Chapter 3

AREA-WIDE CHANGES IN THE DOI INTHANON RANGE: 1957-1987

The Doi Inthanon Range in 1945

At the end of World War II, conditions in the Doi Inthanon Range had not changed significantly since the turn of the century. In many ways the Karen and Hmong there were much, except for a very few Christian Karens, in traditional societies. Lowland Thai society in the Chiang Mai Valley, by contrast, had begun entering the modern world in the late 19th century, but after regular train service linked Chiang Mai with Bangkok in 1922, the transition accelerated. The 1932 Revolution, which made the previously absolute monarch a constitutional ruler, reduced even that authority. More and more choices were becoming available to people throughout the country. Politically and administratively, the residents of the hills: Karen, Lua, Hmong and others were still left to themselves with only minimal attempts by local officials to tax them.

Partly because medical advances and sanitation programs that saved lives and increased the population were slower in reaching the hills and partly because immigration of various hill groups was not too massive, at the end of World War II, the Doi Inthanon Range still supported a sufficiently low population so that Karen and Lua could practice their swiddening without seriously damaging the forests. Since only a few roads entered the Doi Inthanon Range, the residents there had little access to influences from Chiang Mai city and many carried out traditional

lifestyles until roads brought the people closer to the outside influences.

Almost everyone entering the forests of the Doi Inthanon Range before the mid-1950s saw forests still much as they always had been. One traveler to areas south of Doi Inthanon, later to be the monk, Phra Phongsak, was so impressed with the dense forests at Doi Mae Soi that he built a small shelter for meditation on the north side of the Mae Soi in about 1955.

This was to all change in the 1950s. During the beginning of that decade, missionaries from the American Baptist Mission began entering the hills to work with Karens there, following up and supporting the work of Karen evangelists like Thra Bonny. The Baptists, and also members of the Overseas Missionary Fellowship (OMF) brought not only religious change to hill peoples; they built roads, brought medicines, taught more efficient measures regarding public health, helped defend tribal peoples interests, and played a role in many aspects of the hill peoples lives. They spoke out against the power of the spirits and in favor of breaking old taboos. They aimed at no less then a complete reordering of local belief systems and a substantial reworking of other aspects of their lives to make Karens and others self-reliant in the changing 20th century.

The missionaries prime aim of course was to convert non-Christians to Christianity. In the process of trying, though, many missionaries recognized that the peoples of the hills were beyond the reach of developing "technological" society in the valleys. As a result, missionaries launched many development

projects, from opening schools and clinics to promoting tribal handicraft production and starting rice banks. When missionaries worked among Christians, they found a receptive environment for development work. Dickerson's thesis thus found a positive correlation in Bo Kaeo and Musikee between being Christian and openness to "developmental innovations" (1967, p. 79).

Anthropologists and government planners have often dismissed the importance of missionaries on bringing about change in the hills. Yet the impact of dozens of Westerners promoting religious as well as developmental change, the carrying out of which has directly and almost always successfully challenged local taboos could not have been small. Since 1950 hill peoples have been exposed to Western Christians, and an increasing number of native Christians, who have showed that one could get away with offending the spirits but not suffer what animists had thought to be the inevitably bad consequences for doing so.

Equally profound changes came about because of the fighting in Indochina. Since the warring there involved minorities such as the Hmong, who also lived in Thailand, Thai planners feared that the Hmong in Thailand might become a part of it which would undermine Thai security. This caused the Thai government to consider new policies towards residents of the hills.

One of these policies related to opium. In July 1959, Field Marshal Sarit Tanarat outlawed the sale, production, and consumption of opium. Responsibility for suppressing opium cultivation in the country was given to the Ministry of the

Interior. This of course involved the government in activities in the northern Thai hills which was the site of virtually all opium cultivation in Thailand.

These two changes suddenly created a hill tribe "problem" where one had not existed before. Thai leaders looked at these peoples and, at first glance, saw the more highly visible and mobile Hmong who grew opium as their principal crop. Because almost no research had been carried out on hill tribes in Thailand, it was easy for Thai leaders to stereotype all hill tribes as they imagined the Hmong were: aliens who raised a destructive crop that ruined valuable forests. Benign neglect was no longer possible. For the Hmong, their lifestyle was found to be at odds with the interests of the Thai state, a situation that would inevitably put them in a difficult position.

From the late-1950s on, the government enacted a series of measures aimed at controlling the tribal peoples. In 1956, the Hill Tribe Welfare Division of the Public Welfare Department was established. This was part of the Hilltribe Welfare Committee set up by the Cabinet on 3 June 1959, the purpose of which was to oversee work on opium work and highland forest destruction relative to the tribal peoples. In 1969, a former Director-General of the Public Welfare Department listed four main priorities in the government's dealings with hill tribes. These were 1) to prevent forest destruction by swidden cultivation, 2) to eliminate opium cultivation, 3) to develop the hill tribes socio-economically, and 4) to make the hill tribes loyal Thai citizens. In many cases, particularly with Karens, the target

population was already satisfying the aims of the government. This occasionally caused misunderstandings to arise between government officials and Karens.

Initially, the government tried to effect all of these goals by having pioneer swiddeners change their mobile permanently reside at government established, starting in 1967, "Self-Help Settlements" (Nikhom) where all of the peoples' needs would be supplied, one at Chiang Dao Mountain in the Doi Inthanon Range, thus eliminating the need to change village sites. Since the locations of the Nikhom were often not satisfactory, very few hill people wanted to stay in them. where they would not be able to grow opium and where no satisfactory substitute cash crops existed. As a result, the program has not succeeded. Because Thai policy was generally carried out on a policy of persuasion rather than force, there was no recourse but to let it fail.

Even though the Nikhom approach did not succeed, the government did not change its highland development priorities. Virtually all of the work described below by various agencies from the 1960s to the present have been aimed at preserving hill forests (even if some highlanders were already highly conservationist), ending opium cultivation (even if many did not grow opium poppies), upgrading the hill tribes' lifestyles (difficult particularly when opium cultivation is so lucrative, and making them loyal citizens (even if they already were). The multitude of projects and activities that have been carried out in the hills, though, has resulted in a certain amount of confusion so that even when projects were ostensibly aiming at

the same goals, they were often operating at cross-purposes. In some ways this was simply a factor of technological society with more options available for the local people but more often than not this was simply confusion.

Devising hill tribe policy was complicated by other factors, regarding citizenship and land rights, issues causing difficulties for all governmental and international agencies and organizations working in the northern Thai hills. Although in theory all residents of Thailand at the beginning of the 20th century were eligible for Thai citizenship, because of the benign neglect that existed very few Karens or Hmong ever registered with the Thai government. Later, after 1955, when the government took an interest in registering hill tribes very few residents, or descendants of residents alive then could prove that they were eligible for citizenship. Even then, until 1972, because all people born in Thailand were eligible for citizenship, it was not difficult to register at least the younger generation as citizens. This changed in 1972 with Revolutionary Party Order No. 337 that rewrote requirements for Thai citizenship. Grandchildren of non-Thai parental grandfathers were made ineligible for Thai citizenship; in some cases citizenship was actually revoked from individuals who had been Thai governmental officials, soldiers, and so on. Since Thai citizenship is a requisite for land ownership, this Revolutionary Party Order placed many highlanders who had never registered--and whose chances of registering had now become bleak--in a quandary. Although many of their families had lived in Thailand for decades

if not centuries, they had not much hope of becoming citizens. Without citizenship, they had not land rights and many of the programs advocated by development projects were based on the principle of settling highlanders down. Since they had no chance of owning land, they felt little attachment to or security in the land they occupied and consequently were little moved to take many of the proposed measures.

Land rights regulations, though are complicated. There are five different certificates one can hold depending on how much land rights a person has. People simply occupying land before the promulgation of the 1954 Land Code Act, received Form S.K.1, which cannot be transferred or inherited. Holders, of whom not that many survive, must obtain an N.S.3 certificate. The second form, N.S.2, bai chong signifies occupancy of unused land which the user must cultivate within three years. If this does not happen, the land becomes state land again. Certificate N.S.3 is given the holder of an N.S.2 when it is proven that 75 percent of the land is under cultivation. Certificate N.S.4 is a chanot thidin, or title deed. This amounts to legal ownership and can be transferred without any restrictions. Certificate N.S.5 states that the land has been surveyed prior to the issuance of an N.S.4. (Meer 1981, pp. 92-93).

Thai citizenship has, since the early 1950s been necessary to obtain any of these certificates, a factor creating problems for hill peoples since they were only rarely registered as Thai citizens. Furthermore, N.S. 3 certificates do not give the holder mineral rights. Others making claims can exploit mineral

resources on other people's land on payment of a small fee to the holder of the N.S. 3 certificate. Also since the proclamation of Revolutionary Party Order No. 337, citizenship of all persons whose loyalty to Thailand was in doubt could be revoked. Although this order was aimed at Vietnamese refugees in Thailand's northeast, it also applied to many hill tribes. Although District Officials have considerable latitude in determining who is loyal and who is not, those in the Doi Inthanon Range, which is far from Thailand's international boundaries have been cooperative in facilitating Karens and Hmong obtaining Thai identity cards as citizens. Nonetheless, by the 1950s very few tribal highlanders in the Doi Inthanon Range, except that small number of men who had been soldiers, were Thai citizens.

Land use, though is considerably restricted in the highlands. Royal Forest Acts place limits on land in watersheds, forest reserves, and national parks so that almost all of the hill area, not counting valley bottoms, land ownership or use is not legally possible. In 1964, the Reserved Forest Act took control of forest resources from the local inhabitants and made the state the guardian of all forest resources. This too has caused significant problems to those advocating highland development. Not only are their few suitable places to resettle highlanders, those that would be moved in many cases are quite attached to their homelands; and as the failure of the Nikhom program shows, they might not be willing to stay in the new areas. There has been constant tension between those in charge

of enforcing forestry laws with those in charge of dealing with the welfare of the people involved. At present there are still many problems in this regard.

A growing problem affecting hill tribe work was the increasing number of agencies involved in such activities. Even in the Doi Inthanon Range, there have been a multitude. In 1974, the Cabinet sought to solve the problem by making the Public Welfare Department the agency principally responsible for hilltribe police implementation. The Cabinet soon became aware that problems of overlapping spheres of authority persisted and that although the Public Welfare Department might be responsible for hill peoples, the Royal Forest Department was responsible for the forests, the Land Development Department for the land, and so on. In 1976, a Cabinet memorandum called for making the hill tribes self-sufficient Thai citizens and for accelerating registering hilltribes with consideration to be given of making them citizens. Essentially the same goals were enunciated in NESDB's Fifth Economic and Social Development Plan (National Economic and Social Development Board 1982-1986, pp. 235-237). The Plan called for "clearly responsibility for various phases of development". NESDB was designated "as the center in coordinating policy, planning, and implementing for agencies dealing with hill tribes and/or ethnic Thai highlanders". However, as the discussion of change in the the Doi Inthanon Range below shows, success has not been forthcoming in disentangling spheres of responsibility.

Area-Wide Changes

The earliest Thai government officials to venture into the Doi Inthanon Range in large numbers were members of malaria abatement teams. Teams spraying upland villages to control malaria, mostly with DDT, began venturing into remote Karen, Hmong, and Lua areas throughout the study area. Residents in all the study areas recall teams coming to where they were living in the 1950s. These teams, in addition to controlling malaria at least in the settlement areas brought new contacts with the outside world. Although also working to promote better health, as agents of the secular Thai government, they brought, also, a different perspective to outside influences than did the American missionaries of the ABM and the OMF. Other health workers were also able to successfully implement a vaccination program controlling smallpox, a disease that had formerly killed many highlanders.

With this increased stability, the perceived need by Karens to migrate when such diseases broke out was removed. This contributed (along with the control of bandits earlier this century) to increased village stability and the almost complete end of village moves. Perhaps by the end of World War II, the combination of health programs implemented in the hills brought about a decline in mortality in the lowlands, but it would be a couple of decades before mortality would decline in the Doi Inthanon Range.

Besides government officials, teak loggers spread into almost every teak-bearing area of the north. By World War II,

however, the nationality of teak logging concerns had become Thai; all non-Thai teak concession holders, such as The Borneo Company and Bombay-Burmah had to sell out to Thai-controlled companies. The Bhanasit company, thus obtained Bombay-Burmah's teak concessions and other companies followed suit. There was at least one exception, though. One of the British teak companies, as a part of reparations due the British government by Thailand which had declared war on the English at the start of the war, gained a concession to log teak around Bo Kaeo.

When that concession expired a number of small Thai companies took up logging, gaining the license to do so from the District Forestry Officer. In 1973, the Royal Forest Department granted a concession for the Samoeng Forest and the Mae Khan-Samoeng Forest (a total of about 900 km^2 kilometers) to the Chiang Mai Thammai Company. Six years thereafter, the Cabinet did away with that concession as part of an effort to control deforestation, an effort that only lasted until 1983 when the Chiang Mai Thammai Company was given a concession to the same area for 30 years (Uraivan et al., pp. 104-105). Although this concession was some distance from the study villages, the impact of logging on the whole is significant in terms of change in the forest environment, road construction, and the bringing of new people (mostly northern Thai) and influences into the hills.

A third group of outsiders, researchers--mostly non-Thais--began investigating highland life in connection with the Tribal Research Centre (later Institute). Individuals like David Marlowe and George Binney, who studied Karen and Hmong around Doi

Inthanon in the 1960s and Peter Hinton who studied Pwo Karens further west, to be followed by others like Roland Mischung who studied Karens on Doi Inthanon in 1975-1976, Ananda Raja, who examined Karens in Mae Taeng District in the 1980s, Gar Yia Lee who studied Hmong near Doi Inthanon in the mid-1970s (1981), Nicholas Tapp who studied Hmong near Samoeng in 1983, all uncovered considerable new information on these peoples that in many cases provided baseline data for the large development projects of the time.

Virtually all of these researchers, though, have been non-Thais, from the United States, Japan, Singapore and elsewhere. Out of perhaps 40 Ph.D. dissertations dealing with tribal groups in northern Thailand, only a couple have been by Thais. This has resulted in an anomalous situation where non-Thai specialists often know more about conditions in the hills than do Thai counterparts. When the presence of non-Thai missionaries, who are often fluent in tribal languages and well aware of tribal ways and customs, it is clear that virtually all those aware of highland ways are non-Thais. This situation has precluded knowledge of tribal ways (and all their varieties between different groups) from entering the Thai mainstream. Many misconceptions about tribal peoples have thus been allowed to be perpetuated in the Thai educational system and among the general population. Because this has resulted in the staffs of many development projects misunderstanding tribal ways this has impeded development work from properly communicating with the target population and important goals have been missed.

At the same time the Thai Public Welfare Department were conducting annual censuses of the hill tribe population as well as many other surveys, including one partly by William Geddes and others concluding that 150 tons (not 40 as previously thought) of opium were grown in Thailand. This stimulated much action.

All of this, while having very little impact on the tribal peoples, did indirectly change highland lifestyles in a variety of ways. Helping spread news on recent developments was the hill tribe radio station established by the Public Welfare Department in Chiang Mai in 1968. The Thais (almost always officials of the Public Welfare Department) that participated in such projects did of course learn about the hill tribes in the course of carrying out such projects. This has resulted in rivalry between agencies since some felt the Public Welfare Department officials were unnecessarily sympathetic with the tribal peoples.

In 1969, responding in part to the surprisingly high amount of opium cultivated in Thailand, His Majesty the King established The King's Royal Northern Project, known in Thai as Khrongkan Luang, or simply, "The King's Project". The aim of this project was to bring aid directly to the people and to start various self-help opium substitution programs with a minimum of red tape. The Project inspired a considerable amount of research and became involved in areas throughout northern Thailand, including those beyond the reach of major foreign-funded projects like the Wat Chan area and the area in Chom Thong in which Mae Chon is located (both villages (the two control villages in this study) are in Khrongkan Luang areas). This evolved into having an umbrella

organization, the Highland Agricultural Research Coordinating Committee (HARCC) help coordinate the burgeoning work in the northern Thai highlands.

Major foreign-funded development projects all aimed at least in large part at opium and drug addiction eradication as well as providing suitable replacements to opium cultivation. Many of those carried out work in the Doi Inthanon Range. Two agencies of the United Nations began funding highland work in 1971. One was the United Nations Fund for Drug Abuse Control (UNFDAC) that funded the United Nations Project for Drug Abuse Control (UNPDAC). Part of the Project area, established in 1973 and lasting until 1979, as the Thai/United Nations Crop Replacement and Community Development Project was in hills west of the Mae Chaem Valley, which was to later be the site of the USAID highland development project in the north. UNICEF also provided assistance for tribal development work starting in 1971, aiming at problems of women and children (and health--see below).

The Food and Agriculture Organization (FAO) of the United Nations sponsored two projects beginning in 1973 that aimed at curtailing opium cultivation. Working with the United Nations Development Programme (UNDP), FAO started the Northern Region Agricultural Development Centre which supported, among other projects, agricultural and marketing efforts in the campaign against opium cultivation. The second project was the Mae Sa Integrated Watershed and Forest Land Use Project. The Mae Sa Project aimed at developing the entire Mae Sa watershed, which is located just north of Chiang Mai city, just east of Bo Kaeo in

the Doi Inthanon Range. USAID's Mae Chaem Project absorbed the UNPDAC in Mae Chaem as well as some American development projects there began in 1979 and is in the process of being phased out at present. Another part of UNPDAC work was through HAMP, the Thai/United Nations Highland Agricultural Marketing and Production Project which began in 1980 and ran until 1984. Rather more assistance has come to the highland peoples in the last few years since hill tribes were targeted for development assistance in the 1982-1986 National Social and Economic Development Plan; this has encouraged agencies of the Thai government to establish or to give increased attention to a variety of highland programs in fields from education to health.

Some projects worked to upgrade livestock. The American Baptists, for example, helped introduce improved breeds of chicken. Traditionally Karens domesticated Red Jungle Fowl, which lay only about one egg per month. Missionaries worked with governmental agriculturalists to breed Barred Rock and Rhode Island (itself a mixed breed, one-quarter being Cochinese Fowl with the rest American strains) with Thai strains. Quite a few were to reach Karen areas by 1960. Also, since 1958, American Baptists brought purebred boars to Ba Kaeo and elsewhere to mate with native sows. Newcastle shots and other preventatives and medicines for livestock diseases were also introduced (Dickerson 1967, pp. 35-36). The Livestock Development Department had been promoting better breeds of livestock since before World War II, controlling diseases and epidemics, and finding more nutritious feed but principally with lowlander Thai. By the 1960s, though,

effects of this work had reached highlanders informally even before formal channels were opened.

Other projects emphasized specific crops or trees. A Thai-Danish Pine Improvement Project, with a station near Bo Luang, has worked since the late 1960s to grow pine (mostly Himalayan species) seedlings for reforesting hills denuded by the over-cultivation of opium. A United Nations project, started in 1972, explored the viability of coffee as an opium-replacement crop. Following a two-year relationship with HAMP, the Netherlands government agreed to fund, for five years, The Highland Coffee Research and Development Centre, in cooperation with Chiang Mai University's Faculty of Agriculture. A third such project, a cooperative venture between the International Maize and Wheat Improvement Center in Mexico and Thailand's Department of Agriculture, promotes wheat as a subsistence crop.

All of the larger projects and agencies working in northern Thailand have found opium a difficult crop to readily replace. Growing conditions in the northern Thai hills were suitable for opium and such was its demand that buyers came into the villages to purchase the crop. Additionally, since opium could be stored for a long time, could be transported in small parcels that needed little special handling, and brought very high cash income, substitutes for this crop regardless of their moral superiority, were very difficult to implement. Lee's (1981) study points out difficulties in the Thai/UN Project but much the same could have been said about other projects. In the meantime, as shall be shown below, highland development projects have

progressed in their own ability to provide satisfactory opium substitutes. Development projects projects have also occasionally come into conflict with to local residents. Particularly bothersome have been laws regarding use of forests and restrictions on highland land usage. Difficulties have sometimes arisen with individual projects such as among the Lua who objected to the pine plantations established by the Thai-Danish Project (Dusit 1978, pp. 58-59).

The focus on opium has also influenced the direction that aid money goes in funding highland development projects, with the largest share not surprisingly going to opium growers. This has in many ways given opium growers an advantage over non-opium growers. Karens, for example, who comprise about 50 percent of the entire tribal population in Thailand have received only 13 percent of the mainly governmental work surveyed recently by a Ministry of Education task force. Although not covering missionary-funded development work, which has rather been tilted in the direction of Karens because they have the highest number of Christians, this survey does show that opium cultivators have gained an edge in adapting to recent changes beyond and above any inherent advantages they might already have.

Besides difficulties in replacing opium as an agricultural crop and something of a failure in bringing development projects to non-opium cultivators, developers have often found it problematic to communicate satisfactorily with the hill tribes. Language and cultural differences, a lack of agreement between developers and hill tribes over priorities, as well as lack of

awareness on the importance of differing needs between tribes all have impeded successful work.

In addition to the Christian missionaries discussed above, there have also been Buddhist missionaries operating in the hills, with a center at Wat Sisoda, near the base of Doi Suthep near Chiang Mai city. Known as Thammacharik, this project was founded in 1965 by the Public Welfare Department in consultation with the abbot of Wat Benchamabophit (The Marble Temple) in Bangkok. Active more in Karen areas (including Wat Chan) at first, Thammacharik has brought tribal boys to Wat Sisoda where they become novices and receive a religious and secular education. Although this program has fostered the growth of Western-style education in the Doi Inthanon Range, it has done little to convert the people to Buddhism except in areas where there was already interest in Buddhism. Encountering many of the problems other government and official projects met, Thammacharik monks have converted only a very few hill tribes. Christian missionaries have been much more successful in persuading people to become converts perhaps because there are more Christian proselytizers and because they take a greater interest in the hill tribe cultures in which they operate.

The Thai government began to establish schools in the highlands of the north after World War II. Although a law requiring all Thai children from the age of seven to fourteen to attend four years of primary school had been in effect since 1922, in practice the government lacked the resources to set up schools in the hills and to properly staff them. Like so many

other Thai governmental services, when it came to applying them to the hills, the benign neglect principle prevailed.

This began to change, though after World War II. Prompted perhaps by missionaries setting up primary schools--such as the Catholics at Mae Pon in Chom Thong District and the foot of Doi Inthanon in the mid-1950s and the American Baptists near Wat Chan at about the same time, the Thai government began to provide educational services.

Most of the early schools, under the Office of Primary Education, were set up in valleys such as around Mae Chaem and at major hill centers on roads like at Bo Luang or Wat Chan. At first, many of the hill people did not see the value of a formal education, particularly when, as often was (and sometimes still) is the case, teachers only were present one or two days a week. Also, Department of Public Welfare Mobile Development and Welfare Units and the Border Patrol Police sometimes operated schools, but there were very few of these located in the Doi Inthanon Range.

Partly to allay this problem and also to make education more relevant to hill tribe needs the Department of Non-formal Education established, with USAID funding, the Hill Area Education Project HAE), initially for a five-year period from 1980-1985. Growing out of adult education programs in the Department of General Education including the Functional Literacy Program, HAE aimed to provide instruction in areas the villagers believe needed in their particular areas. Providing services to village clusters, each HAE project differed from others depending

on local conditions. One cluster was based at the Hmong village of Huai Nam Chang. Reception by the people was highly positive, however, many higher ranking members of the Thai educational bureaucracy saw such as system as purely transitional between not being able to provide any services to eventually setting up of formal schools with a regular staff. This did not stop Tapp from criticizing the project as paternalistic and aimed more at Thai political aims than at Hmong needs (Tapp 1985, pp. 75-77).

In the Doi Inthanon Range, though, because of its distance from the border, most of the residents have become Thai citizens through a variety of methods including direct intervention by international projects. Also, in some cases such as the USAID-funded Mae Chaem Project, USAID held up funding for many months to force limited land rights (not N.S.4) for local residents to cultivate forest reserve land (that many of the Karens there had been cultivating for decades before there were such laws).

In the field of health care, both Thai governmental clinics and private, often church-related groups began promoting family planning for use by Thais throughout the country, starting in the 1960s. The McCormick Mobile Clinic, making use of Baptist contacts with Karens and other hill peoples spread their work into the highlands. Although the use of Depo Provera caused some of these efforts to be criticized by groups in the United States, hill tribe women found them particularly attractive, particularly as pressure on land and resources grew.

For some time, the government has also given official attention to hill tribe health and nutrition. Since 1965, the

Hill Tribe Division has had a Health Committee emphasizing the implementation of primary health care, sanitation, and personal health, as well as providing traditional (granny) midwifery training. However, in spite of some UNICEF assistance from 1971 on, lack of funds has impeded implementation of these activities, particularly in remote areas. In 1981, this began to change somewhat, because with support from UNFDAC, a health project aimed at hill tribes was started in Mae Chaem under the Rural Health Division in the Ministry of Public Health, which has now expanded throughout all of northern Thailand by now. The aim of this project has been to provide primary health care in areas previously without such care (Kunstadter et al. 1987, p. 6).

Besides international agencies and missionary work, throughout all of the last thirty years, the Thai government has been carrying out projects that sometimes actually reached the northern Thai hills. One of the most active programs, and carried out without much central direction has been road construction. When new vehicular routes, like the all-weather road (replacing a dry season track built in the 1950s) from Hot to Mae Sariang in 1965 or the road up Doi Inthanon in 1975, come into place, many outside influences reach previously very remote locations. Roads, primarily built by government agencies like the Highway Department, the Royal Forest Department, and the Accelerated Rural Development Project, but sometimes by private concerns also the mine companies and the American Baptists who cooperated in upgrading the road built by a British teak logging company through Samoeng to Bo Kaeo in 1958 and in making major

repairs over the next two years, have now entered almost all the hill villages in the Doi Inthanon Range. This has facilitated so much change, from allowing development and Thai governmental agencies to getting their projects (from schools to birth control) to the people, to facilitating police units in reaching opium plots, to causing erosion, and allowing for increased migration by Thais into the hills that they must be the principal "package" (to use Berger s term) bring change to these hills. Initially, roads also pushed some Karens further back into the hills. Most of the residents of a large Karen settlement above Mae Sap, about 6 kilometers west of Samoeng, moved out during World War II, when the government began conscripting local residents, Karens included, to help with public works projects like building the military road to Pai, and resettled in the much more remote Wat Chan in the village of Teamegala. Some of those moves, but probably not all, were Christians (with American contacts) who would have had more to fear from the Japanese than animist or Buddhist Karens without such links. Other moves of this sort occurred elsewhere in the Doi Inthanon Range, too.

The movement of Thais into the hills has also made an impact on highland life and the environment there. From traditionally fearing going into the hills, except in rare cases such as on military maneuvers, picking tea in Pa Miang, or going on forest meditation retreats, tens of thousands of northern Thais have entered the northern Thai hills. Although a small number of these were onetime Khmu loggers who now identify themselves as northern Thai, many are new migrants seeking areas to cultivate

crops or congregating in centers like Miang villages and the Bo Kaeo mines as hired laborers. A number of Thai Lu, for example, have moved from the village of Ban Hat Som Poi, near Mae Sap in Samoeng to live in Mae Yang Ha. These people have had brought outside ways to the hills, changing many aspects of life there although the children of Lu parents are themselves changing to be like Karens youngsters.

Another change, however, slight at this time, was the increasing use of cash in the Doi Inthanon Range. As the road network expanded, modern goods that Karens and Hmongs desired, from kerosene to factory-made thread and cloth began to reach the hill villages. The decline in value of hill products (but not opium) that had begun around the turn of the century was continuing meaning that in order to generate the cash needed to pay for these goods that new monetary sources were required. This was particularly so for Karens who grew very little opium. For them, since there were very few new sources of cash, they resorted to selling off their own property: the elephants, silver jewelry, and bronze drums that had formerly been symbols of their wealth, to acquire what they wanted. As this process took place, Karen wealth gradually subsided, a process that in many ways is still continuing today. Thus as they became politically estranged from Thai authorities, Karens were growing progressively poorer. Hmong opium cultivators, who were recipients of this income, faced only infrequent cash shortages. Their economic position may, in fact, have been improving during this time.

All of these changes has brought tremendous pressure on the forests of the Doi Inthanon Range. Quite often this destruction has been blamed primarily on tribal swiddening. And it is true that Hmong pioneer swiddening, particularly when practiced for years in one place while growing opium has left the hillsides of once climax vegetation, little more than Imperata grasslands, with many decades needed befgre natural regeneration to restore the area to its former state. Karens and others near Hmong villages like Khun Klang on Doi Inthanon, Pa Kluai further south, and Pha Nok Kok in Mae Rim District all have been critical of Hmong farming systems. Even those who defend the Hmong by saying that grasslands are as suitable for water retention and erosion control as forests, cannot deny that considerable vegetation including valuable forest produce and foodstuffs as well as wild game are lost because of Hmong pioneer swiddening. Karens and Hmong in the Doi Inthanon Range are also aware of northern Thai opium production which grew to significant amounts in the 1970s, such as west of Doi Intnanon in Mae Chaem District.

Causes of forest destruction in the Doi Inthanon Range are varied because no matter how severe damage caused by opium cultivation to the forests is, this represents only a small percent of the total area destroyed. Lowland northern Thai moving into the hills sometimes collect firewood or construction material and destroy trees. Sometimes the same and other northern Thais practice swiddening but, lacking experience in this time of farming, destroy a considerable amount of the forest. Increased fuel needs by an ever-growing lowland

population for cooking, heating, and other needs such as for use by the ceramics industry, all place large demands on upland forests. Illegal logging of teak and other tropical hardwoods also take a toll. Road-building exacerbates this by making it possible for lowlanders to drive close to previously untouched forests that might have survived decades otherwise. And careless Thai hunters and travelers have destroyed large areas of forest through thoughtlessly discarding cigarette butts or by having cooking or heating fires burn out of control.

Even traditionally appropriate Karen and Lua established swiddeners have been partly to blame. As the land available to them decreases and their population grows, they sometimes compensate by leaving the forest a lesser number of years to lay fallow. Eventually, this reduces the amount of forest in the hills too.

One thing is certain, though, the fertility of the hill soils and the amount of forest cover in the Doi Inthanon Range has been declining. One measure of this is the increase of sediment in rivers throughout the Doi Inthanon Range. Royal Irrigation Department figures show that the sediment yield in the Mae Taeng River increased from 1,000 kg/ha in the late 1960s to over 3,000 kg/ha ten years later (Anat et al. 1987, p. 79). Such an increase has surely occurred elsewhere in the Doi Inthanon Range, with serious side effects in terms of forest regrowth and agriculture.

The multitude of organizations working in the hills makes it difficult to administer a single policy. In spite of the 1975

Cabinet order making the Public Welfare Department the principal implementing agency of hilltribe policy and the later NESDB directive making it the focus of hill tribe policy coordination, the situation in fact is often chaotic. In HAMP's Terminal Report, it was noted, that

> "A state of confusion dealing with tribal development exists....If an attempt is not made to correct the problem quickly...the confusion will become greater and greater. And though with time, the highlands may become developed , the question is HOW? FOR WHOM? and at WHAT COST?" (1984, p. 26).

Into this confusion has come other change not a part of any development project (and indeed resisted by TN-HDP). Tribal tourism has brought tens of thousands of tourists, primarily Westerners, into the hills. Chiang Mai city has dozens of trekking tour organizations that take tourists virtually everywhere in northern Thailand s (and sometime Burma s) hills. Starting in the mid-1970s, trekking tours have introduced quite a different sort of Westerner into the hills than the missionaries, developers, or anthropologists the hill peoples were accustomed to seeing. These tourists have effected changes almost impossible to assess, but ranging from increased sales of handicraft (and sometimes opium for samplers), more income for tribal guides, and even prostitution. The Doi Inthanon Range, however, since essentially only two tribes, Hmong and Karen live here, has seen rather less trekking than elsewhere where a greater diversity of ethnic groups exists. Still tourists do regularly visit the villages of Mae Yang Ha, Pa Kia Nai, Wat Chan, and Pa Kluai, exposing the villagers to a variety of outside influences.

This confusion has created difficulties in the Doi Inthanon Range as much as anywhere else. As shall be seen in the accounts of the seven study villages, overlapping jurisdictions and different organizations working sometimes in actual opposition to each other have caused the local people to face unanticipated problems. Perhaps the only real agreement has been in the fight against opium. In 1977, the Office of Narcotics Control Board was established. Within ten years, considerable progress has been achieved, through a combination of incentives and burning fields, in reducing the amount of opium cultivated with little actual resistance. Had such a policy been carried out in the early 1960s the lack of suitable replacement crops and lack of trust between opium growers and the government would have caused the program to fail. In the 1980s, such was the state of affairs that for the first time, opium cultivation was significantly reduced. The record shows, though, that confusion in other areas has been a prime factor in problems in development throughout the Doi Inthanon Range.

Data Collection

All of these changes affected the seven study villages in a variety of ways in the mid-1950s. Reliability of data on these villages differs since conditions in each vary widely. In two cases, Pa Kia Nai and Pa Kluai, the Hmong who live there now were living elsewhere in the same area and those two villages were only established later. However, two anthropologists studied these people of Pa Kluai at those previous sites: Binney

(1968) at the first, and Cooper (1984) at the second (his research was conducted in the early 1970s). This provided valuable information on changes those people have undergone in the last three decades. In one case, Mae Yang Ha, data sources are quite good because the American Baptist Missionary, Bennett Dickerson moved to Bo Kaeo in 1957 and worked with Christian Karens, including most of the people in Mae Yang Ha, from that date on. Dickerson, and other Baptists also described conditions in the Musikee area; and although Wat Chan is not Christian the general descriptions provided by the missionaries of that area in the 1950s applied in many cases to the Buddhist as well as the Christian Karen there. For Huai Nam Chang, the research benefited from one dissertation (Tapp 1985) on a several-village cluster of Hmong there including Huai Nam Chang. Since his topic was on belief systems rather than economic and social changes, an entirely new perspective was gained on the study villages so that much from his research findings could be directly applied to this research. Rather less specific data on individual households, however, was found in this work. The village of Mae Chon was founded just about 30 years ago; therefore in determining the conditions of this village in the 1950s, it was possible to continually refer to how life was when the village was just established. This was quite useful in helping the villagers recall their past because there seems to be no written data on it (although American Baptist missionaries past in enroute to the nearby Karen Christian village of Bon Na). In the case of Mae Khapu Luang and Pa Kia Nai, and to a large extent for Huai Nam

Chang, virtually all data on conditions in the past were derived from interviews and questionnaires.

Data collection included a two-phase formal questionnaire. The purpose of these questionnaires was to determine basic changes that have occurred in the last thirty years in the study villages. The questionnaire began with questions regarding resources. The study team decided that if resource systems changed, conditions in the villages inevitably must change also. If, for example, the villagers had less land at their disposal than needed (for whatever reason), then surely the villagers would either be trying to compensate by growing alternative crops, be suffering nutritionally, or be seeking income from the outside by wage labor or by complete out-migration. If the point of departure in the study was at out-migration, it would be more difficult to account for the change. As a part of the questionnaire, all household heads in the study villages were asked to describe their agricultural practices, hunting and gathering behavior, and outline their access to land both at present and thirty years in the past. Since it was not clear exactly what changes occurred, many of the questions were open-ended in the hope of catching changes that the team had not anticipated.

Once the study team, and the interviewing team completed questioning the villagers, the questionnaires were analyzed for significant changes. Following this, the phase 2 questionnaires were drawn up and the villagers were interviewed again regarding social conditions. As in phase 1, this questionnaire examined a

variety of topics both in the present and 30 years ago. As with phase 1, also, many of the questions were open-ended.

At the same time, the research time conducted a number of in-depth interviews with village leaders and knowledgeable outsiders and former residents. This provided considerable insights into changes that had occurred and allowed exploration of sensitive topics that might otherwise be omitted from formal question and answer sessions. Finally, the general conclusions and also the suggestions for the Thai-Norwegian Highland Development Project were discussed in some detail with certain village leaders just before final compilation of this report which resulted in a number of modifications in the original. Besides the printed material relating directly to the study villages, a wide range of other studies were examined also; every dissertation and formal research study of Hmong and Karen in Chiang Mai Province that could be found was consulted and many dealing with these groups elsewhere in Thailand. All of this gave as good a possible view of conditions in these villages in the mid-1950s, which was essential for the research team to carry out its analysis of change during the time since then. So much change has occurred that it was imperative that a satisfactory understanding be achieved.

During the past thirty years, a number of changes have affected the entire study area. These included changes in national policy, in infrastructure development in areas of health care, education, and road construction, and in political changes.