

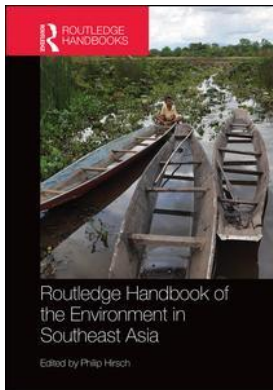
This article was downloaded by: 10.3.97.143

On: 23 Sep 2023

Access details: *subscription number*

Publisher: *Routledge*

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: 5 Howick Place, London SW1P 1WG, UK



Routledge Handbook of the Environment in Southeast Asia

Philip Hirsch

A Southeast Asian political ecology

Publication details

<https://www.routledgehandbooks.com/doi/10.4324/9781315474892.ch6>

Peter Vandergeest, Robin Roth

Published online on: 15 Sep 2016

How to cite :- Peter Vandergeest, Robin Roth. 15 Sep 2016, *A Southeast Asian political ecology from:* Routledge Handbook of the Environment in Southeast Asia Routledge

Accessed on: 23 Sep 2023

<https://www.routledgehandbooks.com/doi/10.4324/9781315474892.ch6>

PLEASE SCROLL DOWN FOR DOCUMENT

Full terms and conditions of use: <https://www.routledgehandbooks.com/legal-notices/terms>

This Document PDF may be used for research, teaching and private study purposes. Any substantial or systematic reproductions, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher shall not be liable for an loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

6

A SOUTHEAST ASIAN POLITICAL ECOLOGY

Peter Vandergeest and Robin Roth

Introduction

Political ecology can be broadly understood as a field of study that approaches environmental issues through the lens of power relations. The field encompasses work that emphasizes political economic, cultural and social processes, focusing on the ways uneven relations of power shape ecologies and their governance across scale. Its diverse strands include careful attention to the ways that rural people manage the ecologies in which they live; how political economic processes shape access to land and resources; and the critical analysis of environmental narratives that either blame marginalized people for environmental degradation, or conversely romanticize them as environmental saviours. Political ecology is thus a broad and eclectic field, but many scholars embrace that eclecticism as a strength, and assert political ecology as a community of practice united in its purpose to think about environmental problems and their solutions as always shaped by processes of power (Robbins, 2012).

As an approach to understanding human–environment relations, political ecology is distinct in its commitment to a political stance that is in alliance with often marginalized rural resource users and often in opposition not only to resource extraction by inter/national corporations and state agencies, but also to conservation interests. As such, political ecologists often work within or in solidarity with social movements and non-government organizations. This is especially true for scholars who are located in Southeast Asian educational institutions. Broadly speaking, political ecologists are frequently trained in those social science disciplines that encourage substantial fieldwork in rural areas, particularly in anthropology and geography, although they also come out of (rural) sociology, political science or one of the growing number of interdisciplinary programmes, including development studies, environmental studies, social forestry and natural resource management. Research in political ecology is often characterized by relatively long-term field research in rural areas, especially in what we might call the ‘frontier’ ecologies of Southeast Asia – the uplands, forests and, less often, coastal zones. Many political ecology researchers live in villages for extended periods in order to understand the daily patterns by which people use and manage resources to make a livelihood and then proceed to locate those findings within broader-scale social, cultural and political economic processes. Political ecology researchers will also sometimes do participatory mapping; conduct biodiversity surveys; interview staff in state agencies, NGOs and forestry and

mining companies; and even bury themselves in archives and libraries in search of relevant historical information.

In this chapter, we suggest that distinct strands of political ecology, as it has been practised in Southeast Asia,¹ have made important contributions to our understanding of environmental change while holding on to certain key features that give this field a loose coherence. These include taking the situation of often marginalized rural people as a point of departure; a focus on how resource users find their access to resources threatened either by powerful actors, including states and private investors, or by ecological degradation; and a distrust of both neo-Malthusian environmentalism and an environmentalism that romanticizes rural communities or tribal peoples. We will first review the ways in which Southeast Asian scholarship has impacted the field of political ecology and then proceed for the greater part of the chapter to address how political ecology has contributed to our understanding of environmental issues in Southeast Asia.

Southeast Asia in political ecology

Southeast Asia's varied agrarian and ecological zones, coupled with its diverse peoples, have helped make it an important site for developing political ecological approaches to many of the important issues that have animated global environmental debates. Some of the key early scholars who helped to define the field of political ecology worked on Southeast Asia. Harold Brookfield, whose areas of research included Malaysia, Indonesia and Papua New Guinea, was co-author with Piers Blaikie of *Land Degradation and Society* (Blaikie and Brookfield, 1987). Many consider this to be the text that launched the field of political ecology. While Blaikie – drawing on his (1985) *Political Economy of Soil Erosion in Developing Countries* – brought attention to the land manager, situated within multi-scalar 'chains of causation', Brookfield can be credited for bringing the fine-grained sensitivities of a micro-level analysis into Blaikie's political economic analysis, thus helping to develop the multi-scalar approach that is now a hallmark of the field. In particular, the text introduced the methodological practice of beginning research with the land manager and following the 'chain of explanation' outwards and upwards, examining those processes and actors who have the most influence on land management. Raymond Bryant, who had also written a political ecology history of forestry in Burma (Bryant, 1997), was co-author of the much-cited introductory text *Third World Political Ecology* (Bryant and Bailey, 1997). Both of these authors thus contributed their perspectives and experiences of Southeast Asia to the early development of the field.

There are also several prominent political ecologists who, through their work in Southeast Asia, can be credited for introducing important topics and approaches to the field. Nancy Peluso's 1994 publication *Rich Forests, Poor People* helped to initiate the rich political ecology research tradition on forests and people. The book is exemplary for how it combined a historical study of how forest villages in Indonesia were marginalized by state forestry with a careful fieldwork-based analysis of agrarian class formation in these villages – a combination that came to characterize much political ecology scholarship in the region and beyond. Peter Vandergeest and Nancy Peluso's articles on territorialization² together provided a powerful analysis of how the state's historical spatial practices and zoning policies helped create a forest regime that marginalized ethnic minority residents and their subsistence needs, a theme subsequently taken up extensively elsewhere in the field. Finally, Peter Brosius (1999a; 1999b) published pioneering research critically investigating environmentalism and its relationship to its indigenous subjects in Borneo, thereby helping to launch that strain of political ecology concerned with taking a critical approach not just to the extractive power of capital and the coercive power of the state,

but also to some of the movements established to resist them. In addition to influencing the development of political ecology in Southeast Asia, books and articles by these and other authors were read widely beyond the region and helped shape much of what is now considered political ecology.

Political ecology in Southeast Asian environmental research

Conflicts and contestations over upland forest landscapes and, to a lesser extent, riverine development and coastal resources have garnered the most political ecological attention in Southeast Asia. We briefly discuss each in turn.

Political ecology is probably best known in Southeast Asia for its extensive and often controversial work on the question of forests and agriculture in the uplands, an issue that drew international attention during the 1990s.³ The concern of political ecology was often to deflect the way that many observers blamed forest residents and agriculture for deforestation, both by showing how forest clearance was primarily due to massive extraction for an export market (Dauvergne, 1997; Broad and Cavanagh, 1994) and by showing that forest residents were often able to manage forests in a sustainable fashion, even if the forests they produced were not those valued by foresters, loggers or conservationists (Brosius *et al.*, 2005). Wrapped up in these assertions was also an examination of upland agricultural systems as part of the ways in which local communities managed and made use of forest land. Researchers such as Peluso (1992), Hirsch (1990) and Hefner (1993), who produced monographs based on extensive fieldwork in the uplands and other marginal spaces, paid careful attention to processes that occupied the field of peasant studies, such as agrarian differentiation. At the same time, they picked up key themes from the cultural ecologists who had preceded them to the uplands and who had produced landmark studies of how minority groups farmed the forest in ways that refashioned forests but did not eliminate them.⁴ The idea that upland agriculture, or swidden, can be a sustainable and biodiverse way of managing forests and agriculture has since been a recurrent theme in political ecology studies in upland Southeast Asia. The concern for class and differentiation helped produce another characteristic of political ecology that made the approach controversial during the 1990s: scepticism towards approaches that romanticized upland rural communities as forest conservers and carriers of ecological knowledge valued by conservationists. Both of these issues are taken up in more detail in the following sections of this chapter.

The political ecology approach has also been applied to river development controversies in the region. When environmental movements first emerged in Southeast Asia, one of their first goals was to stop the destruction of rich riverine ecologies by dams; thus, Philip Hirsch, Chris Sneddon and other political ecologists have contributed multi-scalar studies on the politics of dam building, as well as on opposition to dams among both NGOs and affected peoples.⁵ Political ecologists helped direct attention to how affected people have mobilized and inserted themselves into the political process, often by highlighting the way that dams transform fisheries and aquatic ecologies – consequently, most political ecological work on inland fisheries is linked to dam building.⁶ Coastal zones have many of the same frontier (Peluso and Lund, 2011) characteristics as the uplands, so that themes that featured in upland scholarship were also applied in these areas to trace changing livelihoods of small fishers in the context of marine and coastal ecosystem degradation, projects to improve small-scale fisheries and community-based coastal zone management.⁷ More recently, the rapid spread of monocropped boom crops, such as oil palm and shrimp, into both the upland and coastal zones, displacing more biodiverse agrarian ecologies, has drawn the critical attention of political ecologists, with the concept of land grabs often the hook.⁸

In tackling the above issues, political ecology researchers have generally not been content simply to do good academic work. Almost always, their research topics have been provoked by some kind of ongoing politics, usually involving ways in which resident peoples in valued ecologies might be marginalized or displaced by large-scale development projects and programmes, by conservation programmes or by private investment in high-value cash crops, tree plantations, dams and other profitable activities. The research is typically not just about producing better knowledge for academic purposes, but is also an intervention in these processes with a shared goal of informing socially just solutions to environmental problems. The political ecologists who call the region home are particularly important examples of this engaged approach. For example, in Thailand, Chiang Mai-based scholars such as Anan (2000), Laungaramsri (2001), Yos (2004) and Chusak (1996) are all noted for their ongoing commitments to the lives of upland minorities, fisherfolk and smallholder agriculturalists, and for helping to inform social movements through analyses of how power shapes the relationship between nature, resource-dependent communities and the state. Chiang Mai University's PhD programme in sustainable development has been an important training centre for political ecology scholars now located in educational institutions across Thailand and mainland Southeast Asia. There are many scholars in other Southeast Asia-based institutions, or who worked with NGOs or government before entering PhD programmes, who also exemplify this engaged approach to political ecology scholarship.⁹ Environment and development NGOs also produce and engage political ecology work. There are too many to name here, but the largest include the Center for International Forestry Research (CIFOR) and the Center for People and Forests (RECOFTC).

In the remainder of this chapter, we will cover three significant political ecology contributions to environmental studies in Southeast Asia: first, a rethinking of the place of 'nature' in human activities; second, a focus on how marginalized people are often displaced by state and private-sector actors; and third, critical attention to 'environmental myths'.

Rethinking nature

The first contribution of political ecology to the study of environmental change in Southeast Asia that we highlight is the insistence that we take seriously the way that social and ecological processes are intertwined and inseparable. Put differently, political ecologists have explored in detail how ecologies are shaped by social, cultural, political and biophysical processes. This is distinct from a more managerial stance that sees nature as ontologically separate from human society, with the primary points of interaction being during management and use. The insistence that nature and society are intertwined much more fundamentally was not an innovation of political ecology but was inherited from one of its constituent fields – cultural ecology, whose emphasis was on how different cultural groups adapted, and were adapted to, the ecologies in which they lived. It has also drawn on some branches of environmental history, for example, on Cronon's (1996) rethinking of wilderness. The notion has been taken further in political ecology to insist that the very ecological landscapes that are the focus of both extractive and conservation activities are almost always already the product of social and political processes that are not only local but multi-scalar. This conception of nature as a social entity has been important and controversial, not only for theoretical or conceptual reasons but also, in keeping with political ecology's applied political stance, because this assertion has translated into critical questioning of received wisdom regarding the negative impact humans have on biodiversity and forest cover, and into the defence of human communities threatened with displacement from landscapes defined as sensitive. Two bodies of literature are particularly worth mentioning here: that which deals with swidden cultivation and that which deals with forest conservation.

Swidden cultivation – otherwise referred to, often erroneously, as shifting cultivation – has been a subject of interest in Southeast Asia for some time. As the principal mode of cultivation for small farmers in tropical forest landscapes, its connection to culture, social organization and, eventually, politics has been a primary occupation of political ecologists and the cultural ecologists who came before them. Although the launch of the 1957 campaign by the UN Food and Agriculture Organization (FAO) to eradicate swidden cultivation is frequently blamed for the frequency with which Southeast Asian states enacted punishing legislation and policies towards swidden cultivators, it would be inaccurate to suggest that negative attitudes towards this agricultural system have their origins with the FAO. Swidden has long been associated with ethnic minorities of the region, and the negative attitudes towards people frequently seen as either ‘more primitive’ or as ‘foreign’ existed long before 1957 and were the target of numerous government policies that aimed to either assimilate or expel them from nation states (Fox *et al.*, 2009; Vandergeest and Peluso, 2006). Regardless, the FAO position gave legitimacy to a new round of policies that were aimed at upland populations and were designed to eliminate shifting cultivation. Regional governments have continued to increase their control over swidden lands and the people who farm them, drawing on both environmental and development rationales. The assertion is that sedentary agriculture provides better food supply, does not produce the same soil erosion problems and takes up less land – therefore allowing for more mature forest and thus more biodiversity. The landscape being produced by these policies is more simple and more legible than that produced through swidden, since it is dominated by mature forest on one hand and intensive agriculture on the other, without the complex and dynamic fallows and forest regrowths that characterize swidden landscapes.

Political ecologists have challenged assertions that justify the control or elimination of swidden, with some of this work being remarkable in its careful attention to ecology and in its use of mixed methodology. Forsyth (1994; 1996), for instance, has used Cesium 137 to conduct careful analysis of soil erosion in the Thai uplands and concludes that swidden cultivation is not the primary, or even a significant, cause of soil erosion. Similarly, Schmidt-Vogt (1998) has shown, through careful ecological sampling and plant identification, that different fallow stages contain higher levels of species diversity than mature forest and, importantly, some species used by local residents are present in only certain fallow stages. Brookfield *et al.* (2002) have demonstrated high levels of biodiversity in humanized landscapes through careful inventories of agrobiodiversity. And researchers such as Fox *et al.* (2000) have demonstrated that, contrary to popular wisdom, even with high population densities, swidden can produce high biodiversity. Such work, often published in journals highly regarded in scientific circles, has added scientific weight to academics’ assertions over decades that, indeed, the ‘problem’ of shifting cultivation had been vastly overstated.¹⁰ It has also influenced political ecologists such as Sturgeon (2005) and Roth (2004) to question the environmental and social logic of producing landscapes that are either agriculture or mature forest, a common land-management practice in the region. These and other studies have suggested that legitimizing a forest–farm mosaic containing multiple fallow stages might actually be preferable on ecological, never mind political, terms. In short, political ecologists have effectively built upon earlier cultural ecology work to assert that forest farmers can have a positive impact on biodiversity.

Taken together, these – and other – studies undermine a notion of a nature separate from humans, and run counter to the mainstream understanding of economic forests as separate from agriculture or of conservation forest as separate from humans. These powerful visions were encouraged both by foresters who aimed to refashion forest for the purpose of sustainable use (Peluso and Vandergeest, 2001) and by conservationists and others who helped circulate images of Southeast Asian forest as primal and inhabited by many exotic, often unknown, species

(for example, Gerold *et al.*, 2004). In contrast to these conventional approaches to conservation that insist on the protection of nature from humans, political ecological work in the region has taken a more social–nature approach to conservation that recognizes how rural farmers create and maintain a nature worth conserving. If human habitation of forest landscapes does not always have negative environmental consequences but could – and, indeed, often did – result in biodiverse landscapes, then the justification for creating forest as separate from humans seems an unnecessary move and perhaps more politically than environmentally motivated. Early work on protected areas in the region highlighted conservation as a source of injustice for people living in forests (Chusak, 1996; Ghimire, 1994; Lohmann, 1999; Vandergeest, 1996b), and helped fuel a strong push to accept local people’s rights to remain in forested landscapes and have a say in their management – a stance not without considerable detractors (for example, Brandon *et al.*, 1998). Critical political ecology writing on conservation in the region has focused on the land rights of local people,¹¹ the trajectory of parks and protected area development (for example, Chusak, 1996; Vandergeest, 1996b; Roth, 2004; Dressler, 2009) and the compatibility of local use with conservation (for example, Peluso, 1992). A person’s position in the conservation debate is often tied up with his or her position on the question of whether rural people should be displaced from land and ecologies with high conservation values, or whether they should be included in how these were managed and, if they were included, under what conditions – which we discuss in the next section.

The assertion of a nature entwined with and shaped by people was quickly adopted in the region in an era when activists had left behind earlier agrarian struggles and peasant mobilizations based in the core agriculture zones, and moved ‘uphill’ to take up environmental issues. Once there, they found many people, often ethnic minority or ‘tribal’, who were losing access to forests as state resource agencies sought to solidify their control over these spaces. The call to defend the resource rights of forest-dwelling people manifested itself in distinct ways. In Thailand, the debate over the community forestry Bill and the extent to which community forests should or should not be located inside protected areas was effectively a debate about the kind of nature that should be conserved and how that nature is produced.¹² In the Philippines, concerted international and national effort led to the 1992 National Integrated Protected Area Act and the 1997 Indigenous Peoples Rights Act, which together were meant to recognize indigenous land rights even in conservation territories (Tebtebba Foundation, 2008). In Indonesia, activist networks mobilized around the idea that resident peoples could live with and manage forest and marine ecologies through local customary laws or *adat*, and sought recognition for these laws from the state as a way of securing rights to territories and resources (Li, 2001; Zerner, 1994).

Political stances taken on behalf of forest residents can lead to defences that construct an image of an upland resident as inherently conservation-minded – an ideal forest resident with nothing but subsistence aspirations. Such narratives have also come under critique by political ecologists, something we take up in the final section of the chapter.

Resource access and tenure

Political ecology scholarship in Southeast Asia has been particularly concerned with how rural residents are able to access, or are excluded from, natural resources for the purpose of making a livelihood. For this reason, studies of the politics around forests, water, fisheries or land for agriculture have largely defined the field, with examples of urban political ecology or political ecologies that are not directly about resource access for rural people remaining relatively rare.

During the 1990s, political ecologists employed the term ‘resource tenure’ as a way of expanding the previous focus on land tenure in agrarian studies: the basic idea was that not all

claims to access, use and manage a resource were tied to ownership of land. For example, rights to trees often went to the person who planted the tree, regardless of the status of the land on which the tree was planted; moreover, access to different parts of the tree could also be allocated in complex ways, as shown by Peluso (1996) in her study of the ways people in Borneo access the mythologized durian tree. Because they last for multiple generations, durian trees often anchor the fruit groves that in turn mark ancestor-based claims to a particular place or watershed. These observations could also be extended to land, to show how non-documented relationships by which people access land for farming were not as bounded as in a formal land tenure document, but could involve a hierarchy of claims based on kinship relations (Anan, 1994).

Although the existence of overlapping claims might seem like an interesting but ultimately obscure academic observation, it became important for how political ecology intervened in conflicts over land in upland areas. All over Southeast Asia, forestry departments had claimed ownership of the land and resources in these areas on behalf of the state for the purpose of production forestry, forest conservation or watershed protection. Vandergeest and Peluso¹³ trace how state agencies in Indonesia, Malaysia and Thailand had claimed these areas through a process of state territorialization. Key elements relevant to these conflicts included how territorialization absorbed distinct resource rights into land rights (so the ownership of a tree goes to the owner of the land), and how territorialization shifted control of resources away from specific resources to the control over what people can and cannot do in the territory where resources are located. The authors used archival research to elaborate how colonial-era states claimed the sovereign right to create and adjudicate territorialized rights to land, and how states subsequently divided their territories into complex and overlapping zones for administrative purposes. They paid particular attention to how forestry departments demarcated large areas of land as state-owned 'political forests' – encompassing over 40 per cent of the land area of Thailand and 70 per cent of Indonesia. The demarcation of these forests rendered the uses and even the presence of forest residents illegal. In contemporary terminology, we could call this an immense land grab, a grab that has made possible the current land grabs that have drawn considerable international attention – since contemporary land grabs usually involve government allocating land to private investors that they had already claimed through territorialization.

During the 1990s, the concepts of territorialization and resource tenure were picked up both by scholars tracing how forest residents were marginalized and by scholar-activists, who found in this narrative a powerful argument for deconstructing and de-legitimizing how state forestry departments claimed the right to control land use in political forests. Moreover, the observation that resource rights were not necessarily tied to land rights suggested an opening for activists and people's networks. Instead of the near-impossible goal of returning land ownership to resident peoples, they aimed instead for resident peoples to be allocated more limited and often conditional rights to use forest resources, while leaving formal land ownership in the hands of the state. In many Southeast Asian countries, movements emerged to contest state territorial claims to political forest: most prominently, the community forest movement in Thailand (Laungaramsri, 2001), the movement to recover *adat* rules for governing access to resources in Indonesia (Li, 2000; 2001) and the movement to recover ancestral lands in the Philippines (Dressler, 2009).

Political ecology in Southeast Asia thus emerged in part as a way to explain how forest people were marginalized by state resource agencies. These explanations were often derived through close working relationships with activists involved in countering state claims through movements such as those noted above. This basic orientation has translated into other resource sectors as well. For example, political ecologists working on water and dams have oriented their work around contesting state 'sovereign' claims to water management and control, highlighting the injustice of dams built to produce hydroelectricity for cities while relatively poor rural

people gain few benefits and many negative consequences. These consequences include not only large-scale displacement from land due to flooding in some cases (Dao, 2010), but also the degradation of fisheries and of a variety of riverside resources (Barney, 2007). Fisheries scientists have shown how Southeast Asian rivers are home to hundreds of aquatic species that migrate annually up and down the rivers and between rivers and floodplains on a seasonal basis, linked to the annual monsoon. Dams block these migrations, leading to significant losses in fisheries resources. Political ecologists and activists have used this destruction of inland fisheries as a key point of leverage in struggles against dams, and dam proposals have helped provoke some fascinating studies of migratory fish, often with the participation of rural fishers (Rabibhda *et al.*, 2004; Baird and Flaherty, 2005).

Outside of their connection with the impacts of dams, inland fisheries have been a relatively neglected resource in political ecology work (but see Bush, 2004; Tubtim and Hirsch, 2005), despite their importance for rural food security and livelihood. One reason may be that the ownership of inland fisheries is generally not claimed by state agencies or private investors at the expense of rural people, with a few important exceptions that have drawn the attention of political ecologists – for example, the privatization of inland fisheries in Cambodia (Resurreccion, 2006).

Although the volume of studies is small compared to work on the uplands, political ecologists have also made some important interventions around coastal fisheries, usually involving fieldwork among small-scale fishers whose access to fisheries has been threatened by degradation of the resource by large-scale fishers, or by exclusionary marine conservation.¹⁴ Celia Lowe's (2006) *Wild Profusion* is an example of what a fine-grained fieldwork approach can contribute to this field; she helps us understand how fishers can participate in destroying the marine resources on which they rely through the use of cyanide, while pointing the way forward in finding ways to reduce these sorts of destructive activities. Rather than blame the small fishers, this work highlights how marine ecosystem destruction can be traced to large-scale commercial fishers and/or traders who hire small fishers to use destructive practices. As mentioned above, research on marine ecologies and fisheries has generally not been as multi-scalar as research on forestry, and larger-scale political ecological work on the fisheries sector that parallels the sort of work done by researchers such as Peter Dauvergne or Keith Barney on the political economy of forestry, or Philip Hirsch on the political economy of dams, has, to our knowledge, not yet been done.

Environmental narratives and myths

A final important contribution of political ecology to environmental studies in Southeast Asia concerns the way that political ecology scholars have opened up for examination the way that key concepts or narratives in environmental studies have been produced, and the effects of these concepts in terms of how they both enable and limit how rural people struggle for resource access. This contribution emerged out of the cultural turn in political ecology, a turn that saw political ecologists draw on poststructuralist theorists such as Foucault (Li, 2007), as well as more broadly from both anthropology and science studies. What has made these analyses particularly controversial is that they have taken on not just the openly exclusionary narratives that blame rural people for resource degradation, but also narratives that advocate for the resource rights of rural people and their capacity to manage natural resources sustainably.

Political ecology researchers have engaged the question of environmental narratives from the time that it emerged as a field of research, with the initial focus being neo-Malthusian degradation narratives that sought to counter conventional assumptions blaming marginalized rural people for ecological degradation. Some key themes included the rethinking of swidden, as we

discussed above, as well as applying the political ecology critique of what has sometimes been called the Theory of Himalayan Environmental Degradation¹⁵ to environmental controversies in mountainous Southeast Asia. For example, Forsyth and Walker published research that showed upland agriculture was not responsible for either serious soil erosion (Forsyth, 1994; 1996) or the loss of water supplies to the lowlands (Walker, 2003). However, simply showing that these theses were empirically of limited use or sometimes just plain wrong often had little effect on the stability of these ‘environmental myths’, or their continued use as the basis of environmental policies. The cultural politics stream in political ecology thus turned its attention to explaining why environmental narratives that were so obviously wrong – and had been shown to be wrong by scientific research – persisted and continued to be the basis of policy by government and major development agencies, often with major displacement effects. Timothy Forsyth (2003) led the way by drawing on science studies to elaborate a theory of environmental myths or orthodoxies. These are simplifying explanations of environmental degradation that have been shown by field research to be wrong or missing important elements; that tend to blame people living in affected regions; and that often are the basis of policy for government, environmental groups and development donors. Their appeals lie in how their simplifications can lead to easy policy prescriptions, in how they serve to reinforce arguments for consolidating the power of state resource agencies and in how they resonate with broader narratives, such as that which assumes that nature tends towards equilibriums that are free from human disturbance. Forsyth and Walker (2008) subsequently elaborated on these ideas in their book *Forest Guardians, Forest Destroyers*, which took aim at the narratives advanced by powerful actors and activist academics alike.

Many political ecologists have gone beyond critiquing the narratives of the powerful to take a critical approach to the narratives produced by social movements and by academic research that aimed at supporting the resource claims of marginalized peoples. A discomfort with invoking notions of traditional community or native traditions can be traced in part to an anthropological critique of how terms such as ‘native’ have been deployed to effectively ‘incarcerate’ people who are far from the metropolitan west, in the sense that as natives they are often seen as ecologically and culturally tied to specific places through the language of niches, material skills and so on (Appadurai, 1988, p. 37). In Southeast Asian political ecology, this position has been stated particularly clearly in Tania Li’s (2002) influential article ‘Engaging simplifications’, in which she takes on community-based natural resource management (CBNRM) as a basis for advocating for the rights of farmers living on land claimed by state agencies. Writing about insular Southeast Asia, Li argues that, contrary to the image of stable rural communities, upland peoples are often mobile; that they are not always formed into bounded groups that can be called communities; that their resource management practices vary considerably; and that they are often market-oriented and interested in using tree crops to make money, among other things. Why is it, she asks, that rural people are being asked to conserve forests after really valuable timber is already removed? Why are they being offered more control over natural resources only if they commit to conserving what little forest remains, and limit their economic aspirations? What are the implications for justice (Li, 2002, p. 270)? With Michael Dove (1993), who coined the term ‘rainforest crunch’ to describe how forest residents are encouraged to extract minor or less valuable forest products while anything in the forest that really is valuable is quickly removed from their grasp, Li argues that perhaps forest residents are denied significant resource rights under CBNRM schemes because they are marginal and poor. And, contrary to the idea that CBNRM provides upland citizens with increased autonomy, she argues that it may actually increase state control over communities insofar as it often takes the form of an intensified territorialization, now through creating territorialized community forests under the surveillance of the state, effectively pinning down (or incarcerating) upland residents. In the end,

she does not reject the term ‘community’ altogether, but calls for an approach that sees community as created, not pre-existing, and that draws on a more useful vocabulary of peasant struggle, class conflict and democracy.

A series of other writers have also critically examined limiting assumptions embedded in key advocacy terms (for example, Brosius *et al.*, 1998). In mainland Southeast Asia, where until recently the bulk of political ecology writing and debate concerned Thailand, debates have often turned around the usefulness of community forestry as a way of advocating for resource rights in political forests. Here it was Andrew Walker who most vigorously took on community forest advocacy, coining terms such as ‘arborealization’ (Walker, 2004) to describe how the community forest movement was recasting upland people’s livelihoods as forest livelihoods by virtue of proximity to forests. Arborealization includes a non-commercial livelihood orientation, an emphasis on shifting cultivation and forest product collection and the provision of environmental services in the form of forest conservation. This, he argued, diverted attention away from key livelihood issues for upland people – especially the question of rights to agricultural land. Walker argued that many upland people need land title so that they can use land as security for obtaining loans for investment in productive cash-crop agriculture, since cash crops, not subsistence, are often key to the livelihoods of upland peoples. Like Tania Li, he pointed to the injustice of making a subgroup of the nation’s farmers – those who happen to live in state-imposed forest reserves – responsible for forest conservation, while denying them the right to participate equally in the market economy. More broadly, Forsyth and Walker (2008) have written that environmentalist narratives are often simplistic – for example, in how they divide groups of people, often along essentialized ethnic lines, into the categories of forest guardian or forest destroyer, neglecting the considerably more complex relations people have with forests that cannot easily be described by these terms. These narratives cannot be destabilized through more scientific research showing that they are wrong. Instead, what is necessary is to engage the politics through which they are produced.

This ongoing debate has grappled with a real and difficult dilemma. Should activists mobilize around simplifications that highlight upland people’s capacity to manage resources sustainably, because these simplifications can be effective in situations when a demonstration of environmental citizenship is a condition for maintaining access to livelihood resources? Or should they aim for a more fundamental critique, one that counters how states have, in effect, grabbed away their lands and resources? Should conditions on resource rights be accepted as a compromise in order to obtain legal recognition? These questions resonate through the region, and have enormous significance for NGOs and activists. For example, Tania Li (2007, p. 167ff) has provided a compelling account of the intense debates that erupted among activists when a group of farmers occupied and cleared forests for farms in Lore Lindu National Park in Indonesia in a manner that contradicted their previously romanticized identities. According to Li (2007, pp. 169–170), NGOs and others divided into two clusters: one that supported the occupation and emphasized social justice and agrarian reform, and another that opposed the occupation and emphasized park-based conservation. We are not about to resolve this debate here, but we hope that we have shed some light on why different people take opposing positions. These are broader dilemmas that speak to environmental issues around the world, to which Southeast Asia-based research has made influential contributions.

Limits and new directions

We can finish this account by mentioning, though not in detail, some more recent themes in political ecology research in Southeast Asia. The topic that has drawn perhaps the most

attention over the past few years has been the implications for resident peoples and upland/coastal ecologies of the rapid expansion of industrial tree plantations (rubber, oil palm, cacao, coffee and eucalyptus),¹⁶ industrial aquaculture (shrimp and pangasius)¹⁷ and carbon forestry.¹⁸ The displacement effects for rural residents of industrial tree plantations have drawn particular attention, while the associated transformation in labour relations is also finally drawing the attention of political ecology scholars (Li, 2011).

Central concepts that political ecology writers are currently engaging concern neoliberalization and the environment (for example, Nevins and Peluso, 2008), as well as land grabbing, often understood in relation to broader trends in land control and rural dispossession and exclusion (for example, Peluso and Lund, 2011; Hall *et al.*, 2011; Hall, 2011; Li, 2010; 2014; Sikor, 2012). The empirical orientation of much political ecology research has led researchers to explore less neoliberalism and more the neoliberalization of the environment, understood as an incomplete and messy process that articulates with many other socio-ecological processes (Roth and Dressler, 2012). Thus, Dressler and Roth (2011) make the point that the neoliberalization of conservation in the region can have contradictory outcomes for residents, who do not inherently fare better or worse than under traditional state-led systems, and they caution against seeing neoliberal conservation as entirely distinct from traditional command-and-control conservation. Similarly, the group of scholars who have been examining new payment-for-ecosystem-services programmes in Vietnam and Cambodia¹⁹ argue that the state continues to play a significant role in market-oriented approaches.

Some of the current debates around 'land grabs' and neoliberalization in Southeast Asia are similarly indicative of a distinctively political ecology approach – one that starts from the perspective of the 'land manager' and seeks to complicate overarching narratives and simplifications. In the case of land grabs, for example, Peluso and Lund (2011) ask what is so new about land grabbing, pointing to the colonial histories of land grabbing by European colonizers. They suggest that there are differences compared to previous land grabs, for example, in the mechanisms of land control, and the political economic context of neoliberalism, but what is important is that they and other writers (for example, Hall, 2011) complicate the concept of land grabs by locating it in multiple other processes, such as boom crops, territorialization, the biophysical characteristics of particular environments, and more.

In terms of limitations, Southeast Asian political ecology has been defined by a relatively limited set of topics, leaving unaddressed a series of sectors and topics that have drawn the attention of political ecologists elsewhere. As we have discussed, studies of the politics around forests, water, fisheries or land for agriculture have defined the field. Examples of urban and peri-urban political ecology remain relatively rare in Southeast Asia.²⁰ Political ecology scholarship has directed its attention primarily to uplands and rivers, with coastal sites also drawing some attention; thus, core agricultural zones, outside of their relationships to river development, have drawn almost no attention from political ecology researchers – although some recent work on export-oriented agriculture and aquaculture, as well as on sustainability certification, could indicate a move back in this direction.²¹ We could add that there have been relatively few studies on fisheries outside the impact of dams, and no multi-scalar studies that take up the broader political economy of fishing – surprising, given the importance of fisheries for food security and livelihoods in Southeast Asia. While much recent research has focused considerable attention on export crops – such as shrimp, rubber, oil palm and more – there has been relatively less attention to crops and fisheries oriented to local markets. Finally, as noted above, rural wage labour relations have only recently become the focus of attention among some scholars, although many authors influenced by political economy and peasant studies have long included work and labour in a less direct fashion.

Wrapping up

Our account has demonstrated how one of the constants of political ecological research is that it takes up rural environmental issues where marginalized peoples find their access to resources taken away or degraded. A central contribution has been, and continues to be, that it generally takes as its starting point the situation of the ‘land manager’, or the water manager, or the fisher, and so on, and locates their situation and the threats they face in a multi-scalar analysis. In earlier stages, the focus was often on dispossession or marginalization by state actors through territorialization and related processes, while in more recent years more attention has shifted to corporations, commodity chains, NGOs or private investors. Political ecology has also provided a Southeast Asia-based critique of an ontology that seeks to separate out nature from people, drawing out how that ontology helps to legitimize coercive policies pursued by states and conservationists that seek to separate land managers from the land and resources from which they derive livelihoods. Finally, combining an empirical cultural ecology with a post-structural suspicion of meta-narratives and simplification has led to a predisposition to complicate environmental narratives regardless of their ideological orientation, with particular attention to how they inform policies, practices and politics that routinely constrain land managers.

Notes

- 1 While we take a regional approach, our observations and conclusions on the ways in which political ecology has influenced Southeast Asian scholarship and vice-versa are admittedly shaped by our position as Thailand specialists. Our apologies in advance to all of the good political ecology work elsewhere that we have not managed to reference.
- 2 See Vandergeest and Peluso, 1995; Vandergeest, 1996a; Peluso and Vandergeest, 2001. In this chapter, we will use endnotes when we are listing authors whose work is an example of a particular approach.
- 3 Important authors include Anan Ganjanapan, Brosius, Brookfield, Bryant, Dauvergne, Li, Peluso, Laungaramsri, Potter, Sikor, Vandergeest and Peluso. Most will be mentioned later in this chapter.
- 4 See Peluso *et al.*, 1995 for a review; important studies included those by Conklin (1954), Kunstadter *et al.* (1978) and Dove (1983).
- 5 Examples on mainland Southeast Asia include Hirsch and Lohmann, 1989; Hirsch, 1998; Hirsch and Wyatt, 2004; Lebel *et al.*, 2005; Sneddon and Fox, 2006; Molle *et al.*, 2009; Foran and Manorom, 2009; and Hirsch, 2010. Environmental movements in Indonesia also began with opposition to dam building, although less has been written about this – but see Aditjondro, 2002.
- 6 See the influential ‘local knowledge’ report based on villager research on the effect of Pak Mun dam on fisheries (Rabibhda *et al.*, 2004); see also Baird *et al.*, 2005; Sneddon, 2007. An exception to the pattern of linking inland fisheries to dams is Simon Bush’s 2004 dissertation based on research in Lao PDR; see also Bush, 2008.
- 7 For example, Zerner, 1994; Vandergeest *et al.*, 1999; Armitage, 2002; Lowe, 2006; Marschke and Bush, 2010; Marschke, 2012.
- 8 Examples are numerous. On boom crops, see Hall, 2011; on rubber, Zeigler *et al.*, 2009. Keith Barney (2008; 2009) has done in-depth multi-scalar research on forest plantations in Lao PDR.
- 9 A few examples include Khamla Phanvilay and the broader group of researchers working on forestry issues at the National University of Laos (for example, Fujita and Phanvilay, 2008); Kanokwan Manorom in Ubon Ratchathani University in Northeastern Thailand (for example, Foran and Manorom, 2009); Onprom (2013), who worked for the Center for People and Forests (RECOFTC) as a community forestry advocate for many years before obtaining a PhD and becoming faculty at Kasetsart University; Nga Dao (2010), who recently completed her PhD at York University in Canada and is the cofounder and a director of the Center for Water Resources Conservation and Development (WARECOD), a Vietnamese NGO doing critical work on dam building; Suraya Affif and Noer Fauzi Rachman, who worked in environmental and agrarian movements in Indonesia before entering the PhD programme at Berkeley (for example, Peluso *et al.*, 2008); and Fadzilah Majid Cooke of Sabah University in Malaysia, who is a scholar of forestry politics and development.

- 10 See previous citations by Fox and Conklin, as well as Ganjanapan, 1998 and Laungaramsri, 2001.
- 11 For example, Lohmann, 1993; Vandergeest, 1996b; Morris-Jung and Roth, 2010.
- 12 For example, Ganjanapan, 2000; Laungaramsri, 2001; Johnson and Forsyth, 2002; Onprom, 2013.
- 13 See Vandergeest and Peluso, 1995; Peluso and Vandergeest, 2001.
- 14 For example, Armitage, 2002; Lowe, 2006; Marschke and Bush, 2010; Marschke 2012.
- 15 Ives and Messerli, 1989; Forsyth, 1996; Blaikie and Muldavin, 2004.
- 16 There are numerous studies across Southeast Asia; some of these include McCarthy and Cramb, 2009; McCarthy and Zen, 2012; Zeigler *et al.*, 2009; and Fox and Castella, 2013, as well as publications by Barney, Li and Hall cited elsewhere in this chapter.
- 17 For example, Ha *et al.*, 2012; Anh *et al.*, 2011; Vandergeest and Unno, 2012.
- 18 For example, Mahanty *et al.*, 2012.
- 19 These include McElwee (2012), To *et al.* (2012) and Milne and Adams (2012).
- 20 Important exceptions include Michelle Kooy and Karen Bakker on Jakarta (Kooy and Bakker, 2008a; 2008b; Bakker, 2007) and Evan Fraser (2002) on Bangkok.
- 21 For example, Ha *et al.*, 2012; Vandergeest and Unno, 2012; McCarthy and Zen, 2012.

References

- Aditjondro, G. J. (2002) 'Large dam victims and their defenders: The emergence of an anti-dam movement in Indonesia', in P. Hirsch and C. Warren (eds) *The Politics of Environment in Southeast Asia*, Routledge, London and New York, pp. 29–54.
- Anh, P. T., Bush, S., Mol, A. P. J. and Kroeze, C. (2011) 'The multi-level governance of Vietnamese aquaculture: Global certification, national standards, local cooperatives', *Journal of Environmental Policy and Planning*, vol 13, no 4, pp. 373–397.
- Appadurai, A. (1988) 'Putting hierarchy in its place', *Cultural Anthropology*, vol 3, no 1, pp. 36–49.
- Armitage, D. (2002) 'Socio-institutional dynamics and the political ecology of mangrove forest conservation in Central Sulawesi, Indonesia', *Global Environmental Change*, vol 12, no 3, pp. 203–217.
- Baird, I. G. and Flaherty, M. S. (2005) 'Mekong River fish conservation zones in southern Laos: Assessing effectiveness using local ecological knowledge', *Environmental Management*, vol 36, no 3, pp. 439–454.
- Bakker, K. (2007) 'Trickle down? Private sector participation and the pro-poor water supply debate in Jakarta, Indonesia', *Geoforum*, vol 38, no 5, pp. 855–868.
- Barney, K. (2007) *Power, Progress and Impoverishment: Plantations, Hydropower, Ecological Change and Community Transformation in Hinboun District, Lao PDR*, York Centre for Asian Research Paper No. 1, Centre for International Forestry Research, Probe International, Rights and Resources Initiative, and York Centre for Asian Research, Toronto and Washington, DC.
- Barney, K. (2008) 'China and the production of forestlands in Lao PDR: A political ecology of transnational enclosure', in J. Nevins and N. L. Peluso (eds) *Taking Southeast Asia to Market: Commodities, Nature, and People in the Neoliberal Age*, Cornell University Press, Ithaca, pp. 91–107.
- Barney, K. (2009) 'Laos and the making of a "relational" resource frontier', *Geographical Journal*, vol 175, no 2, pp. 146–159.
- Blaikie, P. (1985) *Political Economy of Soil Erosion in Developing Countries*, Methuen, London.
- Blaikie, P. and Brookfield, H. (1987) *Land Degradation and Society*, Methuen, London.
- Blaikie, P. and Muldavin, J. S. S. (2004) 'Upstream, downstream, China, India: The politics of environment in the Himalayan region', *Annals of the Association of American Geographers*, vol 94, no 3, pp. 520–548.
- Brandon, K., Redford, K. and Sanderson, S. (1998) *Parks in Peril: People, Politics, and Protected Areas*, Island Press, Washington, DC.
- Broad, R. and Cavanagh, J. (1994) *Plundering Paradise: The Struggle for the Environment in the Philippines*, University of California Press, Berkeley.
- Brookfield, H., Padoch, C., Parsons, H. and Stocking, M. (2002) *Cultivating Biodiversity: Understanding, Analysing and Using Agricultural Diversity*, ITDG Publishing, London.
- Brosius, J. P. (1999a) 'Green dots, pink hearts: Displacing politics from the Malaysian rain forest', *American Anthropologist*, vol 101, no 1, pp. 36–57.
- Brosius, J. P. (1999b) 'Analyses and interventions', *Current Anthropology*, vol 40, no 3, pp. 277–310.

- Brosius, J. P., Tsing, A. L. and Zerner, C. (1998) 'Representing communities: Histories and politics of community-based natural resource management', *Society & Natural Resources*, vol 11, no 2, pp. 157–168.
- Brosius, J. P., Tsing, A. L. and Zerner, C. (2005) *Communities and Conservation: Histories and Politics of Community-based Natural Resource Management*, AltaMira Press, Walnut Creek, California.
- Bryant, R. L. (1997) *The Political Ecology of Forestry in Burma, 1824–1994*, University of Hawaii Press, Honolulu.
- Bryant, R. L. and Bailey, S. (1997) *Third World Political Ecology*, Routledge, London and New York.
- Bush, S. (2004) 'A political ecology of living aquatic resources in Lao PDR', PhD thesis, School of Geosciences, University of Sydney.
- Bush, S. R. (2008) 'Contextualising fisheries policy in the Lower Mekong Basin', *Journal of Southeast Asian Studies*, vol 39, no 3, pp. 329–353.
- Chusak, W. (1996) 'Political ecology of the expansion of protected areas in northern Thailand', paper presented at the Sixth International Conference on Thai Studies, Chiang Mai.
- Conklin, H. C. (1954) 'An ethnoecological approach to shifting agriculture', *Transactions of the New York Academy of Sciences*, vol 17, no 2, pp. 133–142.
- Cronon, W. (1996) 'The trouble with wilderness: Or, getting back to the wrong nature', *Environmental History*, vol 1, no 1, pp. 7–28.
- Dao, N. (2010) 'Dam development in Vietnam: The evolution of dam-induced resettlement policy', *Water Alternatives*, vol 3, no 2, pp. 324–340.
- Dauvergne, P. (1997) *Shadows in the Forest: Japan and the Politics of Timber in Southeast Asia*, MIT Press, Cambridge, Massachusetts.
- Dove, M. R. (1983) 'Theories of swidden agriculture, and the political economy of ignorance', *Agroforestry Systems*, vol 1, no 2, pp. 85–99.
- Dove, M. R. (1993) 'A revisionist view of tropical deforestation and development', *Environmental Conservation*, vol 20, no 1, pp. 17–24.
- Dressler, W. (2009) *Old Thoughts in New Ideas: State Conservation Measures, Livelihood and Development on Palawan Island*, Ateneo de Manila University Press, Manila.
- Dressler, W. and Roth, R. (2011) 'The good, the bad, and the contradictory: Neoliberal conservation governance in rural Southeast Asia', *World Development*, vol 39, no 5, pp. 851–862.
- Foran, T. and Manorom, K. (2009) 'Pak Mun dam: Perpetually contested', in F. Molle, T. Foran and M. Käkönen (eds) *Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance*, Earthscan, London, pp. 55–80.
- Forsyth, T. (1994) 'The use of cesium-137 measurements of soil erosion and farmers' perceptions to indicate land degradation amongst shifting cultivators in northern Thailand', *Mountain Research and Development*, vol 13, no 3, pp. 229–244.
- Forsyth, T. (1996) 'Science, myth and knowledge: Testing Himalayan environmental degradation in Thailand', *Geoforum*, vol 27, no 3, pp. 375–392.
- Forsyth, T. (2003) *Critical Political Ecology: The Politics of Environmental Science*, Routledge, London and New York.
- Forsyth, T. and Walker, A. (2008) *Forest Guardians, Forest Destroyers: The Politics of Environmental Knowledge in Northern Thailand*, University of Washington Press, Seattle.
- Fox, J. and Castella, J. C. (2013) 'Expansion of rubber (*Hevea brasiliensis*) in mainland Southeast Asia: What are the prospects for smallholders?', *Journal of Peasant Studies*, vol 40, no 1, pp. 155–170.
- Fox, J., Truong, D. M., Rambo, A. T., Tuyen, N. P., Le Trong, C. and Leisz, S. (2000) 'Shifting cultivation: A new old paradigm for managing tropical forests', *BioScience*, vol 50, no 6, pp. 521–528.
- Fox, J., Fujita, Y., Ngidang, D., Peluso, N., Potter, L., Sakuntaladewi, N., Sturgeon, J. and Thomas, D. (2009) 'Policies, political-economy, and swidden in Southeast Asia', *Human Ecology*, vol 37, no 3, pp. 305–322.
- Fraser, E. D. (2002) 'Urban ecology in Bangkok, Thailand: Community participation, urban agriculture and forestry', *Environments*, vol 30, no 1, pp. 37–50.
- Fujita, Y. and Phanvilay, K. (2008) 'Land and forest allocation in Lao People's Democratic Republic: Comparison of case studies from community-based natural resource management research', *Society and Natural Resources*, vol 21, no 2, pp. 120–133.
- Ganjanapan, A. (1994) 'The northern Thai land tenure system: Local customs versus national laws', *Law and Society Review*, vol 28, no 3, pp. 609–622.
- Ganjanapan, A. (1998) 'The politics of conservation and the complexity of local control of forests in the northern Thai highlands', *Mountain Research and Development*, vol 18, no 1, pp. 71–82.

- Ganjanapan, A. (2000) *Local Control of Land and Forest: Cultural Dimensions of Resource Management in Northern Thailand*, Regional Center for Social Science and Sustainable Development, Faculty of Social Sciences, Chiang Mai University.
- Gerold, G., Fremerey, M. and Guhardja, E. (2004) *Land Use, Nature Conservation and the Stability of Rain-forest Margins in Southeast Asia*, Springer, Heidelberg.
- Ghimire, K. B. (1994) 'Parks and people: Livelihood issues in national parks management in Thailand and Madagascar', *Development and Change*, vol 25, no 1, pp. 195–229.
- Ha, T. T. T., Bush, S. R., Mol, A. P. and van Dijk, H. (2012) 'Organic coasts? Regulatory challenges of certifying integrated shrimp-mangrove production systems in Vietnam', *Journal of Rural Studies*, vol 28, no 2, pp. 631–639.
- Hall, D. (2011) 'Land grabs, land control, and Southeast Asian crop booms', *Journal of Peasant Studies*, vol 38, no 4, pp. 837–857.
- Hall, D., Hirsch, P. and Li, T. M. (2011) *Powers of Exclusion: Land Dilemmas in Southeast Asia*, Singapore University Press, Singapore and University of Hawaii Press, Honolulu.
- Hefner, R. W. (1993) *The Political Economy of Mountain Java: An Interpretive History*, University of California Press, Berkeley.
- Hirsch, P. (1990) *Development Dilemmas in Rural Thailand*, Oxford University Press, Singapore.
- Hirsch, P. (1998) 'Dams, resources and the politics of environment in mainland Southeast Asia', in P. Hirsch and C. Warren (eds) *The Politics of Environment in Southeast Asia: Resources and Resistance*, Routledge, London, pp. 55–70.
- Hirsch, P. (2010) 'The changing political dynamics of dam building on the Mekong', *Water Alternatives*, vol 3, no 2, pp. 312–323.
- Hirsch, P. and Lohmann, L. (1989) 'Contemporary politics of environment in Thailand', *Asian Survey*, vol 29, no 4, pp. 439–451.
- Hirsch, P. and Wyatt, A. (2004) 'Negotiating local livelihoods: Scales of conflict in the Se San River Basin', *Asia Pacific Viewpoint*, vol 45, no 1, pp. 51–68.
- Ives, J. D. and Messerli, B. (1989) *The Himalayan Dilemma: Reconciling Development and Conservation*, Routledge, London and New York.
- Johnson, C. and Forsyth, T. (2002) 'In the eyes of the state: Negotiating a "rights-based approach" to forest conservation in Thailand', *World Development*, vol 30, no 9, pp. 1591–1605.
- Kooy, M. and Bakker, K. (2008a) 'Splintered networks: The colonial and contemporary waters of Jakarta', *Geoforum*, vol 39, no 6, pp. 1843–1858.
- Kooy, M. and Bakker, K. (2008b) 'Technologies of government: Constituting subjectivities, spaces, and infrastructures in colonial and contemporary Jakarta', *International Journal of Urban and Regional Research*, vol 32, no 2, pp. 375–391.
- Kunstadter, P., Chapman, E. C. and Sabhasri, S. (1978) *Farmers in the Forest: Economic Development and Marginal Agriculture in Northern Thailand*, University of Hawaii Press, Honolulu.
- Laungaramsri, P. (2001) *Redefining Nature: Karen Ecological Knowledge and the Challenge to the Modern Conservation Paradigm*, Earthworm Books, Chennai.
- Lebel, L., Garden, P. and Imamura, M. (2005) 'The politics of scale, position, and place in the governance of water resources in the Mekong region', *Ecology and Society*, vol 10, no 2, article 18.
- Li, T. M. (2000) 'Articulating indigenous identity in Indonesia: Resource politics and the tribal slot', *Comparative Studies in Society and History*, vol 42, no 1, pp. 149–179.
- Li, T. M. (2001) 'Masyarakat adat, difference, and the limits of recognition in Indonesia's forest zone', *Modern Asian Studies*, vol 35, no 3, pp. 645–676.
- Li, T. M. (2002) 'Engaging simplifications: Community-based resource management, market processes and state agendas in upland Southeast Asia', *World Development*, vol 30, no 2, pp. 265–283.
- Li, T. M. (2007) *The Will to Improve: Governmentality, Development, and the Practice of Politics*, Duke University Press Books, Durham, North Carolina.
- Li, T. M. (2010) 'To make live or let die? Rural dispossession and the protection of surplus populations', *Antipode*, vol 41, no 1, pp. 66–93.
- Li, T. M. (2011) 'Centering labor in the land grab debate', *Journal of Peasant Studies*, vol 38, no 2, pp. 281–298.
- Li, T. M. (2014) *Land's End: Capitalist Relations on an Indigenous Frontier*, Duke University Press, Durham, North Carolina.
- Lohmann, L. (1993) 'Land, power and forest colonization in Thailand', *Global Ecology and Biogeography Letters*, vol 3, nos 4–6, pp. 180–191.

- Lohmann, L. (1999) 'Forest cleansing: Racial oppression in scientific nature conservation', Corner House Briefing 13.
- Lowe, C. (2006) *Wild Profusion: Biodiversity Conservation in an Indonesian Archipelago*, Princeton University Press, New Jersey.
- McCarthy, J. F. and Cramb, R. A. (2009) 'Policy narratives, landholder engagement, and oil palm expansion on the Malaysian and Indonesian frontiers', *Geographical Journal*, vol 175, no 2, pp. 112–123.
- McCarthy, J. F. and Zen, Z. (2012) 'Regulating the oil palm boom: Assessing the effectiveness of environmental governance approaches to agro-industrial pollution in Indonesia', *Law and Policy*, vol 32, no 1, pp. 153–179.
- McElwee, P. D. (2012) 'Payments for environmental services as neoliberal market-based forest conservation in Vietnam: Panacea or problem?', *Geoforum*, vol 43, no 3, pp. 412–426.
- Mahanty, S., Milne, S., Dressler, W. and Filer, C. (2012) 'The social life of forest carbon: Property and politics in the production of a new commodity', *Human Ecology*, vol 40, no 5, pp. 661–664.
- Marschke, M. (2012) *Life, Fish and Mangroves: Resource Governance in Coastal Cambodia*, University of Ottawa Press, Ottawa.
- Marschke, M. and Bush, S. (2010) 'Transformations in the coasts and fisheries of Southeast Asia', paper presented at the conference *Revisiting Agrarian Transformations in Southeast Asia: Empirical, Theoretical, and Applied Perspectives*, Chiang Mai, 13–15 May.
- Milne, S. and Adams, B. (2012) 'Market masquerades: Uncovering the politics of community-level payments for environmental services in Cambodia', *Development and Change*, vol 43, no 1, pp. 133–158.
- Molle, F., Foran, T. and Käkönen, M. (2009) *Contested Waterscapes in the Mekong Region: Hydropower, Livelihoods and Governance*, Earthscan, London.
- Morris-Jung, J. and Roth, R. (2010) 'The blurred boundaries of voluntary resettlement: A case of Cat Tien National Park in Vietnam', *Journal of Sustainable Forestry*, vol 29, nos 2–4, pp. 202–220.
- Nevins, J. and Peluso, N. L. (2008) *Taking Southeast Asia to Market: Commodities, Nature, and People in the Neoliberal Age*, Cornell University Press, Ithaca, New York.
- Onprom, S. (2013) 'People, forests and narratives: The politics of the community forestry movement in Thailand', PhD thesis, School of Geosciences, University of Sydney.
- Peluso, N. L. (1992) 'The political ecology of extraction and extractive reserves in East Kalimantan, Indonesia', *Development and Change*, vol 23, no 4, pp. 49–74.
- Peluso, N. L. (1996) 'Fruit trees and family trees in an anthropogenic forest: Ethics of access, property zones, and environmental change in Indonesia', *Comparative Studies in Society and History*, vol 38, no 3, pp. 510–548.
- Peluso, N. L. and Lund, C. (2011) 'New frontiers of land control: Introduction', *Journal of Peasant Studies*, vol 38, no 4, pp. 667–681.
- Peluso, N. L. and Vandergeest, P. (2001) 'Genealogies of the political forest and customary rights in Indonesia, Malaysia, and Thailand', *Journal of Asian Studies*, vol 60, no 3, pp. 761–812.
- Peluso, N. L., Afiff, S. and Rachman, N. F. (2008) 'Claiming the grounds for reform: Agrarian and environmental movements in Indonesia', *Journal of Agrarian Change*, vol 8, nos 2–3, pp. 377–407.
- Peluso, N. L., Vandergeest, P. and Potter, L. (1995) 'Social aspects of forestry in Southeast Asia: A review of postwar trends in the scholarly literature', *Journal of Southeast Asian Studies*, vol 26, no 1, pp. 196–218.
- Rabibhda, A., Vaddhanaphuti, C. and Eosriwong, N. (2004) *The Return of Fish, River Ecology and Local Livelihoods of the Mun River: A Thai Baan (Villagers') Research*, Southeast Asia Rivers Network, Chiang Mai.
- Resurreccion, B. P. (2006) 'Rules, roles and rights: Gender, participation and community fisheries management in Cambodia's Tonle Sap region', *Water Resources Development*, vol 22, no 3, pp. 433–447.
- Robbins, P. (2012) *Political Ecology: A Critical Introduction*, 2nd ed., Blackwell, Malden, Massachusetts (first ed., 2004).
- Roth, R. (2004) 'Spatial organization of environmental knowledge: Conservation conflicts in the inhabited forest of northern Thailand', *Ecology and Society*, vol 9, no 3, article 5.
- Roth, R. J. and Dressler, W. (2012) 'Market-oriented conservation governance: The particularities of place', *Geoforum*, vol 43, no 3, pp. 363–366.
- Schmidt-Vogt, D. (1998) 'Defining degradation: The impacts of swidden on forests in northern Thailand', *Mountain Research and Development*, vol 18, no 2, pp. 135–149.
- Sikor, T. (2012) 'Tree plantations, politics of possession and the absence of land grabs in Vietnam', *Journal of Peasant Studies*, vol 39, nos 3–4, pp. 1077–1101.

- Sneddon, C. (2007) 'Nature's materiality and the circuitous paths of accumulation: Dispossession of freshwater fisheries in Cambodia', *Antipode*, vol 39, no 1, pp. 167–193.
- Sneddon, C. and Fox, C. (2006) 'Rethinking transboundary waters: A critical hydropolitics of the Mekong basin', *Political Geography*, vol 25, no 2, pp. 181–202.
- Sturgeon, J. C. (2005) *Border Landscapes: The Politics of Akha Land Use in China and Thailand*, University of Washington Press, Seattle.
- Tebtebba Foundation (2008) *Philippine Indigenous Peoples and Protected Areas: Review of Policy and Implementation*, a contribution to the World Conservation Congress, October, Forest Peoples Programme.
- To, P. X., Dressler, W. H., Mahanty, S., Pham, T. T. and Zingerli, C. (2012) 'The prospects for payment for ecosystem services (PES) in Vietnam: A look at three payment schemes', *Human Ecology*, vol 40, no 2, pp. 237–249.
- Tubtim, N. and Hirsch, P. (2005) 'Common property as enclosure: A case study of a backswamp in Southern Laos', *Society and Natural Resources*, vol 18, no 1, pp. 41–60.
- Vandergeest, P. (1996a) 'Mapping nature: Territorialization of forest rights in Thailand', *Society and Natural Resources*, vol 9, no 2, pp. 159–175.
- Vandergeest, P. (1996b) 'Property rights in protected areas: Obstacles to community involvement as a solution in Thailand', *Environmental Conservation*, vol 23, no 3, pp. 259–268.
- Vandergeest, P. and Peluso, N. L. (1995) 'Territorialization and state power in Thailand', *Theory and Society*, vol 24, no 3, pp. 385–426.
- Vandergeest, P. and Peluso, N. L. (2006) 'Empires of forestry: Professional forestry and state power in Southeast Asia, Part 2', *Environment and History*, vol 12, no 4, pp. 359–393.
- Vandergeest, P. and Unno, A. (2012) 'A new extraterritoriality? Aquaculture certification, sovereignty, and empire', *Political Geography*, vol 31, no 6, pp. 358–367.
- Vandergeest, P., Flaherty, M. and Miller, P. (1999) 'A political ecology of shrimp aquaculture in Thailand', *Rural Sociology*, vol 64, no 4, pp. 573–596.
- Walker, A. (2003) 'Agricultural transformation and the politics of hydrology in northern Thailand', *Development and Change*, vol 34, no 5, pp. 941–964.
- Walker, A. (2004) 'Seeing farmers for the trees: Community forestry and the arborealisation of agriculture in northern Thailand', *Asia Pacific Viewpoint*, vol 45, no 3, pp. 311–324.
- Yos, S. (2004) 'Karen cultural capital and the political economy of symbolic power', *Asian Ethnicity*, vol 5, no 1, pp. 105–120.
- Zeigler, A. D., Fox, J. M. and Xu, J. (2009) 'The rubber juggernaut', *Science*, vol 324, no 5930, pp. 1024–1025.
- Zerner, C. (1994) 'Through a green lens: The construction of customary environmental law and community in Indonesia's Maluku Islands', *Law and Society Review*, vol 28, no 5, pp. 1079–1122.