



Political Ecology of Forest Governance in Vietnam's Central Highlands: Land Use Change, Power Relations, and Environmental Policy

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Abstract: Changes in land use, migration, and policy changes have all impacted forest governance in Vietnam's Central Highlands. This study focuses on the political ecology of the region, considering how land-use change, power structures, and institutional politics define access to and control over forest resources and shape policy impacts. In Dak Lak, Gia Lai, and Kon Tum provinces, I adopted a multi-scalar and mixed-methods research design, which included household surveys, semi-structured interviews, focus group discussions, and policy document reviews to examine how actors interact within the forest governance system. Findings suggest that land-use change, particularly the expansion of rubber and coffee plantations, hydropower development, and conservation initiatives, has reconfigured forested areas and restricted informal access to forests and land. These changes are attributed to the power structures of state actors, private capital, migrating farmers, and indigenous populations, resulting in disadvantages in forest governance and the allocation of forest benefits. Environmental policies, in particular the Payments for Forest Environmental Services (PFES), have increased income and conservation awareness, but remain limited by unequal participation opportunities, low financial incentives, and persistent tenure insecurity. The study, by combining political ecology with access theory, shows that the outcomes of forest governance are conditioned by political, economic, and institutional structures, rather than formal policies alone. The author suggests that governance structures that are more inclusive and that integrate these elements into policy design are likely to be more effective.

Keywords: Access to resources, Central Highlands Vietnam, Environmental policy, Forest governance, PFES, Political ecology, Land-use change.

INTRODUCTION

Vietnam's Central Highlands is one of the most complex regions for forest governance in Southeast Asia. This region includes the provinces of Kon Tum, Gia Lai, Dak Lak, Dak Nong, and Lam Dong. The area is home to several ethnic minority groups and is socially distinctive and of great ecological importance, as the forest-dependent livelihoods and cultural practices of these groups are intricately linked to land and forests (Meyfroidt et al., 2013; McElwee, 2022). Furthermore, the region is undergoing rapid environmental and political-economic change due to agro-environmental and political shifts such as population growth, hydropower construction, and state-driven forest colonization. Coffee, rubber, and pepper, in particular, have been especially important in this regard. Since the 1990s, the Central Highlands has been a prominent region in export-oriented agriculture, notably in coffee production.

These changes have increased the rate at which forests are being converted to other uses, intensified competition over land, and disrupted customary systems of resource use

(Müller & Zeller, 2002; D'haeze et al., 2005; Meyfroidt et al., 2013). The development of hydropower and the expansion of infrastructure have fragmented forests and, in some cases, displaced local populations from their use of land for cultivation and access to forest services, including gathering and rituals (Doutriaux et al., 2008; Cochard et al., 2017). Migration, in addition to the factors mentioned above, has increased the population and competition for land among local indigenous populations, settler migrants, entrepreneurial migrants, and state officials (Phan & Coxhead, 2010; Zhang et al., 2006). The last thirty years have witnessed significant changes in both the extent and quality of forest cover in the Central Highlands. Although forest protection policies and reforestation activities have increased the area of plantations and forests in administrative categories, natural forests have continued to decline, especially in areas prioritized for cash-crop agriculture, land speculation, and infrastructure development (Meyfroidt et al., 2013; Cochard et al., 2017). The difference between nominal forest cover and actual forest governance is therefore significant.

This is especially important for ethnic minority communities whose livelihoods rely on a diverse range of forest ecosystems rather than on the monoculture of plantation forests. Plantation forests do not automatically restore the social and ecological roles that natural forests provide.

In the 2000s, policy changes such as forest land allocation, decentralization, and the introduction of market-based conservation tools like Payments for Forest Environmental Services (PFES) began to reshape forest governance in the region. PFES has been considered a promising way of linking forest conservation to the improvement of poor people's livelihoods, with Vietnam being one of the first countries to implement it (Pham et al., 2013; McElwee, 2022). Its implementation, however, has been uneven and has been marked by persistent issues such as tenure insecurity, low participation, and the limited and unequal distribution of payments (Pham et al., 2014; To et al., 2017). These issues indicate that forest governance in the Central Highlands cannot be understood as a purely technical process, but rather as one intertwined with social contestation over land, control, access, and development priorities. In most policy discussions, forest governance has been treated as a technical matter of conservation and institutional design. This view, however, neglects the politics involved in the process. Land-use change in the Central Highlands reflects the political relationships that underpin control over land, the distribution of forest benefits, and the impacts of deforestation.

Environmental policies do not merely manage forests; they also redistribute access to resources, including land, conservation payments, and legal recognition, often in unequal ways (Sikor & Tran Ngoc Thanh, 2007; Larson et al., 2013). These inequitable redistributions and the inequalities they produce matter greatly to indigenous populations. Ethnic minorities and other marginalized groups often do not have equitable or just access to decision-making, nor do they have the "final" say in legal and administrative terms (McElwee, 2012; Pham et al., 2013). From a political ecology standpoint, environmental change must be examined together with inequality in access, power, and institutional frameworks (Robbins, 2012). This is particularly the case in the Central Highlands, where forest governance is intertwined with other socio-political factors, including territory, ethnicity, power, and development.

Considering this, the article has three primary goals: to frame land-use change as a political-economic phenomenon rather than a purely ecological one; to investigate the power dynamics among state actors, private capital, migrant farmers, and indigenous people; and to review environmental governance, particularly PFES, in relation to the governance gaps it reproduces. Consequently, the study is guided by three questions: How does land-use change shape forest governance? What power structures condition inequitable access to land and forests? How do environmental policies address, or reproduce, these inequities? This research makes three contributions. First, it brings a clearer political ecology lens to forest governance scholarship in Vietnam, a country too often studied with a singular focus on either policy or individual outcomes. Second, it examines environmental policy, land-use change, and power relations within a single framework. Finally, it assesses indigenous governance and customary systems, illustrating that forest governance in the Central Highlands is not simply a state-regulated environment, but also a contested space between state law and locally operating systems of authority.

LITERATURE REVIEW

Growing interest in the theoretical frameworks addressing the social dimensions of environmental change has contributed to the development of political ecology. Political ecology moves beyond technical or ecological narratives of environmental degradation and considers the ways in which frameworks and institutions of power, access, and control shape environmental governance. The early literature in political ecology illustrated how environmental change was largely shaped by political economy rather than by simple local mismanagement of resources (Blaikie & Brookfield, 1987). From this perspective, environmental degradation is caused more by underlying political and economic structures than by poor resource management. Much of the literature in political ecology and environmental studies describes how power, control, and access generate conflict. In forest governance, there are competing interests and power relations among states, local actors, private-sector actors, civil society, and conservation NGOs (Peluso & Watts, 2001). These power relations generate clear imbalances, enabling some actors to gain political power through the exploitation of forest resources or to consolidate formal authority through forest conservation, while others become politically weaker or lose power through dispossession and marginalization. In this regard, forests are not only ecological systems but also political spaces shaped by governance and broader socio-economic relations.

According to Robbins (2012), the analysis of environmental change depends on how institutions allocate rights, control access, and distribute benefits. In the Global South, these governance frameworks interact with state territorialization, land appropriation, and development processes, making forest governance an intersection of environmental, economic, and social justice. Given critiques of centralized forest management, many countries have adopted reforms aimed at decentralization, community forestry, and participatory governance. These reforms are intended to foster local control and improve conservation through the integration of environmental and community objectives. However, studies show that decentralization in itself does not necessarily alter existing power relations. For instance, while local institutions may be designed to be participatory, they often remain structurally subordinate to higher administrative systems, while state control over land and forests remains strong (Sikor & Lund, 2009). Decision-making is often

dominated by actors outside local communities, making participation more formal than substantive.

Larson et al. (2013) argue that good governance in forestry must go beyond decentralization. Secure tenure, equitable and just benefit-sharing, and recognition of local rights are equally important. Without such conditions, governance reforms tend to create an illusion of inclusion while reproducing existing inequities. This is particularly the case in contexts where formalized and customary land-use systems coexist and where ambiguities over authority and access persist. Vietnam presents an important illustration of such conditions. Since the early 1990s, Vietnam has shifted its forest governance from a fully centralized management system to a more decentralized and market-based one, including the allocation of forest land to households and the introduction of market-based conservation policies such as Payments for Forest Environmental Services (PFES), which aim to provide incentives for the dual objectives of sustainable forest management and poverty alleviation. Nonetheless, a number of structural obstacles remain. Among the most important is the existence of unclear and overlapping tenure arrangements characterized by contested authority over forest lands among state agencies, local governments, communities, and private individuals (Sikor & Tran Ngoc Thanh, 2007). The division of administrative responsibilities among multiple agencies also adds to the complexity of governance by creating situations in which several actors have overlapping jurisdictions in forest conservation and land management. The continued dominance of state institutions is another weakness. Decision-making is often centralized, despite the growing policy emphasis on participation and co-management. Governance structures in which benefits are fairly distributed, participation is meaningful, and tenure is recognized are crucial to the success of PFES (Pham et al., 2014; McElwee, 2012). Existing studies also show that PFES has produced uneven patterns of participation and sustained inequities both between and within social groups and geographic regions (Pham et al., 2014).

Studies on forest governance and policy implementation in Vietnam are important for understanding their effects on people's livelihoods during the implementation of conservation programs and PFES. However, very few studies have examined forest governance through the lens of political power and political ecology. This is especially evident in the Central Highlands, where land-use change is occurring rapidly, population movement remains active, and competing interests in land and forest resources are intense. The Central Highlands is an important setting for this kind of analysis because of the complex combination of agricultural expansion, development initiatives, and indigenous claims to land. This study employs political ecology to offer a more thorough understanding of forest governance in the region.

THEORETICAL FRAMEWORK

This research uses political ecology as the lens through which the author examines the nuances of forest governance in the Central Highlands of Vietnam. Political ecology posits that, when dealing with environmental change, analysis must not be limited solely to ecological or technical factors. Instead, it must also consider associated power structures, institutional configurations, and political and economic forces. From a political ecology perspective, ecological transformations are the result of the interplay between governing structures and ecological systems, as well as the various relations of control. With that said,

three principal components are the focus of the analysis: environmental change, power structures, and governance systems. Environmental change refers not only to changes in ecological systems but also to changes in land-use structures and patterns, including deforestation, the expansion of land under crop cultivation, and land restructuring. Power structures refer to the dynamics among various actors, including government officials, private-sector investors, migrant farmers, and indigenous communities, and the ways in which they construct, access, and control decision-making and resource-control mechanisms. Governance systems pertain to formal and informal laws, administrative systems, and other mechanisms of resource access and control that determine the distribution of the benefits of environmental protection. Therefore, land-use change must be viewed as an outcome of political economy rather than as a purely ecological process. In the Central Highlands, changes in forest cover and land use are indicative of competing political and economic forces, as well as the institutional structures through which they operate.

The additional dimension of environmental change related to agricultural encroachment, hydropower, and conservation policies is that these processes also restructure authority and access among different social groups. Environmental politics and political ecology reveal how social inequality, commercial transformation, and the expansion of state functions intertwine.

The study also employs the access theory developed by Ribot and Peluso (2003), which seeks to understand how different actors benefit from forest resources. Access theory captures an ability-based approach to access, which differs from a property-based approach that emphasizes ownership and title. Access theory shows that legal ownership does not guarantee access to a resource, and that an actor may develop mechanisms to benefit from a resource despite not having legal rights. Access may result from a variety of mechanisms beyond formal rights. These can include the ability to mobilize financial resources, a person's position to influence decision-making, the possession of knowledge or skills that are instrumental in accessing certain policy initiatives, and membership in social groups that enable access to resources or systems. Within such social complexity, groups may construct webs of mechanisms through which some actors gain access to forest resources while others are excluded. These mechanisms can be used within access theory to explain the unequal outcomes of forest governance among state actors, private investors, migrant farmers, and indigenous people in the Central Highlands. Even when policies facilitate participation or legally recognize community rights, unequal access to resources such as capital, information, and decision-making processes often leads to unequal outcomes. The concept of environmental governance adds a third layer to the analysis.

Environmental governance encompasses the institutions and processes that manage environmental resources through both formal policies and informal practices. In many forested regions, governance includes the interplay of multiple systems. In formal governance, there are laws, administrative rules, and policy tools such as forest protection programs and Payments for Forest Environmental Services. Informal governance includes customary land-use practices, local governance systems, and socially embedded rules that are often unspoken but still shape and constrain resource use. In this paper, forest governance refers to this interplay between state and customary systems. The analysis examines how these systems are integrated, how they come into conflict, and how they cooperate. In the context of the Central Highlands, these interactions are especially useful

for understanding how environmental policies and governance systems operate in relation to social groups and access to land and forest resources.

METHODS

A mixed-methods research approach was adopted to address issues of forest governance and land-use change in the Central Highlands of Vietnam. By utilizing both qualitative and quantitative strategies, the study is able to analyze the full range of structural features of environmental governance as well as the experiential dimensions of local populations. This is especially useful in political ecology, where the juxtaposition of large-scale policy initiatives and small-scale everyday practices of resource control and governance offers particularly rich insights. In this study, four main techniques were implemented: household surveys, semi-structured interviews, focus group discussions, and document reviews. Household surveys helped to gather quantitative data on land use, livelihood activities, and perceptions of forest governance. Semi-structured interviews were used to gain qualitative insight into land-use change, governance, and the role of different actors in governance processes. Focus group discussions provided a forum for community members to reflect on environmental change and facilitated the identification of collective experiences and local understandings of such change. Document reviews were used to analyze relevant policy documents, forest governance programs, and institutional arrangements. The combination of these techniques allows the researcher to draw on a range of data to construct a more reliable and in-depth analysis. Fieldwork was conducted in the Central Highlands provinces of Dak Lak, Gia Lai, and Kon Tum.

The selected sites reflect a range of interconnected themes in the dynamics of land-use change and forest governance. Dak Lak exemplifies a core zone of coffee-driven agricultural encroachment and major alterations to the forest landscape. Gia Lai has witnessed similar processes, but these are coupled with rapid migration and escalating land-use pressure. In contrast, the dominant influences on the forest landscape and land-use modification in Kon Tum are hydropower development and infrastructure expansion. All three provinces are home to a variety of ethnic minority groups whose livelihoods and forest dependence have historically relied on customary systems of land use, making them appropriate sites for studying governance change.

Data were gathered from both primary and secondary sources. Primary sources were used for household surveys to record land-use patterns, livelihood strategies, and engagement in forest governance initiatives, specifically forest protection and Payments for Forest Environmental Services (PFES). Semi-structured interviews were conducted to obtain information from local authorities, community leaders, and ethnic minority household members regarding governance, land allocation, and the implementation of environmental policies. These interviews also recorded local views on migration pressures, environmental change, and the transformation of customary institutions. Secondary sources consisted of policy papers, government publications, and scholarly research, which provided background information on forest reform and institutional arrangements. A political ecology approach was used to analyze three interrelated dimensions: land-use change, power dynamics, and governance outcomes. Landscape change driven by agricultural expansion, hydropower development, and policy change was examined in relation to access to forests. The power dynamics among state actors, private-sector investors, migrant farmers, and indigenous

peoples were analyzed to show how power differentials shape governance and resource access. The effects of environmental governance, especially forest protection policies and PFES, on the allocation of benefits and access to forest resources were also examined.

By utilizing this integrated approach, the study views forest governance as a political and institutional phenomenon rather than simply as a system of environmental management.

RESULTS

Land-use Change and Forest Conversion

The results show that forest governance in the Central Highlands has emerged from the gradual transformation of natural forest landscapes and mixed upland production systems into more commercially oriented land use. In Dak Lak, Gia Lai, and Kon Tum, four land-use changes have been persistent and dominant, namely the expansion of the coffee frontier, the establishment of rubber plantations, land conversion for hydropower, and forest protection schemes that newly classified and regulated forests under new management and administrative controls. Although these processes differ from one another, they have all transformed forest governance by altering patterns of land control, the socio-economic value of forests, and the range of land uses accepted as legitimate. In the coffee-growing areas of the Central Highlands, the rapid expansion of the coffee frontier has been identified as a major cause of deforestation in previous research. In the Central Highlands, both deforestation and the displacement of shifting cultivation have been well documented, and the rapid expansion of coffee production has been a significant contributor to both. This finding aligns with previous studies (Müller & Zeller, 2002; Meyfroidt et al., 2013). Among the respondents, 58 percent of surveyed households identified the conversion of forest land into industrial crop plantations as the most significant cause of forest degradation.

Interviewees in Dak Lak and Gia Lai described how the initial stages of coffee and pepper cultivation transformed diversified forest and agricultural landscapes into single-crop systems and reduced community access to forest resources. This local phenomenon illustrates the increasing commercialization of the landscape for coffee and pepper cultivation and the replacement of communal land governance with individual land-market systems (Lambin & Meyfroidt, 2010). The expansion of commercial rubber plantations has been identified as another significant form of forest conversion. In Dak Lak and Gia Lai, several interviewees attributed the expansion of commercial rubber plantations to large-scale agricultural land allocation. This finding aligns with the body of research showing that commercial plantation development in mainland Southeast Asia often occurs through the illegal appropriation of forest or customary land (Li & Fox, 2012). This has led to the concentration of land in the hands of a few actors and reduced land availability for ethnic minority households that lack formal land entitlements. In this sense, the expansion of commercial plantations has intensified governance pressures in the landscape as access to land has been restructured.

Hydropower development has contributed to further forest conversion. In Kon Tum, interview data indicate that the construction of dams, roads, and related infrastructure has led to direct forest loss and the displacement of people from their traditional production sites. This is consistent with Doutriaux et al. (2008) and Cochard et al. (2017), who found

that development-induced land conversion in the uplands of Vietnam altered settlement patterns, land availability, and forest control over the long term. In Kon Tum, most respondents noted that hydropower projects not only deforested large areas, but also blocked access to sacred forest sites, rotational farming areas, and water sources. In this way, hydropower restructured the ecological and organizational bases of forest use. Another form of transformation relates to forest protection schemes. While these schemes are designed to keep forest land intact, they also impose administrative controls and restrict access to customary forest use where local claims and needs are poorly recognized. This is not to suggest that forest protection policies are entirely exclusionary, but it highlights that reforms in forest governance can, on the one hand, conserve forests while, on the other, sharply curtail people's customary use of land.

The cumulative impacts of changing land-use patterns have produced several notable outcomes in the study sites, most importantly the decline of shifting cultivation, the reduction of commons, and the increasing fragmentation of forests.

Table 1: Main land-use changes and forest governance effects in the Central Highlands

Land-use change	Main governance actors	Major forest governance effects
Coffee expansion	State agencies, local farmers, traders, migrant cultivators	Forest conversion, reduced common land, displacement of shifting cultivation
Rubber plantations	Provincial authorities, private investors, plantation firms	Land concentration, weakened customary access, increased tenure conflict
Hydropower development	State agencies, infrastructure developers	Relocation, forest fragmentation, loss of sacred and communal spaces
Forest protection programs	Forest authorities, communes, contracted households	Increased administrative control, selective participation, new benefit channels

Power Relations in Forest Governance

Forest governance in the Central Highlands shows a strong pattern of unequal power relations involving the state, private investors, migrant farmers, and indigenous peoples. The power of these actors affects decisions regarding land use as well as the distribution of environmental benefits. The state remains the dominant actor in forest governance because it holds authority over legal classification, land allocation, and policies on conservation and forest management. The state also exercises power through forest law, land-use planning, Payments for Forest Environmental Services (PFES), and project approval, as these define the boundaries and management goals for how, when, and under what conditions forests can be protected, converted, or used for commercial purposes (Sikor & Tran Ngoc Thanh, 2007; McElwee, 2012). The findings, however, suggest that state power is not neutral. Administrative interests are often aligned with export agriculture, infrastructure, and planned development. As a result, state governance may promote conservation in one area while authorizing land conversion elsewhere, creating a clear contradiction. Private investors are particularly influential in plantation expansion and hydropower projects. Their influence, unlike that of the state, does not primarily derive from direct legal authority, but rather from capital, project partnerships, and privileged access to administrative approval.

In various study areas, participants linked plantation and dam projects to the diversion of land away from communal use and toward large-scale commercial production. This aligns with broader political ecology arguments that the dynamics of environmental governance are shaped less by conservation goals alone than by the intertwining of state power and market interests (Peluso & Watts, 2001; Robbins, 2012).

Migrant farmers represent a different but still important dynamic. Their role in the expansion of agricultural frontiers may not derive from formal institutional power; however, relative to resident indigenous households, they typically display a stronger market orientation, greater mobility, and a stronger ability to utilize or improve land. Phan and Coxhead (2010) and Zhang et al. (2006) show that migration has been a principal driver of agrarian transformation in the Central Highlands, and the current findings confirm that it also affects local governance. Between 2005 and 2017, the region attracted over 58,000 free migrant households, increasing pressure on both residential and agricultural land (Phan et al., 2021). In interviews with local residents, this influx was often described as intensifying land pressure and weakening indigenous people's control over land. In comparison, indigenous communities, although often closely tied to the land, usually hold the least formal decision-making power, even when their livelihoods and cultural systems remain heavily dependent on forests. Respondents noted that, despite possessing local knowledge, customary norms, and a long historical connection to the land, they often found themselves in a weak position within formal governance processes. This is especially evident in situations where households are land-poor or where customary claims are not recognized by the state.

Therefore, forest governance in the Central Highlands extends beyond the management of forests themselves to include the hierarchical organization of power surrounding them.

Access to Forest Resources

The results also show that, beyond tenure, other factors affect access to forest resources. From the perspective of access theory, the ability to benefit from forest resources is determined not only by formal property rights but also by factors such as capital, administrative ties, policy-related knowledge, and one's position in the social hierarchy (Ribot & Peluso, 2003). This partially explains the varying experiences of forest governance among households within the same commune. Capital is a critical determinant. Households with capital are in a position to make greater investments in commercial crops, adapt to agroforestry, or absorb the short-term opportunity costs of stricter compliance with conservation requirements. Poorer households, in contrast, depend more on forests for direct use, temporary work, or unstable cultivation on marginal land. Administrative ties are also important. Interviewees mentioned that households or individuals with stronger ties to commune authorities or project implementers often had better access to information and documentation related to land and contracts. Policy-related knowledge is a third important determinant. Households that understood the rules of PFES (Payments for Forest Environmental Services), forest protection contracts, and land registration procedures were in a more advantageous position to access environmental benefits. Less literate individuals, those less proficient in Vietnamese, and those with less engagement in administrative processes were more likely to remain excluded.

This is particularly true for some ethnic minority families whose traditions surrounding resource claims are socially strong within their communities but weak in formal legal systems. The results indicate that access to forests has become more unequal. Seventy percent of surveyed households experienced a reduction in the availability of non-timber forest products and water resources. Remote households that depended on forests for income were reported to have suffered an income loss of 20-30% in the last five years. All these factors indicate that access is shaped by a combination of ecological and institutional factors. In some places, forests are physically less available; in others, they are socially less accessible.

Table 2: Main mechanisms shaping access to forest resources

Mechanism of access	How it operates	Typical effect
Formal tenure	Land certificates, forest allocation, legal recognition	More secure claims, but not always effective access
Capital	Ability to invest, hire labor, absorb risk	Greater capacity to benefit from land-use change
Administrative connections	Ties to local authorities or implementing agencies	Better access to contracts, information, and approvals
Policy knowledge	Understanding of PFES, land law, and program rules	Higher likelihood of participation and benefit capture
Customary legitimacy	Community recognition, elders, sacred rules	Strong local authority, but often weak formal recognition

Environmental Policy Outcomes

The results of the investigation show the mixed outcomes of existing environmental policies. PFES and forest protection policies have had positive impacts on forest protection and the generation of additional income. However, their further effectiveness is constrained by low payment levels, the inequitable distribution of payments, and weak participant involvement in project decision-making. On the positive side, 48% of households participating in forest protection contracts and PFES-related programs reported benefits. In addition to the payments, which provided income support in the range of 5-10 million VND per household per year, there was also support for children's education, housing, agriculture, rural roads, and other small-scale development projects. Respondents interviewed in Kon Tum and Gia Lai also noted that forest patrols, water protection, and fire prevention activities provided through these programs had a positive impact on forest protection. These results are consistent with other studies conducted in the region, which support the argument that PFES can positively affect forest protection, provided that local participants are actively involved in the process (Pham et al., 2013; Pham et al., 2023). However, the limitations of these policies are also significant. Respondents noted delays in payment, inadequate compensation for volunteers, a lack of transparency in fund management, and inequitable access to available funds within local communities.

Households located in more remote areas were more likely to report being excluded from forest contracts, while households with weaker administrative connections were less able to influence the distribution of benefits. This finding reiterates critiques of PFES in Vietnam, where fragmented market-based conservation systems continue to produce inequities in access because of unclear tenure, while community participation often remains

largely procedural or box-ticking (McElwee, 2012; Pham et al., 2014; To et al., 2017). Not all environmental policies in the Central Highlands are designed to address inequities. In remote areas of the Central Highlands, inequities may also arise from entrenched power imbalances. Conservation policies that do not allow meaningful public participation in governance continue to reproduce governance inequities even while protecting forests.

DISCUSSION

The findings suggest that changing land use in the Central Highlands is not just an ecological or technical issue; rather, it is a political issue involving development priorities, market integration, and state control. The conversion of forests into coffee plantations, rubber farms, hydropower projects, and road corridor infrastructure reflects a political economy of land use shaped by economic value and political utility. Thus, land-use change is part of broader state and market initiatives that reshape the landscape in the name of commerce and development (Blaikie & Brookfield, 1987; Robbins, 2012). This perspective supports studies from the 1990s onward showing that agricultural expansion has been driven by state development agendas and integration into global commodity chains (Müller & Zeller, 2002; Meyfroidt et al., 2013). The promotion of coffee and rubber cultivation was shaped not only by their agricultural suitability but also by economic growth rationales.

As noted by Doutriaux et al. (2008) and Cochard et al. (2017), hydropower development also exemplifies infrastructure modernization, increased state territoriality over the uplands, and the further expansion of investment, resource extraction, and administrative control. In political ecology terms, this means that land-use change is intrinsically related to contestations over power, the control of space, and the ordering and distribution of resources. Communal land and shifting cultivation practices are not displaced for ecological reasons, but because they do not support the dominant development ethos. Another important aspect is that access within forest governance is highly unequal. Governance, as an institutional process, has not been neutral, but has instead redistributed access and opportunities as a function of power, capital, and administrative control. Access, according to Ribot and Peluso (2003), is not simply a function of rights, but also encompasses the means to benefit from resources, including financial, political, informational, and social means. In the Central Highlands, these means overwhelmingly benefit state entities and private investors, who are integrated into formal decision-making processes, as well as, in some instances, migrant agricultural actors who are commercially and spatially mobile.

The long-standing connections of Indigenous groups to land and forests remain important. However, their positions are often weaker within formal governance. Recognition of their claims to particular areas may be valid, but such claims are often only weakly acknowledged by formal governance systems. This limited recognition may also affect their access to resources, policies, and governance processes. Therefore, programs such as PFES may produce unequal benefits across social groups, particularly when those with stronger administrative recognition are more likely to benefit than those with less recognized claims. Groups with stronger claims in formal systems and better access to administrative resources are more likely to benefit from such programs than those with less recognized claims and fewer resources. Forest governance, therefore, tends to maintain rather than alleviate existing inequities in the region. This reaffirms the limitations of top-down conservation policy and technocratic approaches to governance. PFES systems, forest

protection policies, and land allocation policies may appear rational in design; however, their implementation is often shaped by less equitable factors, administrative-centered processes, and limited participation (McElwee, 2012; Pham et al., 2014). This limited participation is also reflected in forms of procedural participation that are more formal than substantive, drawing communities into governance processes without giving them real autonomy to influence decisions or ensure equitable distribution of benefits. Additionally, the socio-cultural dimensions of forest governance are often ignored in formalized governance processes.

Many communities in the Central Highlands consider forests not only as sources of income, but also as sacred spaces, places of social significance, and areas governed by informal customary structures. If policies overlook these features, they will continue to erode local institutions that have supported forest stewardship for decades. Consequently, conservation may continue to secure compliance without commitment, and protection may remain unjust. These results suggest the need for broader inclusion of local people in the processes and structures of forest governance. Stronger tenure security must incorporate ethnic minority communities into governance and sustainable land-use investment (Larson et al., 2013; Sikor & Lund, 2009). This shift in governance must go beyond consultation to ensure actual participation in decision-making and equitable distribution of benefits. Additionally, there is a need to better integrate customary governance systems with formal governance structures. Instead of replacing local governance with bureaucratic governance, effective forest governance should seek a functional balance between formal state governance and local systems of social control, thereby improving both equity and effectiveness in forest conservation.

CONCLUSION

This article illustrates how the confluence of land-use change, migration, and power asymmetries shapes forest governance in the Central Highlands of Vietnam. Forests and land have been made more contested through forest conversion linked to the development of the coffee, rubber, and hydropower sectors. At the same time, migration has intensified competition over land and reshaped access to resources within governance systems. Simultaneously, governing institutions create rules and institutional frameworks that treat actors unequally and, in many cases, reward those who are better positioned in terms of resources, political influence, and authority.

This study contributes a stronger political ecology perspective to the study of forest governance in Vietnam, a field that has more often been dominated by policy evaluation or livelihood-impact approaches. It also develops the intersection of access theory and environmental governance. The study demonstrates that access to forests is determined not only by legal ownership and formal governance arrangements, but also by a range of informal mechanisms, including powerful informal networks and economic and political advantage. The study further demonstrates why environmental governance policies may produce unequal outcomes. These findings point to the need to improve and strengthen land and forest tenure security for disadvantaged communities, including ethnic minorities with historical claims that are not adequately recognized by the state. In areas where commercial farming, plantations, and infrastructure are expanding, there is a critical need for improved governance of forest conversion.

PFES and other conservation mechanisms need further improvement, particularly through more equitable distribution of benefits, greater transparency, and more meaningful community participation. Lastly, community governance and customary practices should be prioritized in forest governance rather than treated as secondary to formal governance structures. Long-term governance processes, especially the historical relationship between state systems and customary frameworks, should be a focus of future research. The effects of climate change on forests, water, and upland livelihoods are also important and deserve greater attention as part of governance challenges in the region.

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