actually undermine biological diversity. Stability and environmental rehabilitation, the two primary goals of the national park and reforestation programmes, are confounded by local economic struggles, inappropriate reforestation technology and the fluidity of boundaries. Formal constraints on villagers’ spatial mobility paradoxically contribute to increased degradation of both the ‘agricultural’ and ‘forest’ environments.

Unintended Political Consequences

State territoriality is neither uniform nor complete. Local struggles to maintain access to cassava cultivation plots that have been contracted out under Programme 327 are slowly challenging the legitimacy of the local leadership. Increasingly volatile resistance is forcing both park and local government authorities to reconsider the nature of property relations within the particular use zone (100–400 m) of the national park. According to discussions held in 2000 between the district land administration office and representatives from the local people's committee, the land was to be surveyed and 1 ha parcels were to be randomly selected and titled to households for agro-forestry production. Funding for the project will come from the '5 million ha' programme. Ultimately, the trees will belong to the national park, yet the fruits and under-storey crops will belong to the landholder. The choice of species for intercropping will be granted to individual plot owners.

Efforts to demarcate specific plots have been confronted with intense disagreement by numerous actors due to multiple and overlapping claims to the land and land-based capital subject to allocation. First of all, according to the Law on National Parks, all land within the special use designation belongs to the national park (Article 9, Decree 163), and it is unclear whether red books can legally be allocated to individual households within special use forests. Second, reforestation contract holders from Decree 327, who have invested both capital and labour with the expectation of future harvest revenues, are reluctant to give up their contracts. Third, farmers who cultivated these fields that were subsequently contracted for reforestation *prior* to the establishment of the national park feel they also have a right to the plots they are currently working. Fourth, villagers who have claims to bamboo planted in dispersed locales would lose rights to the harvest, as the land on which it grows would become the property of another.

Persistent adherence by local villagers to property claims on the Ba Vi mountain is affecting policy change regarding special use forests, change that theoretically will enable all farmers equal rights to a farmland plot within the national park. However, the disjunct between formal property arrangements and informal claims to land and resources thereon remains problematic. Access to land within the national park most likely will continue to be wrought with competing visions marked by material struggles. Uncritical foreign investment into reforestation and forest protection initiatives that ignore customary claims implicitly legitimate state territorial practices, yet ultimately undermine the policy's economic and ecological intent. The new forest policy effectively increases livelihood insecurity, resulting in the villagers mining the soil, herbal medicines and forest plantations within the park in a desperate effort to meet household economic needs and debt obligations.

CASE STUDY II: BAN KHOANG

Ban Khoang village lies at the margins of the state. Reaching the village requires a two-hour drive along an undeveloped road from the district town of Sapa, after a full-day trip from Hanoi by train. Sapa district lies on the eastern edge of the Hoang Lien mountain range near the Chinese border in the north-west. Most of the hamlets within the village are accessible only by foot, and are a one- to four-hour walk from the village centre. Access to new technologies and services is limited in the village; only in the last few years has electricity been introduced through mini-hydroelectric generators. The Dao in Sapa are engaged in a mixture of terraced wet rice production and rotational rice and corn swidden production to meet their subsistence needs, and cardamom production, beneath the canopy of old forests, to meet their cash needs.³⁹ Compared to the Dao in Ba Vi, the Dao in Ban Khoang have had much less exposure to the Kinh culture, speak less fluent Vietnamese, wear hand-embroidered clothes distinctive of the Dao and are mostly illiterate. They have not been resettled like the Dao in Ba Vi, reforestation programmes have not yet begun, and thus the farmers continue to engage in customary patterns of agricultural production, maintaining an expansive mosaic of different land use types, uninhibited by constraints. Agricultural lands are relatively fertile, leaving only young and poor families rice deficient for two to three months of the year. Very little in-migration, shared common descent and less influence by the central state, compared to Ba Vi, constitute village social relations, which are marked by intricate systems of reciprocity and redistribution.⁴⁰ As in Ba Vi, property relations are not blueprints of the new legal order, nor do they reflect a mere 'legacy of socialism'. Instead, they are shaped by a rich amalgamation of customary, colonial, socialist and newly emergent institutions related to the market. However, despite similarity in ethnicity and spatiality, forest property relations are fundamentally different in Ban Khoang and Ba Vi due to locally specific historical, ecological and social factors.

Land Tenure and Land Use under Colonialism and Socialism

The Dao in Ban Khoang migrated up-river from southern China, arriving in the current village five generations ago. The eight original families have expanded now to 220 households. They have reached the river source and have established permanent residence. During the colonial period, although the French established a hill station in the district town of Sapa, they had very little contact with the people in the area now known as Ban Khoang. They did, however, map the boundaries of all the villages for administrative purposes. In 1954 the village administrative unit was established as part of Sapa district. During the socialist period the forests were managed by the State Forest Enterprise, whose operations were

largely to harvest the highly prized and fragrant *po mu* wood (*Fokienia hodginsii*). Because of the frontier nature of these forests, illegal timber felling by opportunistic loggers from Sapa and Lao Cai whittled away at the rich forests, leading to the harvest of most of the high-value species. Shifting agriculturists also cleared forests for timber and for agricultural fields. The old forests that remain, lining the ridge tops, exist largely due to poor road conditions (inhibiting large-scale illegal logging operations), the rocky nature of the soil (inhibiting swidden cultivation) and cardamom cultivation (encouraging local protection).

Kinship and clan relations in Ban Khoang, both historically and today, govern forest and other agricultural property relations.⁴¹ Swidden land claims today are based on historical customary rules: rights in land are based on prior clearance. He who first clears the land for swidden production, establishes exclusive cultivation rights on that land. Even if the initial clearing has regenerated into forest, that land still belongs to the clan descendents of the forefather who performed the initial clearing. All members of the clan (both within and beyond village boundaries) have equal rights to cultivate that land with permission from the clan leader.⁴² Swidden plots are also subject to seasonal variation of rights. After harvest, swidden fields become common property and community members have equal rights to graze their animals and collect dried fuel wood and medicinal herbs in areas that are not fenced or walled off for vegetable gardens. Today, an average household of eight to ten members maintains three to four active swidden plots with six in fallow reserve. Fallow plots, however, may be reallocated by the clan leader, in accordance with changes in family size.

In 1954 cooperatives were established to manage the wet rice land. However, customary tenure over swidden fields persisted. By 1981 the wet rice cooperatives were formally abolished and land that was worked collectively was simply returned to the former owners, following historical claims based on labour investment in the creation of the terraces. The cooperatives had very little impact on land relations. During the cooperative period, villagers expended most of their energy on private swidden fields and on establishing new wet rice fields, independent of the cooperative, as their extended families grew. However, as in Ba Vi, former leaders of the cooperative continue to hold powerful positions in village government. Drawing on these networks of power, they have been well positioned to acquire lucrative forest protection contracts. Yet, contrary to the exploitative nature of reforestation contracts in Ba Vi, economic benefits associated with protection contracts in Ban Khoang are distributed more equitably, albeit within the same clan lineage.

Land Tenure under Economic Reform

State territorial initiatives to regulate the management of forest lands in Ban Khoang began comprehensively in the mid- to late 1990s, coinciding with preparations for the '5 million ha' programme. The land of Ban Khoang was surveyed, classified and mapped according to national criteria and three forms of land allocation took

place: (a) active swidden fields were classified as 'unused' or 'bare' forest land and allocated to households for production purposes with a land title known as the red book (*bia do*); and forests lining the ridge tops and fallow swidden fields were classified as 'watershed protection forests' and temporarily contracted to individual households for either; (b) protection; or (c) regeneration with financial compensation at 50,000 dong/ha. As in Ba Vi, the above processes, designed to improve forest cover and socio-economic conditions through the establishment of legal tenure rights, and payment for protection and regeneration of forests, have been largely ineffectual. Rather, customary tenure arrangements and practices on lands that remain uncircumscribed by the state play a greater role in affecting the socio-economic and ecological trajectory of the Ban Khoang landscape.

State classifications of and visions for the landscape based on clear definitions conflict with messy local realities, making the interpretation and implementation of new land boundaries fuzzy. Land titling has failed to institute singular ownership in land due to multiple and overlapping spatial and temporal claims. While access to forest protection and regeneration contracts is largely associated with social(ist) and political capital, access to land for swidden, cardamom and other productive purposes continues to be associated predominantly with membership in descent groups and social institutions such as marriage. Newly emergent *informal* property arrangements in cardamom beneath the canopy of state-classified 'old forest' that are contracted out for protection are providing even greater economic security to the villagers than any state instituted form of property. At an average price of 25,000 to 30,000 dong/kg of cardamom, some families can earn up to US \$2,000 per annum (more than ten times the average annual per capita income of lowland ethnic Kinh). New market demands for cardamom are providing greater incentives to villagers to regenerate swidden lands to increase cardamom production than state regeneration contracts.

Contrary to the assumption that secure land rights help to prevent or resolve land disputes, recent sparring over cassava lands was resolved not through the newly instituted land titles, but through the reinvoking of colonial administrative maps. Broadly speaking, property relations in Ban Khoang indicate relative autonomy from the central state, following customary and innovative property arrangements in response to emergent opportunities and constraints rather than state visions.

Competing Visions of the Landscape: The Fallacy of the Grid

In preparation for the '5 million ha reforestation' and 'forest protection' programmes, the District Land Administration Office prepared Current Land Use (Phong Dia Chinh 1998) and Land Use Planning maps to the year 2008 (Phong Dia Chinh 1997) for all villages within the district. The total area of Ban Khoang was surveyed at 5,424 ha under the following classification: 4.55 per cent agricultural land, 28.09 per cent forestry land (26.99 per cent watershed protection forest and 1.1 per cent production forest), 1.2 per cent infrastructure and settlement

land, and 66.14 per cent unused land (UBND Sapa 1998a). As indicated, more than 65 per cent of the Ban Khoang village was classified as 'unused' with the intention that all of it be forested by the year 2010. However, ethno-ecological land use classifications are in striking contrast with state classifications. In areas designated as barren on the maps, the landscape itself reveals a rich mosaic of intensively managed swidden fields of highly diverse rice, corn, cassava, medicinal plants and tuber varieties, as well as swidden fallow lands in varying degrees of regeneration. These regenerating swidden fields are important sources of vegetables, fruits, fibres, medicinal plants, roofing materials, fodder and grazing space. Landscape mapping with the villagers revealed over ten different land use types, ranging from old, new and bamboo forests, through varying stages of active and regenerating swidden fields, to riparian and barren lands, all of which, when identified on the district land use map, fell into the category of 'barren land'. Ethno-botanical transects conducted through each of these local land use categories revealed a high diversity of medicinal and useful plants (Sowerwine, forthcoming). The greatest diversity of medicinal plants was found in three- to five-year-old swidden fallows, land that appears the most 'barren' from a bird's-eye view due to lack of tree cover. Planned reforestation initiatives threaten to undermine this rich biodiversity as they have in Ba Vi.

A second example of conflicting landscape meaning is found in areas classified as 'uncritical watershed protection forest' on district land use maps, which are understood entirely differently by the villagers. Those forests are held in reserve for weddings, at which time they are cleared and planted with corn to feed the pigs that will be raised according to custom for the grand wedding feast. Regulations developed at the local level regarding access to these lands are strictly followed, always ensuring adequate time for regeneration. Typical cycles of regrowth within these 'wedding reserve' lands vary between ten and fifteen years, yet their designation on district maps remains fixed as 'protection' forests. The division between what is forest land and agriculture land based on state classification is artificial when one observes the elasticity of local landscapes: how forests become agricultural plots and regenerate back into forests in rotational cycles over space and time (Sturgeon 2000).

Heavily forested areas along the ridges of the mountain-tops, designated as 'critical watershed protection forest' by the district land use maps, also mean something entirely different for the people of Ban Khoang. In Vietnamese language these areas are called *rung gia* or old forest, but in local Dao language, they are called *day lhao* or 'cardamom swidden fields'. The Dao actively cultivate the under-storey of these forests to produce the highly lucrative cardamom crop from which their primary source of income is derived. State initiatives to spatially organise the highland landscape within a particular environmental imaginary for more efficient regulatory control are confounded by contradictory local understandings and practices. This clash in vision and practice results in ineffectual implementation and unexpected outcomes of forest policy reform, as illustrated below.

Ambiguity of and Non-compliance in Land Titling

In 1998, 1,116.4 ha of 'unused' forest land was allocated to 247 households with formal titles; 503.4 ha was classified as 'production forest' and 613 ha as 'watershed plantation land' (UBND Sapa 1998b). The intention of the state was to provide tenure security for the villagers, along with financial compensation, to encourage investment in reforestation and natural regeneration on these plots of so-called 'barren land'. District land administration officials held meetings with the village leaders, at which forest parcels, coded in maps, were allocated to each family with a red book as evidence of the land title. According to the law, there are few conditions attached to production land allocated to households aside from the requirement that the land remain under forest cover (Ogle et al. 1999). But this is of critical importance for swidden agriculturists who rely on the cyclic clearing and regeneration of forests for production. Most of the lands allocated as production and regeneration forests are active swidden fields. Despite the 'success' of the land titling process from the district point of view, the red books are having little to no effect on everyday land relations for reasons outlined below.

First, few villagers participated in meetings with district and local government officials when they drew up the plot size and locations for forest land allocation. Villagers were merely given the red book by their hamlet chief and told it was their forest land.⁴³ Yet they have no knowledge of how the plots were selected or how the book can be used. The red books, in fact, have different meanings for the local people than they do for the state. Villagers understood that red books included all of their family's swidden agriculture land, both active and fallow. Examining the plot size and location delineated in the red books, however, there is no correlation with actual plots families work and claim. While the state intends for the farmers to cultivate and invest in their fixed plots, the Dao villagers continue to engage in customary flexible swidden agriculture production as before. Currently there is no strife; however, if the state tries to enforce forest plantations based on red book allocations, conflicts will erupt over contradictory claims. Present indifference to the new land titles indicates, if not an active form of resistance, then at least a refusal to recognise state managerial control over local lands.

Another problem with the land titling project is that it assumes cultivation and other land use patterns adhere to administrative boundaries. In contrast, local landholdings are influenced by ecological productivity and kinship relations. The Dao in Ban Khoang and neighbouring villages, for example, cultivate corn and rice swidden fields that were determined by their clan, based on vegetative cover and soil conditions of the land. As soil fertility declines, villagers are allocated new plots of land that fall within their clan jurisdiction, but may or may not fall within the village bounds. Old forests are topographically distributed along the mountain ridges, not administratively divided equally among all villages and hamlets. Thus, inter- and intra-village struggles over claims to the under-storey of the remaining 'old forest' for cardamom production are emerging as the price of cardamom climbs. Inter-village claims to cardamom fields also exist through

the institution of marriage, as fathers allocate plots to daughters, who helped plant the fields, when they move residence upon marriage. Trans-boundary claims in multiple lands confound regulatory attempts to bound property and people within a particular administrative territory.

Reinvoking Old Maps for New Land Claims

Innovative non-state solutions to inter-village conflicts over cassava lands provide another example of how state territorialisation processes are incomplete. Part of the goal of forest policy reform, theoretically, is to clarify administrative boundaries to prevent or resolve land disputes. However, rather than solve disputes in Ban Khoang, it created one, as customary claims clashed with newly imposed state boundaries. In order to resolve the dispute, villagers surprisingly invoked old colonial maps to redefine customary claims in land. The following is a recount of the story. Cassava lands of Ban Khoang are subject to conflicting trans-village claims as a result of newly instituted administrative boundaries. The most prized cassava lands in Ban Khoang are in the lowest, warmer elevation on 'bau choong', locally classified as 'bare land'. This land is unsuitable for cultivation of other crops due to the poor soil quality. Yet, despite its marginality, it remains highly coveted, as cassava is invaluable for liquor production, animal fodder and as a form of insurance in times of scarcity. As the district cadastral office attempted to clarify district boundaries, some hamlets were included within the bounds of Ban Khoang while others were included within a neighbouring district. Those who were excluded found their crops claimed by those who were circumscribed within Ban Khoang. Violence erupted as the debate ensued, with excluded villagers uprooting the crops of those included. Two people were killed trying to assert historical claims to those lands. The dispute was ultimately resolved by the villagers using the more inclusive boundaries delineated by an old French colonial map, not the new administrative lines defined by the contemporary post-socialist state. As in Ba Vi, we see historical artifacts of the French, formerly used to extract surplus and control movements of the local people, being re-invoked in new and innovative ways. In contrast to Ba Vi, where colonial maps have been used by the state to legitimate territorial control, in Ban Khoang villagers use them to resolve contemporary land disputes precisely in opposition to state territorial boundaries.

Resistance to Lucrative Regeneration Contracts

The limited allocation of regeneration contracts to villagers underscores the failure of the state to incorporate local property relations within its environmental imaginary. Regeneration contracts provide economic incentives (50,000 dong/ha/year) to households to regenerate 'bare land' (old swidden fields) into forests. However, most villagers have refused to participate as it means their productive activities such as collection of forest products for fuel and construction, as well as shifting

agriculture, would be restricted. The state also holds the right to repossess land for non-compliance within the conditions of allocation (Article 15, Law on Forest Protection and Development, 1991). Thus, out of 247 households in Ban Khoang, only seven have been willing to accept contracts, all of whom are wealthy local government cadre or children thereof who are less averse to risk than the general population.

Old Forests or Swidden Cardamom Fields: Dual Patterns of Property

Customary claims to and cultivation practices in cardamom fields, beneath the canopy of old forests under state protection contracts, have unexpected economic and ecological consequences that paradoxically achieve the intention of forest policy reform better than state policy itself. State forest protection contracts are concentrated in the hands of the elite, while democratic principles guide access to cardamom fields. Both property arrangements and their effects are explored below.

In accordance with national forestry reform, remnant 'old' forest (roughly 23 per cent of the total land area of Ban Khoang) is being systematically mapped, parcelled and allocated to individual households under protection contracts with 50,000 dong/ha compensation. According to government forestry officials, the criteria to receive protection contracts include an 'ability to work' and keep people out, as well as proximity to the forests. As in Ba Vi, however, those with political capital are positioned to benefit most from this allocation. These include particularly members of the people's committee, many of whom held important positions during the collective period and are presently in charge of administering land allocation at the village level. In fact, party and government leaders and their immediate kin, regardless of proximity to the forests, received disproportionate amounts of protection land contracts. Contrary to the process in Ba Vi, however, protection subcontracts were somewhat more equitably distributed as some young families with no political ties were invited to be members of a protection group. This may be attributed to a sense of moral obligation to kin, as all village members in Ban Khoang are related through common descent.

While the process was not yet complete by 2000, nearly 20 per cent of the old forest had been allocated to three village leaders. Each leader then subcontracted the protection responsibility to several households comprising a forest protection group. At the time of the research, thirty-seven households had been registered in district books. Each household has the obligation to protect between 2 and 64 ha of forest annually, within specific parcels recorded on the district maps. Forest protection contracts are intended to provide financial incentives for everyday farmers to preserve forest cover for watershed purposes. Each member of the protection team receives 40,000 dong/year/ha (the remaining 10,000 dong serves as an 'administrative fee' paid to the head of the group) if they protect it well. As in Ba Vi, although to a lesser extent, one could argue that international conservation

aid that plays a central role in funding these forest protection initiatives is enabling state territorial strategies. This entanglement has led to the creation of new spatial forms of capital accumulation and exclusion in the forests of both Ban Khoang and Ba Vi that benefit local state elite.

At the same time, beneath the shadow of the protected forests thrives a parallel, more egalitarian, set of property relations in cardamom, beyond the vision of the state and independent of socialist networks. Prior to the period of economic liberalisation and influx of conservation aid, villagers began growing cardamom as a source of medicine and minor trade. Some even recall trading with China during the French period. However, with the opening of the borders for trade, its value skyrocketed, creating extensive patterns of newly established property relations within the 'old forests'. The process of claiming cardamom land is not influenced by those socialist elite with protection contracts over the same unit of land. Rather, access to these lands is based on new innovations of customary rules defined by initial clearance claims, and subsequent allocation through networks of kinship and marriage. This supports Oi and Walder's (1999) contention that owners of important assets under post-socialism are not necessarily always members of the local elite.

Because of the ecological requirement of fairly dense canopy cover for optimal production, cardamom provides incentives to Dao villagers not only to protect the remaining old forest from wanton harvest, but also to regenerate some of their swidden lands in order to create the necessary ecological conditions to plant and harvest high yields of cardamom. Consequently, cardamom cultivators play an important role in forest protection and regeneration, independent of state forest protection and regeneration contracts. Thus, while the dual objectives of the state to conserve and restore forests, and to improve highland economic conditions are being met, it is not *because* of state forest allocation but in spite of it. Rather than invest in land formally titled to them by the state, villagers are investing in profitable cardamom lands, creating newly emergent property relations outside of (or beneath) the regulatory grid of the state. It is important to acknowledge this dual pattern of property to better understand how the market intersects with customary land use practices to shape the trajectory of forest and economic landscapes of Ban Khoang, independent from state territorial reforms. As we can see, post-socialist forms of property are not necessarily dictated by central policy reforms, but are shaped by a dialectic between social and ecological specificity, and the broader political economy. In fact, the micro-processes of cardamom production by the Dao in Ban Khoang may play a role in reshaping macro-level forest policy initiatives. State forest research centres that hear about the cardamom successes of the Dao have been to visit the Dao on several occasions to learn how to promulgate this income-generation strategy for other economically depressed highland minority communities in the north.

As in Ba Vi, the imposition of a new socio-spatial order in forest land through the creation and allocation of newly defined property rights is largely ineffective

in Ban Khoang. Not only do state property arrangements clash with elastic and trans-boundary customary claims, they may actually increase land disputes rather than tenure security. As the state attempts to regulate highland people and resources through the imposition of territorial boundaries, customary claims and practices, either through non-compliance, struggle or innovation, profoundly challenge the state environmental imaginary.

CONCLUSION

Processes of state formation and the extension of state control in South and South-East Asia have involved various, and oftentimes related, strategies of control over forests or wasteland to claim and use resources to finance economic development (Chakravarty-Kaul 1996; Li 1999), stabilise volatile border regions for national security purposes (Peluso et al. 1995; Sivaramakrishnan 1999) and achieve environmental and socio-economic stability. This qualification and quantification of the landscape reflects a particular state environmental imaginary that increases state territorial control as patterns of movement of both people and resources become surveyed, bound and monitored. 'Scientific' tools including cadastral surveys, mapping and land registration simplify the social and biophysical landscape in ways that enhance surveillance and disciplinary powers of the state.⁴⁴ This phenomenon is particularly true during periods following major political economic upheavals such as war (Peluso et al. 1995) and post-socialist eras, in which the state endeavours to reorder society and the economy.

State classification of highland landscapes as 'barren', and associated land demarcation and allocation policies meant to create order and 'stability', conflict with sophisticated land and resource tenure regimes expressed in everyday practice among ethnic minority communities resident in the highlands. Ethnographic research reveals how structural and ideological processes at the state level are effectively mediated by local institutions and ecological practices. This interplay of power results in dynamic patterns of resource access and exclusion, control and resistance, and diverse landscape meanings under state economic renovation. Fuzziness in the context of highland forests exists not only in the material claims to and contestations over land and resources, but also in the symbolic representations of and conflicting meanings over those resources by different actors. That is, struggles to maintain access to customary lands can be seen as simultaneous struggles over landscape values and meaning (Moore 1993).

Part of the development of new forest property arrangements has been the radical transformation in the value, both real and imagined, of highland landscapes and resources due to open markets, state territoriality and international environmental ideology. International conservation funding strengthens state territorialisation policies as swidden fields and fallow lands are systematically classified or revalued as 'forest' and 'conservation' lands, thereby legitimising state implementation of new property arrangements designed to stabilise highland economies and environments. In contrast, new forest tenure arrangements actually deepen uneven power

relations, distributional equity and uneven access to resources, and at times undermine forest cover and biodiversity. Regeneration and protection contracts tend to be allocated to those with important social identities and/or status in party or government, thereby exacerbating social inequalities and the power of the local elite. Fear stemming from increased surveillance, exclusion and increased competition for livelihood products results in the unsustainable harvest and overexploitation of medicinal plants in the case of Ba Vi. Simultaneously, insecure tenure arrangements on former customary swidden lands undermine reforestation efforts and contribute to the mining of the soil and destruction of plant diversity through cassava cultivation.

Open markets have played an important role in changing the value of specific highland products and property as shown with the commercialisation of cassava, medicinal plants and cardamom. Paradoxically, economic stability in both cases and environmental rehabilitation in the case of Ban Khoang were achieved *not* through state sanctioned private property arrangements, but through investment in and return from customary and new land claims. These parallel forms of access and accumulation, governed by customary rules and practices, social relations and new market logic, are profoundly shaping the trajectory of forest access, forest cover and economic stability in the highlands of Vietnam in ways not envisioned nor regulated by the state.

As in the case of China, the implicit assumption that private property rights are essential for improving economic incentives, increasing production and shaping an increasingly market-oriented economy is inaccurate (Muldavin 1998: 114). In fact, it is precisely products from those lands that were *not* titled or contracted to individual households that generate the greatest economic return for highland villagers in Vietnam—cassava and medicinal plants in Ba Vi, and cardamom in Ban Khoang. Production on lands legally titled to individual households, with the intention of increasing production and forest cover, remains under-capitalised for subsistence consumption.

Evident through a comparison of two Dao villages, post-socialist forest property relations in highland Vietnam are not uniform, nor culturally determined; nor are they mere replicas of neo-liberal property rights. Rather, they are influenced by an amalgamation of pre-socialist boundaries and patterns of resource use, power relations that are a legacy of socialism, and innovative customary responses to new market opportunities (as in the case with cassava, medicine and cardamom) and administrative constraints (as in the case with the map). In-depth case studies, such as these, illuminate the critical processes through which state policies are manipulated, contested over, reworked and at times ignored. This suggests that forest property arrangements under post-socialism are not strictly determined by macro-structural change, but are shaped by micro-political struggles over both resources and meaning that are informed by historical memory, diverse ‘mechanisms of access’ and ecological specificity.

Notes

1. It is important to note that while liberalising the economy, Vietnam differs from Eastern Europe in that politically it is still governed by a one-party communist state. While there has been no ‘collapse of the party state’ per se, existing socialist administrative institutions are not static, and their roles and responsibilities are rapidly being transformed as open markets create new incentives. So while the term ‘post-socialist’ is not entirely accurate, in this article it refers specifically to this period of dynamic institutional transformation that coincides with *doi moi* or economic renovation.
2. I use the term ‘customary’ to refer to the rules and patterns of resource use that are sanctioned by the villagers, rather than by the state. I do recognise that the distinction between village (or customary) and state is often blurry. For example, in both cases customary land relations are intertwined with the ‘state’ inasmuch as local village elite (state cadres) simultaneously play a role and are unequal recipients in the allocation of reforestation and forest protection contracts. But for the purposes of this article, I refer to *everyday* lived land relations sanctioned by local rules and patterns of use as customary, distinguishing them from *formal* classification and titling administered by the state. I chose the term ‘customary’ rather than ‘indigenous’ or ‘traditional’ for two reasons. First, the Dao communities that I worked with are not indigenous, nor do they claim indigeneity, but migrated to their respective locations from China over 100 years ago. Their experiences and claims are profoundly different from those of indigenous communities within the central highlands of Vietnam. Second, ‘traditional’ implies ‘profoundly internalized normative structures and patterns followed from “time immemorial” in static economic and social circumstances’ (Bruce 1988: 29). Through a comparative analysis of two ethnic Dao villages, divergent rules and patterns of resource use suggest that property relations are not static, nor are they uniform, but are shaped by locally specific demographic, ecological, historical and political conditions. I specifically refer to these property relations as innovative in that they reflect, by definition, ‘the alteration of what is established by the introduction of new elements or forms . . . a novel practice’ (Simpson 1989).
3. When referring to the ‘state’ or ‘state territorial strategies’, I want to clarify two points. First, I do not intend to reify a singular, monolithic state, but am specifically talking about particular policies and programmes promulgated by or under specific ministries, departments and committees that pertain to the regulation of people and resources in the highlands: namely, the Ministry of Agriculture and Rural Development (MARD), the General Department of Land Administration, and the Committee on Ethnic Minorities and Mountainous Area Development. While I follow particular territorial strategies of the above organisations, I would also argue that other state institutions such as the Ministries of Public Health and Education also employ particular mechanisms of control to integrate highland people into the regulatory grid of the state. Second, I do not want to imply that all levels of the state administrative hierarchy operate in unison. Rather, local state functionaries, as demonstrated in this article, implement central state policies in ways that diverge from central state intent. Thus, when referring to state territorial strategies, I am specifically referring to the implementation of central state visions of the highland landscape, informed by an ideological bias toward the highlands as ‘backward’ and marginal. These representations are articulated in highland reforestation and resettlement programmes under the auspices of MARD, but whose ideological underpinnings are more widely embraced by individuals and institutions within the broader state apparatus.
4. While the term biodiversity has multiple meanings, in its broadest sense it is the variety or diversity of biotic organisms. In this article I use it specifically to refer to the number, or variety, of different plant species per unit area; the greater the number of species, the higher the level of biodiversity.
5. It is important to note the distinction between the concepts of access and property in relation to Dao villagers’ ability to derive benefits from forest resources. I follow Ribot and Peluso’s

- (2003: 153) definition of access as “the ability to derive benefits from things”, broadening from property’s classical definition as “the right to benefit from things”. Access relates to the ‘multiplicity of ways people derive benefits from resources, including, but not limited to, property relations’ (ibid.: 154). Property, on the other hand, refers to some kind of ‘*socially acknowledged and supported* claims or rights—whether that acknowledgement is by law, custom or convention’ (ibid.: 156, emphasis in original). I choose the term access here precisely because it encompasses a wider range of social relationships or ‘bundles of powers’, including social identity, gender, knowledge and kinship, which ‘constrain or enable benefits from resource use than property relations alone’ (ibid.: 153). So while state-sanctioned property arrangements result in highly stratified ‘rights to benefit from forests’, other ‘mechanisms of access’ (including but not limited to customary property arrangements) that operate in parallel equalise villagers’ ‘ability to benefit’ from specific forest products.
6. ‘Mechanisms of access’, also referred to as ‘bundles of powers’, include both ‘rights based’ (legal and illegal) and ‘structural and relational’ mechanisms that ‘mediate or operate parallel to rights based and illegal access mechanisms’ such as access to technology, capital, labour, markets, knowledge, authority, identity and social relations, among others (Ribot and Peluso 2003: 162).
 7. The Dao (pronounced Zao) are the ninth largest ethnic group in Vietnam.
 8. This idea draws directly from Oi and Walder’s (1999) contention in relation to privatisation programmes in both rural and urban China.
 9. The ethnic majority of Vietnam, known as the Kinh, comprising 87 per cent of the population, reside primarily in the lowland regions of the country. Wet rice agriculture is their primary source of food and income. The remaining 13 per cent is composed of fifty-four distinct ethno-linguistic groups who reside primarily in the highlands of Vietnam and engage in varying forms of shifting or swidden agriculture.
 10. This article is specifically focused on land that is officially defined as ‘forest land’, that is, land with a slope greater than 25 degrees.
 11. Several contributions in the edited volume *Red Books, Green Hills* by Cuc et al. (1996), as well as reports by Fagerstrom (1995), and Khiem and Van der Poel (1993), based on rapid appraisals, provide a preliminary glimpse into the politics of forest land allocation.
 12. For a notable exception see Sikor’s (2001) article, which argues that increased forest cover is due not to the new forest policy, which villagers in fact resisted, but to a reduction in agricultural pressures on ‘forest land’ as villagers intensified crop production in response to new market outlets and production technologies.
 13. Swidden farming refers to a system of unirrigated cultivation on land that has been cleared and burned. It is usually practised on sloping lands, and typically follows cyclical patterns of cultivation followed by fallow periods. It has also been referred to as shifting cultivation, slash-and-burn agriculture, bush-and-forest fallow. (See Kunstadter et al. 1978 for an excellent discussion of swidden farming systems in northern Thailand.)
 14. Drawing on Bruce’s (1988) definition, *vertical* claims refer to the various levels of social hierarchy with control or interest in one parcel of land—a bundle of rights in the sense that multiple people claim the same land in different ways. This has also been referred to as a ‘hierarchy of administrative estates’ by Gluckman (1968). The relationship of the upper levels of the hierarchy to the land, according to Bruce (1988: 27), can be thought of in terms of territory. Building on this idea, I extend the notion of ‘estates of administration’ beyond the nation-state boundary to include international environmental conservation ideology and capital that play a central role in enabling the Vietnamese state to administer territorial controlling processes. *Horizontal* dimensions of land tenure refer to multiple (non-hierarchical) tenure systems in which different land uses call for different tenures. I add a temporal dimension to this definition, such that what may be held under exclusive rights during the productive season, such as cassava swidden fields, become grazing commons after the harvest until the next planting.
 15. Some of those social groupings that comprise privileged social identities may include age, gender, ethnicity, religion, status, profession, place of birth and common education (Ribot and Peluso 2003:170–71), as well as party affiliation, marriage, kinship and military heroism.
 16. According to Gluckman’s (1968) definition, each level in the social hierarchy of control over land holds an ‘estate’, with the farmer holding an ‘estate of use’, and higher levels (such as village leaders, forestry and national park officials, and the central state) holding ‘estates of administration’.
 17. It is important to note that most of these village elite circulate through different government and party positions at the locality, all the while serving as local representatives of the state.
 18. In fact, widespread overexploitation during the socialist period occurred because production quotas were set based on state needs rather than the productive capacity of the forests (MOF 1991).
 19. The approval of the first National Plan for the Environment and Sustainable Development in Vietnam coincided with the UN Conference on Environment and Development organised in Rio de Janeiro in 1992. This was closely followed by the passage of the comprehensive Law on Environment and the establishment of the National Environment Agency in 1993 and 1994. It was in 1986 that the term ‘biodiversity’ was coined at the National Forum on Biodiversity held in the United States (Harmon 2001). This conference marked the beginning of worldwide initiatives oriented toward biodiversity conservation. It is no coincidence that the Vietnamese National Conservation strategy was passed around the same time (1985), followed by the establishment of forty-nine new protected areas in 1986 alone.
 20. It is important to note that, according to the Vietnamese Constitution, all land in Vietnam is the property of the entire people, managed uniformly by the state. The state ‘entrusts land to organizations and private individuals for stable and lasting use’ (Article 17). Thus, ownership rights in forests do not really exist, only user rights can be defined, as the state retains ultimate authority over land. However, according to the land law of 1993, land rights can be leased, exchanged, transferred, inherited and mortgaged.
 21. Peet and Watts (1996: 263) define environmental imaginary as a society’s ‘way of imagining nature, including visions of those forms of social and individual practice which are ethically proper and morally right with regard to nature’.
 22. See, for example, foundational research by Harold Conklin (1954, 1957) among the Hanunoo in the Philippines, followed by later influential research, including the edited volume by Peter Kunstadter, E.C. Chapman and S. Sabhasri (1978) on shifting cultivation fields in northern Thailand, Christine Padoch (1983) and her work among the Iban of Sarawak, and Michael Dove (1983).
 23. Biodiversity hot spots are defined as areas that cover only 1.4 per cent of the earth’s land surface but claim more than 60 per cent of plant and animal diversity (Barlow 2002).
 24. An evaluation of environmental projects from 1985 to 1995 indicates that \$2 billion dollars were allocated to environmental projects. About 80 per cent of environmental overseas development assistance is channelled through the Ministry of Agriculture and Rural Development, which oversees most of the highland and forest development and conservation programmes (UNDP and Ministry of Planning and Investment 1999). Of that aid, nearly 80 per cent is earmarked for the forestry sector. Of the 324 natural resource projects from 1985 to 2000, half the funding was earmarked for upland forests/watershed protection and income generation in hill areas (ibid.: 52). The total estimated budget for the most recent national reforestation programme, Decree 661—5 Million Ha Programme, is \$2.68 billion (MARD 2000).
 25. Similar arguments related to the role of science in linking human activities to ecological change in ways that justify state control over resources in the region are made in Peluso (1992), Rangan (1997), Ribot and Peluso (2003) and Sivaramakrishnan (1999).
 26. For example, 87 per cent of the protected areas in Vietnam today were created, not coincidentally, since the onset of economic liberalisation and influx of donor aid in the late 1980s. Nearly 2.3 million ha, or 21 per cent of all forested land, is now locked up in protected areas managed by the state.

27. With support from international legal 'experts', the Vietnamese state promulgated numerous environmental laws and action plans in the late 1980s and early 1990s. Some of these include Vietnam's strategy for the conservation and use of biological resources that was announced in the National Conservation Strategy (Committee for Rational Utilisation of Natural Resources and Environmental Protection and IUCN 1985), and further elaborated in the Tropical Forestry Action Plan (TFAP) (MOF 1991), the Forest Protection and Development Law (1991), the Logging Ban 1992 (Socialist Government of Vietnam 1992a), the National Plan for Environment and Sustainable Development (Socialist Republic of Vietnam State Committee for Sciences et al. 1991), the Environmental Protection Law (Socialist Government of Vietnam 1993), the National Environmental Action Plan (MOSTE et al. 1995), and the Biodiversity Action Plan (Government of the Socialist Republic and the Global Environment Facility Project VIE/91/G31 1995). Central to all these initiatives is the conservation of upland forests and their management for biodiversity conservation and watershed protection, while increasing production and incomes of people living in forest areas.
28. The three basic categories of production forests, protection forests and special use forests are defined. Within each category, forest land is classified as either 'with' or 'without' forest cover; the latter are broadly termed 'bare land'.
29. The categories of land according to the General Department of Land Administration (GDLA) differ from the Ministry of Agriculture and Rural Development (MARD) and Forest Inventory and Planning Institute (FIPI). Of the land generally referred to as barren, the GDLA classifies it as 'unused', while MARD and FIPI label it 'forest land without forest'. In reality, much of this land is agricultural land, which fails to conform to the state's vision of that land.
30. The goal of WFPs reforestation projects during the period I am examining (1985–86 to 1991) was to establish plantations (largely eucalyptus and acacia) and to create forestry-based employment on so-called bare lands. Decree 327's stated objectives were:

to restore the denuded or barren hills to increase the production of raw materials for industries; to lay the groundwork to divide the land, settle the population, and link social and economic needs; stabilise and raise the material and spiritual standard of living in the new economic zones, in order to stimulate the residents to increase their production efforts and consolidate national security. (UNDP/FAO 1993, as quoted in the decree).

The '5 million ha programme' follows programme 327's objectives closely.

31. The WFP has provided US \$124 million of grant aid to the forestry sector in Vietnam under ten projects from the mid-1970s to 2000 (WFP 2000). By 1998, US \$230 million had been invested in carrying out 'project 327' (Christ and Kloss 1998). The total estimated budget for the '5 million ha programme' was 37.6 trillion dong or US \$2.68 billion (MARD 2000).
32. Based on the 1999 exchange rate, US \$1 was approximately the equivalent of 14,000 dong VN.
33. See Association for Research and Environmental Aid et al. (1993) for more details on the management strategy for Ba Vi National Park.
34. In 1989 the Ministry of Forestry adopted management goals for Ba Vi protected area recommended by the IUCN for areas managed mainly for ecosystem conservation and tourism.
35. Wet rice and cropland in Ba Vi today totals 21.1 ha. As of 1998, based on population size, wet rice land allotment totalled 3.9 *thuoc* or 93.6 sq. m per individual. According to village leaders, 1 *sao* (360 sq. m) with two crops is necessary to meet food self-sufficiency per person. Only 60 per cent of the wet rice land has sufficient water for two crops of rice per year.
36. Income from one crop of cassava can yield as much as 5 million dong or the equivalent of US \$357 at 1999 prices. This is greater than average annual GDP per household of roughly US \$320.
37. Similar distributional patterns are observed by Elisabeth Grinspoon (2002) in her research on wasteland auctions in China, in which networks of local economic and political elite are altering policy intent by privatising and appropriating collective land.

38. Between 1992 and 1995 nearly US \$1 million dollars were spent on infrastructure, silvicultural restoration, forest protection and plantation, fire control and land allocation in Ba Vi National Park (Gilmour and Nguyen 1999).
39. The Latin name for cardamom is *Amomum aromaticum* Roxb., in the Zingiberaceae family.
40. The social relations of Ban Khoang resemble Polanyi's (1957) theorisation of pre-capitalist societies, despite the recent intensification of capital penetration as a result of cardamom production.
41. As in Ba Vi, and elsewhere in the highlands, the distinction between forest land and agricultural land is largely artificial. Agricultural and forest lands among the Dao are not confined to distinct spherical circles delineated on state maps. They expand and contract, both spatially and temporally, reflecting varying degrees of vegetative cover and use. Swidden lands become new forests and are again converted into swidden fields over the course of a few years. 'Forest lands' among the Dao are not confined to the 'old forests' lining the ridges, but reflect a suite of forest types, that are species and age specific, and are found interspersed across the landscape. These lands are managed not for their timber alone, but for bamboo, medicinal plants, thatch, fruits, fuel wood, cardamom and other non-timber forest products for household consumption. Perhaps a better term to refer to the varying forms of forest and agricultural lands collectively would be 'productive' lands.
42. The Dao have twelve clans. In Ban Khoang there are four: Chao, Ly, Phan and Tan.
43. According to the law, recipients of the land use certificate should pay no fees. However, villagers had to pay 10,000 dong to the village leader in charge of dissemination. Several declined.
44. I use the terms 'surveillance' and 'discipline' following Foucault (1979) in *Discipline and Punish*.

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