People in Between: Conversion and Conservation of Forest Lands in Thailand

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ABSTRACT

The analysis of 'ambiguous lands' and the people who inhabit them is most revealing for understanding environmental deterioration in Thailand. 'Ambiguous lands' are those which are legally owned by the state, but are used and cultivated by local people. Land with an ambiguous property status attracts many different actors: villagers hungry for unoccupied arable lands in the frontiers; government departments looking for new project sites; and conservation agencies searching for new areas to be protected. This article shows, first, how two types of ambiguous land — state-owned but privately-cultivated land, and communal lands — were created. It then examines how the Karen, one of the hill peoples living on the ambiguous lands, have been struggling to survive between the forces of capitalistic development and forest conservation. Using a detailed study of forest use and dependency conducted in two Karen villages, I argue that the state's efforts to reduce the Karen's forest dependency, or even to evict them from the forests, are not leading to the stated objective of conservation. Finally, I draw some wider implications with reference to James Scott's thesis on state simplification.

INTRODUCTION

Academic studies aiming to illustrate the problems of deforestation in Thailand commonly compare figures for the country's forest cover in the 1960s or even earlier, which was reportedly more than 50 per cent, with the present figure, which is around 15 per cent. In trying to understand the decline in forest cover, regression analyses are carried out using different abstract variables such as population density, poverty and literacy. Although this approach, from the aggregate to the particular, may be useful in analysing how predetermined categories contribute to forest loss, it bypasses the definition of these categories (what is poverty? who is poor?), fails to capture the diversity within each conceptual cluster (why, for instance, do groups with identical population densities have different levels of success in managing their forests?), and is blind to the politics operating among the various groups of people to whom these variables apply. Yet, it

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is in this diversity and through the politics of resource control that we find elements critical for understanding environmental change.

A more effective analysis begins with the study of a specific people residing in a specific location, who are likely to be caught between various interests and power relations representing forces beyond the locale. The analysis of 'ambiguous lands' and the people who inhabit them is particularly revealing for understanding environmental deterioration in Thailand. 'Ambiguous lands' are those which are legally owned by the state but are used and cultivated by local people. They do not fit neatly into the private property regime based on fictions of exclusive use rights and alienability, and consist of the residual lands of state simplification processes on land tenure. State simplification, as described by James Scott, denotes acts by state officials to create a standard grid whereby complex and illegible local systems can be centrally recorded and monitored (Scott, 1998).

The ambiguous property status of such land makes it attractive to a variety of actors, including villagers searching for unoccupied arable lands in the frontiers, government departments on the look-out for new project sites, and conservation agencies sensitive to new areas in need of protection. Ambiguous lands can be considered geographical spaces in which various 'stresses' from social, economic, and political demands are represented. They are the frontiers of state simplification projects, where various initiatives have attempted to solve the problems of deforestation. Analysis of the alleged solutions is a promising window through which to look at how problems are defined in the first place. My primary interest, therefore, is not to identify the driving force of conservation and development as such, but to investigate what is happening in the spaces *between* them. In other words, I am interested in the specific nature of the spaces and peoples that tend to fall between the powerful forces that are commonly found in rural areas of tropical countries.

The attractiveness of ambiguous lands invites us to interrogate the distributional implication of their allocation. Distributional consequences are significant, given that thousands of people either use or actually live on state-owned resources. The economic characteristics of these lands further complicates the equity issue. Despite legal enclosure, many state-owned lands are in reality easy to access, and the actual users and their ecological impacts are difficult to assess. Moreover, local commons, access to which is usually limited to local residents, often contribute in an important way to the larger ecosystem. From the state's point of view, however, the same resources may be considered too scarce and valuable to permit the locals to utilize them, so that certain local commons such as forests become vulnerable to state enclosure. These issues raise questions about how the benefits of commons should be distributed among unequal power holders. Political motivations driving state enclosure and the costs imposed on local people are often obfuscated under the rubric of the seemingly neutral term

'environmental conservation',[1] making an analysis of the distributional dimension even more necessary.

Scholars of common property have tended to emphasize the question of 'who has access to what'. It is important to go further than this, and ask why certain people *end up* using certain types of resources and not others. The basic conditions that determine the utilization of various forest resources in Thailand have largely been shaped by the state's simplification of tenure on forests and lands. To identify these conditions, the following section will examine the history of state simplification in Thailand, showing how the two types of ambiguous lands — state-owned but privately-cultivated lands, and communal lands — were created,[2] and outlining the government activities that take place on these lands. This will be followed by an examination of how the Karen, one of the hill peoples living on the ambiguous lands, have struggled to survive between the forces of capitalistic development and forest conservation. Two Karen villages were selected for a detailed study of forest use and dependency — the type of critical data often missing in defining the problem. These data are used to compare how market access and the differences in household wealth within the selected communities influence their connection to forests. The results of the studies suggest that the state's effort to reduce the forest dependency of the Karen, or even to evict them from the forests, has not led to the stated objective of conservation. The final section presents some wider implications with reference to James Scott's thesis on state simplification.

LOCATIONAL SIMPLIFICATION AND THE 'LAND IN BETWEEN'

Pressures from the Conversion of Unoccupied Common Lands

From the Ayutaya period (1350–1767), all lands in Thailand were theoretically considered the property of the king. However, custom and tradition over several centuries gave the so-called freeman the right to take as much land as he and his family could cultivate, but often not exceeding 25 *rai* (1 *rai* = 0.16 ha) (Wales, 1934: 121). Agricultural land accounted for only 2 per cent of the land in Thailand around 1850, and throughout the country there was an abundance of unused land, which needed only to be cleared and cultivated (Ingram, 1971: 12). Underpopulation was seen as the

1. Scholars have tended to pay more attention to the sustainability of regulatory systems and their ecological implications than to equity and distributional aspects within a community and between communities. For an exception, see Jodha (1992).
2. All land in Thailand is either privately owned or owned by the state. All common lands or local commons, therefore, are state owned. In this article, I will use the term 'communal lands' to indicate the local commons that are created or guaranteed by the government to be used by the people. The term 'common lands', on the other hand, refers to lands that people have been using customarily without state recognition.

main obstacle to national development. The Harvard sociologist, Carle Zimmerman concluded from his pioneering economic surveys of rural areas in Thailand that 'there is *still great under-population in Siam* and that health work is needed to promote more population because these *greater numbers are necessary to an improved agricultural technique in many of the areas*' (Zimmerman, 1931: 225, emphasis in original). With a sparse population in relation to abundant land, there was no need for either farmers or the government to demarcate property.

Slavery was widespread until the beginning of the twentieth century, and the ownership of labour rather than land guaranteed the power of feudal chiefs. The relationship between patrons and freemen was personal, not territorial (Ingram, 1971: 13). A dramatic incorporation into the global market economy began after the 1855 Bowring Treaty with the British, which opened up the global rice market for Thailand. Rice was exported primarily to western Europe and then to China (Thompson, 1941). Lands previously considered 'wastelands' gradually gained market value and became targets for occupancy and competition. Teak extraction by European companies also accelerated in the north: with the destruction of European oak forests, the Europeans began to use teak for wooden sailing vessels, and later for the decks of iron steamships (Falkus, 1989: 133).

The population grew together with the commercialization of agriculture in lowland areas. The rising value of land began to generate conflicts over its use and ownership in the late nineteenth century, and the government finally launched a massive cadastral survey in preparation for a western-style property system based on individual holdings of land. The first cadastral survey began in 1901 and became the basis for tax collection in cash instead of in kind. Administrative and legislative action was taken by the central government to provide more clearly-defined property rights to agricultural land, primarily to facilitate the expansion of rice cultivation and resolve disputes over newly developed areas (Brown, 1988). Through the rapid adoption of a western-style property system and by functioning as a buffer between the British and the French, Thailand was able to maintain its independence and resist colonialization.

Various surveys aimed to create a direct one-to-one relationship between land and owner (or user). Certain types of land, however, tended to escape this type of state simplification. These were lands that had been used as collective property: roads, grazing lands, coastal areas, etc. It was only in the 1930s that the government created new legislation regarding the use and ownership of these communal and unoccupied lands.[3] The primary

3. The Civil and Commercial Code of 1932 and the Waste Land Act of 1935 were the first to recognize the status of lands other than private tenure. The world economic depression in the late 1920s put many farmers into severe debt, and accelerated land concentration as well as the need to regulate common lands, which had not been an issue for centuries. This was particularly important in the densely populated central region (Kitahara, 1973).

objective of this new legislation was not so much to guarantee communal rights for all people but rather to secure public lands for state interests and prevent them from being privatized by farmers and other private interests. These lands legally became the property of the state with the status of 'collective assets of the nation', and villagers were officially required to register for permission to use them.

It is interesting to note that forests were not explicitly included in the list of 'collective assets'. This may reflect the fact that up until the 1930s the state attached no economic value to forest or to other types of collective lands (such as grazing lands) that demanded protection. Furthermore, forestry was the exclusive domain of the forestry department and some foreign logging companies (especially in areas with valuable timber). General forest legislation, apart from that which protected valuable species such as teak, remained vague, as did the definition of 'forest' itself. The 1941 Forest Act defined forest as 'all land that does not belong to any individual based on the land law'. Extent of tree cover was not a condition that defined forests in a legal sense. This definition of forest and state property allowed for contradictions and ambiguities between those who legally owned the land and those who actually used it. These 'ambiguous' areas became the source of many conflicts. The government attempted numerous forms of land settlement projects to bring order to these areas, but were mostly unsuccessful. The goal of these projects was to stabilize the population and suppress anti-government movements, as well as to deflect the people from continuing to encroach on state property.

Pressures from Conservation Policies on Common Lands

Aside from serving as open-access reserves in case of land shortages, certain forests have served as local commons to provide an essential source of fuel, food, medicine, and materials for building houses, boats, baskets, and so on (Falkus, 1990: 69). As with agricultural lands, forests were abundant in most parts of the country; in certain locations where a scarcity of forest was perceived, local people developed a communal mechanism to regulate the use of forests to avoid over-exploitation or privatization. In the northern region, such communal forests are to be found in watershed areas; in the northeast there are sacred 'ancestor forests', connected to religious beliefs that have prevented them from being cultivated or appropriated privately (Ganjanapan, 1998).

At the state level, the large-scale planned conservation of trees began in the late nineteenth century, motivated by the expanding European teak industry in the northern regions. Until that time, the logging of teak in the north had been conducted at the whim of feudal chiefs in Laos and largely operated by Burmese and Chinese merchants. As the teak industry became profitable, questions of lease and ownership, royalty collection, and

governmental authority became prominent issues.[4] Western timber companies demanded that the central government impose strict restrictions on timber extraction in order to protect the long-term prosperity of their industry, precipitating an unusual unity of interest between the Siamese government and the western logging companies (Brown, 1988: 117).

As part of the westernizing policies pursued by King Chulalongkorn, the government invited H. Slade, an English forester from India, to serve as the first director-general of the Royal Forest Department (RFD), established in 1896. His task was to regulate the over-exploitation of teak in the north. Unlike other exportable resources such as tin, which needed more foreign investment, the teak business was a target for regulation and constraints. At that time, forest cover was estimated to exceed 70 per cent of the country (Feeny, 1989). The total staff of the RFD charged with the care of those forests was less than thirty in 1908 and still only one hundred by 1934.[5] Increasingly strict regulations imposed by the RFD to protect British operations favoured large foreign investors, who had the resources to sustain the increasingly expensive logging enterprise, to the exclusion of small domestic companies. Western companies dominated the teak industry until the 1950s.

The RFD gradually introduced legislation to classify forests. These laws reveal government perceptions of important (and unimportant) issues during each period. With the Forest Protection Act of 1913, the RFD extended its protection to cover non-teak trees for the first time. In 1938, it introduced the first territorial conservation policies to secure forest reserves for future logging operations. Territorial zoning was strengthened by the first Five-year National Social and Economic Development Plan in 1961, in which the government designated 50 per cent of the country as state-owned 'permanent' forest. Since then, the government has continued to classify land and forest as a way of determining who will have access to what.

Under the state territorialization of forest lands, no legislation was prepared to protect the communal rights of local people. All common lands were legally state property; with the lack of legal recourse and the ambiguity of property relations, local commons (such as forests, grazing areas, etc.) were increasingly incorporated into national parks and wildlife sanctuaries. Since the late 1980s, in reaction to attempts to simplify local resource systems, there have been counter-movements led by NGOs and universities calling for a new bill to guarantee the communal control of forests by farmers. The enactment of the bill is still pending, and the battle between villagers and the state is still intense in many parts of the country.

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4. The trade treaties signed during the mid-nineteenth century with western countries had imposed a financial burden on the Thai government. The increase of trade was too gradual to be relied on to produce sufficient tax funds. This situation forced the government to concentrate on improving the efficiency of its tax collection (Vella, 1955).
5. In 1995, there were approximately 18,000 staff members at RFD (RFD, 1996).

Battles over the 'Land in Between'

There are two dominant forces behind the simplification of forest lands: converting them and conserving them. Both forces are guided primarily by the government, although international conditions also have a strong influence on them. Global market demands prompted the expansion of rice cultivation, and later cash crop production, into the forest frontier. The creation of protected areas and the scientific regulation of forests are responses to international environmental movements, particularly in view of the increasing availability of donor funds for the environmental sector. These two dominant forces tend to have particular impacts on certain groups of people. For example, ethnic minorities and landless farmers have not only been sidelined in the process of economic development, but have also been burdened with the costs of conservation initiatives in the very locations where they sought to escape from poverty.[6] Forests have served not only as an economic alternative but also as a political haven for disaffected groups fleeing political repression, particularly when communist movements were active in the mid-1970s (Hirsch, 1990).

The shift in property relations can be illustrated by picturing exclusive state lands as one dimension, and private farm lands as another. The ambiguous area, or the land in between the two, is owned by the state but utilized by local villagers. When land was abundant and population scarce, the public lands used exclusively by the state were limited to areas for mining, military bases, and teak harvesting. Private lands with exclusive property rights were also limited because the majority of the land was, in principle, open-access, and guaranteed by usufruct rights based on customary laws. A large portion of land, therefore, belonged to the state yet was *de facto* privately accessible (ambiguous). As the economy became more market-orientated, however, private assets gained in importance and the legal structures that protected private rights were extended, resulting in the expansion of private farm land. This expansion was strongly supported by development policies and foreign aid. The large-scale introduction of commercial crops including sugar cane, coffee, tapioca, maize, and eucalyptus into private lands played a major role in soil erosion. The state, meanwhile, strengthened its exclusive control over public lands, the area where forest land was most prevalent.

My focus is on what is happening to the land in between. Typical of these ambiguous areas are the fringes of national parks and other types of

6. Migration may, for example, be due to population growth accompanied by a reluctance to subdivide land; debt foreclosure; loss of tenancy rights; insufficient capital to purchase land on the part of young families; or forced displacement caused by infrastructural schemes and plantation projects (Hirsch, 1990: 36).

protected areas now often referred to as 'buffer zones'. Buffer zones, therefore, are another product of state simplification. In recent literature on protected area management, fringe areas of core conservation zones are seen as important for providing an additional ecological layer, and also as places where the basic needs of the local population can be met (Sayer, 1991).

Buffer zones attract much attention not only because of their relation to the core protection area, but also because they happen to fall under two contradictory national policies in Thailand: land reform and forest conservation. Competition between the Agricultural Land Reform Office (ALRO) and the RFD in the buffer zone has become acute: on the one hand, government policy since 1975 has been to redistribute land to landless farmers; on the other hand, a parallel policy aims to expand protected areas to cover up to 25 per cent of the total land area. Based on statistics from 1996, the protected area is still less than 15 per cent (RFD, 1996). The problem is that there is no land to provide to the landless other than the forest reserves which were previously granted to logging concessions. Within the forest reserves, areas no longer suitable for plantation and areas largely encroached on by farmers are supposed to be handed over to the ALRO. The ALRO will then decide how to distribute this land to the landless poor. From the RFD's point of view, however, forest reserves in the buffer zones should be the first to be included in the expanding protected area. Unfortunately, there are no clear scientific criteria to determine which lands should be given to the farmers through the ALRO, and which should remain under the RFD's control. For the ALRO, deforestation is not an issue; in a sense, it is a necessary part of its solution to resolve the landless problem.

PEOPLE IN BETWEEN

The Karen under Simplification

There are nine official categories of hill people in Thailand (Bhruksasri, 1989), including the Karen population, estimated to number about 600,000 (Hayami, 1996). In the eighteenth and nineteenth centuries, the Pwo Karen in western Thailand were considered allies by the Thai king. They served the king as scouts in anticipation of the Burmese invasions from the west, as well as providing valuable forest products such as ivory, cinnamon, and cotton (Gravers, 1994). The British also valued the Karen's knowledge of timber and their expertise in mobilizing elephants for their harvesting in the mountains and jungles of the frontiers. King Chulalongkorn's administrative reform in the early twentieth century, however, marginalized the Karen's previous position in the Thai polity (Jorgensen, 1996). During the 1960s, a communist insurgency extended to the Thai border, and the

economically marginalized hill people found themselves on centre stage once again. In the 1970s, many of the Karen joined communist groups which made them politically dangerous 'tribes' in the view of Thai society.

The Huai Kha Khaeng (HKK) wildlife sanctuary extends over the Uthai Thani and Tak provinces of western Thailand. It is a central component of the kingdom's integrated protected area, which covers 14,000 km^2, including five wildlife sanctuaries, eight national parks, and three would-be national parks.[7] Cubitt and Stewart-Cox note that 'for a country that is widely known and often criticized for its deforestation, this is astonishing. It would take a grueling hike for about a month to get from north to south of [HKK]' (Cubitt and Stewart-Cox, 1995: 124).[8] The HKK forest was designated a wildlife sanctuary under Thai law in 1972 and later, in 1992, became the first natural UNESCO world heritage site in Thailand.

Only 22.1 per cent of the total population in the buffer zone surrounding the sanctuary today was born in the area. They are all Karen (CUSRI, 1992). Originating in Burma, a portion of the Karen population resided inside the sanctuary along the Kwa Yai River until they were evicted from the area in the late 1970s. Government intervention with hill people intensified in the late 1960s when communist propaganda reached marginal areas on the hills. Various government schemes, such as cash crop promotion, health care delivery, and education services, were introduced to co-opt the hill people and keep them from turning to the communist party.

In terms of the general discourse on the Karen's connection with forests, they, along with other hill people, have long been identified as 'forest eaters' (Gravers, 1994). As early as 1923, a commentator of Karen economy noted that: 'In some places the same clearing is cultivated three years in succession, but in others a new clearing is made every year. In the past, large tracts of forest have been destroyed in this way, and even now the Forest Department has taken the matter up, a good deal of destruction takes place in valuable forests' (Andersen, 1923: 55).

More recently, the Thailand Development Research Institute (TDRI) argued that 'for the Royal Thai Government, the hill tribes pose a series of profound political, social and ecological problems. Much highland deforestation ... can be laid directly at their door' (TDRI, 1987: 80). A people once blamed for their backwardness and opposition to modernization and development are now being blamed from an environmental

7. For purposes of comparison, Yellowstone National Park is about 5,500 km^2.
8. HKK and the adjacent Tung Yai Naresuan world heritage sites consist of a complex mosaic of evergreen and deciduous forests. They lie at the meeting point of four biogeographic zones and derive elements of their flora from the west and north (Himalayan) and south (Sundaic) regions. At least 120 mammals, of which 5 are endemic, 401 bird species, 41 species of amphibians, and 1207 species of fresh water fish have been recorded (Nakasathian and Stewart-Cox, 1990).

standpoint. The proposed strategy which flows from this position is, naturally, to move people away from the precious forests.

> As described by Mr. Chatchawan Phitsamkham, the superintendent of the Huai Kha Khaeng Wildlife Sanctuary, people have been attracted to the forest and its resources like ants to a lump of sugar. The ICAD (Integrated Conservation and Development) activities we propose are intended to turn people *away* from the protected areas, to attract them to 'new and sweeter lumps of sugar' outside the forests. (World Bank, 1993: 11, emphasis in original)

Having been evicted from the HKK and now squeezed into the 'buffer zone' of an internationally recognized protected area, the Karen are not only denied their traditional farming techniques, but also modern chemical agriculture for fear they will damage the forest. This is a 'late developer's trap' — you cannot go back but neither can you move forward in the same way that 'modern' farmers have done. Michael Dove summarizes the dilemma as follows: 'the challenge is to achieve the benefits achieved by past paths while *not* following them' (Dove, 1994: 1069, emphasis in original).

Due to a lack of documentation, it is difficult to describe how the Karen used to interact with forests before their eviction from HKK. However, with the aid of reports by three Danish anthropologists (Ewers, 1994; Gravers, 1994; Jorgensen, 1976, 1996) who conducted their fieldwork in the Karen community in the early 1970s, and my own interviews with elderly people in the villages, a general picture emerges. Rotational shifting cultivation of upland rice was the central economic activity of the people. Their production portfolio consisted of yam, taro, cotton, tobacco, chillies, and various vegetables in the same plot of approximately 5 *rai* (1 *rai* = 0.16 ha) per household. Banana trees and sugarcane often surrounded swidden agriculture plots (Gravers, 1994). Metal products (such as knives), guns, salt, and certain cloth had to be purchased from the local market in the distant town in exchange for their agricultural products. Although little is known of the extent to which the Karen impacted on the forests in the past, their long-term continuous residence in the same area demonstrates, at least, a successful implementation of the swidden system. The rotation cycle of a fallow period was between ten and fourteen years. As a villager once said to me with some frustration, 'if our farming system was such a bad thing, the Huai Kha Khaeng forest would never have become a world heritage site; it would have disappeared by now'.

Despite the blame assigned to hill people and local villagers living close to rich forests, there are almost no data on the nature of their forest use. This is surprising because, where real problems are perceived, states usually gather data that will enable them to address those problems. A project of state legibility is often directed towards obstacles so that they can be effectively targeted and manipulated, as Scott demonstrates with the Nazi's racial map of Jews (Scott, 1998: 78). Official statements frequently refer to the destructive activities of local villagers, but the persistent absence of empirical data on villagers' actual forest use suggests that the state may not

perceive villagers as serious threats at all, but uses them to deflect public attention away from corruption, large-scale infrastructure development, and illegal logging by public officials themselves.[9]

The following section presents an analysis of the kind of data that have been completely missing from the debate over whether to allow the Karen to live in the buffer zone, which are also important in assessing the legitimacy of the state's project in dealing with local peoples. The analysis focuses almost solely on the material connections between the Karen and the forests because this, over and above cultural attachments and non-material linkages that people have to their forests, seems to be the central concern for policy makers.

Changes in the Karen Economy

I studied the Karen communities adjacent to the HKK forest complex from March 1996 to March 1997. There are more than twenty villages within a 5 km radius of the HKK boundary. Four of these villages are the Karen communities with the longest histories in the area. They are also the most dependent on forest resources. From the four villages, I selected two as intensive study sites for the following reasons: (1) the populations of both villages are about the same and reasonably large, reflecting various types of livelihood strategies within each village; (2) although their distance from forested areas is the same, village A has inferior access to roads and markets, enabling me to measure the influence of the market economy in relation to forest use; (3) both villages have similar histories of migration and initial property holdings, both having been evicted from the HKK in the 1970s.

The 1970s were a critical turning point for the Karen economy. A Thai logging company built the first road that penetrated into the villages. The road had a significant impact in pushing the subsistence economy into the market economy. Most notably, middlemen could now reach the formerly inaccessible villagers, which encouraged the Karen to plant cash crops. Mono-cropping of maize increased the number of weeds, and ploughing was needed to prepare the land. Repeated use of the same land made the soil harder and more difficult for animals to plough, so that farmers had to rent tractors from those who owned them, mainly Thai moneylenders in the lowlands. The introduction of tractors reduced the opportunity to harvest different crops throughout the season. Whereas traditionally there had been a time-lag between the planting of rice and the maturing of other crops such as vegetables and potatoes, the need to plough mechanically forced

9. For example, the RFD began to count the number of people living inside the conservation forests only in the 1990s.

Table 1. Basic Data on the Two Research Villages (1995)

	Khongsao Village (A)	**Ban Mai 2 Village (B)**
Population	224	230
Average annual income[1]	18,270 *baht*	33,026 *baht*
Self-sufficiency of rice	64%	39%
Frequency of labour exchange[2]	3.7 days per year	3.5 days per year
Ave. size of land under cultivation	6.3 *rai*	10.4 *rai*
Access to the market	difficult access by car	accessible by car
Village access to electricity	no	yes

Notes:
1. The high average income figure results from the inclusion of high salaried people (school-teachers, clinic doctors); without these non-farming people, the average income of village A would be around 10,000 *baht* and that of the village B around 20,000 *baht*.
2. 'labour exchange' represents the average number of labour days exchanged among villagers during the planting season of July and August.
(1 *baht* = 3 ¢; 1 *rai* = 0.16 ha)

the Karen to give up intercropping.[10] From a rice-based economy, which allowed for cultivation of vegetables, sweet potatoes, sugarcane and some tobacco and cotton within a manageable labour cycle, the shift to mono-cropping of maize and cash crops implied a more intensive labour schedule, with two plots to be worked simultaneously (Jorgensen, 1976; author fieldwork).

Meanwhile, highland development policies initiated by the state from the early 1960s did not have their intended effects. Attempts to introduce paddy rice techniques as a way to push the Karen out of shifting cultivation largely failed, with few farmers adopting them.[11] Coffee plantation projects in the 1980s also failed because of inadequate market connections. At the same time, forcing people to move out of the core area may have had an un-intentional negative impact on the forests. The RFD considers forest fire as one of the major threats to the HKK today, with the sanctuary being damaged by fire every year. Ironically, because there are no people resident

10. The approximate costs of maize production can be calculated. To cultivate 5 *rai*, which is the break-even size to make any profit, farmers would need two rotations of ploughing by tractor. Tractors cost between 750 and 1750 *baht* to rent for the first round and around 500 to 600 *baht* for the second round. Purchase of seeds came to about 900 *baht* for 15 kg, and another tractor rental added 400 *baht* (80 *baht* per *rai*). If the farmer were cultivating more than 15 *rai*, he would need additional cash to hire extra labour, a practice that has become more common than relying on traditional labour exchanges. The reciprocal nature of labour exchange becomes unsustainable when certain people gain access to mechanical equipment and the land distribution becomes unequal within a community. Hiring labour then becomes convenient, because it precludes the obligation to return labour in exchange.
11. There were two main reasons why farmers did not adopt this high-yielding technique: (1) the difficulty in obtaining flat land to retain water; and (2) the difficulty of mixing a variety of crops to satisfy their subsistence needs.

in the area, there is nobody to detect and fight forest fires until the flames are large enough to attract the attention of the forest fire unit in the park.[12]

The responses of the Karen to ever-tightening government regulation of forests (such as the abolition of shifting cultivation) and land (the imposition of a private property system) divide the Karen roughly into two groups: those who have intensified their cash crop production to escape from poverty, often at the expense of their subsistence production; and those who could not afford to follow this strategy and were forced to depend on other means, such as working on other farmers' residual land, and borrowing money from local moneylenders. Many of them are unable to work in the cities to earn cash because they lack citizenship, personal connections, the language skills or the confidence.

The ALRO is now responsible for implementing the integrated conservation and development project (ICDP) in the buffer zone area. Their latest approach to both conserving the HKK and responding to the needs of the farmers, particularly those falling under the second category above, is to try to shift people's economic orientation away from the forests by promoting income-generating activities in and outside the buffer zone. This new approach, although recognizing the basic right of people to live in the area, still assumes that local people are the main abusers of forests. Poverty, together with a purported lack of knowledge about how to farm appropriately, are believed to be driving people to unsustainable resource use (PEM Consult, 1996). The next section will examine the validity of these assumptions.

Karen Forest Use and Dependency

Before discussing the kinds of interventions that might be conducive to conserving forests, it is important to understand how people interact with them on a daily basis. Unfortunately, the exact nature of forest dependency by local residents has seldom been investigated, and no site-specific information exists on the subject. Previous attempts to measure forest dependency in other areas of Thailand have tended to suffer from one or more of the following shortcomings: (1) the research span is often limited, and year-long variability is not taken into account; (2) when potential seasonal biases are taken into account, the size of the samples is often too small; (3) where the samples are large enough, the selection of households often ignores the economic stratification within villages, which might

12. In 1994 alone, 68,271 *rai* (10,923 ha) reportedly burned down inside the sanctuary (Noikorn, 1998). While I was conducting my fieldwork, a villager informed me that fire fighters themselves often set fires in the forests because their daily wages double when they are actively fighting fires.

strongly affect levels of forest dependency; (4) data collection often relies on the memories of villagers or the recording of daily forest resource consumption by the villagers themselves, but such data are not reliable when one is dealing with the use of 'illegal' resources.

In an attempt to avoid these shortcomings, my own measurement of forest dependency of local villagers is based on different wealth ranks within villages; this makes comparisons possible, and questions the common demonization of poverty *per se* as the central cause of excessive resource exploitation. I developed two indicators to capture forest dependency. *Income dependency* is the percentage and amount of income people obtain from selling forest products. It is important to note that we measure the *relative* proportion of income derived from forests:[13] when one villager derives all his income from forests whereas another derives only 50 per cent, we can say that the former is more dependent on forests even though the two may have an identical income in absolute terms.[14] *Livelihood dependency* is measured by the variety and intensity of forest product consumption in terms of food contained in each meal. Direct use of forest resources requires labour investments and must, therefore, reflect the importance attached to the activity by villagers. I did not measure the amount of firewood or charcoal people consumed in the area because there seemed to be little variation among the households.

For income dependency, information was collected from all households through informal interviews and cross-checking. The choice of indicator for measuring livelihood dependency was difficult, but I eventually decided to observe the consumption of meat, for three reasons. Firstly, meat consumption reflects both the household's connections to the market and to the forest; meat was likely to be income elastic and could be expected to reveal differences in consumption between rich and poor. Secondly, people prefer to eat meat if they have a choice; it is an important source of protein, although they do not get to eat it often. The obstacles to meat-eating include the labour required to hunt, forest guards, and/or the cash required to buy meat at the local market. Thus, meat consumption will likely reflect the general economic well-being of a household. Thirdly, from the viewpoint of the forest guards, animals are a forest resource to be protected. Forest

13. Measuring income was more challenging than expected. Villagers in general do not know exactly how much they earned last year. The total income from maize, which was the central source of income for the majority of villagers, was relatively easy to estimate because they sell this crop once a year. In contrast, bamboo shoots are sold on a day-to-day basis in smaller units. Based on accounts of villagers, I cross-checked information with the middlemen who had some statistics of purchases to come up with the best estimate.
14. Unlike an ordinary economic survey that often relies on income data (often unavailable), or the amount of land holding, wealth ranking allows us to observe how villagers themselves view wealth and poverty in their community. It also minimizes the snap-shot effect of relying on a single quantifiable measure.

animals are thus contested resources and consumption of them reflects the desperation of villagers under adverse circumstances.

Using a wealth-ranking exercise, twenty sample households were selected from each of the two villages (forty in total). With the help of two assistants from each village, a number of randomly selected meals was observed to test the frequency of forest meat consumption in each of the following seasons: thirty meals between July 20 and August 20 (the busiest time of the year for planting seeds and preparing the soil), another thirty meals in October (a rainy month with no major work, economically very difficult), and an additional twenty meals from February to March (during the dry season and after the harvest, when people are generally better off). These sampling periods reflected various seasonal conditions that may affect villagers' access to the forest. The Karen in this area normally take two meals per day with little difference in the content of each meal. This provided a total of eighty samples for each household. Village assistants were permitted to choose which meal to observe each day.[15]

From the ranking exercise and discussions with villagers, I was able to extract criteria for wealth (and poverty) that people implicitly use to evaluate each other. Some of the common criteria were size and neatness of house, amount of land, number of children (fewer is better in this case), debt, income, family labour power, and self-sufficiency in rice. These elements were combined in complex ways to come up with the total ranking of households. From these indicators, I learned that the amount of land under cultivation is strongly correlated with income dependency on forests.[16] My hypothesis is that because the busiest time for planting and weeding overlaps with the bamboo harvest season, those with larger land holdings cannot afford to allocate labour for obtaining forest resources; differences in dependency are not necessarily due to wealth. The results of the data collection based on this method are presented in Tables 2 and 3.

Some observations can be made from these data. In terms of income dependency based on the amount of land, less wealthy families tend to depend more on forest products (i.e., bamboo shoots). This is not surprising given the fact that their private workable land is limited. Forest products are important not only in terms of supplementing income but also in

15. Forest animals that are hunted and eaten are mostly 'illegal' in a strict sense. To increase the reliability of the data, I waited about a month before selecting villagers to help with data collection. Based on my discussions with them, I developed a matrix for documenting observations: different symbols were used for meat that came from the forest and that from the market to obtain a rough idea of the relative proportion of food originating from each source.
16. Initially, I analysed income dependency based on wealth categories. All households were dependent on selling bamboo shoots at a similar level. I needed to look further into the composition of 'wealth' and decided to use the size of land as a criterion to differentiate villagers.

Table 2. Income Dependency Based on Amount of Land under Cultivation

	Village A (limited access to the market)		**Village B (better access to the market)**	
Area under cultivation (*rai*)	Annual income from forest (avg. *baht*)	% share of income from forest	Annual income from forest (avg. *baht*)	% share of income from forest
More than 20	3500 (n = 1)	14%	1512 (n = 12)	4
15 to 19	1780 (n = 10)	11%	2833 (n = 6)	8
10 to 14	2000 (n = 3)	22%	2916 (n = 6)	17
less than 9	1664 (n = 22)	34%	4552 (n = 19)	35

Notes:
1. The price of bamboo shoots in village A is lower than that of village B by 20% because of bad road access.
2. Area under cultivation is different from area under occupation, because many farmers do not have enough capital to fully cultivate their land. The figure includes only cash crops.
3. Those who have a regular salary (e.g. schoolteachers) are excluded from the sample. It was interesting to find that even a relatively large family did not split up its labour to maximize its income from the two sources (i.e. forest and agriculture). It was natural for them to work together in the same place as a family.

Table 3. Livelihood Dependency: Proportion of Meat derived from Forest, as Percentage of Total Meat Consumption, by Wealth Rank (one-year weighted average)

Wealth Rank	**Village A**	**Village B**
1 (sufficient)	39%	33%
2	60%	33%
3 (average)	39%	44%
4	56%	37%
5 (poor)	52%	46%

Note: Figures are calculated based on the weighted average of frequency in each season. For wealth rank 2, the sample was n = l, so it is likely to be more biased than others.

equalizing the flow of income throughout a year (bamboo shoots generate income during the months of July and August when no other income sources exist). In terms of livelihood dependency, no clear disparities were found between the higher and the lower-ranked. However, access to the market and good roads seems to differentiate the level of dependence between the two villages. Furthermore, the year-long study showed that, regardless of wealth and market access, most of the villagers' meals are composed not of meat but of rice, chilli, and some vegetables. Meat

consumption depends on the season, on the villagers' willingness to go into the forest, and on mere luck. Much of the villagers' protein intake comes from fish and small animals such as wild chicken that are not the central target for conservation. There is thus no justification for characterizing the Karen as poachers of wild animals. At the same time, however, the frequency of meat intake, although lower than expected, should not give the impression that forest resources are unimportant to Karen lives. For many, especially the poor, the forest remains their only source of livelihood.

The dependency on forests observed among the majority of the population in the research site, set against the strict policing of the forests by the RFD, indicates that the Karen have limited opportunities to generate income and secure food. Hunting activities are often carried out not in the forest but in the Karen's fields during harvesting, when wild animals such as pigs come out to feed on the crops.[17] There is almost no selling of animals inside or outside the village. Timber use is also very limited — most houses are constructed with bamboo. Encroaching farmland into the conservation areas is too risky and too easily detected by the guards. On the other hand, some Karen do take advantage of the ambiguous demarcation of the sanctuary and look for forest products around the border. In many cases, they know where to look for the products while escaping the eyes of the forest guards.

Shifting cultivation has almost disappeared in this area, mostly because, as a result of state conservation policies, there is no place to shift to. Furthermore, shifting cultivation is ill-suited to the prevailing land registration and economic system where rewards are given to those who cultivate the same land every year and generate cash. In this sense, the nature of the Karen's forest dependency has changed dramatically from farming in their forests to collecting resources from the state forest. The separation of farmland and forest land is becoming increasingly sharp. Ironically, Karen living on the fringes of the HKK are now the target of development projects aimed at reducing the impacts of their *non-traditional* agriculture, which they only recently adopted after being forced to abandon their traditional shifting cultivation.

The living conditions of marginal hill people on the edge of biologically rich forests illustrates a concentration of stress from various forces. The twin facts that hill peoples are concentrated in the northern and western forested areas and that they traditionally practice shifting cultivation have encouraged most government officials to see them as the principal cause of deforestation (Rigg and Stott, 1998: 108). However, one can also argue that if the forested areas survived for so long with hill people living in and

17. In this sense, at least, forests are not only helping the local people, but the local people are also helping the forests. I thank Professor Michael Dove for encouraging me to explore this insight, although it is not possible to do so in full in this article.

around them, the Karen cannot be *the* cause of environmental destruction. The future connection of the Karen with the forests has to be examined in the larger context of increasing privatization of lands and intensifying calls for preservation of biodiversity. The increasing scarcity of resources and space for livelihood were not naturally generated: they were socially produced by the establishment of the sanctuary and the regulations of land use.

SOME WIDER IMPLICATIONS: SIMPLIFICATION AND DIVERSITY

In developing some of the theoretical implications of this case study, James Scott's 'state simplification' thesis serves as a useful point of departure. Scott argues that the state often fails to improve the living condition of its own people by over-simplifying the 'local':

> The more I examined these efforts at sedentarization, the more I came to see them as state's attempt to make a society legible, to arrange the population in ways that simplified the classic state functions of taxation, conscription, and prevention of rebellion ... But it is harder to grasp why so many well intended schemes to improve the human condition have gone so tragically awry. (Scott, 1998: 2–4)

Whether states typically intend to improve the quality of life for their populations is open to question, but before deploring the repeated failures of state projects, it is certainly useful to focus on how the state actually *prepares* simplification. The investigation of state preparation may allow observers to minimize the negative consequences derived from wrong interventions. For this preparation, Scott coins the terms 'legibility'. Legibility, according to Scott, is a condition of manipulation and invention of units that are visible to the state (Scott, 1998: 183). In this study, I have dealt primarily with two subjects of state simplification that are related to forests: land and the treatment of hill people. Three general lessons concerning state simplification can be drawn from this case study.

First, the state does not always simplify or impose legibility but often takes advantage of existing illegibility. States choose when and where to impose simplification to make a system more legible and controllable. Simplification is only a means to achieve the competing goals of the government. Confiscation of communally-utilized land, swidden fallow, and their subsequent transformation into protected areas, occurs because of farmers' lack of established tenure and political power, not because of the illegibility of local systems. The ecological consequences of this are clear. If the forests such as those of the Karen are taken away and the pioneering settlers are rewarded with lawful land certificates, what incentive is there for local people to manage forest lands sustainably? Despite its purported objective to conserve forests, state intervention often provides a negative incentive for local people to do so themselves.

Second, state simplification affects different people differently. We have seen in Thai history that forest conservation in the form of state imposed restrictions to forest access often entailed denying access to local people while granting access to societal interests such as energy, mining, and plantation industries — interests which have had more damaging impacts on the survival of forests. In the past, restrictions on access to forests worked to the advantage of European companies, the only groups capable of paying the costs for expensive logging operations. Today, protected areas without local residents often become the best candidates for dam construction sites. Large-scale illegal logging inside the national parks by high-ranking officials is a frequent occurrence.[18] International organizations are pouring funds into the government to fill this incentive gap without questioning the ways in which the state attempts to conserve forests. The consequences of restricting access to forests are by no means equal.

Third, in the residual lands produced by the state simplification process, competition occurs not only between villagers and the state, but also among the government departments themselves. In this sense, one department's attempt to make a system more legible may be creating illegibility for other departments within the government. As we have seen, there is inherent conflict between the RFD and the Agricultural Land Reform Office over control of the buffer zone, even though they belong to the same ministry. Functional specialization and increasing divisions in the government bureaucracy create diverse groups of interests even within the RFD. Some officials, though limited in number, are sympathetic to the plight of villagers and support progressive legislation on community forestry that grants people lawful access to forests.[19]

Especially since the ban on logging, forestry projects have emphasized the preservation of resources and not the ways in which resources are used by different people. Hill people have benefited little from the 'development' of the highlands, despite the valuable resources in these areas. In addition, hill people have been blamed for the deforestation that has destroyed about half of the nation's forests, even though they make up only 1 per cent of the population. The level of attention and intervention devoted to certain locations and people are quite independent of their measurable

18. The most recent incident was reported in the Salween national park in Mae Hong Son province adjacent to the Burmese border. Thousands of logs were secretly brought to Burma where they were stamped and smuggled back to Thailand as if they had been legally imported. This operation allegedly involved high-ranking officials from the military, the forestry department, and the police department (Kaopatumtip, 1998).
19. Diversity applies to NGOs as well. Environmental NGOs are often characterized as emphasizing either villagers' rights (the light green) or wildlife (the dark green). However, in opposing mining in wildlife reserves, for example, both types of NGOs and local villagers can all agree (Achakulwisut et al., 1998). Attention to issues rather than organizations will provide more room for inter-organizational alliances.

characteristics (soil, climate, ecology; population, poverty, distance from forests). It is the political economy that makes a particular combination of resources and people more prominent than others. I contend that this particular combination of marginalized people residing next to a rich forest has not occurred by accident but has been structurally produced.

CONCLUSION

State simplification often complicates more than it simplifies. I have attempted to show in this study that, despite the state's consistent effort to divide lands clearly into public and private spaces, irreducible and perhaps growing ambiguity remains not only at a national level but also within villages and within state agencies. This ambiguity is due partly to the vaguely worded legislation and policies that allow for various and often conflicting interpretations. It is also the result of the failure of the state to incorporate the ambiguity and establish communal property as part of the system. In areas where forests are still critical to local economies, state provision of these as communal forests may be the first move towards conservation; but, for conservation to be effective, it must go hand-in-hand with the suppression of illegal logging by élites and the building of capacity for the locals to organize themselves. This is not because élites necessarily do more damage than farmers, but because failure to build this capacity will weaken the credibility and the moral foundation underlying all legislation on forest access. The role of local people in forest conservation (and destruction) should be understood not only from the angle of how they interact with forests directly; it should also be assessed in terms of the function they perform as a buffer between the larger political/economic forces and forests.

The global discourse on environmental issues, particularly since the 1980s, has significantly affected how upland minorities are categorized. These shifts in categorization, however, have almost nothing to do with how the Karen actually interact with forests or how they define themselves in a wider context; they serve solely as political tools to justify new forms of intervention. Moreover, international concern over scarce resources provides the state with an additional reason to intervene, and to utilize whichever discourse serves its interests (Peluso, 1993). Resource politics also affects the position of the people living close to the resource in question. The Karen have traditionally resided in between the lowland Thais and the upper highlanders such as the Hmong. They have placed themselves in between Burma and Thailand, not only geographically but also politically. Now they also find themselves situated in between conservation and development.

In terms of the direction of future research, the categorization of NGOs, the state, and local people as distinct entities is no longer useful for the analysis of forest control. Each of these is often composed of conflicting

subgroups and factions. The heterogeneity of the state, on certain occasions, provides room for manoeuvre from the viewpoint of local villagers. By exposing diverse departmental interests, one might find ways in which farmers could take advantage of potential allies within the state apparatus to counter other, more constraining influences of the state (such as the farmers' general preference for land reform rather than forest protection). How to match up components with similar interests and create alliances is a key question.

The human capacity to develop institutional mechanisms to manage a resource that is locally perceived as abundant yet globally defined as scarce is being challenged. History shows that once the scarcity of a certain resource is detected by powerful agents, it is doomed to be overexploited (Dove, 1993). Incentives to conserve a scarce resource, therefore, go hand in hand with incentives to exploit it all the more, to the exclusion of local people. Can we initiate an equitable, long-term management strategy for a resource which has not been perceived as scarce? Scholars have the freedom to shift between the various viewpoints that define 'scarcity' — but they also have an obligation to contextualize these points of view and address the socio-political implications of privileging one definition over another.

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