

CHAPTER 2

THE POLITICS OF FOREST MANGEMENT IN MYANMAR: AN HISTORICAL PERSPECTIVE

This chapter will explore the State's control of forest management for commercial purposes and the politics surrounding it during the key periods of change within Myanmar. Changes in the forest laws and policies will also be reflected through changes in society and government. It can be argued that the changes that have taken place in terms of forest control and forest policies in Myanmar have been essential, both for the economic development of the country and also for the consecutive ruling classes that have been in place since the colonial period. This chapter is mostly the product of my secondary data analysis and will focus on the overall implications of forest management policy from a historical perspective. Given this context, I do not intend to review in detail all of the literature on forest laws and forest resources in Myanmar; however, it *is* necessary to understand how forest management has been carried out throughout the political history of the country. Focusing on a review of the evolution of forest management, forest policies and laws in Myanmar, from the colonial period to the present, I will analyze how forest management policies have dealt with shifting cultivation practices, and the differences in the level of local people's participation between the Taungya forestry system and the more recent community forestry initiatives put in place by the Forest Department.

Although Myanmar had vast areas of forest in the past, forest resources have more recently been diminishing, such that now it has one of the highest rates of deforestation in Southeast Asia. Forest resources have decreased due to population pressure, agricultural expansion, urbanization and the rising demand for fuel wood, forest land and forest products, and as a result, the degradation of forest resources is now a serious issue. During the colonial period, about 90 percent of the total country's land area was forested (Furnivall, 1909), but this had decreased to 56 percent in 1990, then to 51 percent in 2000 and 50.2 percent by 2005 (FAO, 2009). According to the

FAO's Forest Resource Assessment (2005), between 2000 and 2005 the average annual net loss in forested area was 1000 hectares annually. By 2003, Myanmar had a forested area of 343,767 square kilometers, representing 50.8 percent of the total land area, with 20.66 percent identified as reserved forest and public protected forest (Oo, 2003).

Table 2.1: Forest Cover in Myanmar

Category	Area (km ²)	% of total area
Closed forest	293,262	43.34
Degraded forest	50,968	7.53
Forest affected by shifting cultivation	154,389	22.82
Water bodies	13,327	2.01
Non-forest	164,624	24.3
Total	676,577	100

Source: Forest Research Institute, 1991

The forests of Myanmar are of significant economic value, and their resources are of vital importance, since about 70 percent of the total population who live in rural areas depend extensively on forests for many items - for fence posts and poles, fuel wood, fodder and food (Oo, 2003). Myanmar has for a long time recognized the essential role that institutional instruments play in sustainable forest management (Ohn, 1995), and it has its own institutional arrangements for forest management, with forest laws and rules in place. Along with development and the changes taking place in the country, the forestry policies of successive governments have changed in accordance with the different objectives and strategies adopted for forest management over time. In Myanmar, forest resources and forest land are owned and strictly controlled by the State. The Ministry of Forestry has primary responsibility for the administration and management of the forestry sector, and the Forest Department is the Ministry's main arm for developing forestry policy and for carrying out project implementation (FAO, 2005) - responsible for the conservation of wildlife and sustainable management of the forest resources. Bryant (1997) argues that the study of forest politics in Myanmar is also about exploring political conflict as engendered

by state forestry policies. Adopting the political ecology perspective and encompassing the role of the State, peasant resistance, bureaucratic politics and perceptions of resource use in terms of forest access and conflict, he notes that Myanmar's forest policies can be understood in relation to three notions: (1) that the forests are contested resources, (2) that the Forest Department is a resource manager, and (3) that there exist conflicting perceptions of forest use.

This section provides an historical perspective of Myanmar's forest management regime and policies from the colonial period to the present, dividing this timeframe into three periods: (1) from the colonial times to 1948, (2) from 1948 to 1988, and (3) since 1988.

2.1 Colonial Management and Laissez-faire Forestry: Forests Reserved for Commercial Exploitation

Forest management in Myanmar can be traced back to the colonial period. Forest management by the British colonial government needs to be understood because the current Forest Department, which has long been taken a central role in control of forest management in Myanmar, was created and the forest laws and policies first formulated during the colonial period, in order to systematically control forest access. Here, I will outline the results of my research on forest management and exploitation during the colonial period and up until the country gained independence in 1948.

To understand forestry in Myanmar one has to appreciate how contemporary developments have been shaped by the colonial legacy of attempted state control, as well as the popular resistance to such control (Bryant et al., 1998). Forest policies since the colonial days have been in place to administer and manage the forest as State property based on scientific principles, in order to produce the highest, sustained annual yield of timber for export and domestic consumption, and while trying to improve the condition and stock of the valuable tree species.

During the early years of colonial rule in lower Burma (1826-56), the British failed to regulate forest use. After the first Anglo-Burmese war (1824-6), the British allowed private firms to freely exploit teak forests in the occupied territories of

western and lower Burma, such as Tenasserim (now Tanintharyi) and Arakan (now Rakhine). From 1827 to 1829, the British colonial government had a monopoly on Tenasserim's teak forests in accordance with market demands (Ohn, 1995). During this period, forestry rules were ineffectual due to the absence of a forest service or department entrusted with their enforcement. The British Government ended its teak monopoly in Tenasserim in 1829, in favor of a *laissez-faire* system which permitted private firms to extract as much teak timber as they wished from any forest in the region, with the main conditions being that they must keep the government informed of their operations and that trees with a girth at breast height of less than four feet must not be felled. In 1841, the minimum harvestable girth of four feet was raised to six feet and the traders were required to plant five trees for every one extracted. However, in the absence of adequate qualified supervising staff, these rules were unrealistic and ineffective; the traders did not obey the rules - rather they maximized yields and profits. Bryant (1997) refers to this state of affairs as *laissez-faire* forestry, and this led to extensive over-harvesting and resulted in depletion of the forests. Rule-breaking and over-harvesting were integral to the *laissez-faire* system, and as a result, the best forest tracts had been exhausted by the late 1880s, and the forests cleared of marketable teak after less than 30 years (Bryant, 1997). Ohn (1995) supports Bryant's argument by stating that these *laissez-faire* practices continued in Tenasserim until 1857, highlighting it as a bad period in the history of timber harvesting in Myanmar.

The depletion of the Tenasserim teak forests under the *laissez-faire* approach led to state intervention in forest management after the lower half of the country fell into the hands of the British with the second Anglo-Burmese war in 1852, with the British Government starting to protect the forest using rules and plans. In 1853, the Government declared that the forest was state property and prohibited unauthorized teak extraction. All teak trees to be harvested had to be selected, marked and girdled by the superintendent of forests (Bryant, 1994). Later, in 1856, the Forest Department was created and was given extensive powers to regulate forest use, marking a shift from the *laissez-faire* approach to forestry management, to a scientific approach.

Lieberman (1984) states that the attempts to control the teak forests by the British Government were not new, because the previous monarchical states in Burma also sought to regulate the forests, but controlled little in practice after the 17th

century. What was new; however, was the ability of the colonial state to actually enforce its laws, through a combination of military force and organizational skills - asserting its jurisdiction over all but the most remote teak forests.

During the colonial period, not only was unfettered private extraction blamed for a depletion of the forests, but also shifting cultivation. Being in charge of forest management, the Forest Department began to create 'reserved forests' - state owned and managed forests dedicated to commercial timber exploitation. The icon of colonial forest departments was the forest reserve, which was designed to ensure that particularly valuable species would be protected and be able to regenerate within their natural habitats. It was considered that the forests needed protection against both local populations and the demands of outside competing interests (Potter et al., 2003). The rules for creating reserves were carefully framed so that the Forest Department could extend its rights and claims over the forest areas, exclude land from shifting cultivation and adjudicated on rights of way, forest products, watercourses and grazing. The creation and management of reserves was felt to represent an unacceptable level of interference by the local cultures, and the Forest Department was disliked by local populations and its control of the forests contested - creating popular resistance to the assertions of state control over forest resources. The Forest Department attempted to control private timber extraction and restrict shifting cultivation, but with the closing of the agricultural frontier and growing peasant deprivation, the confrontations between forest officials and peasants become more frequent, and as a result, forest administration became one of the more contested aspects of colonial rule and the process of control and resistance escalated, creating what Scott (1985) has termed 'everyday forms' of resistance.

In the reserved forests, foresters aimed to exclude all forms of indigenous forest use, including shifting cultivation, cattle grazing, tree tapping, timber extraction and honey collection, so an integral part of colonial forest management was the imposition of access restrictions on local peasants, timber traders and shifting cultivators, who were considered a threat to the teak forests (Wint, 1996). At the time, Op (1911) admitted that shifting cultivation among the ethnic hill groups did harm the forests, but believed it was impracticable to try and abolish their practices, so suggested adopting a kind of mixed agro-forestry system, well-known as the *taungya*

forestry system. In order to reduce conflict between the Forest Department and the cultivators, the above-mentioned re-forestation technique, known as the *taungya* forestry system, was implemented. This scheme was based on the idea that if the cultivators planted teak with their rice and other crops, the Forest Department would be left with teak plantations once these cultivators had moved to other fields. The employment of shifting cultivators in order to create teak plantations was one of the more innovative aspects of forest policy in colonial Burma (Bryant, 1997). The closing of the agricultural frontier in lower Burma which occurred around 1914 put more pressure on available forest resources. As a result, the *taungya* system was implemented to establish forest villages inside reserves, where people could have free access to forest resources in return for silvicultural work, the aim being to increase the amount of teak or other valuable timber within the reserve (Potter et al., 2003). After the whole of Burma fell under British rule in 1885, the above mentioned rules and regulations were extended to the management of forests across the country. In this way, the colonial state's claim to Burma's teak forests was asserted at the expense of other forest users (Bryant et al., 1998).

The first forest policies for Burma were derived from the forest policy introduced for India in 1894 (Forest Department, 2003). Under this policy, forest areas were classified into four main classes: (1) Protection forests (to protect the watershed and deter soil erosion), (2) Commercial forests (to supply timber for commercial purposes), (3) Local Supply Forests (to supply the local population with fuel-wood, building materials and non-wood forest products), and (4) Natural Forests.

The first forest legislation applied to Burma was the India Forest Act of 1865, which was replaced by the Burma Forest Act 1881. The latter Act strengthened the State's grip on teak and laid down procedures for the preservation of forests. Shifting cultivation and unauthorized encroachment were strictly prohibited within reserve forests, but on the other hand, the Act included a provision for village-forests to provide communities with fuel-wood, timber and other forest products; however, no specific provision in terms of local communities' right to access the forests was included in this Act. As a result, only local supply forests and village forests were really created in Burma, and many forests were perceived as being locked-away from any kind of local use (Potter, 2003). There were reserves in Burma which were under

the control of the Forest Department for 30 years and in which no form of professional exploitation or organized improvement took place (Op, 1911). In fact, with little emphasis on local communities, this Forest Act was mainly aimed at the reservation of forests for long-term commercial exploitation of timber. In 1902 the Forest Act was re-enacted with a few alterations, but the main objective remained as before; to reserve the forests for sustained commercial exploitations, and so the government contract system of teak extractions opened the forests to private enterprise.

Therefore, the purpose of forestry policy during the colonial period was to administer and manage the state forests based on scientific principles, in order to produce the highest, sustained annual yield of timber for export and home consumption, while trying to improve the condition and stocking of the valuable tree species. Tailoring the legislation in order to maximize efficient resource extraction was the main aim of the management of natural forests in colonial Burma (Ohn, 1995); however, Bryant et al. (1998) state that state forest control during the colonial period was weak, even before British rule ended in early 1942, because it was challenged on a number of fronts - control was difficult precisely because state power was generally weakest in the forests.

2.2 Centralized Forest Management as part of the Socialist Development Policy (1948- 1988)

After Burma gained independence from British colonial rule in 1948, the forest policies of the British Government continued to be used. Post-colonial forest politics began with the Burmese Government embarking on a socialist development strategy, culminating in the 'Burmese Way to Socialism' program, which attempted to control and exploit the forests. The shift from colonial capitalism to socialism highlighted the dominance of a centralized system of forest control (Bryant et al., 1998). Steinberg (1997) mentions that the Burmese Government chose socialism as a state control method as a reaction to the foreign domination of the economy during the colonial period, when European firms, together with Indian groups and to a lesser degree, the Chinese, held away over the country. Socialism was thus seen as a way to return the economy into the hands of the Burmese people. However, though forests

became state property, control of the forests was maintained for long-term commercial exploitation, as before. As with the colonial forest management system, village communities and forest dwellers, though they were given limited forest access (to village forests and local supply forests), were not the primary beneficiaries, and the long term commercial exploitation of forests was the major goal of such policies. During the colonial period, European timber firms exploited large swathes of Burma's forests, and after independence, private enterprises continued to exploit the forests, though the State was the sole owner of all land and all natural resources, regardless of the location.

Following the military coup in March 1962, the Burmese style 'Socialist Programme Party' came into power, its aim being to impose a totalitarian system on the country. A new socialist Government was formed and the policy emphasis of the Government was consumer welfare and the extensive use of food subsidies; private marketing was prohibited. State controls and interventions were introduced covering all sectors; private land ownership was changed to state ownership, and the previous land holding rights of farmers was replaced, becoming 'land tilling rights'. The Government attempted to organize the forestry sector in accordance with socialist principles, and in the process nationalized the teak industry. Bryant et al. (1998) reveal that nationalization ensured that control of the lucrative teak trade lay with the State, an important part of establishing a socialist economy in Burma. A state-owned agency called the State Timber Board (STB) was established, under the control of the Ministry of Agriculture and Forests (MAF), which took sole responsibility for extracting, milling and marketing all kinds of timber. The power of the STB derived from its control over all aspects of the teak trade: extraction, milling and marketing (MAF, 1952). With state control over the timber trade, the STB carried out logging and timber extraction under the supervision of the Forest Department. The Forest Department, which had once played a major role in teak extraction, was confined to conservation work and girdling (killing) of teak trees in preparation for extraction by the Myanmar Timber Enterprise (MTE). As a result of its control over the teak trade, the STB (in 1972 renamed the Timber Corporation and after 1988, the Myanmar Timber Enterprise) became the key agency within the forest sector, with its activities given priority by senior political leaders over those of the Forest Department (Bryant

et al., 1998). During this early period, although teak production did not reach the levels seen during colonial times, the forestry sector earned a lot of foreign exchange and played a key role in the economic development of the country (Oo, 2003).

During the period 1962 to 1972, and under the management of a socialist republic government, Burma became an isolated nation with very few political, economic or cultural links with the outside world. All the natural resources sectors, including forestry, suffered from policies introduced under socialist principles. The continued intervention of the State contributed to the persistence of segmented markets and price distortions, including continued high inflation (Soe, 1994). During the 1970s, the country's general economy declined, and the average annual inflation rate reached 28 per cent in 1986, mainly due to huge increases in fiscal deficits financed by foreign loans and due to borrowing from the banking sector. The decline in the economy of the country led to a boom in the export of teak in relation to rice and other primary exports; for example, forest exports (mostly teak) constituted 25 per cent of total exports at this time, with the figure rising to as much as 50 per cent in later years (Steinberg, 1981). The economy gradually deteriorated, the outcome of which was food shortages and the development of black markets across the country, and Burma was eventually given 'least-developed' status in 1987.

Another theme of forest politics in Burma at this time was the State's campaign to assert territorial control, in light of the prolonged insurgency movements that began with the civil wars soon after independence in 1948. The multiple insurgencies and anti-government forces, especially in the forests of the hilly boarder areas, impeded the State's efforts to exploit the teak forests. In order to work inside the teak forests during the insurgent activity, STB and Forest Department employees had to receive military escorts (Bo, 1963), and in certain districts, forest officials were unable to visit the forests formally under their charge. The control of the State over an ever larger proportion of the national territory grew after the socialist state of Burma was formed. As military control was achieved, Government control over the country's most valuable teak forests was fully restored for the first time since 1942. As a result, teak extraction accelerated in many parts of the country, resulting in a situation

whereby these valuable forests, long protected as a result of fighting, were seriously over-exploited (Smith, 1991).

Forest politics during the socialist period concerned the State's ongoing efforts to prevent forest use incompatible with large-scale commercial forestry. As with their colonial predecessors, the Burmese foresters persisted in the view that shifting cultivators destroyed the prime forest land (Htut, 1955) and continued to perpetuate the *taungya* forestry system. In the late 1970s, a rapid expansion in the commercial teak planted area (by at least 1600 hectares per year) owed much to the participation of shifting cultivators in this system (FAO, 1978). On the other hand, the forest authorities attempted to persuade cultivators to halt their destructive activities and adopt a sedentary lifestyle; for example, to protect ecologically vulnerable watersheds. The Kinda Dam Watershed Management Project was initiated in 1987, an important aim of which was to reduce the scope of shifting cultivation through the use of incentives, demonstrations and technical assistance (UM, 1990). However, just as in the colonial era, shifting cultivators resisted these attempts to alter their lifestyle.

Therefore, the main theme of post-colonial forest politics in Burma was the State's attempts at imposing control over forest management activities according to state socialist principles. The forestry sector remained under the strict control of the State, and as a result, activities typically associated with the development of a forestry industry were not developed in the country, and the economic ineptitude of the State under a socialist program (along with the insurgencies which also limited production in contested areas), helped to maintain the country's forest cover over a longer time period than in neighboring countries (Bryant et al., 1998). The Government increased its control over the forests through the consolidation of extraction activities into the hands of the STB, by seizing an ever greater area of national territory from the insurgents, and by attempting to regulate non-state forest uses deemed detrimental to commercial forestry, and with socialism as the official policy.

2.3 Forest Management and Maintaining State Power (1989 to the present)

As mentioned above, as a result of the central economic planning system introduced by the socialist government, Myanmar (the name was officially changed from Burma to Myanmar in 1989) faced its most severe economic crisis in the 1990s,

and forest management also took on a distinctly political and economic hue, one that differed from both the colonial and socialist era. Following the outbreak of democracy movements across the country and the military coup in September 1988, the State Law and Order Restoration Council (SLORC) was set up to assume power and stabilize the political and economic situation, officially changing the name of the country to Myanmar.

Since that time, SLORC/SPDC has abandoned socialism and shifted the economy from a centrally-planned to a market-oriented system. The main policy changes introduced by SLORC have been to replace the former socialist government's "welfare first, import substitution, and inward-looking programs" with "growth first, export-promotion and outward-looking programs". However, the State has retained strong control, despite the significant liberal market reforms, by extending special privileges to joint-venture companies that are quasi-government agencies (Young, Cramer and Wailes, 1998). In line with its goal of developing a market-oriented economy and becoming financially self-sufficient, the Government has granted logging concessions along the Thai-Myanmar border to Thai firms (Smith, 1994), and Myanmar forest politics has come under the wider influence of the State's apparatus. In early 1989, the SPDC announced that twenty logging concessions along the Thai-Myanmar border had been allocated to Thai firms, and further concessions were granted thereafter, resulting in severe social and ecological impacts (Geary, 1994). Cultivators were displaced to make way for logging - in turn moved to upland areas and exacerbating land degradation there. Bryant et al. (1998) point out that a combination of careless and extensive logging, poor road construction and upland agricultural clearance has resulted in extensive deforestation, soil erosion and flooding. Although many private sector firms are permitted to harvest and export hardwood other than teak, the MTE has retained a monopoly over the harvesting, processing and export of teak. The Government has also granted logging concessions to the armed ethnic organizations as part of ceasefire deals in the border regions of the country. The SLORC era (pre-1989) can be said to have been marked by extensive logging, not only along the Thai-Myanmar border, but also elsewhere in the country, notably in central and northern areas, resulting inevitably in serious teak over-cut in accessible forests.

The Government has encouraged private enterprises in the natural resource sector as part of an 'open-door' or 'market-based' approach to economic management (Taylor, 1991), notably in the oil and natural gas sectors. However, continued border conflicts and a lack of confidence on the part of local private investors have limited the economic development of the country. In terms of teak extraction, the role of the private sector has been confined to Thai logging firms operating in the border areas, and the MTE operating in other parts of the country; however, the extraction of other types of commercial hardwood has been opened to other, local private firms, though due to indiscriminate felling and a failure to follow procedures, as is the nature of a market-oriented system, logging and log exports by the private sector was banned in 1994 (MF, 1993). Deforestation has continued; however, and forest cover had reduced from 60 percent of the total forest area in 1948, to 52.3 percent in 2000 (Oo, 2003).

The quest for higher teak production levels since 1988 has led to the SPDC over-ruling the Forest Department, which remains a powerless institution beholden to the MTE and SLORC itself. Within the Forest Department, even the senior forest officials earn salaries which amount to as little as US\$20 to 25 per month, as a result of which they have to find supplementary sources of income in order to survive. Forest officials in Myanmar these days have been reduced to the role of poorly paid 'validators' of often highly destructive state policies (Bryant et al., 1998). As a result, the growth in illegal logging since the imposition of a total ban on private logging has not been checked, due to an under-staffed and demoralized Forest Department (Smith, 1990). In this way, Bryant et al. (1998) conclude that SLORC has committed to allowing the private sector a role in future forestry operations, thereby abandoning the long-standing post-colonial quest for a socialist forestry policy.

Bryant (1998) also remarks that two of the main reasons for the Government's stance on the commercial logging of teak have been for its survival and for modernization purposes. Following the domestic political unrest and 1988 military coup, there was a severe shortage of available capital to finance infrastructure improvements in the country. The financial situation was made worse due to the sanctions brought in by the international community, with foreign trade coming to a standstill. Finally, to obtain some relief from its debt, the country became categorized as a 'least developed country' in the eyes of the world. In an urgent rush to sell the

country's natural resources, the Government hastened to cash in on teak, gold and gem deals, plus gain control of lucrative trade routes to China and Thailand. For this reason, Chinese and Thailand firms became heavily involved in harvesting teak in the north and southeast of the country. The significance of teak within this great resource sell-off was considerable. In 1989-90, timber exports (mostly teak) accounted for 42 per cent of all export earnings (Smith, 1991), and up to 1995, the forestry sector earned the highest export income of US\$160 million annually. With the growing political and economic stability introduced by the SPDC, the forestry management regime went out of control due to increasing trade with Yunnan in China and the integration of Myanmar into the booming Chinese economy (Smith, 1990). The Government maximized exploitation of the forest resources as a means to generate the revenue necessary to achieve modernity. In the process, the country's already high deforestation rate (6,000 sq. km per year) accelerated (Blower et al., 1991). As the role of forests in Myanmar's modernization programs has grown, so the plight of the ethnic minorities, those whose livelihoods depend on the natural resources within their local area, has worsened due to being forcefully pushed aside by the State.

During the colonial period, deforestation in Burma was mainly caused by commercial extraction by European firms. After independence, deforestation was linked not only to commercial timber extraction, but also to the increasing needs of the population. In the early period after independence, the forest harvesting policy of the Government proved to be as suitable as before, when the population of the country was comparatively low and the demand for raw materials by the wood-based industries within the private sector was much lower than it is now. However, nowadays in Myanmar, as a developing country and under its current political and socio-economic situation, local people's dependence on forest resources is extremely high, and the forests continue to provide local people with posts, poles, fuel-wood, fodder and food. However, after the colonial period, local people's access to the forests was limited in three different ways (Oo, 2003):

- (1) Local supply forests were designated at the fringes of the reserved forests, to supply the needs of local people in terms of forest products

- (2) Dry fuel-wood and bamboo were allowed to be collected under a ticketing system from the reserved forests – those designated for the commercial production of timber, and
- (3) Tree species other than reserved species were allowed to be felled for personal use in public forests located within twenty miles of the respective village.

These methods were able to satisfy the needs of local people in the past; however, as the population of Myanmar has grown, these methods have not been able to meet the increasing demands of local people, so in order to meet these demands, it has been necessary either to increase the output of land currently under cultivation, or to increase the cultivated area. Unfortunately, it is difficult to increase the output of land, due to the high cost of inputs such as fertilizers, pesticides and irrigation, so more forest land has been cleared to make way for agricultural land, particularly in the form of permanent cultivation in populated areas, and shifting cultivation in hilly regions. Up until recently, 28 percent of the total land area in Myanmar was forested area affected by shifting cultivation, which is the main underlying cause for deforestation in Myanmar (Forest Department, 2003). Much forest land has been transformed into cultivated land for agricultural purposes - even in the reserved forest. The Forest Law has not been able to overrule the social and economic needs of local people (Ohn et al., 2003), but due to deforestation and soil degradation, the productivity of agricultural land has declined and local people now face a scarcity of forest resources, particularly fuel-wood, for their daily use.

After 1992, the Myanmar forest authorities started to consider the role of local people in forest management, because the alarming deforestation rate and the deteriorating socio-economic conditions in rural communities called for a change of forest management strategy towards a more local community participatory approach in managing forest resources (Oo, 2003). A new Forest Law was enacted in November 1992, to replace the old 1902 Forest Act. The new law, although replicating much of what was in the old colonial law, links forestry management explicitly to social and environmental considerations, covering environmental, economic and social aspects such as the conservation of biodiversity, and the establishment of commercial forest plantations for sustainable production by both the State and private sectors. It also encourages the formation of community forests by

adopting a local participatory approach, particularly to satisfy the basic needs of local people (Forest Department, 2000). According to the new law, local communities can establish fuel-wood plantations and they have the right to use the products of these plantations for their own benefit.

As a result, the forestry sector is now linked with, not only economic aspects, but also environmental stability, biodiversity and ecological balance. The sustainable management of forests has become an important concept in the development of the country's forest resources. Policy intervention is thus seen as needed to maintain a balance between utilization and conservation; to benefit both man and nature, and to make sure that this equilibrium is sustainable.

The Myanmar Forest Policy of 1995 was reformulated in line with the forestry principles adopted at the Earth Summit Conference in 1992. The policy highlights the importance of people's participation in conservation efforts and the utilization of forest resources, and stresses the importance of the continuous monitoring of all forest operations, as well as maintaining an ecological balance and environmental stability. From this policy, further important institutional instruments were developed in order to support the implementation of the policy's stipulations, these being the Forest Rules (1995), the Protection of Wildlife, Wild Plants and Conservation of Natural Areas Law (1994), the Community Forestry Instructions (1995) and the Myanmar Agenda 21, together with Environmental Policy (1995), the National Forestry Action Plan (1995), the Criteria and Indicators for Sustainable Forest Management (1999), the Guidelines for District Forest Management Plans (1996); the National Code of Practice for Forest Harvesting (2000) and the National Framework for Environmental Law.

During the colonial days, the British foresters attempted to establish plantations for teak and other valuable commercial species in order to compensate for the trees that had been extracted. Since that time, the Forest Department has remained firmly committed to scientific forestry principles and concerned over how to guarantee future teak supplies. The Forest Department promotes the establishment of teak plantations on favored reservations of the best tracts, "to be converted gradually into more or less compact teak forests (Bryant 1997). During the period after independence in Myanmar, from the early 1970s, and due to population pressure and

the ever increasing demand for timber for both domestic and foreign use, the Forest Department established block plantations in those areas with degraded forests and a poor stock of teak and other valuable commercial species. The reservation thus became the Forest Department's main way of ensuring the production of teak in the long term. The original forest reservation concept had as its main objective to have up to 30 percent of the country's area under reserved forests, but progress has been rather slow due to a limited budget allocation and insufficient staff to manage forestry operations (Ohn, 1995). Among many forestry operations, such as girdling the teak and selecting the trees to fell, marking is carried out by the Forest Department in order to regularize harvesting operations by the MTE; however, in areas where there are security problems, forest management is virtually ineffective.

Table 2.2: Reserved Forest Cover Area in Burma/Myanmar

Sr. No.	Period	Reserved Forest Area (sq miles)	Protected Public Forest Areas (sq- miles)	Total Area (sq miles)	Percentage of Land Area
1	1881 to 1904	24,010.94	-	24,010.94	9.19 %
2	Up to 1988	38,878.6	-	38,878.6	14.88 %
3	Up to 1997	39,895.31	249.31	40,144.62	15.37 %
4	Up to 2004	46,890.08	11,292.59	58,182.67	22.27 %

Source: Forest Department (FD), Myanmar

In 1995, the Forest Department issued Community Forestry Instructions (CFIs), to support economic development and the environmental stability of the country, plus address the basic needs of the local communities. This has been the significant breakthrough in the forestry sector in Myanmar; shifting from the old concept of reservations, revenue generation and restrictions, to community-based forestry.

2.4 People's Participation under the *Taungya* and Community Forestry Systems

Both the *taungya* forestry and community forestry systems are forestry programs which involve local people, though there are differences between them. There are two definitions of the *taungya* system – referring to forest management and local cultivation methods in Myanmar. In the Burmese language, the word *taungya* is synonymous with hill cultivation, as mentioned above in Section 4.1.1. In Burmese, *taung* means hill and *ya* means cultivation, or dry farming. To be more precise, the practice of shifting cultivation is known as *shwe pyaung taung ya* in Burmese, where *shwe payung* means shifting and *taungya* means hill cultivation.

Shifting cultivation has been a traditional way of life for certain ethnic groups, both in the lowlands and the hilly regions, for many centuries. It can be defined as a method of growing a variety of agricultural crops with or without trees - on hill tops and on slopes, after having cut down an area of forest or a secondary growth of trees and shrubs, burning the leftover material, cropping for one or more years and then moving on to the next area to repeat the same process (Wint, 1996). An estimated ten million people are involved in shifting cultivation in Myanmar, especially in the upland regions (Forest Department, 1995). State forest agencies and environmental conservationists consider shifting cultivation as one of the major causes of forest degradation and depletion in Myanmar, threatening the sustainability of the forest estate and the forest resources, and due to demographic pressure, shifting cultivation is no longer sustainable with shorter rotations. When used during the colonial period, the *taungya* system was also a key cause of forest cover loss (Tint, 2002); however, it was not simply an economic practice of the landless poor in and around the forest, but both a cultural practice and a way of life, especially for the ethnic groups residing in the upland regions such as in Kachin, Kayah, Karan, Chin and Shan States. The practice of shifting cultivation is linked to the local people's knowledge systems, production techniques, tools, rights and regulations, values, traditions and rituals.

In Myanmar, the term *taungya* could be understood in two ways. Normally, the term *taungya* referred to the growing of agricultural crops on the hill tops and slopes, as practiced by various ethnic groups and tribes living in the upland regions in

Burma (Wint, 1996). However, it was also locally known as a cultivation method, and this interpretation was generally known by the international forestry community as a reforestation technique, or as a system of creating forest plantations. As mentioned above, the *taungya* forestry system involved the growing of selected trees species mixed with suitable agricultural crops by the cultivators, with the objectives of establishing man-made teak forests. In light of the above, the local people's participation in forest management through the internationally-known *taungya* forestry system and community forestry system will be analyzed in the next section.

The *taungya* forestry system was a reforestation technique which employed shifting cultivators. The underlying objective of the *taungya* system was to control the shifting cultivation practice and establish commercially valuable forest plantations employing shifting cultivators. Having been devised based on shifting cultivation, it was the first people-oriented forestry program to be used in Burma – and was carried out during the British colonial period. The employment of shifting cultivators in order to create teak plantations was one of the most innovative aspects of forest policy in colonial Burma. The system represented a far-sighted attempt to establish teak production on a long-term basis, and indeed, its adaptation of what many colonial officials viewed as a destructive and primitive form of agriculture to a more 'useful' end guaranteed its popularity in a broader imperial context (Bryant, 1994). Even today, the use of shifting cultivators for commercial tree planting remains an acknowledged agroforestry technique in Myanmar.

Under the *taungya* forestry program, commercial forestry plantations such as teak, pyinkado and padauk plantations were established, and under the agreements between the Forest Department and the *taungya* farmers or shifting cultivators, they had responsibility for tending and protecting the forestry seedlings, and were allowed to cultivate annual agricultural crops along with the forestry seedlings during the early years of the plantations. This agreement usually lasted two or three years, and the *taungya* farmers were allotted a selected area of about one to two hectares per family. After clearing and burning the area, they had to plant tree seedlings at a spacing of 2.6 meters and their agricultural crops, such as rice, maize, groundnuts and sesame were also planted between the tree seedlings.

The Government launched the *taungya* forestry programs with the primary aim of controlling shifting cultivation, in addition to reforestation purposes. Under these programs, *taungya* farmers were allowed to participate in the Government's reforestation schemes and had the right to cultivate crops in the early stages of the plantation, at the same time promoting reforestation by sowing seeds and planting seedlings. So, the *taungya* forestry program could be said to have been the forerunner to the community forestry program today.

Although the *taungya* forestry programs provided some benefits for both *taungya* farmers and the Forest Department, there were short-term opportunities and long-term difficulties associated with the socio-economic conditions of the *taungya* farmers. Under the *taungya* system, the *taungya* farmers were used as cheap laborers for reforestation work, and these programs could not guarantee an improvement in their livelihoods; they had no right to harvest the trees for their own benefits from forestry plantations they established and their income depended upon their agricultural production. Since agricultural production was part of a reforestation scheme which lasted about two or three years, there was no certainty for the farmers in terms of achieving long-term agricultural production. Since the *taungya* forestry system was a system which combined the growing of agricultural crops and trees, it could be seen as a controlled agroforestry type of shifting cultivation, but with different aims. In agroforestry, the focus is upon the agricultural crops, and trees are a secondary component. Trees are inter-planted so as to complement or supplement production of the agricultural crops selected. Under the *taungya* system, the reverse was true - trees and wood production were the primary concerns. The *taungya* forestry system was one of the tools used by the Forest Department to ensure that the teak plantations expanded.

Under the more recent community forestry program, the primary aims are to fulfill people's basic needs for fuel-wood, small timber and non-wood forest products (NWFPs), to protect the natural forests and to rehabilitate the degraded forests. Under the community forestry program, households who desire to participate in the program firstly form user groups, and with the consensus of all members, a management committee is created within the user groups. Each management committee consists of a chairman, a secretary and three members. On behalf of the user group, the

committee applies to the District Forest Officer through the Township Forest Officer for the establishment of a community forest. When the user groups receive permission for the establishment of community forest, they have to draw-up a management plan according to the form prescribed by the Forest Department, then forward this to the District Forest Officer for confirmation. The responsible forest officers then provide them with advice on the preparation of a management plan, and after confirmation of the plan, the District Forest Officer issues certificates for the establishment of a Community Forest to the user groups. This certificate is attached to the relevant forest law, rules and regulations, those to be followed by the user groups as part of the practice of community forestry.

The District Forest Officer determines the size of the land to be allocated to each user group, and this is determined according to the climate, the soil type and the species to be planted. The fast-growing tree species and the rotations for these plantations are designed depending on tree species. The areas used for the establishment of community forest plantations are mostly degraded forest, and the Forest Department provides seeds and seedlings, plus the technical assistance and expertise necessary for the establishment, management and utilization of these plantations. The user groups manage the plantations in accordance with their management plan, the one already approved by the Forest Department.

The user groups are provided with 30-year land leases in order to establish the community forests. They have no right to claim title to the land, but they have user rights over the land (Oo, 2003). Apart from inheritance, the property rights of user groups cannot be sold or rented, though the duration of the land leases can be extended, depending on the performance and desire of the user groups. They can exploit the forest products from their community forests in accordance with the prescriptions set out by the management plan, but they do not need to pay tax on the sale of forest products within the village, though tax is paid for the transfer and marketing in areas outside the village.

The community forestry programs are implemented by the Forest Department alone or jointly by the Forest Department and an NGO. In order to earn an income before the user groups can benefit from their CF plantations, other income-generating activities are conducted by the user groups in the jointly implemented programs; these

income-generating activities cannot be conducted in the Forest Department's programs. Local communities are allowed to establish only fuel-wood plantations, not commercial plantations such as teak.

Community forestry can be viewed as a system of inputs, processes and outputs. The inputs, processes and outputs vary according to the implementation of each different program.

Table 2.3: Community Forest IPO System

Inputs	Process	Outputs	
Physical Inputs - Topography -Climate -Soil -Forest type Human Inputs -Labor -Tools -Technology -Seeds and seedlings	-Planting of forest trees -Cultivation of crops -Harvesting	-Small timber -Fuel-wood -NWFPs -Crops	Own use or For sale ↓ Income

Both the *taungya* forestry program and community forestry program have their own specific limitations, those that differ from each other, and these are described in Table 2.4.

Table 2.4: Differences between the *Taungya* and Community Forestry Systems

<i>Taungya</i> Forestry	Community Forestry
To minimize the shifting cultivation No land lease Commercial tree species planted No rights to exploit the forest products Decentralized but without devolution for forest exploitation	To fulfill people's basic needs for fuel-wood and to rehabilitate degraded forests 30-year land lease Only fuel-wood plantations Right to exploit forest products Decentralized, with devolution under local people's own management plans

While centralization has been the main concept used for forest management in Burma/Myanmar over the years, the participation of local communities, decentralization and devolution process have been applied during the implementation of community-based forestry programs. Community forestry can be seen as a form of decentralization in forest management, because the administrative power vested at the national and divisional levels is delegated to the lower district level (Tint, 1995), and there is a focus on the promotion of local participation in terms of forest conservation. This represents a significant policy shift because forest interventions in the past have always been focused on geographical boundaries and have never considered the local community as an important stakeholder.

Two types of decentralization are applied within community-based forestry programs - decentralization and de-concentration. When participating in the Government's reforestation programs, local people are granted responsibilities and also provided with some benefits, but are given little or no authority, which is essentially decentralization without devolution, as in the *taungya* forestry programs. The second type of decentralization is a community forest program in which forest management roles shift from the central Forest Department to lower levels of administration such as the township and district forest officers and local communities, all through the de-concentration process. Ribot (2002) argues that de-concentration or administrative decentralization is the transfer of responsibilities and authority to lower-level central government authorities, or to other local authorities who are upwardly accountable to the central government. This type of decentralization involves a degree of devolution, though in Myanmar the forest management decentralization process has not reached the stage of handing over a significant amount of control to local communities, or to individuals.

Table 2.5: Community Forestry Development Process in Burma/ Myanmar

Policy Instrument	Relationship between Government and Local People	Policy Goals
<i>Taungya</i> Forestry program	Employer and Laborers	Sustainable Timber Extraction and Minimize Deforestation
Community Forestry Program	Partnership	Sustainable Forestry and Decentralize Resource Management

2.5 Summary

This chapter has reviewed the evolution of forest management and forest policy in Burma/Myanmar since the colonial period. In Myanmar, along with the changes in political regimes that have occurred over the last one hundred years, so forest governance has changed – along with its purposes, whether commercial exploitation or to maintain of state power. During both the colonial and post-colonial period, very little consideration was paid towards local people in terms of the use of forests for their livelihoods. Both the colonial government and successive military governments considered the main aims to be the long-term commercial exploitation of the forests and maintaining state power rather than carrying out sustainable forest management. Under the present military regime, the rate of forest degradation has become more apparent than before due to population growth and the selling-off of forests. The British colonial government created the Forest Department, introduced systemic forest management based on scientific principles, developed the first forest laws and at the same time exploited the forests, especially teak, for its own benefit. The Burmese Governments that followed adopted the existing forest laws and management framework, so that after the country gained independence, forest management politics continued along the same lines as that practiced by the British Government, with the commercial exploitation of forest resources, while trying to manage them for long-term use. During the colonial period it was mostly European companies involved in the exploitation of the forests, but since 1962, the Government, the private sector and ceasefire groups along the borders have been involved in forest exploitation for economic and political reasons. Prior to 1988 there was a state monopoly over exploitation of the forests, but since then the State has reformed the economy of the country, from a socialist to a market economy system, so that now the private sector is also involved in the commercial exploitation of the forests, while the Forest Department continues to manage them.

The development of forest management in Burma/Myanmar can thus be divided into two phases. During the first phase, from the colonial time up to 1992, forest management was centralized - with a focus on commercial exploitation, but since then people have started to become involved within a gradually decentralizing

forest management system, with the introduction of community forestry initiatives (CFI). As such, local people's participation has become a more important factor to be considered in terms of the successful long-term management of the forests and the forests' daily use. When it comes to local participation within forest management in Burma/Myanmar, there are two developments to be considered: the *taungya* forestry system and the community forest program, because both involve the participation of local people to achieve their ends, and as a result, I have presented a comparison between these two systems. The *taungya* forestry system used shifting cultivators to plant commercial forest species, while under the community forestry initiative the participating villagers are able to utilize forest products for their households. The *taungya* forestry system did not grant land use rights to the participating villagers; whereas the CFI gives local people (forest user groups) an initial 30 year land lease.