The Political Ecology of Deforestation in Thailand

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ABSTRACT: This article looks at the history of the relationship between development policies and deforestation in Thailand from the beginning of the nineteenth to the end of the twentieth century. It first considers the lowland processes of horizontal expansion that carried on until the end of the Second World War, at which point the lowlands had become almost completely deforested. The article then turns to the highland forests, and discusses the development policies pursued there by the Thai government until the 1980s, when authorities outlawed logging and declared a closure of the frontier. Drawing on political ecology, the paper argues that forest policies of the Thai government have changed owing to shifts in the relative influence of different groups – the landed nobility, the industrialists, the military, and the environmentalists – in the national political arena. The group with the least political power, the ethnic minorities living in the highlands, is eventually blamed for the deforestation, in spite of the fact that it is the one that least contributed to it.

Introduction

FORESTS IN DEVELOPING tropical countries are rapidly being depleted, and South East Asia is especially affected. During the 1980s, South East Asia experienced an average deforestation rate of 1.4% per year, the highest among all tropical regions (World Bank, 1992). During the 1990s, the yearly rate of loss in total forest cover was of between 1.4% for Burma and Indonesia, and 0.4% for Laos, with Thailand being halfway at 0.7% per year (FAO, 2000). The reasons for deforestation are varied, but blame often goes to logging and agricultural expansion (e.g. Kummer and Turner, 1994). This article discusses the reasons for deforestation in Thailand, where agricultural lands have been expanding steadily at the expense of the forest, which has been constantly declining from covering about 70% of the national territory in 1930, to approximately 15% today. The article reviews the way in which shifting power relations in Thailand, from the beginning of the nineteenth century to the present, have resulted in changes in the uses of the forests. In particular, it describes the ways in which different interest groups pressured the national government to pursue one policy or another, in the name of economic development, national security, or environmental protection.

The question of the conflicts over natural resources is the focus of the literature that falls under the broad category of political ecology. Since the 1980s an increasing number of academics have popularised the term political ecology with a body of research that was concerned with, broadly speaking, ‘intellectual efforts to critically analyse the problems of natural resource appropriation and [the] political economic origins of resource degradation’ (De Jong et al., 2003, p. 4). Political ecology has been described as a ‘confluence’ of related sub-disciplines (Peet and Watts, 1996, p. 6), although the spaces it occupies within this confluence may not be so clearly defined. It developed from a criticism and amalgamation of different research fields – cultural ecology, environmental economics, environmental management, environmental politics, environmental sociology – from researchers who rejected the view of human communities as fairly homogenous, autonomous units, and recognised the importance of incorporating the political dimension into the study of the interactions between human populations and the physical environment. Hence, political ecology is concerned primarily with the political dimensions of natural resource use, and the subtleties of those politics. On the other hand, the ecological dimensions of resource use (as understood by biologists) are lacking in many studies (Vayda and Walters, 1999).

Political ecology is not a unified scientific discipline, with its set of related ideas, premises, and theories (De Jong et al., 2003), or clear methodologies that set it apart from other disciplines. Rather, it is a method of analysis (Peluso, 1992) with a commonality of themes that are of interest to those who get to be included into this topical category. What all these studies tend to have in common is at least a concern for the ways in which groups of people use their power to deny other groups the use of the natural resources. In the case of Thailand and South East Asia, forests
are often at the centre of resource conflict and therefore the focus of analysis.

Political ecology is useful in understanding the power relations behind the control and exploitation of environmental assets by different groups, in three main ways. First, it relates local findings to a broader body of interdisciplinary literature, facilitating both a better understanding of the problem, and comparative studies with other areas or historic periods. Second, it facilitates an understanding of the conflicts that exist over natural resources, giving weight not only to the overt expression of these conflicts, but also to the underlying motivations, interests and power relations that influence the choices and activities of the different groups. Third, it puts politics (or political economy) at a centre stage of the analysis of the impact or transformation of the environment by human populations (Bryant and Bailey, 1997).

This article takes an historical perspective and identifies the conflicts between the various actors that have been responsible for the deforestation in Thailand, the roles of those that are blamed for it, and the motivations of those that are promoting its conservation. The article is divided into four parts. The first part deals with approaches towards lowland forest management from the beginning of the nineteenth century to the end of the Second World War. The other three parts deal with the highland forest, and are organised chronologically: the first section discusses the highland forest until the Second World War, the second from the Second World War to the late 1980s, and the last from the late 1980s to the present. Each of these periods were characterised by the concentration of power in the hands of different groups, or coalition of groups, which could influence the development pattern pursued by the government, and the use of the forest. The article also discusses the way in which the present policy – and discursive – emphasis on the conservation of the highland forests is largely a result of a shift in the objectives of the most influential groups in society.

*The approach towards the lowland forests*

Until the beginning of the nineteenth century, Thai exports were dominated by trade in forest produce for the Chinese market. Thai rice had been exported for some time already, but it was only from the 1820s that its economic importance grew, gradually replacing forest products. Two things contributed to the boost in the export of rice. First, the Chinese market for forest products collapsed in the 1840s, because of the British-Chinese First Opium War. Second, the demand for Thai rice gradually increased, especially from European traders, who increasingly called at Bangkok to buy rice and other agricultural products, such as sugar and tobacco. Some of these goods were to be brought to the European markets, but most were for the growing Asian markets. European colonial powers had changed the economy of many Asian countries, including Malaya, Java, India and Ceylon, pulling the rural population from subsistence farming, and transforming them into plantation labour, cash crop producers or city dwellers. They now needed rice and other foodstuffs to feed these populations.

What gave a boost to the Thai export of rice was the signing of the Bowring treaty in 1855 between the Bangkok administration and the British envoy. This treaty gave Britain trading rights and limited the import and export taxes that could be levied on the goods, in the name of free trade. Over the following years, similar rights were also given to other European powers. Initially, the Bangkok administration and the Chinese traders thought that the main Thai export crop would be sugar, but the Thai sugar producers were unable to compete with the Javanese producers, and in the 1870s the export of sugar from Thailand dwindled. On the other hand, the export of rice increased gradually from very little at the beginning of the century to 15,200 metric tons in 1850, to 62,000 metric tons in 1857-60, and to 100,000 in the mid-1870s. From the mid-1870s and until the 1930s, a fall in freight rates contributed to a boom in rice exports, which reached 1.5 million metric tons in the 1990s (Phongpaichit and Baker, 2002).

A politico-ecological approach allows us to critically assess the choices made by the Bangkok elite concerning the ways in which the production of rice was to increase. Two options in particular were available: the construction of an irrigation network in the Chao Phraya basin, and the construction of a rail network that would allow for the colonisation of the forested periphery. The Bangkok based elite chose the second option, setting in motion a pattern of development that continued until the 1980s, with very negative effects on the Thai national forests. This choice is the result of the balance of power present in Siam during these years, as is now discussed.
The Royal Forest Department estimated that to mature properly, rice crops in Central Thailand needed 1828mm of water (RID, 1967). However, the average yearly rainfall during the rainy season is approximately 1050mm, and the deficit of 778mm has to be made up by flooding. The response to the problem of such water shortage was the construction of canals. In the second half of the nineteenth century the government and many nobles from the court invested in canal construction. Most canals were built in the Rangsit area, and those who built the canals would then have control over large parts of the land that flanked them. Much of the land was owned by absentee landlords who lived in Bangkok and rented the land to tenants. Carving out large estates of paddy land for themselves in the lower delta, a few influential people with close connections to the royal family and to the government made a great deal of money.

The canals built served to distribute the floodwater between the fields, and the watergates allowed for the retention of water after the floods had receded. However, flooding was relatively rare (RID, 1967), and the canals could not deliver more water than that made available by the floods. It was not, therefore, an irrigation network. Apart from this problem, the canals also suffered from rapid siltation. For these reasons, in 1902 the Thai government hired an irrigation advisor, J. Homan Van der Heide, and in 1904 set up the Royal Irrigation Department, replacing the aristocracy in the construction of canals.

In 1902, Van der Heide submitted the plan for the construction of a major irrigation scheme that would serve most of the Central Plains, through the construction of a dam at Chainat on the Chao Phraya River, and a system of distribution canals. The benefits were to be numerous. First, the irrigation network would have reduced the effects of the instability of rainfall, and thus the yearly differences in yield. Second, it would have increased the yields during the drought years, which were 51% of the total years between 1831-1948. Third, the soil could have been moistened earlier, which would have facilitated a better land preparation. Fourth, the irrigation network would have permitted farmers to plant higher quality rice varieties, which would have commanded a higher price. Fifth, each family could have planted a larger area, since land preparation could have been spread over a longer period, being less dependent upon the start of the rainy season. Sixth, water from irrigation could have been used during the dry season to grow legumes, tobacco, and other crops, thereby employing underemployed dry season labour, and reduce the import of these crops. The canals would also have provided a better transportation system, which was particularly important for the transport of the paddy to the city of Bangkok, and its port (Feeny, 1976).

The project submitted by Van der Heide was turned down, and the government preferred to invest its limited funds in a railway network. The first line opened in November 1900 between Bangkok and Korat in the north-east. Specially from 1910 to 1930, the lines were extended in the north, north-east and south.

The railway made only a marginal contribution to Thai agriculture. In the central plains, the railway had negative impacts, disrupting drainage and imposing extra costs on the farmers, while the shipment of paddy rice was made primarily through the canals and river system, and it would remain so for decades. However, the rail network did open up the north, the north-east and the south for commercial development, and by encouraging the horizontal expansion of the Thai farming system, it set in motion the pattern of development that has led to extensive deforestation.

The reasons for the government investment in the rail network instead of the irrigation schemes suggested by Van der Heide were numerous. First, the rail network brought the periphery closer to the centre, and reduced the risk that local problems in the periphery would become an excuse for the colonial powers to invade Thailand. The nineteenth century saw the colonial powers of France and Britain expanding into South East Asia, and Thailand was rightly concerned. Until the 1930s, 70% of Thailand was covered with forests (Feeny, 1988) and the peripheral areas were considered under-populated, thus increasing the risk of invasion by the colonial powers (Zimmerman, cited in Hirsch, 1987). The first railway line that opened in November 1900 between Bangkok and Korat in the north-east, was also made to increase the ability to defend an area threatened by the French. While the irrigation scheme would have only provided economic advantages, the rail network served national security goals.

Second, the government was confronted with considerable limits to the amount of capital it could raise. The irrigation network was thought by some to cost more than the government could afford. Third, the government only had limited means by which it could recoup the financial
benefits from irrigation, unlike in the case of the rail network. However, the most important factor might have been the opposition of the large powerful landlords in the Rangsit area, who were afraid that large irrigation schemes elsewhere (in the Central Plains) would draw tenants away from their land. Ownership of the agricultural land in the Central Plains would have been difficult to organise, since the area would have been very large indeed. Thus, the Van der Heide scheme would not have made it possible for the élites to appropriate a large proportion of the gains, but would have benefited largely the landless tenants who were renting land from the influential Rangsit landlords. Even worse, the Rangsit landlords would have lost their tenants, and the land value would have depreciated, while it appreciated with the Pasak project.

The only large irrigation scheme carried out during these times was the Pasak project. The project directly benefited the Rangsit area as the large Rangsit landowners, many of whom were Bangkok officials, were able to retain their tenants while benefiting from the appreciation of land value. According to the irrigation department, after the completion of the project, the value of the agricultural land in the Pasak area increased by 84% (RID, 1929). Irrigation officials commented that:

The government took the above course probably because it was considered inadvisable to disturb existing arrangements of landlord and tenant in the Rangsit area and elsewhere, which the opening up of big areas of land in Subhan, free for all, [would] have done (RID, 1927, p. 6).

The construction of a rail network and its effects on the opening and subsequent colonisation of the periphery, set in motion the deforestation of the lowlands that continued until the 1950s, when it had to stop for lack of forests to colonise (see below). The colonisation of the periphery progressed very quickly, and large areas of the Chao Phraya basin were planted with rice. While in 1850 less than 960,000ha were planted with rice, in 1905 there were over 1.44 million ha, and in 1950 approximately 5.6 million ha (Figure 1). Most of this increase in rice production was for export rather than for the domestic market; between 1855 and 1934 the Thai population had doubled from 6 to 12 million while rice exports increased 28 times (Mitchell, 1998; Ingram, 1971). However, progressively less fertile land was opened to rice farming since ‘only a fourth of the total land area of Thailand is suitable for agriculture’ (Anderson, 1993, p. 43). The reduced fertility of the land was coupled with lack of investment to increase productivity, a pattern that would continue until the present. In 1974, only 10% of the total government investment was devoted to agriculture, compared with 20% in Malaysia and 36% in the Philippines. As a consequence the productivity of land has constantly declined. Hirsch (1990) calculated that the productivity declined by 69% between 1906 and 1940, while Feeny (1982) estimated it declined by 18% between 1921 and 1941. It is not surprising that paddy yields per hectare became among the lowest in Asia. In 1972, paddy yields in Thailand were just 42% of those in Taiwan and 29% of those in South Korea (Douglas, 1983).

Figure 1: Rice land versus forest area in Thailand. Source: Delang, 2002.
Finally, the forests were also the refuge of slaves, bonded labour and people who used the forest as a refuge from labour-service requirements, onerous corvées, and military conscription. Slavery was officially abolished in 1905 by King Chulalongkorn, but until the mid-twentieth century the forests remained a refuge for those who were escaping poverty, landlessness, or the police (Hirsch, 1990).

The northern highland forests – to the Second World War

During the Lanna period, the northern Thai highlands were sparsely inhabited. Wild animals, robbers, and malaria discouraged the settlement of the highland areas, and the few people who settled there belonged to two ethnic groups, the Lua and the Karen. The Lua are said to be autochthonous to the Northern Thai highlands, while the origin of the Karen is more uncertain, but they seem to have settled in the area before Tai-speaking people settled in the lowlands (Renard, 2003).

The prince of Chiang Mai had control over the highlands, and allowed the highlanders to live in the forest, under his benevolent protection, in exchange for the payment of a tribute for the permission to farm the land (Renard, 1979). However, his control over the highlands was weak, since there was plenty of land, and limited interest in what was considered to be rugged terrain with limited agricultural potential. Moreover, any unhappiness arising from this transaction could result in the farming village shifting deeper into the forest in a bid to escape tribute payments and detection by the prince’s envoys.

Figure 2: The highlands of northern Thailand. Source: Phongpaichit and Baker, 2002.
To the lowlanders, the highlands were mainly used to extract teak, non-timber-forest products, and people, to be resettled in the lowlands. Another consequence of the signing of the Bowring treaty, and of the influence of the British colonialists on the deforestation of the highlands, was the logging of teak trees. Britain was involved in the extraction of teak in Burma, using the timber to build the boats it needed for its colonial expansion. From the 1850s, Burmese traders started operating in Thailand, and by the mid-1880s British teak companies had moved directly into northern Thailand (Grandstaff, 1976). However, the extraction was selective, with only teak being cut, hence the deforestation was rather limited.

During this period, a ruler’s power was determined by the number of people controlled, rather than the amount of land possessed. Since the lowlands were largely under-populated, various Lanna princes, and later Siamese kings and local aristocrats, tried to increase the population in the northern river valleys by resettling war prisoners from Burma and the Shan states (Phongpaichit and Baker, 2002), and encouraging the voluntary migration of mountain people to the lowlands.

After the kingdom of Lanna was annexed by Bangkok in 1896, the interest of the new rulers in the highlands decreased. The influential people in the kingdom of Siam were then large landowners, who controlled much of the farmland in the Rangsit area. Those in power had little interest in the highlands of northern Thailand because it was far from the centre of power (Bangkok) and it was mostly unsuitable for paddy rice farming. Besides, the lowlands still had very large forested lands. For these reasons, the highlands were left largely alone until the Second World War (Figure 2).

The pattern of colonisation of the lowlands continued until the Second World War, when it was interrupted by the disruption in world trade that resulted from the war. The end of the war brought about a new political-economic environment. Increased trade in the area which had come under the influence of the USA gradually shifted the power from one group, the landed elite, to another group, the industrialists, with the Thai economy slowly shifting its emphasis from increasing rice production to engaging in import substitution and export oriented policies. These policies focused on labour intensive manufacturing, agribusiness and logging, often supported by foreign capital. Figure 3 shows the gradual shift of the national economy from agriculture to industry.

Deforestation continued unabated, and from the Second World War to the 1980s the percentage of forested land decreased sharply. In 1947, 65% of Thailand was forested, while in 1982 it was only 25% (Feeny, 1988). As before the war, the loss of forest was to the benefit of paddy land. The area used for paddy increased from 35 million rai (1 rai = 0.417 acres, 0.16ha) in the early 1950s to 42.6 million rai in the mid-1960s, and to 59.4 million rai in the late 1980s, before decreasing to 56.2 million rai in the late 1990s (Phongpaichit and Baker, 2002). However, the causes of deforestation changed dramatically, as did the geographic region where it occurred and the actors who were responsible for it.
Unclaimed land in the lowlands soon became scarce, and the landless farmers increasingly had to move into the hills to find unclaimed land to clear and farm. Without the appropriate technical knowledge of sustainable upland farming, when attempting to clear a patch of forest using fire, they often destroyed a much larger area than originally intended (Kunstadter, 1978). They neither rotated nor followed their fields so that after only a few years, the land became infertile. They then moved on and farmed other areas in a similar, unsustainable manner. Because of the large number of people involved, eventually large areas of forests were destroyed (Kunstadter, 1978). Feeny (1988) estimated that shifting cultivation accounted for the clearing of about 500,000 hectares annually throughout Thailand.

Many of the lowland farmers who moved to the highlands started to grow cash crops instead of rice. Rice only generated low incomes because of the rice premium, a tax on the export of rice introduced in 1955 by the government, under pressure from the increasingly influential elite linked to the entrepreneurs in the manufacturing sector. In spite of different opinions on its many consequences (reviewed by Ingram, 1971), there is widespread agreement that the rice premium decreased the price of rice. This had several advantages for the manufacturing sector. First, by reducing the income received by Thai farmers, it forced a larger number of farmers to supplement their incomes by working in labour intensive industries. Second, it lowered the salaries in the industrial sector because of the large supply of labour it generated, and because the workers needed less money to feed themselves. Also, in the highlands it was not always possible to build paddy fields because of the lack of streams nearby, or because of the steep slope of the land. Land farmed with dry rice is half as productive as, and the harvest more variable than, that farmed with paddy rice (Kunstadter, 1978). This resulted in very low incomes to the rice farmers, and cash cropping became a preferred alternative.

From the end of the nineteenth century, the ethnic minorities that originally lived in the highlands, the Karen and the Lua, had been joined by other groups, this time from China through Laos: the Hmong, the Lahu, the Yao, the Lisu and the Akha. In 1860 China lost the British-Chinese Second Opium War, and was forced to open its market to British-Burmese opium. To reduce the imports of opium, China encouraged its production on the national territory. Since opium grows best at altitudes above 1000m above sea level, it was the ethnic minorities living in the highlands of Yunnan who became predominantly involved. The scarcity of suitable, fertile land above 1000m above sea level encouraged the migration of some households to Laos, and further south to Thailand, where some continued to grow opium. By no means all members of these ethnic minorities groups were growing opium, and the farmed areas were relatively small. In 1960 (the first year reasonably reliable surveys were made), the total ‘hill tribe’ population was estimated at around 217,000 people (Young, 1962). Elsewhere (Delang, 2002 p.493) I estimated that in 1960, the Hmong – the largest of the ethnic groups that migrated from China during that time – only had approximately 0.41% of the highland forest under active cultivation. It is true that including the areas being left fallow, the members of the ethnic groups that migrated from China might have been responsible for the deforestation of up to 5 or 6% of the highlands. However, most of this was naturally returning to forest, while the (larger) areas deforested by the lowland Thai farmers were not. So, the blame often put on the ethnic minorities for the deforestation of the highlands – especially in the press (see Kanwanich, 1997; Hutasingh, 1998; Janchitfah, 1999) – seems to be largely unfounded (see below).

Nevertheless, the Thai government encouraged projects to find crops that would substitute opium, usually with the financial assistance of the UN, the US, and various other governments (foremost German and Australian). It is quite likely that these projects have further contributed to deforestation, since they came in hand with the construction of roads, and the creation of a lowland market for temperate agricultural products, which encouraged the production, and facilitated the commercialisation, of highland crops. Many highlanders had an economic incentive in farming larger areas than they had farmed thus far.

Agribusinesses, which had little in common with the old lowland rice producing landed elite, became involved in the production of temperate climate cash crops, often with financial help from the government. In 1966, the government set up the Bank of Agriculture and Agricultural Cooperatives (BAAC) whose purpose was to increase the capital available to cultivators. Commercial banks were forced to lend a fixed proportion of the money deposited with them to farmers. However, ‘as most commercial banks found it difficult to administer loans to small and medium peasants, they preferred to lend to big
agribusiness or to make deposits with the BAAC, which in turn lent mainly to agribusiness or big cultivators’ (Phongpaichit and Baker, 2002, p. 60). National agribusiness firms were also encouraged with tax breaks, duty privileges and other promotional measures (Phongpaichit and Baker, 2002).

The government also encouraged foreign investment. From the mid-1960s, ‘the returns from uplands cash crop exports played a major role in the balance of payments. The government had an interest in promoting expansion’ (Phongpaichit and Baker, 2002, p. 59). The consequence was a boom in the land taken over by these crops, especially in the northern highlands from the 1980s onwards (Figure 4).

Deforestation did not only take place to increase agricultural land. Until the 1950s, logging companies concentrated on high value timber (such as teak), leaving the majority of the other trees standing, so that the forest area diminished slowly. However, from the 1950s onward, demand increased for all kinds of woods, and logging activities expanded at a rapid rate. In 1968, the government passed a law granting logging companies 30-year concessions to cut the forest, on condition that the area be replanted. Policing was difficult and there was little interest in enforcing the law. As a consequence, some tracts were grown with commercial trees, while others were transformed into agricultural land, or were simply left bare.

In the 1970s, another factor exacerbated deforestation in the highlands. The competition of the two superpowers for ideological hegemony in the political-economic realm was played out in many areas of South East Asia. This also affected the highlands of northern Thailand, where the forests became a refuge for the opponents of military regimes. Members of the Communist Party of Thailand had established bases in the forests in many provinces. These were joined by people ‘fleeing political repression following the massacre at Thammasat University on October 6, 1976’ (Hirsch, 1990, p. 52), and some members of highland ethnic minorities, most of whom were Hmong.

To deny territory to these people, the government built roads into the forests, and encouraged lowland farmers to settle along these roads. While the rail network (the expansion of which stopped at the beginning of the Second World War) had been developed to colonise the lowlands, the road network, largely financed by the USA (Muscat, 1990), facilitated the colonisation of the highlands, and expanded rapidly after the Second World War (Figure 5).

In theory farmers were only permitted to settle within a one-kilometre radius from the road. (Phongpaichit and Baker, 2002). However, when land there had become scarce, the farmers opened new fields further into the forest. Because every new village or field created in the forest meant less land for the communist insurgents, the army tacitly welcomed the diminution of land under the control of insurgents and did nothing to stop the farmers.

Logging also helped the policy of denying the forest to the insurgents, and it is not surprising that the government encouraged it. From 1973 to 1978, when the campaign against communist insurgents was at its peak, the forest in the north...
alone was being cut down at a rate of 345,600 ha per year (Phongpaichit and Baker, 2002).

Thus, from the end of the Second World War to the 1980s, the policies towards the highlands were increasingly run by interest groups linked to industrialists. These involved not only labour intensive manufacturing industries operating in the lowland, but also agribusinesses, mining concerns and logging companies operating in the highlands. Their flourishing was dependent upon international trade and good relations with the USA, which was financing much of the infrastructural development this group needed to prosper (such as road, electricity, a telephone network, and schools). The support of the USA, who needed an ally in the region when it was destabilising the neighbouring countries (Laos, Cambodia, Vietnam), helped the industrialists to thrive, and can help understand the pro-American policies of the Thai government (Muscat, 1990).

By the 1980s, this group had become the most powerful, and would determine the shift in policies towards the forest.

The northern highland forests – from the late 1980s to the present

The policies described in the previous section went on until the early 1980s, when the situation changed quite suddenly. In 1981-82, after closing the last forest base of the armed opponents to the regime, the military declared that the insurgents had been defeated. The end of communism reduced the justification for the military pushing back the frontier, while it was also in the interest of the industrialists, now by far the most powerful group in Thailand (Figure 3), that the frontier be closed.

In the early 1980s, to help create the political climate to stop land colonization, the Royal Forest Department (RFD) published satellite maps showing the extent of deforestation that had occurred during the previous two decades. In November 1988, a massive mudslide carried away two villages in the south causing the death of 251 people and affecting the livelihood of over 300,000 (McKinnon, 1997). Logging and the planting of rubber trees that replaced the original forest on the slopes above the villages were blamed for causing the mudslide. In 1989, after fierce protest by environmentalist groups, the government revoked all logging licences, outlawed the felling of trees and declared the closure of the frontier.

According to McKinnon (1997), logging and the planting of rubber trees was wrongly blamed and the logging ban was in fact imposed to provide a fillip for friends of the military who were placed in a position to take advantage of the ban by extending their logging operations not only into Burma but also into Cambodia and Laos’ (McKinnon, 1997, p. 125). Logging concessions were granted to Thai companies after General Chavalit, the army chief and future prime minister, had talks with the Burmese military. The sudden change from domestic production to imports is shown in Figure 6. Until 1988, domestic wood production was at about 2 million cubic metres. In 1989 this halved to less than 1 million cubic metres, and in 1990 it halved again. However, domestic wood consumption constantly increased. The difference was made up by
imports, which increased almost four fold between 1987 and 1990, to account for 88% of domestic wood consumption in 1990.

The closing of the land frontier ‘was not a question of expansion coming up against some kind of natural limit, although that was how it was often expressed’ (Phongpaichit and Baker, 2002, p. 81). The ban on logging and land colonisation was also to the advantage of those who had invested in the manufacturing sectors, and who had become the most influential group in Thai politics. This group had invested in labour intensive industries, which needed cheap labour. Since the closing of the frontier increased the number of landless peasants looking for work in the lowland labour-intensive industries, the owners of labour-intensive manufacturing industries looked favourably upon the logging ban.

The ban was also supported by a new influential group, the Bangkok based middle class. Traditionally, in Thailand, the forest has a negative connotation. For example, the term Khon paa (forest people) is a pejorative term for the backward, uncivilised, and wild, as opposed to Khon meuang (town people), which relates to the modern, civilised, clean, and well educated (Hirsch, 1990; Pinkaew, 2003). The new middle class, Bangkok based and increasingly westernised, with little contact to the countryside and the forest, gradually adopted a more romantic view of the forest, emphasising its beauty and the magnificence of the remaining highland forests. This increasingly influential group, whose concerns became conflated with that of the western conservation movement, was using moral concerns and ethical arguments to push for a conservationist approach to the remaining forests.

O’Neill (1996) and Hopkins (1995) have discussed the process by which the urban middle class is able to put pressures on governments to create protected areas in the humid tropics. The sequence of events that leads to the creation of protected areas usually begins with a threat, which can be of two kinds. First, rapid deforestation: when deforestation is particularly rapid, people might envision ‘the end of the forest’ more easily than when deforestation occurs at a lower pace. Second, little forest left in the country: when a country contains little forest, there is the fear that further deforestation would completely destroy it. The threat is felt particularly strongly when an unexpected disaster suddenly mobilises a large number of those who already felt the threat to ‘do something about it’, while also persuading the sceptics that indeed the forest is under threat. The large mudslide of 1988 was this unexpected disaster, and it occurred in a period when the large, educated middle classes living in the urban areas had the time and wealth to worry about the forest, and when the government had enough money to finance the creation of protected areas – the last condition for the creation of protected areas (Bates and Rudel, 2000).

In Thailand, the argument used to close the frontier is both environmental and economic, and can therefore appeal to the rest of the Thai population, including the farming community. The majority of the Thai population, 64% in 1994 (World Bank, 1996), are at least part-time farmers and dependent upon a constant supply of stream water. This constant supply is thought to be guaranteed by mature forests in the water catchment areas, many of which are found in the northern highlands. The popular press (e.g. Kaseem, 1996; Bangkok Post, 1997, 2000;
Nicholson-Lord, 1998), as well as some academics and non-government organisations (NGOs) (Kanwanich, 1997) blame deforestation for increasing sedimentation, reducing the amount of rainfall, and compromising the regular water run-off, causing flooding during the rainy season, and drought during the dry season. This water imbalance, in particular the droughts during the dry seasons, cause financial losses to the lowland farmers, since it compromises their ability to grow a second crop after the rice that is grown during the rainy season. These droughts also affect city dwellers, since they force the rationing of urban water supplies.

This argument on the negative consequences of deforestation in the highlands was used to justify the closure of the highland frontier. However, it is an argument not entirely backed by scientific evidence, since the relationship between deforestation and hydrological supply is not straightforward, and many other factors can be responsible for the water imbalance (Enters, 1992; McKinnon, 1997; Giambelluca et al., 2000; Walker, 2002).

With the attention turned to the highland forests, it is their traditional inhabitants, the ethnic minorities, which become the ‘natural scapegoat’ (Janchitfah, 1999) for the deforestation that had taken place during the previous decades. As non-ethnic Thai, the members of these groups have a low social standing and are the least powerful, of all those who live in the highlands (although alliances with NGOs do help them promote common interests [see Walker, 2001]). Many members of highland minority groups do not have Thai nationality, and are restricted in their civil liberties, freedom of movement, and access to jobs and social services (Ganjapan, 1996).

A disproportionate amount of blame for the deforestation of the highlands is now put on the highland minorities, both by the media and official government discourse. As a senior government official said in the 1980s: ‘Forest destruction in the Northern region could chiefly be blamed on the hill tribe people’ (quoted in Pungprasert, 1989, p. 364). In fact, placing such blame on the ethnic minorities was nothing new even in the 1980s. The National Reserve Forest Act of 1964, written while the government was busy building roads to facilitate the access of the highlands, and encouraging logging and the migration of lowland farmers, mentioned that ‘swidden cultivation is regarded by law as harmful to the economy of the nation and is indirectly prohibited’ (quoted in Rerkasem and Rerkasem, 1994, p. 10).

While deforestation was caused by a number of different groups and for several reasons, it is swidden cultivation which was considered the main source of forest loss. It cannot be denied that shifting cultivation can be destructive of the forest. However, while both lowland Thai and highland minorities were swiddening in the highlands, it is the latter, among them especially the Hmong, who were primarily blamed (e.g. Kanwanich, 1997; Bangkok Post, 1997). This is in spite of the relatively small number of people belonging to the ethnic minority groups. In 1960 the ethnic minorities living in the highlands were estimated to number around 217,000 (Young, 1962), in 1987 they were 551,000 (Tribal Research Institute 1989), and in 1996 there were only 790,000 people (Kampe, 1997). Many ethnic minority villages were – and still are – threatened with resettlement to the lowlands (Buergin, 2002; Delang, 2002).

In fact, secondary forest swiddening, as practiced by the Karen and the Lua, has been described over and over again as a sustainable way to farm the highlands, and a very environmentally friendly farming technique, as it increases biological diversity and species diversity (Kunstadter, 1978; Schmidt-Vogt, 1998, 1999). It is then somewhat ironic that people who have lived fairly sustainably in the forest for centuries are being blamed for deforestation, and are being forced to move out of the forests by those who were the primary cause of deforestation.

**Conclusion**

This article described the historical development of forest use in Thailand and the reasons for the deforestation that occurred from the beginning of the nineteenth century to the present. During this period, deforestation was influenced by power relations at both the international and national levels. At the international level, deforestation in Thailand was influenced by the policies of the colonial powers (Britain, France, USA), not only towards Thailand, but also in the neighbouring countries. At the national level, deforestation was influenced by the shifting power relations within the Bangkok elite, between landowners, industrialists and environmentalists, and by the conflicts between lowland Thai farmers and highland minority people. Some of these interest groups have similar objectives, and are therefore able to collaborate. This was the case of the landed elite and the industrialists until the 1980s, as well as the industrialists, the military and the
environmentalists after the 1980s. However, sometimes groups have different objectives, and they enter into conflict. This is the case of the ethnic minorities living in the highlands and the three groups just mentioned. This article has shown that even though shifts in the political realm have altered the causes of deforestation, the latter has continued unabated until the end of the 1980s.

The article also looked at the ways that moral discourses about the forest are constructed, and how the idea of nature has shifted through time, mediated by the processes of economic and social development. Finally, the article dealt with the discourses of responsibility for environmental degradation. When the media looks for an easy scapegoat for the problems that its readership – or its owners – may have created, it is often the groups that have the least power and political representation that are disproportionately blamed. In Thailand, this is the case with the ethnic minorities living in the northern highlands. Unfortunately, continuing to single out a segment of society prevents solution to these problems – be they deforestation or water imbalance – from being sought.

Notes
1. Without the rice premium, the farmers would have received 23-85% higher prices for their rice (Hirsch, 1990).
2. In fact, according to Anderson (1993, p. 43) more lowland Thai practised shifting cultivation than did all the tribal people combined.

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References


Bangkok Post (2000) ‘We brought this upon ourselves’, 27 November.


