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**THE HILL PEOPLE OF NORTHERN THAILAND:  
SOCIAL AND ECONOMIC DEVELOPMENT**

By

Gerald C. Hickey

and

Jesse Wright

with the assistance of

Malinee Isaradej

and

Atisai Pangspa

Contract No. AID/ASIA-C-1310  
Thailand

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The views represented in this report are those of the authors and do not necessarily represent those of the Agency for International Development, Department of State, or the Government of the Kingdom of Thailand.

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## INTRODUCTION: THE PURPOSE AND METHODOLOGY OF THE STUDY

This study is concerned with that segment of the Thai population generally referred to as the "Hill Tribes"<sup>1</sup> ( a literal translation of the Thai designation, Chao Khao), a generic term for the upland minorities (they number between 300,000 and 500,000 out of the total Thai population of 44 million in 1977).

The stated purpose of the present study was to prepare an analytical report containing information on the highland people's societies and on the general situation in Northern Thailand with the goal of providing USAID/Thailand assistance in the preparation of a proposed Highland Integrated Rural Development Project and other future projects among the hill people.

This report is intended to fulfill this requirement. It is divided into four parts, and five appendices all of which deal with different but related aspects of the situation in the highlands of Northern Thailand. It also contains a series of recommendations that represent the authors' assessment of the kinds of socioeconomic programs USAID/Thailand might support among the hill people.

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<sup>1</sup> For the present study it is preferable that these minorities be called hill people, highland people, highlanders, or some such designation because the word "tribe" in English technically implies an ethnic group with a political organization beyond the village, which is not the case with any of the hill people. Furthermore, "tribal" carries the connotation of primitiveness in the pejorative sense.

Part 1 of the report contains a summary of the findings of this study and also the recommendations, each of which is accompanied by a brief discussion of supporting data and ideas.

Part 2 includes a brief characterization of the hill people (ethnic labels, subgroups and so forth) and also a summary of the Royal Thai government (which will be referred to as the "RTG" or "the Thai government" throughout the report) policy towards the hill people.

Part 3 is an analysis of the dynamics of change in Northern Thailand. As such, it deals with the general socioeconomic changes among the hill people that have been taking place during two historical periods -- pre-1950 and post-1950 -- examining such things as the Thai government presence in the highlands (particularly the increasing number of government programs); and the roles of the Christian missionaries and various donor agencies. The last sections of Part 3 include a review of the overall social and economic changes that have resulted from the developments thus far, and also cases that reflect how these changes have influenced individuals and small groups.

Part 4 is an analysis of a survey of socioeconomic conditions prevailing among Northern Thai Hill people. The survey of socioeconomic conditions among Northern Thai Hill people was conducted by the Tribal Research Center of the Public Welfare Department. The sample obtained by USAID/Thailand includes nine ethnic groups in nine watersheds. The sample size is quite large; 9,568 people in 1,523 households and 51 villages. While the data should be viewed as preliminary and subject

to possible revision, the large sample size allows us to place a fair degree of confidence in our conclusions.

The analysis of the survey is divided into a first section containing several statistical conclusions about socioeconomic conditions. This is followed by a series of correlation tests to determine what socioeconomic variables, if any, are related to opium production and marketing. Finally, we conclude the socioeconomic report with a nutrition survey annex that analyzes nutrition data from the Malnutrition and Anemia (MALAN) Research Center of Chiang Mai University.

- The appendices contain basic data on the highlands and the hill people -- the physical environment of Northern Thailand, an ethnographic summary of the hill groups, population, a nutrition survey that was conducted among the hill people, and some information on a Special Education School.

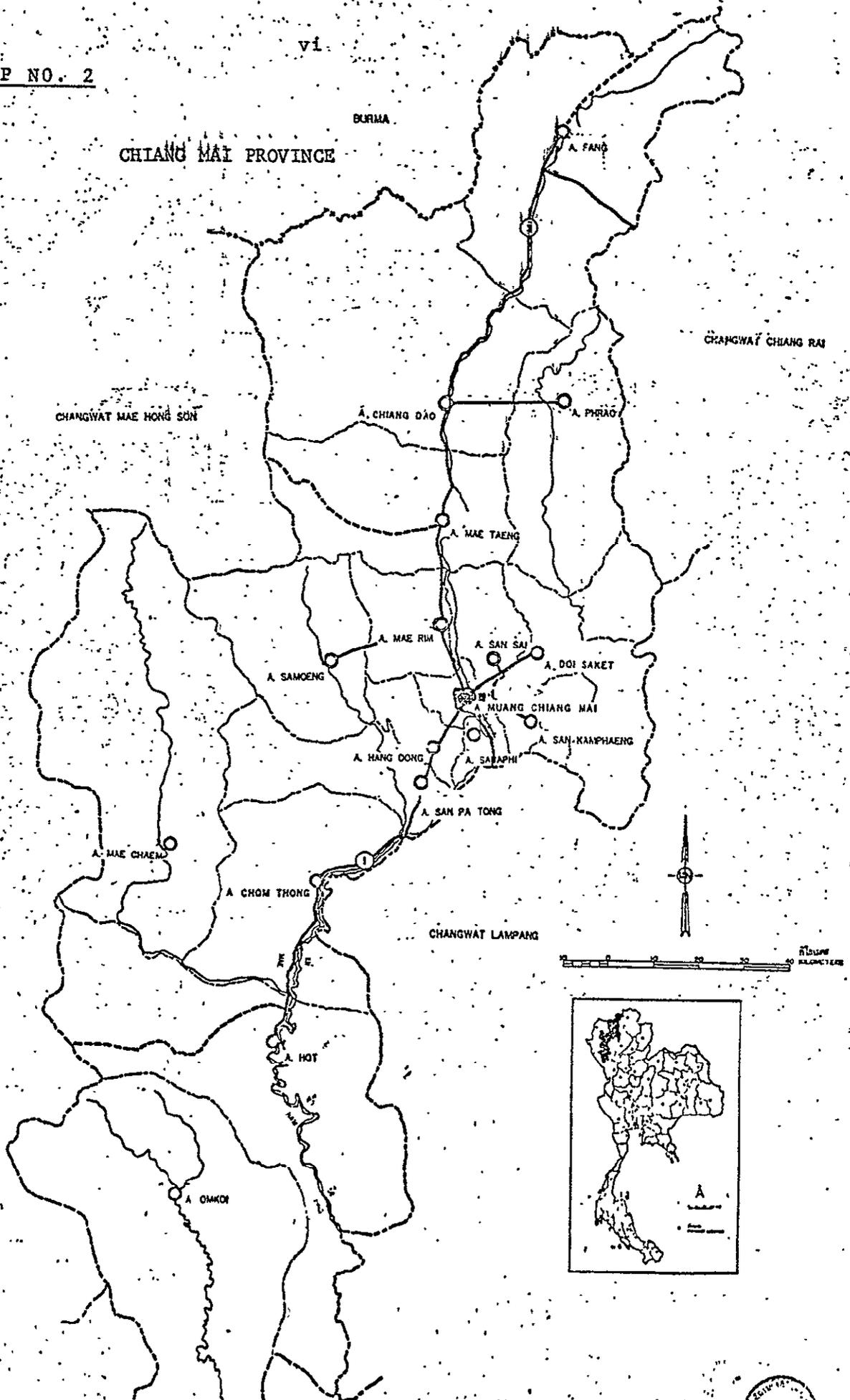
The research team was composed of Gerald C. Hickey, an anthropologist, and Jesse Wright, an economist. In mid-March 1978, research for the study began in Bangkok with the collection of documentary materials and interviews with officials at various Thai government agencies that are concerned with the hill people. Additional interviews were conducted in Chiang Mai with government officials and also with foreign staff members of various donor agencies (also listed below). Field work to collect cases of socioeconomic changes was carried out in Karen, Meo (Hmong), Yao (Mien), Akha, Lahu, and Lua villages in Chiang Mai, Chiang Rai, and Mae Hong Son provinces. In addition, some cases were gathered among

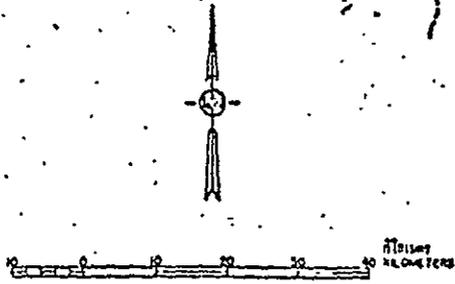
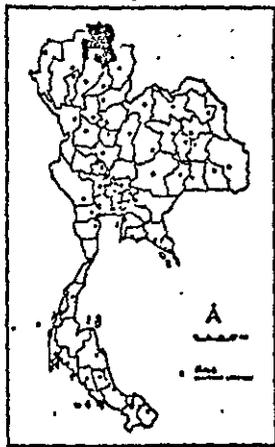
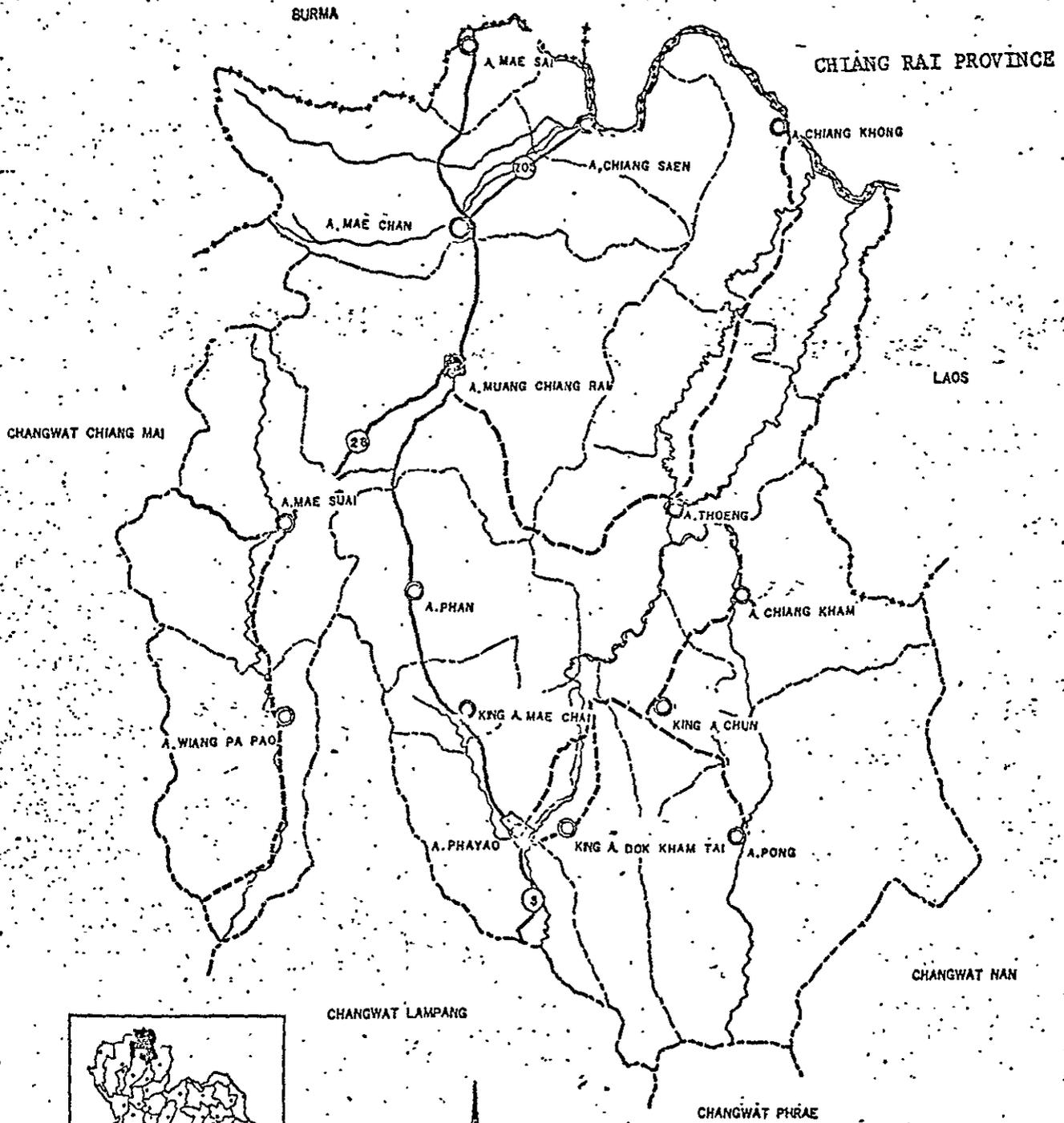
the staff and students in the United Village School in Muang district, Chiang Rai province. Discussions concerning the situation in the highlands of Northern Thailand were held informally in Bangkok and Chiang Mai with individuals who have been familiar with the hill people and their problems. Finally, staff members of USAID/Thailand provided valuable insights on the programs currently being implemented in the highlands.



MAP NO. 2

CHIANG MAI PROVINCE





MAE HONG SON PROVINCE

BURMA

CHANGWAT CHIANG MAI

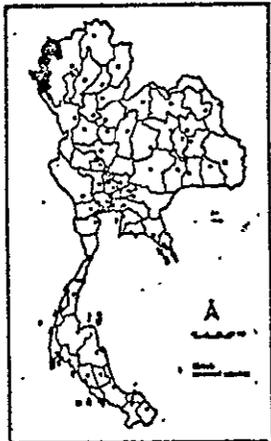
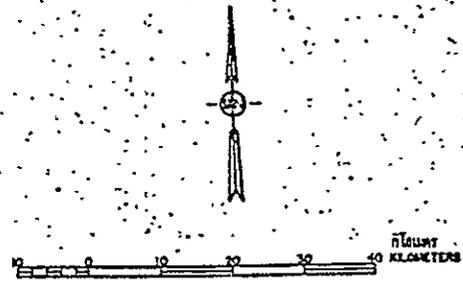
A. MUANG MAE HONG SON

A. PAI

A. KHUN YUAN

A. MAE SARIANG

CHANGWAT TAK



NAN PROVINCE

LAOS

CHANGWAT CHIANG RAI

KING A. THA WANG PHA

A. THUNG CHANG

A. PUA

A. MUANG NAN

CHANGWAT PIRAE

A. SA

A. NA HOI

CHANGWAT UTTARADIT



PART I

SUMMARY OF FINDINGS AND RECOMMENDATIONS

A. Summary of Findings.

1. Regarding Thai Government Policy and Programs.

- (a) There is a definite lack of any kind of clear RTG policy towards the hill people.

The official RTG policy statement prepared by the Ministry of the Interior and approved by the cabinet on July 6, 1976 is rather vague. It mentions an "integration policy," which is designed to "generate a sense of belonging and loyalty to the Thai nation," and this implies some kind of cultural assimilation. The policy statement, however, goes on to declare that this "integration" will be attained by "giving tribespeople full rights to practice their own religious and cultures as they like," which clearly indicates that the hill people would have the right to retain their own ethnic identities. The sentiment expressed by most Thai government officials encountered during this study was that it would be desirable for the hill people to be drawn into the Thai cultural sphere through a process of assimilation. (See section on Thai Government Policy and Programs, Part 2.)

- (b) Since 1970 there has been a proliferation of socio-economic programs for the hill people but they suffer from lack of any overall strategy and lack of coordination (in part due to inter-agency competition).

These programs have been sponsored by the Thai government and also by donor agencies in conjunction with the Thai government (see Part 3). The following results have been noted:

(1) This situation often gives rise to confusion regarding program goals, overlapping of programs, and in some cases, unimpressive results (the education programs are a good example of this).

(2) A failure of many programs to benefit the hill people as they are intended to do. Although many programs are described as "socio-economic," most of them in fact are primarily economic so that social programs such as education and health tend to be neglected.

- (c) There is a definite potential for successful socioeconomic development programs among the hill people.

As Part 3 concerning The Dynamic of Change in Northern Thailand indicates, there have been considerable social and economic changes taking place among the hill people, particularly since 1950. Village isolation has been breaking down, contact with the outside world has increased, more highland people have begun to participate in the market economy, and slowly, some new career opportunities are being

made available. The cases in Part 4 indicate; (1) a willingness by some villagers to accept new ideas, new farming techniques, and new crops (Cases #1-10); (2) that education is highly valued among some hill people; and (3) that highland students often aspire for non-farming careers (Cases #11-13).

At the same time there are some factors inhibiting socioeconomic development. Some of these are: (1) vague RTG policy regarding citizenship for highland people born in Thailand; (2) lack of any policy regarding land claims of hill people; (3) the financial and administrative restraints on highland students who aspire to gain formal training in any institutions of higher learning; (4) and the general bureaucratic conditions that exist in rural Thailand.

2. Regarding the Hill people as part of the poor majority.

(a) In terms of income, most hill people would be classified as members of the poor majority. The absolute poverty line for Thailand in 1975 was estimated at U.S. \$78 per capita by the World Bank. The observation has been made (FAO/World Bank 1978: 8) that income levels of non-opium producing highland families are below the poverty line. The socioeconomic survey conducted by the Hill Tribe Center (in Chiang Mai) in 1978 which was analyzed as part of this study (see below) confirms this. It reveals that 55 percent of highland families (6.3 members) earned U.S. \$99 or less cash income or approximately U.S. \$16 per capita cash income. Estimated total income (cash income and income in-kind) is about U.S. \$41. This supports the opinion that the majority of highland

households are well below the absolute poverty threshold.

There are hill families, however, that do not fall into this category. One such example is presented in Case #1 and others were noted in the socioeconomic survey.

- (b) In terms of living standards (particularly for health and education) and career opportunities, almost all of the hill people would be classified as disadvantaged.

The discussion of education programs in Part 3 reveals the inadequacy of educational facilities in the highlands. It is noted below that 41 percent of hill people have no ability in the Thai language. The nutrition survey (presented in Appendix D) indicates that vis-a-vis Northern Thai children, highland children in the Chiang Mai area are almost 50 percent deficient in high protein foods. Hill people who visit the Chiang Mai University Hospital are socially and economically far more integrated into Thai society than is the general highland population which is undoubtedly much worse off in nutritional status.

3. Results of the Tribal Research Center's 1975-1978 Socioeconomic Survey.

- (a) The Current Socioeconomic Situation Among the Hill People.

(1) Although the population growth among hill people usually is reported to be higher than that among lowland Thai, the survey indicates that on the average highland families have 6.3 persons per household. This is not statistically different from the rural Thai household average.

(2) On the average only 54% of hill people are officially registered with the Thai government or possess a Thai identification document. Both are prerequisites to legal residence and citizenship. The range among the nine ethnic groups is from 0% to 100%.

(3) 4.7% of hill people are addicted to opium as opposed to an estimated .09% of ethnic Thai society. Addiction among the nine ethnic groups ranges from 0% to 10.5% of population.

(4) The average percent of hill people having no education is 76% as opposed to the Thai national average of 26%. The range is between 31% and 99% having no educational attainment.

(5) 41% of all hill people have no ability with the Thai language. Among ethnic groups the range is between 7% and 71% with no Thai language ability.

(6) Within the nine watersheds surveyed, land use was categorized as being 31% stable agriculture, 12% rotation agriculture and 57% swidden (slash and burn) agriculture.

(7) Only 37% of all hill people households responded affirmatively when asked if they have sufficient rice to last throughout the year. Affirmative responses ranged from 15% to 53%.

(8) Crops and livestock combined account for an average 28% of hilltribe cash income. Salary and wage hire cash income, on the average, accounts for 25% of total cash income. The average cottage industry and business cash income together account for 4% of total cash income.

(9) The distribution of cash income is uneven. For each ethnic group the majority of households are below \$250 (per capita \$42) cash income. There are, however, significant numbers of opium producers and marketers earning household cash income in excess of \$500.

(10) Durable goods (sewing machines, bicycles, ox-carts, motor-cycles and radio receivers), and services (schools, rice mills, and sundry goods stores) are generally scarce. However, half of all the hilltribe families possess radios.

(11) The low level of household cash expenditures indicate a low degree of monetization at present.

(12) Opium as a cash crop appears to be a very marginal money earner important only to a few households in the Htin, Meo and Yao ethnic groups and only then to those villages at the highest attitudes.

(b) Opium Production and Marketing.

(1) Opium has the following "advantages": cultivation and harvesting are done in the dry off-season; opium is suitable to land other than would be used in rice cultivation; opium has a high value to weight ratio land is easy for marketers to transport; opium has market drawing power; and, the farm gate price is unlimited if "street prices" rise. Given all of these factors an attractive alternative crop may not exist.

(2) Simple correlation tests suggest that village cash income from opium sales is inversely related to the amount of off-farm

income that the village earns. These same test show that village rice sufficiency (or improvement of indigenous farm systems) does not appear to be related to opium production or marketing. These findings argue that high value non-traditional crops may be more successful than improvement of traditional crops in combating opium activity.

(3) The higher is indebtedness (as measured by the level of cash and in-kind loans) the greater are the number of rai to be founded planted with poppy. The same relationship, however, does not hold for indebtedness and cash income derived from opium sales.

(4) Village cash income from opium is positively related to the village's number of opium addicts, the level of no education and the level of no Thai language ability. The number of rai in poppy production is unrelated to the above variables. Further, the number of hill people who are legally registered and possess a Thai identification card is unrelated to opium activity.

(5) The above correlation results are mixed but there is moderately good support for the proposition that opium production and marketing activity is sufficiently complex as to warrant a multifaceted program as opposed to the narrow crop-substitution approach.

B. Recommendations.

1. It is recommended that USAID/Thailand formulate its programs for the hill people within the context of a socioeconomic strategy with the explicit goals of improving their standard of living and giving them greater opportunities to assume a wider range of careers in modern Thai society than they do at present.

Until recent times the hill people have been a segment of the Thai population largely neglected by the central government. Although there has been an accelerating rate of change taking place in the highlands due to a great extent to increased contact among the hill people themselves and also between them and the outside world (see Part 2 on The Dynamics of Change in Northern Thailand), the hill people continue to be disadvantaged. Their health standards are relatively low, they are poorly educated, and they have extremely limited career opportunities.

Since 1970 there has been a proliferation of socioeconomic programs among the hill people, generated by the Thai government, by donor agencies, and also by the Christian missionaries. The most elaborate of these programs have been primarily economic, designed to introduce new cash crops as substitutes for opium poppies. As they are being implemented, some of them undoubtedly will have the effect of improving the material standards of certain hill groups, adding to the growing number of hill farmers participating in the market economy. This is a desirable

development but it will only satisfy a portion of the hill people's needs. There are other economic and social needs and desires that should be addressed, and these can be more readily recognized within the context of a socioeconomic strategy.

The goals of improving the living standards of the hill people and increasing their career opportunities has two very important advantages for the Thai government. They would:

(a) Integrate the hill people into modern Thai society, something the Thai government desires (see section on Thai Government Policy and Programs for the Hill People in Part 2);

(b) Having alternatives to farming will tend to draw some of the more ambitious hill people away from opium production. Also, a vastly increased number of well-educated and well-trained highland leaders will be able to impose sanctions against opium production more effectively among their own people than could any outsiders.

The goals of the strategy can be realized through a series of inter-related social and economic programs, some of which could be supported by USAID/Thailand. The advantages of having this strategy is that USAID would be able to plan its programs in relation to programs being organized and implemented by the Thai government<sup>2</sup> and donor agencies. This approach would also tend to define more clearly the benefits that the poor among the hill people will derive from the USAID-supported programs. It would be preferable that USAID support of programs for the hill people be

initially very modest with a view to increasing its input slowly as the Thai government requests it.

2. It is recommended that USAID/Thailand support the primary school education program proposed by the Ministry of Education and begin planning support for secondary school and more advanced levels of education.

In many respects, education is the most important program in the socioeconomic strategy. The availability throughout the highlands of primary and secondary school education is a prerequisite to any socioeconomic development of the region. Some primary and secondary schools have been established among the hill people by the Christian missionaries, but the Thai government's efforts in the field of education have been rudimentary (see Education Programs in the Ministries of Interior and Education and the Border Patrol Police in Part 3). Nonetheless, existing schools are well-attended. The high value placed on education by many hill people is reflected in Cases #1, 2, 6; 10, 12, and 13, it is particularly true in Case #11 where the young Karen schoolteacher's father had sold his farmland in order to finance his children's education. As Young (1962: 44) has noted, even among the relatively remote Meo (Hmong) there is "more of a yearning for education than among the other hill people, if for no other reason that they are a business-minded people who see many good advantages through education."

(a) Primary School Education. -- In May 1978, USAID/Thailand submitted a Project Identification Document (PID) proposing support of the Ministry of Education's effort to coordinate the various education programs of the government, donor agencies and mission groups in order to develop a new primary education program with a revised curriculum. The PID states that "First, the program should be conceived in a holistic fashion, covering basic education and opportunities for further learning for both children and adults. Second, the model or approach should respond to the unique circumstances and conditions of the hill areas of Thailand and should build on the most promising efforts and experiences to date. And, finally, the model should promote a high degree of self reliance and utilize existing government personnel resources whenever possible."

This five-year project would be managed by the Northern Regional Adult Education Development Center and it would affect both in-school primary education and the existing adult programs. A "planning secretariat" would be organized (with USAID's assistance) to utilize the services of World Education, a voluntary organization now working on Adult Education.

It is encouraging that the Ministry of Education is interested in coordinating the various programs concerned with education for the hill people because education, like many other programs in the highlands, has suffered from having involvement by too many agencies that fail to

coordinate their efforts (see Thai Government Policy and Programs for the Hill People in Part 2 and Education Programs in the Ministries of Interior and Education and the Border Patrol Police in Part 3).

The PID makes the point that there is a "wide range of broad policy issues that must be clarified and resolved," and it specifies that one such issue is the question of cultural assimilation versus integration." This issue (which is discussed more at length in the section dealing with Thai Government Policy and Programs for the Hill People in Part 2) is very pertinent to primary school curriculum planning because it raises the question as to whether or not the indigenous highland languages should be taught in the first three or four grades along with the Thai language. Studies and experience have demonstrated that a child can learn a second language (Thai in this instance) more readily if he has become literate in his native language first.

It is important that primary level education be organized in relation to the secondary school curriculum so that both of them are aimed at imparting the knowledge and skills that some hill people require so that they can become effective agents of change in their own societies. The primary school curriculum, for example, might contain some low-level technical training in improved gardening and farming. Some of this already is included in the two-year Special Schools organized in villages by the Public Welfare Department (see Case #1), although it does not include any practical work with gardens and crops.

(b) Secondary School Education. -- Secondary school education programs should be geared to impart the wide range of skills needed in the implementation of the social and economic development programs that are proliferating in the highlands. This will give the hill people a role in these program, and it will be a step in the direction of attaining the goals outlined above.

It is at the secondary school level that those who will remain in farming and those who will move on to other endeavors should receive different training. For the former, the curriculum should include not only advanced farming and gardening techniques but also the production of cash crops, processing of these crops (particularly industrial crops), marketing, transport, and petty commerce. In addition, the curriculum would include training in such things as the care and repair of motor vehicles, smithery, carpentry, and so forth.

Special training for those who will not be directly engaged in farming but who will remain in the local area to work in the government or donor-assisted programs would include such things as agriculture extension or clerical (typing and bookkeeping) training. Some might want training in shoemaking and repairing, barbering, or sewing.

There also could be special training programs organized to produce highlander civil servants. Hill people would be accepted in positions at the local level, and as socioeconomic development continued, those qualified (as a result of advanced training and/or experience) could

assume higher roles at the district and province level. These positions would be related to such things as education, agriculture, health, public works, forestry, and land development.

Those going on to advance training in such fields as nursing and those who will continue on to higher levels of education would have a liberal arts curriculum.

Presenting hill people with a new range of career opportunities will require a wide range of special programs to assist them. Cases #11, 12, and 13 reflect ambitions of young hill people to continue their training to become teachers, nurses, or dentists. Dr. Paul Lewis, the Baptist missionary, reports that a young Lahu friend with his secondary education completed aspires to become lawyer. Unable to finance his education, he works for the Border Patrol Police. Scholarships, hostels for housing hill students in lowland area, and special consideration on entrance into schools of higher education are a few of the basic needs.

3. It is recommended that AID lend support to the Ministry of Public Health for programs to improve health standards among the hill people.

There are two Thai government health programs to which AID could lend support in the near future. One is the existing Malaria Control Program and the other is the proposed "Package Project" to develop public services in health, nutrition, education, and public welfare among the hill people.

A. Malaria Control. -- USAID/Thailand has submitted a Project Identification Document (PID) for Fiscal Year 1979 to support a Malaria and Vector Control program being implemented by the Thai Ministry of Public Health. The PID notes that "The people of Thailand are presently facing serious and widespread epidemic conditions of malaria in many areas of the country." Between 1970 and 1977 the incidence of recorded malaria cases has risen from 124,000 to 315,431 or 154%. The heaviest concentrations of hill people are in regions of Thailand where malaria (particularly the deadly *P. falciparum* variety) has increased to epidemic proportions.

It would be desirable to organize a program to train hill people for the roles needed to carry out this program in the uplands. Reliable sources in Chiang Mai pointed out that a prevailing negative attitude towards the existing Malaria Control Program among the hill people is due to what they consider to be rude behavior by the Thai vector control teams that visit villages. Unable to communicate with the hill villagers, the Thai teams often barge into houses and spray indiscriminately, ruining food (including rice stored in bins) and causing sickness among the residents. This could be avoided if teams of highlanders were used to bring the program to the villages.

B. Increased public services in health and nutrition.-- Improved health and nutrition among the hill people are essential to socioeconomic development. The data presented in Appendix D were gathered in a survey

conducted by the Anemia and Malnutrition Research Center (MALAN), Faculty of Medicine, Chiang Mai University, and it indicates something about diet deficiencies among some hill people. Since the respondents were patients in the MALAN center, the sample is not random but it did include children from the Akha, Karen, Lahu, Lua, Lisu, and Meo ethnic groups (and two cases of hill children whose ethnic affiliation is not noted). The very fact that the children were taken to the hospital in Chiang Mai indicates that they are from families with considerable contact with the world beyond their own localities. This survey data indicates that children of the Northern Thai in the vicinity of Chiang Mai have better nutrition available to them than do the children of hill families. The highlander children in the survey consume less rice daily than the Thai children (95% of the Thai and 71% of hill children). Even more striking is the difference between the two groups in daily consumption of high-protein foods - eggs, milk, and meat - with almost twice as many Thai children consuming these important foods. This is particularly significant given the apparent accessibility of these highland children to the outside world and to modern medical facilities. It suggests that the nutrition situation in the more remote areas is likely to be considerably worse.

In February 1978, the Family Health Division, Department of Health, Ministry of Public Health, published a Proposal for the Package Project to Thai Minority Groups. This proposal states that the remote rural

regions of Thailand suffer from problems related to rapid population increase, unemployment, and low agricultural and industrial production. In order to cope with these problems (and also conserve the natural resources threatened in these remote areas) the Family Health Division has formulated a project described in the above proposal to develop public services in health, nutrition, education, and social welfare among "certain sub-groups," which are identified as the hill people, the residents of resettlement areas, and the growing number of refugees in border-area camps. The duration of the project would be three years -- from 1979 to 1981.

The major focus of the project would be to establish "supplementary assistance centers" which would serve as bases of operation for implementing the health and welfare programs. The project would be a joint effort among the Family Health Division part of the Department of Health, in the Ministry of Public Health and two agencies in the Ministry of Interior -- the Department of Public Welfare and the Bureau of Intelligence and Foreign Affairs. The Family Health Division would be the coordinating agency.

The project proposal notes that personnel and institutions already exist to provide service infrastructure to reach the target groups. As the coordinating agency, the Family Health Division will be responsible for field supervision and training in cooperation with officials of the other coordinating agencies. Day-to-day management will be the responsibility of the Resettlement Area Division, the Hilltribe Welfare Division,

the Bureau of Intelligence and Foreign Affairs and also the Family Health Division. The proposal also outlines "five sub-projects" four of which are designed to deal with four target groups.

The Hill Tribe Welfare Division of the Public Welfare Department would be the principal government agency for coordinating services to the hill people in twenty-one provinces. Claiming that the population growth rate of the hill people is 3.7 percent and seeing rapid population growth as the major cause of low standards of living, destruction of natural resources (land, forests, and water), lack of farmland, and opium production, the Family Health Division has focused on family planning as the greatest need in the highlands. The proposal also points out that:

It is necessary to set up a very precise standard for supporting the tribesmen's development and welfare with regard to their occupations, education, health, family planning, social welfare so they will possess permanent living places and occupations which will bring them a higher standard of living.

The approach will be to organize the project to inform the hill people about family planning in three highland sites -- Mae Tang district, Chiang Mai province, Ngao and Chae Hom districts, Lampang province, and Mueng and Mae Sot districts, Tak province. The officials in charge of the training will be agricultural, health, and Public Welfare personnel.

"Teacher assistants" will be selected from among educated hill people and they will work with local leaders and local volunteers.

It would be desirable to expand the focus of this project to include nutrition programs to cope with the malnutrition problem among the hill people. Also, some of the Christian missionaries who have had considerable experience have pointed out that tuberculosis is widespread in the highlands, as is dysentery. Hook worm is rampant among some groups. One survey team reported that 50 percent of the residents in some highland villages were infected and among some of the Akha this figure rose to 90 percent. Typhoid and encephalitis are found in some areas. The missionaries also note that there is need for paramedics among the hill people to treat a wide range of ailments, dispensing such things as malaria pills, and treating minor injuries. (See Part 3 on the Dynamics of Change in Northern Thailand, particularly the discussion of Christian Missionaries programs in the highlands since 1950.)

4. It is recommended that the proposed AID-supported Hilltribe Integrated Rural Development Project be implemented as a model socioeconomic development scheme.

As it is stated in the 1979 Project Identification Document (PID) submitted by USAID/Thailand, the Hilltribe Integrated Rural Development project is broadly aimed at improving the standard of living among the hill people. The explicit purpose of the project is to:

Eliminate among the Hilltribe population, in specific project areas the practice of shifting cultivation and opium poppy production through the introduction of a stabilized agriculture/community-based economic system.

The AID-assisted project will be centered specifically on a 300 km<sup>2</sup> area within the Mae Chaem watershed (4,500 km<sup>2</sup>) located in Mae Chaem district of Chiang Mai province. Projects established in this area will be aimed at introducing a stabilized agriculture/community-based economic system for crop substitution, eliminating swidden farming, and reforesting the denuded areas. As envisaged, this project will be undertaken by various Thai government agencies, including the Land Development Department, Public Welfare Department, the Accelerated Rural Development Office, the Royal Forest Department, the Department of Agricultural Extension, and the Department of Cooperative Promotion.

Basic and applied research for crop substitution and for determining crop varieties, areas for planting, and total acreage to be planted in specific crops will be the responsibility of Chiang Mai and Kasetsart universities together with the Department of Agriculture in the Ministry of Agriculture and Cooperatives.

Social services, including health programs (clinics and family planning) and education programs (Thai language proficiency, vocational training, etc.) will be the responsibility of the ministries of Public Health and Education. These ministries also will provide the facilities (such as schools and clinics) and personnel (teachers, nurses, etc.) for these programs.

A. A Model for Socioeconomic Development. -- The proposed Hilltribe Integrated Rural Development Project has the potential of being a model for implementation of social as well as economic programs that will together improve the living standards of the hill people. The advantages of this project are:

(1) It is planned for a geographically delimited area where integration of social and economic programs can be attained on a small scale;

(2) Relying on Thai government capabilities, this project will not make great demands, vis-a-vis personnel requirements, on any one agency. This should contribute to inter-agency cooperation such as that achieved in the King's Projects (see the section on The Dynamics of Change in Northern Thailand, particularly the discussion of The Royal Hilltribe Patronage Project). This project will not require the presence of many foreign technicians;

(3) Since several crop-substitution projects already are being implemented in northern Thailand (such as the UNPDAC, the Mae Sa Integrated Watershed and Forest Land Use Project, and the Thai-Australian Highland Agronomy Project), there is considerable information available on the potentialities and pitfalls of this type of project.

(4) Since the project includes "social services" (as is noted above), AID would have an opportunity to suggest to the Thai government that education and health programs be organized for the villages in the project area. Recommendations 1, 2, and 3 provide

guidelines for coordinating these types of social programs with the economic aspects of the project.

- (5) This project will afford an opportunity to give the private sector a role in socioeconomic development among the hill people.

The private sector can contribute significantly to socioeconomic projects such as the proposed Hilltribe Integrated Rural Development by providing needed capital for continuation of the program, and also by providing the human skills in such critical areas as operation, processing, transportation, marketing, and finance. Private banks could be brought into schemes for supplying rural credit to farmers in the Mae Chaem watershed when they begin producing cash crops.

(a) A Private Sector Estate Near Chiang Mai. -- An impressive example of private sector investment in new cash crops is the mango-longan estate of Mr. Prapat Sitdhisung, some 25 kms northeast of Chiang Mai city. Twenty years ago, after receiving a degree in agriculture at the University of Florida, Prapat, who then was working for one of the tobacco firms, purchased 6 ha. of land from villagers who were not farming it because it was in rolling country with predominantly laterite soil. He continued to acquire parcels of land, and he also began to receive some financial support from Bangkok entrepreneurs. In 1972 Prapat planted 6,000 mango seedlings and 800 longan seedlings. Two years ago, he resigned from his position at the tobacco company to devote full time to the estate. By April 1978 (when he was interviewed)

Prapat's estate had grown to 130 ha and he was harvesting mangos from 5,000 trees (mangos begin bearing fruit after 3 years) and longan from 700 trees (longan trees bear fruit after 6 years). The mangos and longan were being shipped to the Bangkok market.

New mango seedlings had been planted and Prapat's goal was to have a total of 12,000 trees. Plans were being made to increase longan production. He and his financial backers were investigating the possibility of exporting longan to Hong Kong and mangos to Saudi Arabia. In addition, Prapat had begun planting coconut seedlings with a view of having 1,000 trees. The coconuts could be sold in Chiang Mai (he noted that 20,000 coconuts were brought to Chiang Mai from the Bangkok region annually). Prapat also had planted 2 ha to winged beans, which were climbing up arbors of palm fronds. He noted that some genetic adjustments would have to be made because the plants were ready to produce sprouts as the days were growing longer, thus giving them too much light. Stands of bamboo were being cultivated around the estate but they were intended to produce building materials for the workers' houses.

On May 24, 1978, Prapat held a gathering of 30 highlander village headmen at this estate for two days. They discussed cropping techniques for growing mango and longan trees in their villages. Prapat noted that he would lend assistance to these hill people in their efforts to grow these new tree crops with the hope that one day they would be producing cash crops which he could help them market.

(b) A Rural Credit Scheme for Hill People.--In the Thai-Australian Highland Agricultural Project at Pa Kia, near Chiang Dao, Chiang Mai province, has assisted a successful production of potatoes in Lahu and Meo villages. In an effort to increase production, the project is extending credit during the 1978 planting season for potato (Spunta) seed purchases in February and March and for fertilizer for farmers prepared to take soil conservation control measures. About 30 Meo farmers are expected to benefit from the credit program. The loans are being made through the Bangkok Bank with funds from the Australian government.

THE THAI GOVERNMENT AND THE HILL PEOPLE

The Hill People in the Framework of Northern Thailand

There are varying opinions <sup>1/</sup> about which provinces constitute Northern Thailand. As Map 1 indicates, in this report Northern Thailand will embrace sixteen provinces in conformity with the Thai government's census policy. These are the provinces of Mae Hong Son, Chiang Mai, Chiang Rai, Lampang, Lamphun, Nan, Prae, Tak, Sukhothai, Uttaradit, Phitsanulok, Kamphaeng Phet, Phetchabun, Phichit, Uthai Thani, and Nakhon Sawan.

Walker (1975A:3) points out that the "combination of topography and climate gives North Thailand two distinct ecological zones which in turn support very different socio-economic systems. "One of these systems is broadly identified with the Northern Thai, who live in lowland sedentary villages, have paddy cultivation as their basic adaptation, and adhere to Theravada Buddhism. The other system is associated with the hill people who inhabit higher elevations and are ethnically and linguistically distinct from the Thai. Some of the hill people are migratory while others live in settled villages. Among them there is a predominance of swidden farming with upland dry rice the staple crop. It was noted

1/ Walker (1975:1), for example, writes that this region includes twelve provinces--Mae Hong Son, Chiang Mai, Chiang Rai, Lampang, Lamphun, Nan, Prae, Tak, Sukhothai, Uttaradit, Phitsanulok, and Kamphaeng Phet. Kunstadter and Chapman (Kunstadter and Chapman, 1970:147), however, describe Northern Thailand as having only nine provinces, and they would delete Sukhothai, Phitsanulok, and Kamphaeng Phet from the list. For the Thai government, Region Five, the administrative division of the North contains only eight provinces, eliminating Tak. The census definition of the North adds the provinces of Kamphaeng Phet, Nakhon Sawan, Phetchabun, Phichit, Phitsanulok, Sukhothai, Tak, and Uthai Thani, making sixteen provinces (Smitinand, et al 1978:25).

previously that this general differentiation does not imply any isolation of lowland and highland people. Nor does it mean that all Northern Thai are lowland-dwelling Buddhists who have paddy fields. There are Northern Thai living in the uplands where they may not farm wet rice. By the same token there are hill people who do cultivate paddy fields, and as was already noted, the socio-economic changes taking place among the hill people are resulting in greater economic diversity among them.

Ethnolinguistic Groups - The major ethnic group in Northern Thailand are the Northern Thai--identified by others as Khon Muang (as contrasted with the Khon Thai or Central Thai) while the ethnic minorities include the Karen, Lisu, Akha, Meo (Hmong), Yao (Mien), Lua, Khmu, Shan, and Htin. In addition, there are scattered Haw (Yunnanese).

Northern Thai and Shan are Tai languages of the Tai-Kadai linguistic stock. Lisu, Lahu, and Akha are Tibeto-Burman languages of the Sino-Tibetan language stock. The languages of the Meo and Yao are grouped under the Miao-Yao languages in the Sino-Tibetan stock. The Karen language belongs to the Sino-Tibetan stock but its position within it is not clear. Karenic languages probably constitute a separate linguistic group in themselves, but they appear to be distantly related to those languages usually classified as Tibeto-Burman. The Lua language is of the Mon Khmer stock as are Khmu and Htin. Haw is a Sinitic language. (Le Bar et al. 1964: 1, 3, 94, 187).

Below is a listing of the ethnic labels used in reference to these groups in the literature and in current usage. Some of the sub-groups also are indicated.

Karen - Synonyms for the Karen include Kareang, Kariang, Karieng, Kayin, and Yang. Kayin is the Burmese term equivalent to the English word Karen, and it refers mainly to the two large plains-dwelling groups, Sgaw (sometimes spelled Skaw) and Po (sometimes spelled Pwo). The Sgaw Karen call themselves Kanwaw (Le Bar et al 1964: 58). In Thailand the Po and Sgaw are the two major divisions of the Karen (Young 1962:85). Hinton (1969:3) reports that in Northern Thailand, the Po refer to themselves as the Phlong ("People").

Lahu - The people call themselves Lahu to which they suffix various modifiers. The Lahu Na (Black, Great or Independent Lahu) have long been established in Southwestern Yunnan and in Northeastern Burma from where they migrated more recently into Laos and Thailand. The Lahu Nyi (Southern Lahu or Red Lahu) are an offshoot of the Lahu Na and are the most numerous of the Lahu groups in Thailand. The Lahu Shi (Yellow Lahu) live primarily in Yunnan and Burma, but are also found in small numbers in Thailand. The Lahu Shehleh emigrated from Yunnan into Thailand around the mid-1920's. The Lahu may also be known locally by clan names, e.g. the Lahu Shi of Thailand are of the Ba Kio and Ba Lan clans (Lahu Shi Ba Kio or Ba Lan). (La Bar et al. 1964:30). Walker (1975:111-12) reports that the Northern Thai often call the Lahu by the Shan designation, Mussur. In Thailand there also are the Lahu Na (Black Lahu).

Lisu - In Thailand the Chinese terms Lisaw or Li-shaw are often used to refer to members of this ethnic groups who call themselves Lisu. Others synonyms are Li-Hsaw, Li-shaw, Lisaw, Liso, Lu-tzu, Yaw-yen, and Yeh-jen (Le Bar et al. 1964:27).

Akha - Akha is the term by which the members of this group call themselves. The Shan and Northern Thai refer to them as E-Kaw. On the basis of language there are at least three Akha subgroups--Jeu G'oe, the largest group are called Puli by their shan neighbors, A Jaw, and A Kui (Jaafar and Walker 1975: 196-70).

Meo (Hmong) - Called Meo by the Chinese and Thai, these people call themselves Hmong, a designation that is becoming more widely used in the literature. Other names are Hmu and Hmung. In Thailand there are three divisions of Meo--the Blue (which is subdivided into the Flowery, Black, and Striped), White, and Gua M'ba. (Jaafar 1975: 61-62).

Yao (Mien) - The Yao of Thailand call themselves Mien, which means "men". Other designations are Yu Mien and Man, a term used in Laow (Le Bar et al 1964: 91).

Lua - The Lua call themselves Lavu'a (Lawoe-a) which also is spelled L'wa, Lawa, Luwa, and L'ua (Le Bar et al. 1964: 120).

Shan - Most of the Shan are located in Burma but some have migrated into the Western uplands of Thailand. Shan is a Burmese designation that was also used by the British. The people call themselves Tai. The Thai and Lao often call them Ngiao (Ngiaw) and the Kachin in Burma refer to them as Sam (Le Bar et al. 1964: 192).

H'tin - The Thai call members of this group H'tin, T'in, or Kha T'in. In Laos they are referred to as Phai or Kha Phai (Le Bar et al. 1964:128).

Khmu - The people call themselves Khmu, which means "people". Synonyms are Kha Khmu (a Lao designation), Kha Mou, Khamu, Khamuk (the term used in Thailand). There are several subgroupings of the Khmu in Laos (Le Bar et al. 1964: 112).

(See section on an Ethnographic Summary: Social, Economic, Political, and Religious Systems of Northern Thailand for more information on these groups.)

Thai Government Policy and Programs for the Hill People

On July 6, 1976, the Royal Thai Government's Cabinet approved a policy statement and an outline of program for the hill people. Both documents had been prepared by the Department of Public Welfare, Ministry of Interior (Memorandum from the Department of Public Welfare 1976: 1-7; Department of Public Welfare--1976: 1-11). The "hill tribes" are defined in these documents as "the Meo, Lahu, Lisu, Akha, Karen, Lua, Htin, Kamu, Thai people and others who make their homes and earn their living permanently up in the mountains."

Justification for the policy is stated in terms of problems, which the Department of Public Welfare sees as becoming "more violent and complicated especially in the highland areas." The first problem identified is that of "population pressure" due to the natural population growth of the hill people, the influx of lowland Thai seeking land in the mountains, and infiltration of highlanders from neighboring countries. Related to this is the lower standard of living among the hill people measured against the Thai majority in terms of incomes, health, and education. There also is the problem of opium addiction, which the Department of Public Welfare describes as the cause of smuggling, crime, and juvenile delinquency. Another problem is the damage to natural resources and the physical environment (manifest in deterioration of watersheds, forests, water quality, and wildlife) due to swidden farming practiced by the hill people.

There is expressed concern in these documents that the most serious problem lies in the differences separating the upland minorities from the Thai majority which might "cause bad effects to the unity and security of the country."

The RTG's policy for the upland minorities is presented in five statements. The first (and apparently the most important) statement reflects a fear concerning the possibility of future national disunity due to social differences between the hill people and the lowland Thai. It declares that:

- "1. Since Thailand's hill people are minority groups who can mix with the Thai people peacefully, it is appropriate to use the "integration policy" as a guide in operations. This policy seeks to generate a sense of belonging and loyalty to the Thai nation through giving tribes people full rights to practice their own religions and cultures as they like."

This indicates a desire to attain national integration through the development among the hill people of a sense of identification with the Thai nation. The passage stating that the hill people would be free to retain their own "religions and cultures", however, suggests that this goal would not necessarily be achieved through a process of assimilation into the Thai culture sphere. It implies that the upland minorities would be free to retain their own ethnic identities.

The second policy statement outlines some specific steps towards socio-economic development of the hill people. It reflects concern with opium production and also the practice of swidden farming.

- "2. In implementing the hill people's development and welfare programs according to this policy the aim is to promote hill people to be first class citizens able to help themselves through:

- (1) Increasing the income and improving upon the standard of living of hill people.
- (2) Promoting hill people to become good citizens and generating a sense of belonging so that they may develop a sense of loyalty to the Thai nation.
- (3) Encouraging hill people to solve their own personal and community problems.
- (4) Encouraging hill people to desist from opium production.
- (5) Promoting and supporting stable agricultural practices amongst the hill people.
- (6) Encouraging and supporting hill people to stop moving and assisting them to settle permanently in suitable areas. Help will be given them to desist from forest destruction and slash and burn agriculture. Once they have a sense of belonging and develop a sense of loyalty to the Thai nation they will help sustain the security of the Thai borders.

Concerning citizenship, statement number three is rather vague, declaring that:

- "3. To accelerate the registration of hill people according to the Ministry of Interior's regulations (2517 B.E.) relating to the consideration of registration of hill peoples' Thai nationality."

State number four states very clearly that:

- "4. Concerning the population pressure which is rising very quickly and causes more violent and complicated problems, it is necessary to decrease the hill peoples' birth rates by accelerating the family planning program amongst them."

The fifth statement outlines the administrative structure for implementing the above policy statements, providing for committees at the national and provincial levels. It states that:

- "5. To implement the hill peoples' development and welfare program successfully according to the above policy, it is necessary to gain cooperation from the other agencies concerned. Therefore it is considered appropriate to appoint a multiagency committee with authority and responsibilities as follow:

- (1) The National Hilltribes Committee is designated as the sole body responsible for hill peoples' affairs including setting policy and considering and approving projects involving hill peoples.

All government agencies' operations that are related to or have an effect on hill people should be approved by the National Hilltribes Committee. The National Committee has the authority to appoint specific subcommittees when necessary. (See below for the organization of the National Hilltribes Committee.)

- (2) The Provincial Tribal Committees are responsible for dealing with hill peoples' affairs according to guidelines the National Hilltribe Committee has designated. In addition, the Provincial Tribal Committees consider the plan of operations and supervise work involving hill people in each province.

The twenty-one Provincial Hilltribe Committees are found in Tak, Mae Hong Son, Chiang Mai, Chiang Rai, Nan, Phrae, Uttaradit, Loey, Petchabun, Lamphoon, Lampang, Kamphaeng Phet, Sukhothai, Nakhon Sawan, Uthai Tani, Supan Buri, Kanjana Buri, Ratchaburi, Phetchaburi, Prachuap Khiri Khan and Phitsanulok.

Programs designed to realize the goals set forth in the policy statements are described under the heading "Operations". Essentially, most of the programs are aimed at bringing social and economic welfare not only to the hill people but to the Thai populations in the mountains as well. In addition, there also is the expressed intent to control movements of hill groups and to curb their production of opium and their practice of swidden farming. Organizationally, two types of approaches are envisaged to bring these programs to the upland minorities. One approach is to establish "Development Zones" into which some hill people (it is not clear how they will be determined) will be regrouped. Within these zones their movements will be monitored, opium production will be

National Hilltribes Committee

Chairman : Minister of Interior

Vice Chairman : Under Secretary of the Ministry of Interior

Committee Members:

Supreme Commander, Royal Thai Army

Under Secretary of the Ministry of Agriculture & Cooperatives

Under Secretary of the Ministry of Education

Under Secretary of the Ministry of Public Health

Under Secretary of the Ministry of Commerce

Under Secretary of the Ministry of Foreign Affairs

Under Secretary of the Ministry of Industry

Director of Budget Bureau

Secretary General of the National Economic and Social  
Development Board

Secretary General of the National Security Council

Director General of Police Department

Director General of Public Relations Department

Chief of District Police from District with Hilltribe Residents

Provincial Community Development Officer

Provincial Veterinary Officer

Station Chief, Provincial Radio of Thailand Broadcasting Station

Provincial Commercial Officer

Provincial Industrial Officer

Provincial Treasurer

Provincial Public Welfare Officer

Provincial Clerk

Chief of Provincial Hilltribes Development and Welfare Center  
(acts as Secretary and member Ex-officio)

curbed as will the practice of swidden farming. These Development Zones are described in the following paragraph:

1. To establish as "Development Zone" areas which have been occupied by hill people for a long period of time and which have now been abandoned. Integrated development projects will be planned and implemented for the hill people in each "zone", including support to settle together in a whole group and earn their own living in fixed areas, occupational development education, health and family planning, social welfare and agro-industry proceeding side by side in the same areas. Such zones will constitute "Economic Production Units" and will provide social services for other hill people. In supporting these development zones the government will be able to control the movements of the hill people in and out of these zones more effectively. This will prevent the hill people from moving out to destroy natural resources in some other places by practicing unauthorized shifting cultivation and growing opium. In addition, it will prevent the hill people from moving freely in and out of the country and the government can also detect more easily any movements that may effect the politics and security of the nation. The Department of Public Welfare, Ministry of Interior is designated to be responsible for such operations in Development Zones in cooperation with other agencies concerned.

For hill people not relocated in any Development Zones provision is made by the Public Welfare Department's plan to have mobile development and welfare teams visit them. In addition to "establishing good relations with hill people and assisting in solving their problems", these teams will "provide welfare services for hill people and encourage them to settle in Development Zones." Regarding the upland Thai populations, the plan states that "Development and welfare services will be also given to any Thai people who make their homes and earn their living permanently in mobile development and welfare teams' areas of responsibility." (See Section on Government Presence in the Highlands in Part III for details of RTG programs among the hill people).

Recently, two critics of Thai government policy and programs for the hill people have taken a dim view of the situation that exists in the mid-1970's. Hearn (1974: 185) writes:

"An unresolved Thai national hill tribe policy, compounded by a host of self-serving officials, was largely responsible for the tribal unrest in the hills of Northern Thailand in the 1960's. The government-sanctioned presence of Chinese Kuomintang troops in the highlands of Chiang Rai province further disturbed the delicate Thai-tribal relations."

"Unlike their larger numbers in Laos, the hill tribesmen of Thailand have been consciously excluded, by law, from full participation and full rights accorded to Thai citizens. As a result, Thailand's (non-citizen) tribesmen have been vulnerable to mistreatment and injustices at the hands of unscrupulous Thai officials and other fellow countrymen. In 1974, the same policy remains unresolved and Thai-tribal relations have deteriorated further."

Aran Suwanbubpa (1976: 88-90) writes that "It is obvious that the problems related to the hill tribes are still unsolved though there are many programmes operating under various departments and ministries with responsibilities for hilltribes development and welfare." Listing the reasons for this failure, Suwanbubpa notes that the government's policy is too uncertain. "The Government has not yet decided what is the most realistic policy that should be applied to the hill tribes. In implementing the programme, each agency has its own policy and strategy. For instance, the Department of Public Welfare's programmes may emphasize 'integration', while the Interior Security Operation Command is launching its programmes for 'assimilation'--for the complete absorption of the tribes into the general Thai community, and the King's Project is being conducted on an 'open-ended integration' basis."

Suwanbubpa also points out that another important factor is the lack of any "comprehensive Hill Tribe development strategy," He adds explicitly that "Because the National Tribal Committee and its full array of subcommittees has not been an effective coordinating body during its sixteen years of existence, the agencies concerned with the problems have extended their activities into the tribal communities on a disjointed piecemeal basis". One result of this is a lack of inter-agency cooperation in organizing and implementing their hill programs. "It appears that there is some overlapping of the activities of government agencies in dealing with the hill tribes, while on the other hand there are still serious deficiencies in some aspects of necessary activity". Another result, he points out, is lack of financial cooperation among the government and donor agencies (he specifies the United Nations Fund for Drug Abuse Control and the U.S. Department of Agriculture) so that most of their funds "have been spent for salaries, office materials, equipment, and other constructions that serve the administrative complex." Suwanbubpa claims that "about 70% of the total annual budget for the hill tribe development and welfare has been wasted owing to lack of cooperation and to the overlapping activities of government agencies.

The Fourth National Economic and Social Development Plan is designed for the period beginning October 1, 1977 and ending on September 30, 1981. One of the stated goals is to organize programs to cope with deterioration of environmental conditions and natural resources and also programs to strengthen national security. It also provides for an effort "to accelerate decentralization of social services to reach

more people in the rural and remote areas." The plan calls for integrated implementation of programs "for the distribution of education, public health, social welfare and nutrition services to rural areas."

Specifically, the five-year plan calls for a "development area" scheme among the hill people to abolish opium production. It states:

"The areas where the hilltribes people live (291, 133 hilltribes people with 62, 132 rai of poppy fields and 350,444 rai of other crops covering 13 provinces) will be divided into 210 zones. Each year, twenty zones with about 34,000 people will be designated as a "development area". In each development area, land will be allocated to three types of cultivation, namely, paddy cultivation, rotating crops and fruit trees, and forest planting. In this way, poppy fields can be reduced in size by 50 per cent by the end of the Fourth Plan period". (Government of Thailand 1977: 31, 42, 283).

By June 1978 the National Economic and Social Development Board (NESDB) in the Office of the Prime Minister had assumed responsibility for conducting a macro-analysis of the entire socio-economic situation in the Upper North (which embraces the northernmost provinces of Northern Thailand). This is intended as the first phase in new planning for policy and programs for the hill people by NESDB.

During the present study there were numerous indications that Thai officials believe that the cultural assimilation of the hill people is the best means of integrating them into the Thai nation. The most graphic manifestation of this is the education program sponsored by the Hill Tribe Welfare Division of the Department of Public Welfare at Wat Sri Soda in Chiang Mai (see section on Education Programs of the Ministries of Interior and Education and the Border Patrol Police in Part III). This program involves sending young hill students to the Wat Sri Soda for primary and/or secondary education. The students

(currently there are over three hundred of them) are from various ethnic groups and they live as Buddhist monks. This is one means of spreading Therayada Buddhism among the hill people, a goal that is viewed as desirable because it is one means of assimilating them into the Thai cultural sphere. Related to this is the hostility towards the Christian missionaries expressed by some Thai government officials. These missionaries are seen as creating divisions among the population by introducing alien religious ideas. There are some signs that this hostility may be increasing. On May 18, 1978, for example, the Public Welfare Department announced that it was drafting new regulations requiring all missionaries to report to authorities in charge of a particular area before carrying out their missionary work. The Public Welfare Department source noted that this was "to prevent certain groups of missionaries from interfering with the local people's faith, particularly hilltribe people, which could endanger national security...." (The Nation 1978).

### PART 3

#### The Dynamics of Change in Northern Thailand

The region of Northern Thailand has been undergoing an ever-accelerating process of socioeconomic change that already has had a profound effect on the lives of the hill people. The causes for this process of change are numerous and some of them are closely interrelated. One outstanding cause has been the continually increasing amount of contact among the hill people and between them and the world beyond the mountains. For the purposes of this report, culture contact can be discussed in two categories -- the contact that occurred prior to 1950 and that which has been taking place since that date.

Before 1950 contact was deeply affected by the formation of the Kingdom of Siam and the consequent integration of Northern Thailand into the new state, and also by the beginning of economic development in the region with such things as the emergence of the teak trade in the late nineteenth century. Traditional trade in the uplands also brought about contact among different ethnic groups. Another important factor was the migration of people both within the borders of Thailand and over the borders from neighboring Laos and Burma. Natural population increases contributed to contact between some groups. Finally there is the contact that was initiated between the Christian missionaries and some of the hill people.

Since 1950 all of these factors continue to be present and they have in many respects assumed new importance as the uplands of Northern Thailand have become engulfed in the wave of modernization that has swept the region as a whole. Demands for political security have generated a new interest in Bangkok to bring about a more effective integration of the hill people into the national framework, resulting in a greater ethnic Thai presence in the uplands (Border Patrol Police personnel, administrators, teachers, extension workers, and so forth). Migrations have increased with movements of hill people into Thailand from Burma and Laos because of the deteriorating political situations in both countries. Populations have vastly increased throughout Northern Thailand (Chiang Mai is now the second largest city in the country) and inter-ethnic group marriages are common. The Christian Missionaries have responded to the new trend for "hill tribe economic development" programs by expanding their efforts beyond the traditional education into agriculture, animal husbandry, and a host of other economic programs. They have been joined by a large number of foreign "donor agencies and countries," which for a variety of reasons (foremost among them the suppression of opium production) have begun a wide range of socioeconomic development programs among the hill people.

The net result of all of these developments is numerous and far-reaching changes. Village isolation is rapidly breaking down. Social and economic innovation are increasing as the villagers are exposed to

outside ideas and artifacts. New farming methods are being tried and cash cropping is increasing. The hill people are becoming increasingly participant in the market economy as the rising waters of modernization engulf them.

### Pre-1950 Culture Contact

#### The Founding of the Kingdom of Siam

The historical events which led to the formation of the Kingdom of Siam in the nineteenth century precipitated numerous changes in the previously semi-autonomous northern region. The Yuan or Lanathai now become Northern Thai, a subgroup of the broader Thai ethnic identity (this also happened with the Lao in the northeast). At the same time, the princes who ruled the northern principalities lost their prerogatives and responsibilities, and one result was a drastic change in their relations with the hill people.

Until the 1870's, Thailand was composed of a number of semi-autonomous principalities. Of these, Chiang Mai was politically dominant. The city had been founded in 1296 as the capital of the kingdom of Lanathai and for more than two centuries (1558-1774) it was under Burmese domination. Nonetheless, during this time Chiang Mai had maintained its control over the principalities of Lamphun, Lampang, Nan, and Phrae. Chiang Mai, in turn, recognized the overlordship of Siam, which in 1774 freed it from Burmese dominance. By 1873, Siam had formally integrated

the north into its territory and the following year a commissioner was sent from Bangkok to assume the powers formerly held by the local princes. In 1894, a provincial administration was established, further consolidating the control from Bangkok. (Manich 1967: 38-45.)

Before the Bangkok government assumed control of the north in 1874, the northern hill people, then mostly Lua and Karen, paid regular tribute to the local Northern Thai princes, receiving in return official titles to their mountain lands. The princes supported the authority of the Lua and Karen leaders in the hills, sometimes recognizing their control over several villages. The princes often settled major conflicts which the hill people could not resolve by themselves. In addition, the Northern Thai princes were always accessible to their hill subjects in times of crisis. When Bangkok broke the power of the princes, it unwittingly severed the lines of communication between the hill peoples and the lowland government (it is noted below and in the section on Land Tenure that this also affected the land tenure-situation in some areas). Both Walker (1975: 6, 13) and Kunstadter (1969: 72) point out that subsequently, the Bangkok government ignored the uplands. While extension of central government control and services was fairly rapid and broad in the lowland centers (provincial and district seats), the government did not attempt to extend services to the hills in any systematic and comprehensive way until recently.

#### Historical Trade

In northern Thailand there has been a long history of trade with routes crisscrossing the uplands and extending into Burma and Laos.

Upland villagers have long been customers for many lowland manufactured goods as well as salt and iron. They in turn have been suppliers of specialized commodities such as forest products. It appears that opium was one of the items that moved across the trade routes of Northern Thailand. Sixteenth century accounts note the export of opium from the Coromandel coast in India to both Pegu (Burma) and Siam. Chiang Mai was a hub of trade that extended from Pegu to Yunnan in southeastern China. It does not appear, however, that opium was produced in the upland until the nineteenth century. Opium cultivation appears to have spread from Yunnan with the dislocations and massacres that took place with the reduction of the Meo kingdoms in the middle of the nineteenth century. By the 1880's, poppy cultivation and opium trade were critical parts of the economies of the Shan states in Burma and northern Laos. There is, however, no evidence of any florescence of opium production in Northern Thailand. More than likely it was brought into the region with the first Meo and Yao migrations around the 1890's. (Marlowe, 1973: 5-7.)

Historically the highland people have served (and still do) as skilled caravaners who know all of the routes across the hills. At the end of the nineteenth century when economic development of Northern Thailand began with the teak trade, hill people, particularly the Lua and Karen, became an important source of labor. This development gave some of them experience in wage labor and cash cropping during the early decades of the twentieth century. Even hill villages that did not cultivate opium poppies and were not involved in wage labor were nonetheless linked to

the lowland markets and were also visited regularly by itinerant lowland traders. Transactions were (and continue to be) made by barter and cash. Some investigators have pointed out that the fact that money has long been in use by the highlanders is manifest in the complete integration of cash into their ritual and folklore. (Kunstadter 1969: 71-72; Walker 1975: 14-145.)

#### Population Migrations.

Historically, the migrations into what is now Northern Thailand have produced an ever-changing ethnolinguistic picture in the region. During the past century these migrations have increased with groups moving across the borders from Burma and Laos, increasing the amount of contact taking place among the hill people and between them and the lowland Northern Thai. Kunstadter (1978: 3 ) observes that:

"Mon-Khmer speaking groups such as Lua and Htin represent a pre-Thai population in Northern Thailand and have lived in the hills for a very long time. The Lua had widespread and highly organized lowland settlements, but whether there were also pre-Thai upland Lua villages is a question for archeological research. The Mabri (Phi Tong Luang, "Spirits of the Yellow Leaves") are a small Mon-Khmer speaking group of hunters and gatherers who seem to have been forced out of the lowlands and into the hills, and have become deculturated as a result."

Kunstadter also reports that "the Karen have evidently lived in Thailand for over 300 years, coming originally from Burma in small groups all along the hill Thailand-Burma border from northern Mae Hong Son south as far as Kanchanaburi and even Petchburi." Karen prisoners were moved into Thailand as a result of Thai-Burmese wars during the nineteenth century.

When the Karen first settled in the hills of what is now Mae Sariang district in Mae Hong Son province, they did so at the pleasure of the Lua from whom they obtained use of swidden land. The Karen also paid the Lua an annual tithe of one tenth of their rice crop for this usage. Space was made available to the Karen by Lua who had consolidated their dispersed hamlets into fortified villages at a time when raiders (possibly Kayah) from Burma were active in the area. Some Karen moved into Lua villages and intermarried. In time, the Karen enlarged their landholdings in the area as their population increased.

After the Bangkok government assumed control of the administration in Northern Thailand, the northern princes lost the right to collect tribute and allocate land. The Bangkok government claimed title to all of the hill lands, subjecting the Karen and Lua alike to head taxes. No special recognition was given to the Lua as original owners of the land, and the Lua were not allowed to continue collecting rent. Since that time, the Karen have taken over increasing amounts of land by sheer weight of numbers. (Kunstadter 1971: 5-7.)

Meo (Hmong) and Yao (Mien) have been in Thailand since the 1890's, having moved from Laos. During the early decades of the twentieth century the Lahu, Lisu, and Akha began drifting across the border from Burma in small numbers. Men of the Khmu, a Mon-Khmer speaking group, have come into Thailand from Laos seeing work. Some stayed to settle either in the hills or the lowlands, where many of them have "become Thai." (Kunstadter 1978: 4.)

Christian Missionaries.

The first Christian missionary to work in Northern Thailand was Dr. Daniel Mc Gilvary, an American Presbyterian, who set out for Chiang Mai from Bangkok on January 3, 1867. King Mongkut (1851-1868), the ruler at the time gave his approval of this effort, stipulating that Dr. Mc Gilvary must gain consent of the autonomous chief, Chao Luang Kawilorot, whose token tribute to the King's overlordship was cemented by nothing more tangible than a triennial visit to Bangkok to pay his respects. Bristow (1976: 17) points out that King Mongkut had had close and useful contacts with the Christian missionaries in Siam long before he came to the throne, having learned Latin and astronomy from Pallegoix, the French Roman Catholic Bishop, and English from Jesse Caswell, an American Presbyterian.

Dr. Mc Gilvary began working among the Karen during the first year he was in Chiang Mai. During 1891-1892 he visited a group of Lahu and succeeded in converting one whole village to Christianity. In 1872 an American Baptist missionary accompanied Karen Christians from Burma to Chiang Mai. Karen Christians continued missionary activity since that time.

The increase in missionary activities during the early part of the twentieth century occurred at a time when there was an administrative gap following the disposal of the traditional princes in the late nineteenth century and the new interest in hill tribes by the Bangkok government in the early 1950's. The Christian missionaries therefore provided valuable services for the hill people. Mission-assisted education was practically the only education available to the hill minority. In addition to providing education the missionaries also organized hospitals and clinics for the hill people. (Kunstadter 1969 A: 138-39; 1970 B: 11.)

Post-1950 Contact: Thai-Hill People

Thai Migration into the Uplands. Walker and Jaafar (1975: 206)

point out that in recent years the upland population of Northern Thailand has been increasing rapidly and one of the major causes is the population explosion in the Thai valleys accompanied by a shortage of land so that an increasing number of Thai peasants have been moving into the hills. This, in turn, has resulted in a shortage of available land for farming in the upland areas. In addition to the added population, one factor contributing to this situation is that the Thai farmers are the most inept swiddeners (as well as the most numerous) in the uplands. Walker (1975 A:10) observes that although the Thai are "experts in their lowland paddy fields, they are amateurs in the hills. Usually their swiddens are haphazardly felled and poorly burned. They generally do not fell the larger trees but neither do they bother to lop off the branches which shade the crop and give refuge to marauding birds. These incipient swiddeners also seem unaware of the value of clearing and reburning movable debris after the main burn." Resultant land shortages in the highlands have forced traditional shifting agricultural communities to intensify their use of the limited land resources available to them.

Some Thai also have moved into the hill with the intention of earning enough money in mines or in the tea or fermented tea (miang) business to be able to return to the lowland to purchase wet-rice fields. As population expands in the valleys, however, and as land values increase, these hopes become increasingly illusory. (Kunstadter 1978: 5.)

Government Presence in the Highlands.

Manndorff (1967: 528) characterizes the traditional relations between the lowland population and the hill people as one of "mutual tolerance and non-interference." He notes that until around 1957, the Thai government did not care much about the hill people. Establishment of contacts with them was largely left to the discretion of the province and district authorities. Usually, however, the official had enough problems with the lowland Thai to spend much time thinking about the people in the more inaccessible hills. With few exceptions there was no taxation, no conscription, no education, and no legal registration of hill people.

By the early 1950's the political instability that was plaguing neighboring Laos (embroiled in the Indochina War) and Burma made it clear to the Bangkok government that there was a need to secure the borders to prevent infiltration of hostile elements. In 1953, a Border Patrol Police (BPP) force was established as a paramilitary organization distinct from the regular police force and the army. Since their area of concern was the border areas, the BPP's operations took them into the more remote upland areas, where they sought the cooperation of the indigenous populations. The BPP approach was to contact hill village leaders and begin a program of giving the villagers tools, food, and medical attention. Villagers would, for example, provide labor to construct an airstrip or some other facility for the BPP and medical and technical personnel would be sent to these cooperating villages. Seeds were distributed to villages

and improved breeding stock was introduced. The BPP also engaged in some political propaganda such as distributing photographs of the King and Queen of Thailand. In 1957, the BPP began establishing some elementary schools in some villages (see the section below on Education Programs of the Ministries of the Interior and Education and the Border Patrol Police).  
(Kunstadter 1969 A: 380-83.)

The Thai government response to the situation that existed in the uplands during the late 1950's gave rise to two courses of action -- the use of military methods and the establishment of programs that rightly should be considered socioeconomic.

(1) Insurgency and the Thai Army Presence. -- According to Hearn (1974: 38 - 52), "Communist organizational activity among the hill tribes of Northern Thailand is believed to have begun in the late-1950's, when Pathet Lao insurgents from Laos contacted and successfully recruited an estimated four hundred Meo tribesmen from Nan, Chiang Rai, and Petchaboon provinces to fight against Vientiane government forces in Xieng Khouang province." By the late 1960's, insurgency had developed and spread through the northern provinces. Hearn notes that:

"Poverty, combined with decreasing amounts of arable land, is common problem among almost all of Thailand's hill peoples. In the 1960's, the Thai government found it necessary to restrict or discourage (1) the cultivation of opium poppies, (2) the clearing of more prime forest land, and (3) the traditional migrations of tribal villages. In so doing, the government exacerbated the already deseperated condition of the hill peoples. Since that time, the lines of discontent among the tribesmen have gone deeper."

The Border Patrol Police moved to counter the communist cadres' activities in the upland, but the 1967 events outpaced their "civic-action" approach. The more numerous and heavily-equipped Thai Third Army moved into the mountains of Nan and Chiang Rai, a move that was precipitated by the Kuomintang Opium War. In November and December 1967, there were clashes between the Thai army and Meo in what became known as the "Red Meo War." During the following months, the Thai Third Army moved hundreds of hill families into the lowlands as it launched sweep operations and aerial bombardment of hill settlements. The result was a large refugee problem that was badly managed.

As of 1972 the refugees totalled 12,414, including 7069 Meo; 2130 Yao; 2965 Htin; and 250 Northern Thai and Khmu. The refugee camps were in Nan, Chiang Rai, Tak, and the Tri-Province Area.

Hearn (1974: 185 - 186 ) describes the Thai Army's 1967 decision to evacuate large numbers of hill people to the lowlands as a "costly mistake for the Thai government in terms of military strategy, men, and money .. and a costly experience for the tribesmen in terms of human suffering."

(2) Socioeconomic Development Programs. -- When the late Prime Minister, Marshall Sarit banned the production of opium in December 1959, the Ministry of Interior was given the responsibility of abolishing the cultivation of opium poppies. This added urgency to the problem of dealing with the hill people who were the primary producers of opium in

Thailand. The Ministry of Interior identified the major problems in the uplands as follows: (1) to replace opium cultivation with other crops; (2) to prevent further deforestation by promoting more stable forms of agriculture; (3) to bring welfare services (particularly education and health programs) to the hill people; (4) to extend the administration and government control to the remote uplands along the frontier (this was a responsibility of the BPP).

In a decision on June 3, 1959, the Council of Ministers approved a Ministry of Interior plan for the establishment of Land Settlement Projects for the hill people in some northern provinces. The Public Welfare Department was entrusted with the organization and implementation of this project. The main purpose was "to settle hill tribes in locations suited for them, by means of establishing 'settlement areas' (nikom) on the ridges and high plateaus which are the most favored sites of the hill peoples, and by encouraging the tribes to migrate to these settlement areas."

Given their lack of knowledge of the hill people, the Thai officials were faced with a new situation and the Director General of the Public Welfare Department exercised caution. When settlement projects had been established in Tak and Chiang Mai provinces, the Public Welfare Department organized a socioeconomic survey to gain more information on the hill people. This survey covered the Meo, Yao, Lisu, Lahu, and Akha, all of whom grew opium poppies, and it was conducted between October 1961 and May 1962. The results of the survey were a vast increase in

information on these ethnic groups and recommendations advocating more stable farming among the hill people, a program to replace opium poppies with other cash crops, and an extension of the administration into the more remote areas.

(a) Economic Programs of the Hill Tribe Division, Public Welfare Department, Ministry of the Interior. One result of the

survey recommendations was that the Land Settlement Projects were redesigned to serve as agricultural development and experimentation centers rather than being resettlement areas. They would serve as training centers to which the upland farmers could go so that they would receive some training in improved agricultural methods. The hill stations also would serve as bases from which mobile development teams would go into the surrounding hill areas to give instruction on improved agriculture in the villages. Another result was the establishment of the Hill Tribe Center in Chiang Mai. This center was designed to function as; (a) a center for studies in applied anthropology; (b) a documentation center for anthropological and socioeconomic materials; (c) a briefing and training center for tribal officers, extension workers, administrators, educators, and other specialists; (d) and as a bureau providing advisory services to the government.

In order to implement these new programs the Public Welfare Department formed the Hill Tribe Division. Technical assistance was rendered by the Asia Foundation and the Austrian government. The Australian government, through SEATO, provided an anthropologist (William Geddes) to serve as advisor to the Hill Tribe Center for one year (1964-1965).

The Hill Tribe Center assumed responsibility for expanding the activities of the settlement projects concerned with agricultural experimentation and demonstration. The hill settlements also were designated as bases for the mobile development teams, which were organized to bring agricultural extension, as well as health and social programs to the highland villages. Four teams, each composed of an agricultural extension worker, a health technician, and a social worker, were sent to remote Meo and Karen villages. The Hill Tribe Center also was to lend support for anthropological research studies on the various hill groups. These would be carried out by some staff members and also by outside (largely foreign) researchers. (Mandorff, 1967: 530-51; Geddes 1967: 553-81.)

Since 1963 the Hill Tribe Welfare Division has been responsible for implementation of the following programs:

1. The Hill Tribe Land Settlement ("Nikom") Program;
2. The Hill Tribe Mobile Development and Welfare Program;
3. The Tribal Research Center Program;
4. The Hill Tribe Relations Program;

These programs are found in nine province of northern Thailand (Chiang Mai, Chiang Rai, Mae Hong Son, Nan, Petchaboon, Tak, Kampaengphet, Lampang, and Kanchanaburi). The most important of the programs is the second -- Hill Tribe Mobile Development and Welfare Program -- with 69 percent of the budget in 1974. There are four Land Settlement (the budget for the Hill Tribe Relations Program is included in the budget

for this program so its activities are included in this outline) located at Doi (Mount) Musur in Tak province, Doi Chiang Dao in Chiang Mai province, Mon Saeng Jai and Mon Saen Jaroen in Mae Chan district of Chiang Rai province and at Pulomla on the borders of Petchaboon and Loei provinces. The areas affected include 1500 families (an estimated 12,000 people) of the Lahu, Lisu, Meo, Yao, and Akha ethnic groups.

The Hill Tribe Mobile Development and Welfare Center Program has operation and cooperative centers in nine provinces (those listed above) which serve as bases for Mobile Development Teams that serve the surrounding villages. The centers also are experimental farms for crop and livestock development and market services. In 1974 there were 135 Mobile Development Teams operating in an area with an estimated 190,000 hill residents. Each team includes a social worker (who functions as a teacher -- see below), a health worker and an agricultural technician. At the request of the Hill Tribe Division, Public Welfare Department, in 1973 a team of New Zealanders began a training program for the agricultural extension members of these teams at the Northern Agricultural Development Center in Chiang Mai (see Thai-Donor Programs below). (Suwanbubpa 1976: 31-34.)

Hearn (1974: 33-37) observes that "Modest, small-scale successes in agricultural development were made in the Welfare Department's hill centers, despite the conspicuous absence of the Department of Agriculture." There were some coffee and tea projects and livestock raising introduced in some hill villages and they were "met with measured acceptance." Lack of follow-up and continuing support, however, caused the projects

to wane as personnel were shifted elsewhere. Hearn adds that the Tribal Welfare Highland Centers "(nikom)" had come to be regarded as private plantations of the Department of Public Welfare -- neat, self-contained, self-administered, little communities headed by a benign, patriarch-figure, the pupokkhrong." In assessing the over-all efforts by the Tribal Welfare Division, Hearn cites the observation of Professor Krachang Bhanthumnavin of Mahidol University that the inputs of money and manpower that the Public Welfare Department was making could not produce any significant change in the economies of the hill people -- "any programme which can effectively develop the hill tribes in their 'natural habitats' would require resources far exceeding the economic and technical capability of the nation."

Meanwhile, the Hill Tribe Research Center located at Chiang Mai University was functioning under the directorship of Wanat Bhruksasri and by the early 1970' it had a library and museum. It also had assisted foreign anthropologists in their research on the Meo, Yao, Lisu, Lahu, Akha, and Karen. In addition, Hill Tribe Research Center staff members (all of them Thai) were conducting research on upland ethnic groups.

During the late 1960's and early 1970's, concern over the threat to the natural environment of the northern highlands led agricultural advisors (such as Gary Oughton and F.G.B. Keen) attached to the Hill Tribe Research Center to begin formulating a plan for highland development. Two major premises underlying the rationale of this plan were: (a) that the most important potential outputs of the Northern Thai hills are forest products and irrigation water, not agricultural

produce, and; (b) that the existing highland communities must be stabilized in the uplands rather than resettled in the already overcrowded valleys. It was emphasized that the existing highland population must be stabilized before any long term development of the region's natural resources can begin. The planners of this project noted that in addition to the basic resource problems of damage to upland forests and river catchment areas because of too-intensive swiddening, there also are other problems in the fields of medicine and education as well the problem of opium production and, in some areas, insurgency.

The result was the Zonal Development Plan, which envisaged economic development projects organized within the framework of watersheds. Perhaps taking a cue from the comment by Professor Krachang Bhanthumnavin noted above that the needs for this type of program far exceed the economic and technical capability of the nation, non-Thai government funding for the Zonal Development Plan was sought and secured from the U.N. Food and Agriculture Organization (FAO) and the International Bank for Reconstruction and Development (IBRD). In 1972, the Mae Salaep Watershed Development Project in Mae Chan district, Chiang Rai province was begun (see below -- the section on Thai-Donor Projects).

(b) Education Programs of the Ministries of Interior and Education, and the Border Patrol Police. Education programs for the hill people have been conducted by various Thai government agencies -- the Border Patrol Police (BPP), the Department of Primary Education in the Ministry of Education, and two agencies in the Ministry of the Interior --

the Tribal Welfare Division and the Department of Local Government.

Between 1933 and 1966, the Department of Primary Education was responsible for the education program in the highlands, and during that period some 80 schools were established. It was noted previously that in 1957, the BPP began organizing small schools in the more remote villages in the border areas. At the beginning of this program the King and the Princess Mother donated 7,833,243 baht (\$391,662) to establish 160 hill schools. Villagers provided the labor for construction and the BPP selected some of its personnel to give instruction in the Central Thai language. It is reported that by 1965, there were 114 BPP schools with a total enrollment of around 6,000. The BPP had no special budget for this program but books and other educational materials were supplied by the Ministry of Education, the U.S. aid program, and some private sources. In 1964, the BPP also sent around 100 selected hill leaders to Chiang Mai where they received training in first aid, agriculture, sanitation, along with some political indoctrination. (Kunstadter 1969 A: 382-3.)

Since 1963, the BPP organized a new education program for the hill people, it began to receive some financial support from the Department of Primary Education, which also began to assume responsibility for some of the schools. As of 1973 there were reported to be 452 BPP hill schools with 38,367 students. In addition, the BPP had organized 120 divisions of boy scouts with 2,569 members.

In 1967, the Council of Ministers gave the Department of Local Administration the exclusive responsibility for primary education in the highlands. The Department of Primary Education, however, still retains responsibility for conducting surveys of upland schools, for organizing in-service teacher training, and for producing teaching materials. In 1970 the Department of Local Administration was in charge of 109 hill primary schools with a total of 5,238 students. (Suwanbubpa 1976: 41-44.)

Table 1

Highlanders in Government Primary Schools: 1970

<u>Ethnic Group</u>	<u>Number</u>	<u>Percent</u>
Karen	2,420	46.201
Lua	1,021	19.492
Htin	863	16.476
Khmu	402	7.675
Yao (Mien)	235	4.486
Meo (Hmong)	227	4.334
Lahu	<u>70</u>	<u>1.336</u>
Total	5,238	100.000

Source: The Department of Primary Education, Ministry of Education

In 1978, the Department of Primary Education reported that the number of government primary schools among the hill people had risen to 131, located in the provinces of Chiang Rai (10 schools), Chiang Mai (16), Mae Hong Son (49), Kanchanaburi (13), Tak (5), Nan (14), Lampang (22), Phetchaboon (1), and Kamphaeng Phet (1).

The Ministry of the Interior also has a highland education program that is implemented through the Tribal Welfare Division of the Department of Public Welfare. By 1978, this program included 119 Special Education Schools, each with a two-year curriculum. Table 2 indicates the ten provinces in which these schools are located. These Special Education Schools have a total enrollment of 4,023 students and 145 teachers who technically are considered "teaching assistants" since they have not received training at any of the normal schools (Case # 1 has an example of one of these teachers). In May 1978, the 43 teaching assistants listed for Mae Chan district included 13 Yao, 11 Karen, 9 Akha, 5 Lahu, 3 Meo, and 2 Lisu. In addition there were 13 Thai teaching assistants who were part of the Mobile Development Team Program. In 1974, the Faculty of Education, Chulalongkorn University began a program to train teaching assistants for these highland programs and in 1977 this training became the responsibility of the Northern Teacher Training College in Chiang Mai. This program, however, appears to be in a very incipient stage of organization.

The two-year curriculum of the Special Education Program includes literacy in Thai, arithmetic, "social education (elementary civics and social department), and Basic 4 Special Education, which includes training in plant and animal care. (See Appendix E for details about this program and also see Case # 1.)

Table 2

Highland Special Schools Operated by the Hill Tribe Center,  
Hill Tribe Division, Department of Public Welfare, Ministry\*  
of the Interior, 1977

	<u>Province</u>	<u>Number of Schools</u>	<u>Number of Highland Students</u>	<u>Number of Assistant Teachers</u>	<u>Students Per School</u>	<u>Students Per Assistant Teachers</u>	<u>Percent of Population in School</u>
Public Welfare	Chiang Rai	43	1,270	56	30	23	2 %
	Chiang Mai	15	387	16	26	24	.4
	Mae Hong Son	15	530	15	35	35	NA **
	Lamphun	11	620	10	56	62	4
	Kanchanaburi	11	333	18	30	19	4
	Tak	9	352	11	39	32	1
	Nan	8	296	9	37	33	1
	Lampang	4	106	4	27	27	2
	Phetchabun	2	103	4	52	26	NA
	Kamphaeng Phet	1	26	2	26	13	1
	10	119	4,023	145	34	28	2 %

\* Source: The Department of Public Welfare

\*\* NA = not available.

Several adult education programs are being implemented among the hill people. Two programs have joint sponsorship between the Adult Education Division, General Education Department, Ministry of Education and the Tribal Welfare Division, Public Welfare Department, Ministry of the Interior. One program is the responsibility of the former agency.

In 1971, the Tribal Welfare Division launched a program for highlander education at the Wat Sri Soda, a Buddhist temple complex on the side of Doi (Mount) Sutep in Chiang Mai. Approved by the Ministry of Education as an adult education program, the curriculum at this school is the standard primary and secondary school Thai curriculum but the students also receive study in Buddhist teachings and they live as Buddhist monks at the Wat Sri Soda (the temple complex includes sizeable living quarters, large classrooms and dining facilities). Staff members include personnel from the Hill Tribe Division of the Department of Public Welfare and monks from the wat.

Mobile teams, each consisting of three Buddhist monks (Part of the Thammacarik Program's Buddhist Monks' Mobile Teams) visit hill villages, remaining as long as three months to proselytize and encourage young men and boys to consider studying at the Wat Sri Soda. When a team leaves a village, they take the new students with them, and the length of time a young man will study at the wat depends on him and his family. Some boys, for example, who have not had any primary school training may remain at the wat to complete all or part of it. Some with primary school education study at the wat for all or part of the secondary-level education. The teacher in Case # 1 entered Wat Sri Soda with his primary education

completed and continued to study at the secondary level for two years. Visiting the wat in May 1978, we talked with a Karen who had been there six years, an Akha who had been studying one year, a Yao who was completing three years, and a Htin who had been at the wat five years. As of May 1978, there was a total of 375 students at the Wat Sri Soda from all of the hill groups.

As Table 5 indicates, some of those who received training at Wat Sri Soda become teaching assistants in the Hill Tribe Center's Special Schools or teachers in the Mobile Development Teams while others have participated in the Buddhist Monks' Mobile Teams. A smaller number have become village headmen and radio announcers in the government's Hill Tribe Radio Program. Those who continue advanced studies appear to favor teacher training or training in agriculture colleges with only one Sri Soda graduate in a technical college. It is interesting to note that six of the graduates are receiving university level training.

Table 3

Highlanders Graduated from the Wat Sri Soda Adult Education School  
Grade 1 - 4

(Data as of November 26, 1977)\*

<u>Year</u>	<u>Level 1</u> <u>(Primary,</u> <u>Grade 1-2)</u>	<u>Level 2</u> <u>(Primary,</u> <u>Grade 3-4)</u>	<u>Level 3</u> <u>(Primary,</u> <u>Grade 5-7)</u>	<u>Level 4</u> <u>(Secondary</u> <u>Grade 1-3)</u>
<u>1972</u>	38	52	40	-
<u>1973</u>	28	59	65	18
<u>1974</u>	52	55	62	41
<u>1975</u>	42	48	57	42
<u>1976</u>	41	45	89	60
<u>1977</u>	18	21	34	19
 	<hr/>	<hr/>	<hr/>	<hr/>
TOTAL:	<u>219</u>	<u>280</u>	<u>347</u>	<u>180</u>

\* Source: The Public Welfare Department

Table 4

Highlanders Leaving Wat Sri Soda to Continue in Higher Education

(Data as of November 26, 1977)\*

Ethnic Groups	Secondary Schools Grade 4-3	Teacher Training Colleges	Agriculture College	Technical Colleges	Universities
Meo	18	4	5	-	1 (Ram Kam Haeng Univ.)
Yao	9	3	3	-	-
Karen	12	7	4	1	5 (3 in Ram Kam Haeng) (2 in Chiang Mai Univ.)
Lahu	3	-	-	-	-
Lisu	3	3	2	-	-
Akha	-	-	-	-	-
Htin	-	-	-	-	-
Lua	4	2	-	-	-
Khmu	-	-	-	-	-
Shan	2	-	-	-	-
Yaunnanese	-	-	-	1	-
<b>TOTAL</b>	<b>51</b>	<b>19</b>	<b>14</b>	<b>2</b>	<b>6</b>

\* Source: The Public Welfare Department

Table 5

Wat Sri Soda School Graduates' Employment

(Data as of November 26, 1977)\*

Ethnic Groups	Teaching Assistant PWD	Mobile Team Teacher Elementary & Adult Edu. Dept. MOE	Trained Teachers' Aid	Buddhist Monks' Mobile Teams	Yupai Ban (Official Village Chief)	Government Radio Announcer (Hill Tribe Program)	Border Patrol Police Program
Karen	21	2	37	117	1	3	8
Yao	7	1	18	32	-	1	9
Meo	18	3	23	55	-	1	5
Lahu	5	-	6	13	1	2	1
Lisu	3	-	8	8	1	1	1
Akha	6	-	7	5	1	1	-
Lua	1	-	2	11	-	-	-
Htin	1	-	2	3	1	-	-
Khmu	-	-	-	-	-	-	-
Shan	-	-	-	3	-	-	-
TOTAL	62	6	103	247	5	9	24

\* SOURCE: The Public Welfare Department.

USAID supports the adult education programs that are the responsibility of the Adult Education Division, General Education Department in the Ministry of Education. One program, involving mobile adult education teams, is coordinated with the Public Welfare Department and receives some support from the Hill Tribe Research Center in Chiang Mai. This program was begun in 1976, and the Chief of the Provincial Supervisory Unit for the Primary Schools in Chiang Mai province noted in an interview in May 1978 that as of that time there were five mobile teams visiting hill villages in the province. Each team is made up of a Thai and a highlander and teams thus far have Meo, Karen, Yao, and Lahu members. It is required that team members have had some secondary school training. One Meo member, for example, has studied for three years at the secondary level. Team members receive monthly salaries plus an additional ฿200 (\$10.00) for "hardship" and ฿ 60 (\$3.00) for such things as school supplies, kerosene, and other essentials.

Villages that report 15 residents (they do not have to be adults) willing to receive instruction are visited by the teams. A team will remain in a village for as long as five months giving instruction in the Thai language, improved agriculture techniques, health improvement (family planning), and in civics (they take photos of the royal family). Houses, wats, and any other available buildings are used for the classes.

Adult education also has been organized by the Adult Education Division in Chiang Mai and Nan provinces. In Chiang Mai there are programs in 6 schools with a total of 108 highland students being taught by 6 teaching

assistants while in Nan there are 9 schools with 278 students and 9 teachers (for a total of 15 schools, 386 students, and 15 teachers).

(c) Royal Hill Tribe Patronage Project (The King's Projects and The Princess Mother's Projects). His Majesty the King, has personally initiated and financed many programs of assistance to the hill people. These programs include a medical team, education, field trails, agricultural extension, animal husbandry programs and welfare projects. His approach is "on the spot" help -- i.e. bringing help to the hill people in their villages so that there will be a gradual process of improvement in their living standards.

The medical program is conducted by The King's Own Medical Team, consisting of volunteer doctors who visit selected villages every three or four months. It was noted above that the King and the Princess Mother financed a primary school program organized by the Border Patrol Police. Agricultural extension is one of the King's primary projects. In 1970, the King sponsored the first agricultural extension course for hill people, selecting 15 school teachers from among the Meo, Lahu, Akha, Yao, Karen, and Lisu for a two-week training course. Subsequently, the King established the Doi Ang Khan Highland Development Station in Chiang Mai province. This station aims to demonstrate the commercial viability of certain field crops and fruit and livestock production. Livestock are bred at the station and the offspring are distributed to the hill villagers.

The various services needed for the King's Projects are provided voluntarily by Thai universities, government agencies and commercial firms.

Mae Joh Agricultural College (Chiang Mai province) is responsible for the agricultural and community development programs in six highland villages. Kasetsart University conducts extensive research on fruit trees and upland crop trials at Doi Pui and Ang Khan Experimental Station. Chiang Mai University is concerned primarily with agricultural extension work in nine highland villages. The Department of Livestock is engaged in livestock improvement and the Department of Public Welfare has contributed materials, personnel, and equipment. In addition, volunteer students from Chulalongkorn, Thammasat, and Mahidol Universities have a program of visiting 33 highland villages to bring programs in education, health, agricultural work, and construction. The King's Projects are under the direction of Prince (Mom Chao) Bhisadeg Rajani. (Suwanbubpa 1976: 46-50.)

(d) Ministry of Agriculture and Cooperatives Programs. The primary effort this ministry in the highlands has been the reforestation effort of the Royal Forestry Department. This program is supported by the U.N. Food and Agriculture Organization (FAO) and the U.N. Development Program (UNDP). By 1976 this program was in operation at sites in Hod district, Chiang Mai province and in Tak province. The Director of the Watershed Conservation Division of the Royal Forestry Department reported in an interview in March 1978 that there were 28 reforestation sites in Chiang Mai province. He also added that the labor was performed by hill people who had been recruited locally. These laborers were provided with housing, food, and a salary. Other sources indicated, however, that there actually

were few hill people among the laborers, most of whom were Northern Thai. In Case # 5 it is noted that Lua residents of Santisuk village in Mae La Noi district, Mae Hong Son province realized some of their cash income by working on the reforestation projects in the vicinity. They complained that some of the reforestation was taking place on fallowing fields, causing a shortage of land in the locale. Other sources in Chiang Mai observed that, all too often, the Royal Forestry Department was implementing its reforestation program on agricultural lands.

A new program of the Ministry of Agriculture and Cooperatives is being conducted by the Department of Agriculture Extension at the Northern Agricultural Development Center in Chiang Mai. This is a training program for tambon (commune, i.e. the administrative level below the district) extension workers. The training course was held between May 23 - 26, 1978 and it was attended by 55 extension workers. As is indicated in Table 6 most of the trainees were Thai, but there also were Karen, Lua, Lahu, Meo, Yao, and Lisu from the 7 northern provinces of Chiang Mai, Chiang Rai, Mae Hong Son, Tak, Lamphun, Sukhothai, and Phetchabun.

Table 6  
Ethnic Affiliation of the Trainees at the Highland  
Agricultural Extension Training Course Held at the  
Northern Agricultural Development Center, Chiang Mai,  
May 23 - 26, 1978.

<u>Ethnic Group</u>	<u>Number</u>	<u>Percent</u>
Thai	22	40.0
Karen	20	36.3
Lahu	3	5.4
Lisu	3	5.4
Meo	3	5.4
Yao	2	3.6
Lua	2	3.6
Total	55	100.00

The four-day training course consists of lectures focussed on improved cropping and it is geared to the current efforts (see Thai-Donor Programs below) to introduce new cash crops as substitutes for opium poppies. The trainees would return to their tambons where they would be assistants of the district extension agents, receiving a monthly stipend of 1500 (\$25.00). Members of the New Zealand team involved in agriculture extension work at the center pointed out that the duration of the program was too short. The trainees are from very rural backgrounds

and it takes time for them to adjust to the strange surroundings at the center. Furthermore, the content of the course was too abstract (it did not include any practical work). The New Zealanders feared that the trainees would return to their tambons ill prepared for the technical demands involved in agricultural extension work.

(e) The Ministry of Public Health. The health programs of the Ministry of Public Health among the hill people have been minimal. Malaria Prevention Teams sometimes visit villages, but as was noted previously, they often have alienated the hill villagers because they are composed of Thai personnel who do not speak the local languages and they behave in a manner that hill people often consider rude. Water supply systems have been constructed in some villages. There also was one training course in midwifery for highland women organized in conjunction with the Department of Public Welfare. Suwanbubya (1976: 44) points out that the lack of effective health programs among the hill people is due to several factors. First, the National Plan for Public Health does not cover these services for the hill people. Secondly, it is difficult to get the hill people to accept new medical methods of treatment and prevention.

Thai-Donor Programs.

A number of socioeconomic programs organized among the hill people by foreign donors in conjunction with the Thai government are aimed at eradicating the production of opium. The donor-supported programs of this type include the United Nations Programs of Narcotic Drugs Control (UNPDAC), the Thai-Australian Highland Agriculture Project, and the Thai-New Zealand Rural Development Training Center.

(1) The UN/Thai Programs. -- In 1967 and 1970, the UN participated in socioeconomic surveys of the northern highlands. Subsequently, a report entitled, "The Joint UN/Thai Programme for Drug Abuse Control in Thailand" was issued, leading to an agreement between the UN and the Thai government in December 1971 to implement the recommendations in this document. Under this program, a sum of US \$ 2,084,000 was budgeted by the UN Fund for Drug Abuse Control for five years of pilot programs in Thailand. On September 1, 1972, the program was launched.

The primary goal of this program is to develop cash crops that have the potential to substitute opium poppies in the economies of the hill people who produce opium. This involves experimentation in cash crops suited to highland conditions, the development of an extension service to bring these crops to the opium-producing villages, and a marketing system to move the cash crops to the market.

In the experimental pilot program for agricultural extension and community development, the selection of key and satellite villages as focal points of activity had first priority. The five key villages

selected were Doi Sam Mun, Ban Pui Nuea, Ban Khum, Mae Tho, and Khun Wang, all located in the uplands in the vicinity of Chiang Mai. Each key village has at least five satellite villages, normally all of the same ethnic group. The rationale for this organization is that; after intensive agricultural extension and community development within the key village, the progress can then be extended to the satellite villages. The goal was to reach some 487 households including 3,423 people of the opium-growing Meo (Blue Meo and White Meo), Lisu, Lahu, Karen, and Haw (one village). No Yao villages were included in the program.

In each key village there was an extension team posted. Each team was composed of a university graduate, two agricultural college graduates to serve as assistants, and three extension workers. Extension work included highland field and vegetable crop production, highland fruit and nut cultivation, special high value crops, apiculture and sericulture, livestock, poultry and fisheries as well as forestry and watershed management. Cottage industries and other valuable skills were to be developed.

To support the extension activities, the program also provided for the establishment of an experimental station at Doi Pui for research in the growing of temperate fruit and nuts in upland areas and the organization of a highland development station at Ang Khan (where it would function in cooperation with the King's Project at the same location). At Chang Khian another station for crop development and for agricultural extension training was established. This station was designed to provide

long-term training for hill people who would then function as village extension workers in areas where opium is being produced. The goal is to have the new cash crops developed in the station accepted in the villages to replace opium poppy cultivation.

This program receives some support from the U.S. Department of Agriculture (USDA) and agricultural experimentation is being conducted by the Faculty of Agriculture, Chiang Mai University. (Suwanbubpa 1976: 36-39.)

The Chang Khian station (which was visited on April 22, 1978) opened in 1975. Site A, at 1,275 meters elevation, encompasses 262 rai while Site B at 1150 meters has 250 rai. The staff, from the Faculty of Agriculture, Chiang Mai University, is engaged in research in silvaculture and horticulture to determine which trees and plants will grow at 1,000 meters or above. They also were conducting the training program (there were 30 trainees at the center) and the village extension work.

One of the most important cash crops was coffee. The robusta coffee and cattura (a hybrid of robusta and arabica) coffee trees that had been planted four years before were producing berries. The Nestlé Company was observing this effort and it was reported that they were interested in obtaining 15 metric tons of coffee from the station in 1979. In addition to coffee, the Chang Khian station had experimental plots of triticale (a wheat the barley hybrid) various spices (basil,

sage, majoram, sweet fennel) medicinal plants (orange lilly, which is used by the Chinese, primrose, digetalis, balm and chamonile), cherry tomatoes, red chili peppers, strawberries, cabbage, lavender (for perfume) and pyrethrum (pesticide).

(2) The Thai-Australian Highland Agricultural Project. -- The Highland Agronomy Project was formulated in response to growing concern by the Department of Public Welfare over increased deforestation of many upland areas, which were then being invaded by Imperata cylindrica savannah grass (sometimes called cogon grass). Reports on this development had been circulated by the Department of Public Welfare's Tribal Research Center, in Chiang Mai as the result of work on land resources and social problems. At the time, swidden farming was thought to be the major cause of the denuding of watersheds. Mr. Wanat Bhruksasri, Director of the Tribal Research Center, and his Australian agricultural advisor, Gary Oughton believed that something should be done about the savannahs and their potential in development a livestock industry (although they recognized that developmental agricultural research was not really a function of the Tribal Research Center). In 1971 there also were various agencies working on aspects of what may be termed the "opium replacement problem" -- the substitution of other cash crops for opium and the development of forestry plantations. None of these agencies, however, was directly concerned with the utilization of the savannahs nor with the potential for livestock industries in the highlands.

The result was the Department of Public Welfare initiated an investigation program in September 1972, appointing Trevor Gibson as a pasture economist and the allocation of Thai counterpart staff. The Faculty of Agriculture, Chiang Mai University offered assistance, providing laboratory facilities. One of the first counterparts also was from the university.

Between September 1972 and January 1975, the program survived with very little funding. This was Phase I and its main concern was with investigating the potential for changing the savannah into productive grassland for ruminant livestock. A project field site was established at Pa Kia in the uplands, 1400 above Nikom Chiang Dao north of Chiang Mai. Here in the vicinity of Lahu and Meo (Hmong) villages, there was an area of Imperata. There also was on granite soil, which is the most widely representative soil type in the upland region. The initial approach of the researchers (the conventional Australian approach) was to improve the poor-quality native grassland through the introduction of new species of known forage value. Fertilizer also was introduced.

In the course of their studies, the researchers found that if you do not have a sown pasture of improved species the next best thing is to have an Imperata pasture. Through heavy grazing this species can be readily suppressed but if it is not replaced by improved species, the field can be dominated by species totally unacceptable to the stock and probably of a poorer hydrological characteristics than the Imperata itself. Imperata is not a noxious weed; it is merely a third-rate forage grass.

At the end of Phase I, the researchers arrived at the following conclusions:

1. There was not going to be any simple way in which large areas of Imperata could be converted quickly into productive nutritious pasture.
2. That the initial target concept of an improved fenced pasture for highland livestock was not economically feasible in the current state of research knowledge.
3. That although we had in mind improved systems of animal husbandry, we were woefully ignorant of the biology and socioeconomic pattern of the existing livestock industries on which we hoped to build.
4. That our rather narrow initial approach to the improvement of highland livestock industries required broadening. (Australian Development ..... 1977; 5-7).

Since the hill people are essentially subsistence farmers, the Thai-Australian Highland Agronomy Project in 1976 began crop research with the goal of producing some viable mixed farming system where cropping and livestock activities could be linked together. The researchers made the following statement regarding swidden farming:

"The shifting cultivation systems practiced by the various ethnic groups require large amounts of land and with increasing population pressure, the people are being forced into shorter and shorter rotations. This will inevitably result in a decline of yields. Hence, there is need to develop more permanent agricultural systems with provision for soil conservation and maintenance of soil fertility."

Experimental terraces were constructed. Two rai (0.32 ha.) of terraces were constructed in 14 days using 8 laborers. With a wage rate of ₪23 per day, the cost of the terrace construction was ₪ 1,288 (\$64.00) per rai (0.16 ha.). Red kidney bean, Black bean, lab lab bean,

Cow pea, Rice bean, Mung bean, Wing bean, and velvet bean were planted on the terraces. The yields, however, were unsatisfactory and all plants and most were affected with fungal diseases, raising the question as to whether the Pa Kia station (1400 meters) with low night temperatures and high incidence of cloud and mist cover is a suitable site for cropping trials. (Australian Development....., 1977: 14-15).

An orchard area of approximately 1 ha. with slopes of 25° to 30° was developed at Pa Kia. Native bananas (musa acuminata) were found in the gullies through the northern highlands, and they represent a diversity of genetic material (the Meo, for example, have one variety said to have been brought from Southern China). These native bananas are fire resistant and can withstand occasional light frosting at Pa Kia (1400 meters).

The project also included indigenous peaches, which are important cash crops for the Lahu and Meo villages in the vicinity of Pa Kia. Other trees planted in the orchard were sugar apple, macadamia nut, walnut, pecan nut, litchi, guava, pomelo, lime, sapodilla, mango, jujube, jackfruit, Thai apple, rose apple, pomegranate, ramyai, star fruit, and passion fruit vines.

Both Arabica and robusta coffee trees were planted during the rainy season of 1975 but they were killed by frost in late December 1975. Paw paw from Chiang Mai planted in the orchard area in 1975 died during the cool season of 1975-76. (Australian Development ....., 1977: 18-19).

By the end of 1977, the main thrust of the project was "towards improved production and utilization of subsistence food crops and towards more stable agricultural land use systems involving legumes, pastures, and livestock." (Australian . . . ., 1978: 1). During an interview in March 1978, some of the Australian staff members of the project noted that, on the premise that opium producers among the hill people grew their poppy cash crop in order to buy needed rice, one goal of the project was to increase production of subsistence crops and thus eliminate the need to produce opium.

(3) Thai-New Zealand Rural Development Training Center. -- This project is located at the Northern Agricultural Development Center at Chiang Mai. It began in 1974 when Robin Bickley from New Zealand, assumed an advisory role for a new training program requested by the Hill Tribe Division of the Public Welfare Department to improve the Mobile Development Teams. These teams (as was noted previously) were organized to do agricultural and medical work in highland villages. The regular program is a course of training for three days each month for fifteen months, and the curriculum includes instruction on agriculture extension work (emphasis on crop improvement), education (material from the adult education courses being given in Chiang Mai province -- Thai literacy, etc.) and medical subjects (giving inoculations, village hygiene, and improved diets).

The New Zealand advisors pointed out (during an interview in May 1978) that the current group of trainees totaled 34, 32 of whom were Thai while 2 were Meo. The advisors pointed out that the Thai members of these teams have difficulty communicating with the hill villagers, and it would be a more effective program if the teams contained hill people.

(4) The Anemia and Malnutrition Research Center (MALAN) of the Faculties of Medicine of Chiang Mai and St. Louis Universities .--

This center was established in 1967 under the U.S. - Japan Cooperative Medical Sciences Program. Operating funds come from the Thai government with support from the U.S. government and WHO. The center's primary purpose is to devise better methods of treatment and prevention of malnutrition and nutritional anemias in Northern Thailand. Among the patients at the center are hill people, and results of a malnutrition survey done among the Thai and highlander patients are found in Appendix D.

Private Organization

Most of the private organizations implementing socioeconomic programs are Christian Missionary groups. The recently organized Thai-Highlander Foundation, which operates a hostel in Chiang Mai for highland students.

(1) Christian Missionary Programs. -- It was noted previously that until the early 1950's the Christian missionaries provided the medical and educational services for the hill people. Kunstatter (1969 A: 338-39; 1970 B: 11) points out that to a great extent the Thai

government has depended on the Christian missionaries in such programs as the "hill tribe" radio station and in staffing schools, since there are virtually no educated hill people who do not have a missionary background. Missionary-assisted education has allowed some hill people to get government jobs and other positions in the many programs being implemented in the highlands.

Christian missions at the present time have vastly expanded their activities in the field of rural development. They include not only projects in education and health but also a wide range of socioeconomic programs.

(a) Roman Catholic. The diocese of Chiang Mai has had various types of welfare and rural development programs among the Sgaw Karen since 1954. This has included some agricultural extension, and education programs, including the establishment of schools, boarding facilities for students in government schools, and health education. In Fang district, Chiang Mai province there have been agricultural programs for two resettlement villages at Huai Bong and Muang Ngam. A tractor has been made available to help create paddy and upland fields. Vegetable cropping and fruit gardening have been introduced. A health program focused on malaria control, wound infection control, and improved nutrition has reached 130 villages. Three primary schools have been established in the hills and scholarships have been made available for hill students to study in Catholic and government schools in Mae Sarieng district, Mae Hong Son province and in Chiang Mai province.

(b) The Overseas Missionary Fellowship. The North Thailand Mission works exclusively with the hill people, particularly the Akha and Lahu in the provinces of Chiang Rai, Lampang, Chiang Mai and Mae Hong Son. Their effort has been focused on linguistic study and the preparation of Christian literature as well as on leadership training. One agricultural demonstration project has been started in Mae Sarieng district, Mae Hong Son province.

The Worldwide Evangelization Crusade has ten evangelistic centers to work among the Thai, but they have two centers in Tak province to provide public health nursing among the Sgaw Karen farmers.

The New Tribes Mission is involved in Bible translation among the Lua.

The American Churches of Christ has work centers for linguistic studies, literature production, handicraft production, and radio broadcasting among the Khmu, Meo, and Yao.

(c) The Thailand Baptist Convention. This missionary group has the most extensive programs among the hill people. The Center for the Uplift of Hill Tribes was established in 1957 at Ban Gaow, Samoeng district, Chiang Mai province (later it was moved to Huai Gao near Chiang Mai city) to function as a leadership training center. Since many of the students had little formal education and little Thai language ability, the training course included basic education in addition to leadership training. The three year program includes class work (by

the third year most of the instruction is in Thai) and three months of field work each year. The curriculum includes course in Thai, Asian history, village sanitation, nutrition, food preparation, sewing, weaving, agriculture (animal care and animal diseases, soils, fertilizers, upland crops, etc.), practical farm work, and Bible study.

By 1970, the Baptist Mission had opened two primary schools both teaching through the seventh grade at Nawng Chet Nuay in Mae Chaem and Nam Lat in Muang district, Chiang Rai province. Four other primary schools with shorter programs also were opened. Also, five student hostels were opened. (Judd 1970: 26-30.)

One of the most impressive of the Christian Missionary schools is the United Village School, located in Nam Lat village, Muang District, Chiang Rai province, operated by the Thailand Baptist Mission with support (one-third of the budget) from the Thai government. The school had a modest beginning on November 1, 1956 when Miss Saikham Sayduangchai, daughter of a former Karen missionary from Burma, began a day care center and kindergarten in the Karen village of Nam Lat west of Chiang Rai town. The school was not registered with the Department of Education but Miss Saikham taught her 30 pupils the Thai language, arithmetic, Bible lessons, singing and games. The parents of the pupils paid \$ 10 and one milk can of rice to the teacher each month, but during a two-year period, she only collected 60 cans of rice and \$ 70. In 1957 the Karen in Burma contributed \$ 500 to the school.

In early 1958, Cecil and Dorothy Carder, American Baptist Missionaries arrived in Chiang Rai and began to improve the school. They requested the Department of Education for permission to establish an elementary school, and they obtained 10 rai of land north of Nam Lat village where they constructed a temporary building of bamboo and thatch. This school had a kindergarten and first grade taught by two teachers (only Christians were employed), and they attracted 50 to 60 students. On June 5, 1958, the Department of Education granted permission for the school to function officially. By 1963, the student body included Thai, Chinese, and children from the upland ethnic groups. By September 1976 the faculty consisted of 13 highland teachers. Three had the two-year to four-year education certificate equivalent (PM), seven had the two-year education certificate (PKS), one had the secondary school grade 5 level MS 5, and two had the grade 3 secondary level MS 3. Table 7 gives an ethnic breakdown of the 304 students in the school (the American students are children of Mr. & Mrs. Alan Williams, the director of the school).

Table 7  
Ethnic Affiliation of Students in the Nam Lat Baptist School, 1976

<u>Ethnic Group</u>	<u>Number</u>	<u>Percent</u>
Karen	87	28.6
Lahu	87	28.6
Thai	48	15.8
Akha	23	7.5
Yao	27	8.8
Meo	14	4.6
Lisu	11	3.6
Chinese	4	1.3
American	3	0.9

Source: Nam Lat School

The United Village School has a primary and secondary level curriculum in accordance with regulations established by the Department of Education. In addition, there is some Bible instruction for the Christian students. In 1967, a program of agricultural instruction and an experimental station were organized at the school. Produce from the farm is sold in Chiang Rai and consumed in the school dining room.

A majority of the students return to their villages and continue their family's traditional rice farming but a growing number are going on to receive further education. All of the 4th and 7th graders in 1977 passed the government examinations and each of the ten 7th grade graduates had enrolled in schools in Chiang Rai and other northern cities. Some have worked at the school as staff members and teachers (see Cases #11 & 12 ). Graduates of the United Villages School are now serving as teachers, nurse's aides, radio announcers, pastors, evangelists, businessmen, and some are hoping to become doctors. (Williams 1977: 1-4).

The Thailand Baptist Convention also has some literacy training program in villages. By 1970 the mission supported teachers in four Lahu villages, teaching Lahu and Thai. Of the approximately 2,000 Lahu Christians at that time, some 85 percent were literate in the Lahu language.

The mission also supports medical programs, emphasizing public health, nutrition, and more recently, family planning. Demonstration centers staffed by American missionaries and Karen evangelists and

pastors have training programs for women and youth in food preparation, child care, home and personal cleanliness, raising of fish using various methods, establishing rice banks and aid in purchasing paddy fields. There also are health teams that visit the upland villages, and currently each team has multiple functions -- conducting malaria control, giving inoculations, and engaging in family planning.

Agricultural research and extension work also are important in the Thailand Baptist Mission's activities. Demonstration centers (responsible to the specific church association in the area) and the Agricultural Committee of the Thailand Baptist Mission oversee operation of the whole program. Among the new crops that have been introduced are beans (red kidney, pinto, black-eyed peas), wheat, potatoes, coffee, many vegetables and fruit trees (all types of citrus, fig, peach, and plum). The animals in the program include sheep and beef cattle.

In 1973, the Baptist Mission launched a Thai Tribal Crafts project aimed at preserving indigenous handicrafts among the hill people by providing a means for them to market their products. Karen, Lahu, and Akha crafts were purchased in villages for sale in a Chiang Mai outlet. Hill people also carried their products into the shop to sell to the missionaries. In 1974, a new and considerably larger shop was opened. An educated Lahu assumed the role of manager while the bookkeeper, the man in charge of stock and a handyman all were Karen. Sales expanded rapidly and the net sales figure for 1977 was well over two million baht (\$100,000). Products were being sold in Chiang Mai, Bangkok and shipments

to foreign countries began. As refugees from Laos began to flood into Thailand, the missionaries began a program of handicraft production in the camps, resulting in a large influx of Meo and Yao handicrafts. Some of the hill people making handicrafts to sell have indicated that did so in order to buy medicine or to purchase rice when harvests have been lean. Others said that they wanted to purchase paddy fields or farm animals, and some stated that they needed cash to pay for their children's schooling (including the cost of staying in a hostel). (Lewis 1977: 18-8).

D. The Church of Christ in Thailand Rural Life Department Work.

The first socioeconomic survey of rural Thailand was carried out by Dr. Carle Zimmerman in 1934. This mission also launched specifically agricultural programs with the Sampantagit Farm Project in Chiang Rai province in 1949. By 1970, some 40 upland apprentice farmers are trained at this farm for twelve months each year. There also are short course in agriculture and home economics. In 1954, extension services in agriculture and public health were directed to upland swidden farmers in Nan province and this program has continued. (Judd 1970: 30-37.)

Post-1950 Contact Among the Hill People

Much of the foregoing discussion indicates very graphically the type of increased contact that has taken place among the hill people as a result of the Thai government presence and the various programs that

have been organized by donor agencies and the Christian missionaries. The primary and secondary schools have brought hill people together as have the many development and extension programs. The increased mobility resulting from vastly improved communications in Northern Thailand also have brought highland people into contact with one another. The increased number of hill people due to natural population growth and emmigration from Laos and Burma also has had the same effect. Another factor has been the migratory patterns of some of the hill groups.

Kunstadter (1970 B: 3-4) observes that economic situations also are playing an important role in increasing contact among groups:

"Economic relations show integration and interdependencies even more clearly. The ethnically distinct merchants depend on other ethnic groups as customers, the customers depend on the merchants to supply them with the necessary manufactured goods. This pattern of interdependence is increasing as the number and variety of manufactured goods increases, and demands for them grow, and the area becomes more thoroughly involved in a cash economy."

One result has been pluralistic populations in some towns such as the relatively remote market town of Mae Sariang in Mae Hong Son province. Among the rural population in Mae Sariang district are Northern Thai, Shan, Pwo Karen, Sgaw Karen, Lua, Meo (Hmong) and Khmu. Some of these groups are located in the lowland areas of the valleys where they usually farm irrigated rice fields while others

are found in the hills practicing swidden farming. With the exception of the Meo (Hmong), members of all of the rural ethnic groups also are found in Mae Sariang town where they have a variety of economic roles. The town population, however, is dominated by Central Thai, Chinese, Haw Chinese, Thaungsu, and foreigners.

#### Socioeconomic Changes Due to Contact

The tides of change that have engulfed Northern Thailand, particularly since 1950, have already had considerable effect on the societies of the hill people. Increased contact among hill groups themselves and between them and the outside world (Thai and foreigners). One result has been the breakdown of village isolation in many areas. This in turn has given rise to such things as cultural borrowing and inter-group marriages. There also have been multiple economic effects. An ever-increasing number of highland people are being monetized and are being drawn into the market economy, some of them by becoming wage earners and others by virtue of cash cropping. Some economic changes have been had negative results. Competition for good farm land, for example, has precipitated conflicts among some of the hill people. Finally, there are socioeconomic changes, such as those due to the increased availability and an expanding number of training programs in some areas that have resulted in a small, but growing number of

hill people engaged in non-farm activities. Of these, a handful might be said to be assuming places in the mainstream of modern Thai society.

Cultural Borrowing and Inter-Group Marriages.

Thai cultural influences have been spreading throughout the uplands. Walker (1975: 14) points out that some of the hill people have adopted Thai Theravada Buddhism. Buddhist ideas have penetrated deeply into some hill cultures, although active Buddhist missionary effort in the uplands seems to be a recent phenomenon (the Thammacarik program involving teams of three Buddhist monks visiting hill villages to give instruction already has been noted). Hill people often care for, and almost always respect, Buddhist statues and photos of Buddhist monks, hillmen make pilgrimages to the lowlands to honor certain well-known Buddhist monks, and they may help their lowland neighbors to perform meritorious work such as a road, school, and temple construction under the direction of the monks. A few hill villages, particularly those of the Lua (who have had considerable contact with the Thai so that many Lua have assumed Thai ethnic identity) have a Buddhist temple and resident monastic community. Recently it has become more common for hill youth of many different ethnic groups to enter the Buddhist novitiate in the valley temples in order to secure an education. In the previous section the Wat Sri Soda education program for highlanders, sponsored by the Public Welfare Division was described,

and this is one of the major efforts at bringing Buddhist to the hill people (Case #1 also describes a young Lahu teacher who benefited from this program).

By the same token, some lowland Thai have looked to the hill people as the source of their spirits. The guardian spirits of the city of Chiang Mai, for example, are believed to be Lua spirits.

There appears to be relatively little intermarriage between the Thai and most of the hill groups. Kunstadter (1971: 16 ) points out that although the Karen and Lua have had considerable contact with the Thai, "the Karens consider themselves more distinct from Northern Thais than from Lua, who are their close neighbors, who have similar beliefs in spirits, and more importantly, who also are peasant minority people. There is very little demographic interchange between Karen and Northern Thai or Thai populations. Unlike the Lua, Karens who move to towns do not do so with the understanding that they or their children will become Thai. There are few Karens who 'pass' as Thais, and those who show tendencies to act like Thais are often deprecated by their friends and neighbors. There appears to be relatively little intermarriage between Thais and Karens."

Contact between the different ethnic groups has produced varying results. It was previously noted, for example, that the Karens were able to settle in Mae Hong Son province because the Lua allowed them to use some of their land. Karen-Lua relations by and large have been amicable. One result is that inter-marriage between the two groups has

been quite common, although Kunstadter (1971: 8) notes that it is less frequent at present than it was in the past.

In the course of the present study numerous examples of inter-group marriage were encountered. In Case #1, the young Lahu schoolteacher was planning to marry a Yao schoolteacher from a neighboring village. Also, in the Lahu village of Cha Pu in Case #1 it was noted that some of the families included Lisu women who had married Lahu males. In Case #5, Y Khon, the Lua woman interviewed had married a Khmu.

#### Economic Effects.

In his study in Mae Sariang district, Mae Hong Son province, Kunstadter (1970 B: 7-9) focused on population growth among the hill people and its resultant effects. He states that "There seem to have been at least four types of response to population growth in the upland villages which have different implications for assimilation and integration." The first is that the widespread pattern of wage labor may be one adaptation to the population growth. This wage labor "allows the upland villages to continue to exist, relatively undisturbed, while providing cash income and supplementary subsistence." Another adaptation has been the establishment of new colonies and new villages in unoccupied or sparsely occupied upland areas. Kunstadter sees this development as also allowing the traditional social and economic patterns to remain relatively undisturbed. This process, however, has slowed because of lack of available land.

The third adaptation to population growth has been agricultural innovations which have allowed more intensive land use. One result has been the expansion of irrigated agriculture in the highlands. Kunstadter notes that in Mae Sariang district irrigated agriculture began around 1930 and by 1970 it had expanded to the point where almost all of the easily terraced areas had been levelled. Almost half of the rice production in the district's hills were from these irrigated fields. The fourth adaptation has been migration to the lowlands, often followed by change in ethnic identity, or assimilation. Kunstadter cites the example of the Lua. There are around 11,000 Lua living in upland Chiang Mai and Mae Hong-Son provinces and some 1000 were living in the vicinity of Mae Sariang town in 1970. Many of these were adapting Thai names and assuming Thai ethnic identity.

Kunstadter's points highlight some of the primarily economic effects that have wide applicability throughout the highlands. An increasing number of hill people are participating in the market economy, and this probably is one of the major changes taking place in the highlands. Two factors that can be isolated are: (A) wage labor and (B) cash cropping.

(A) Wage Labor. -- In addition to being caused by population growth in the uplands of Mae Sariang district in Mae Hong Son province, the spread of wage labor, (1970 B: 4-6) points out that it is also due to the deficiency of rice among the hill people. Villagers are forced to

seek sources of cash income outside of their villages, and wage labor is the primary source of cash income. Most adult males and most adult females have left their villages at some time to seek employment in the lowlands. The mining and lumber industries have traditionally employed large numbers of hill people. The lumber industry in particular is dependent on Karen labor and Karen-owned elephants.

Kunstadter also reports that lumber companies retain subcontractors to haul logs to points where they can be stored, dried, and eventually loaded on trucks for transportation to the lumber mills. Some of the subcontractors are Karen who live in town and have kinship and long standing working relationships with Karen in the outlying villages who they employ to do the necessary work in the forests with elephants. The networks within which labor and elephants are recruited are quite large, including hundreds of Karen in valley and hill villages within a radius of 50 kilometers or more from Mae Sariang town.

In Case #4 it is noted that some of the Red Lahu in the area of Pu Kai village, Muang district, Chiang Rai province, go to the lowlands during the Thai planting season to work in the fields for 15 baht (\$.75) per day. Also, it is pointed out below that some of the Lua and Karen work as laborers for the neighboring Meo in their opium poppy fields.

It is apparent that the vast increases in government, donor agency, and Christian missionary programs throughout the highlands are generating more wage labor among the hill people. Villagers work on some projects as unskilled labor. In Case #5, for example, the Lua villagers in Mae La Noi district, Mae Hong Son province are employed by the Royal Forestry Department as laborers in their local reforestation project. The Border Patrol Police hire a number of hill people for various jobs. The previous discussion on education programs in the highlands indicates that more young hill people with educations are working as teachers and as staff members of some missionary projects.

(B) Cash Cropping. -- As was indicated earlier (in the section on Historical Trade) trading is an economic activity that has long been established in the highlands, and lowland goods were traded for upland products (including opium). The ethnographic information on hill people (presented in the Ethnographic Summary, Appendix B) also indicates that cash cropping is traditional with some groups.

As Kunstadter notes above, one result of population pressures in Mae Hong Son province has been agricultural innovations, particularly the spread of paddy farming, as a means of attaining more intensive land use. The cases collected as part of this study indicate that innovations also result from individual decisions to increase production and income, from a change in adaptation for swidden to paddy farming, and from outside agencies organizing agricultural extension programs. The cases also tell us something about the innovators in

village society. They indicate that those who have risen to be village leaders -- headmen or assistant headmen - are very often the ones who will accept economic innovations -- a new crop or a new farming technique. They usually are the most successful farmers (which normally is why they have been chosen by the community to be the leaders), and so they can afford the risk of a new venture. Usually these innovators also are the first to take advantage of education for their children.

Some of the cases illustrate well these agents of change. Case #1 describes a Lahu schoolteacher named Wichien whose maternal grandfather, Cha Pu is headman of Cha Pu village (named for him) in the uplands of Mae Chan district, Chiang Rai province. Cha Pu has long been regarded as the most successful farmer in the community, and some twenty years ago, he was the pioneer in shifting from swidden farming to wet-rice cultivation. He learned the new technique from lowland Thai living in the vicinity. At the time of the interview (April 1978), Cha Pu owned 20 rai (3.2 ha.) of paddies. He grew the highly valued fragrant Mae Chan variety of rice, some of which he sold on the market. This sale in addition to other cash crops of maize, sesame, and soy beans gave him a cash income of ¥20,500 (\$1025.00) for the 1977 planting season. Other villagers followed his example and by 1978, half of the 35 village households had paddy fields. Cha Pu owns the first pick-up truck in the village and his house stands on

concrete (rather than the traditional wood) piling.

In Case #2, Han Se Hoang, the Yao headman of Lao Chi Kuay village in Mae Chan district, Chiang Rai province also is an innovator from an elite family. His father was a shaman, a position of great prestige among the Yao, and at the age of 23, Han Se Hoang (now 39) became the village headman. Around 1968, he began to arrange paddy fields, the first in Lao Chi Kuay village. Han Se Hoang hired some lowland Thai to come to the village and show him how to build the bundings and organize an irrigation and drainage system. He now has 12 rai (1.92 ha.). Currently 12 of the 22 households in the village have paddy fields, and 16 households have agreed to participate in a new program to arrange paddies on 152 rai (24.32 ha.) of land in the vicinity of the village.

Case #3 concerns an Akha farmer named Mo, assistant chief of Sa Ngo Klang village in Chiang Saen district, Chiang Rai province. Swidden farming was traditional with these Akha, and around 1968, Mo and his wife observed the wet-rice techniques of the lowland Thai and they arranged a paddy field of about 1 rai (0.16 ha.) using their hoes. At the same time, Mo continued to farm 8 rai (1.33 ha.) of swiddens. When his village became part of one of the King's Projects in 1970, Mo obtained assistance from the Public Welfare Extension Agents and eventually was able to increase his paddies to 6.5 rai (1.04 ha.). As a result of a Public Welfare Department agricultural extension project Mo is planting a 2-rai (0.32 ha.) field near the village to mung beans. He will pay

for the seeds he was given and sell the crop.

In Case #4, Pu Kai, the headman of the Red Lahu village of Pu Kai, located on a mountain side in Muang district, Chiang Rai province, grows a cash crop of sesame in his swiddens. The Public Welfare Department has an agricultural extension station in the village, and Pu Kai has helped them introduce a new variety of mint in kitchen garden. He also has planted 26 jack fruit seedlings as part of the crop improvement program. Case #6 concerns a Stiped Meo (Hmong) village chief name Se Hang Chung Chao, who, with his father, the former headman, led the villagers down from a higher elevation in Mae Hong Son province where they grew opium poppies down into the lower elevations where they shifted to paddy farming. Se Hang Chung Dao learned from the Thai how to arrange bundings and irrigation ditches to irrigate his wet-rice fields, and he sold cattle, his precious silver neckpiece and his wife's embroidery in order to have cash to purchase some paddy fields from the Thai nearby. He has two children in the Mae La Luang school (one in the 5th and the other in the 7th grades), and he favors their continuing their education, although he realizes that they may not return to the village.

In Case #10, Aaron Lee, the headman of Goshen village, a Christian community in Mae Chan district, Chiang Rai province, arranged his own paddy fields in 1971 when it became apparent that there would not be sufficient land in the vicinity for him to expand his swidden farming.

Some of the other cases also demonstrate ordinary villagers' willingness to innovate. In Case #7, for example, Wan, a young Akha villager, recently began to shift from swidden farming to paddy, arranging 5 wet-rice fields in the Thai style using their traditional hoes. Wan declared that he had decided to obtain paddy fields so that he would have something to pass down to his children. The elderly White Meo farmer in Case #8 was participating in some agriculture extension projects organized by the UNPDAC program at Chang Khian, growing a potato, soy beans, and kidney beans as cash crops. He is planning to grow coffee as part of this program.

Kunstadter's "fourth adaptation" to population pressure in the uplands is migration to the lowlands. Another factor in some cases of this type of migration is change in cropping and farming methods, as is illustrated in Case #8. There appears to be a continual southward migration of the Meo in the highlands, and this often involves a movement of Meo into areas where other ethnic groups are farming. This has led to some conflicts. Marlowe (1973: 24, 29) reports that the first Meo settlements that remained in Chiang Mai province were established in the late 1940's and early 1950's. He observes that:

The very first Karen-Meo contacts were commercial. Meo settlers purchased rice from those Karen in the area who had surpluses, and, in turn, sold garden produce and other small items of trade. For the Karen, the Meo were exotics. Their view was much like the common Thai view. The Meo were an outlandishly costumed, mysterious groups of "nomads".

There were hints of mystery and an aura of criminality about them. They were remarkably wealthy compared to their neighbors in the uplands and the east with which they were able to establish settlements and commence and maintain widescale slash and burn agriculture indicated that they had power. This was particularly impressive in the face of the increasingly restrictive government regulations against swidden culture that were directly affecting Meo interests with equal potency. In each case, the "power" of the Meo, newcomers and interlopers though they might be, was confirmed by their "victory" over the Karen in the late 1950's and early 1960's in every conflict over usufruct to competitively desired swidden lands.

A similar conflict with the Karen further west in Mae Hong Son province is noted by Kunstadter (1971: 8) and it was previously described briefly. Migrating into Mae Sariang district around 1960, the Meo moved on to land considered amenable for opium poppy cultivation. As Meo began farming land claimed by the Karen, conflict ensued. Meo recruit Karen and Lua laborers to work in their opium fields, paying them either in cash or in opium. Some Karen opium addicts attach themselves to Meo families working as servants in order to obtain some opium. Kunstadter notes that the overall pattern of relationship between Karen and Meo is one of mutual dependency with the balance in favor of the Meo in the present situation where the traditional use-right to land is not protected by government authorities.

Cases Reflecting Social and Economic Change

List of Cases

Case

- # 1. Wichien, a young (23 years of age) Lahu teacher in the PWD-sponsored Special Education School in Cha Pu village, Mae Chan district, Chiang Rai province. He is the maternal grandson of Cha Pu, the village headman and a successful innovator.
- # 2. Han Se Hoang, (39 years of age), headman of the Yao (Mien) village of Lao Chi Kuey in the Mae Chan district, Chiang Rai province.
- # 3. Mo, (37 years old), Akha farmer and assistant headman of Ban Sango Klang, Chiang Saen district, Chiang Rai province.
- # 4. Pu Kai (53 years of age), headman of Pu Kai, a Red Lahu village in Muang district, Chiang Rai province.
- # 5. Y Khon and Nai Noon, a woman (60 years old) and farmer (50 years) in the Lua village of Santisuk, Mae La Noi district, Mae Hong Son province.
- # 6. Se Hang Chung Chao, headman (41 years of age) of the Striped Meo (Hmong) village of Pang Faa, some 45 kilometers north of Mae Sariang in Phai district, Mae Hong Son province.
- # 7. Wan (21 years of age), a Po Karen farmer of Me Chang village, in Mae Sariang district, Mae Hong Son province.

- # 8 Lao Chum (67 years old), a White Meo farmer in Tong Sa village, Muang district, Chiang Mai province.
- # 9 A-Yo Mai, an Akha village located in Mae Chan district, Chiang Rai province.
- # 10 Aaron Lee, a Yellow Lahu (Lahu Na), age 35, headman of Goshen village, Mae Chan district, Chiang Rai province.
- # 11 Boonthien, age 28, a Karen teacher at the United Village School, Nam Lat village, Muang district, Chiang Rai province.
- # 12 Chatri Yawan, 26 years, a Pwo Karen staff member of the United Village School.
- # 13 A Group of United Village School Students.
  - A. Hani, a 15 year old Akha girl.
  - B. Xe-Liu BO-ling, a Yao girl of 12 years.
  - C. Judy (Da-li Tho), a Lahu girl of 13 years.
  - D. Chuan My Se-Ming, a Lisu girl of 12 years.
  - E. Se Thao Toa, a Blue Meo (Hmong) boy of 11 years.
  - F. Tim, a Karen girl of 12 years.

CASE #1.---The Lahu village of Cha Pu is located in the uplands of Mae Chan District, Chiang Rai province. The community is composed of 35 households that include 52 families (parents and children) and the total population is 243. The houses are constructed on piling in the traditional Lahu style, and the predominant building materials are wood and split bamboo. Roofs are of cogon (*Imperata*) grass.

On the edge of the village there is the Special Education School, which was established five years ago by the Public Welfare Department. The school building is a simple structure built of wood logs and split bamboo with a thatched roof. The students' long desks and benches are of hand-hewn wood, and there is a table and chair for the teacher. Each classroom has a large blackboard.

Currently there are 31 pupils organized into two classes for the two-year course of basic studies. All of the pupils are from the village, and it was pointed out that some of them are Lahu-Lisu as a result of Lisu women marrying into village families.

The curriculum includes Thai language, basic arithmetic, Social Education (civics, proper social behavior and such), and Basic Special Education, which includes lessons in plant and animal care. The objective of this training is to prepare the children to assist their parents in their farming activities.

Wichien, the 23 year old teacher, is Lahu, the maternal grandson of Cha Pu (for whom the village is named), the headman. Wichien received

his primary school education in Mae Chan Town. He then received two years of further education at the Wat SriSoda on the edge of Chiang Mai, a program sponsored by the Public Welfare Department.

Wichien's grandfather, Cha Pu, is the most successful farmer in the village and a man of means (his house has concrete piling and Wichien drives the only pickup truck in the village). Some 20 years ago, Cha Pu shifted from swidden farming to wet-rice cultivation. He learned to arrange paddy fields from the lowland Thai settled in the vicinity. At the present time he has 20 rai (3.04 ha.) of paddy fields, and other villagers have followed his example so that half of the 35 households in the village now farm paddies. (Wichien noted that there is still sufficient land in the vicinity for more villagers to arrange more paddy fields.)

Cha Pu grows the fragrant Mae Chan variety of rice so highly valued on the market. His yield last year was sufficient for all of the family's needs until the next harvest. He also had rice to sell and other cash crops as well. His cash income for the year was the following:

<u>Commodity</u>	<u>Quantity in Tangs. (20 kgs. units)</u>	<u>Price per Tang</u>	<u>Income</u>
A. Rice	300 (6,000 kgs.)	฿ 30	฿ 9,000
B. Maize	100 (2,000 kgs.)	฿ 20	฿ 2,000
C. Sesame	50 (100 kgs.)	฿100	฿ 5,000
D. Soy Beans	50 (100 kgs.)	฿ 90	฿ 4,500
		Total	฿20,500
			(\$1,025.00)

Cha Pu's non-cash income included sufficient rice for his family to consume for the year as well as kitchen garden produce for home consumption,

and domestic food animals (chickens and pigs). The family also gathers wild mushrooms during the rainy season, and they supply themselves with fish from local streams (using nets).

Wichien indicated that he would be interested in further education (this would be possible through the Adult Education Program rather than through the regular secondary school because he would be considerably older than the other students). He plans to marry the Yao girl teaching in the Special Education School in the neighboring Yao village of Lao Chi Kuey (see Case #2).

CASE #2.---The Yao village of Lao Chi Kuey, composed of 16 households, is located in the uplands of Mae Chan District, Chiang Rai province. The villagers now farm both swiddens and paddy fields. The hills surrounding the village were black with newly burned swiddens, some of them very close to the settlement. The houses in Lao Chi Kuey are built Yao style--on the ground with walls of wooden planks, although some houses also have split bamboo. Roofs are thatched with cogon (*Imperata*) grass. Sizeable granaries are located close to the houses, and there are large pig pens throughout the village.

The headman is Han Se Hoang, a man of 39 years, tall, slender with a quick manner, who has held this position since he was 23 years of age. He was born in Mae Salang mountain area east of Mae Chan and he recalls migrating twice in his life. When the Yao migrate, he explained, they leave the house behind when the move is over a long distance. If the new site is not far away, they dismantle the house and take it with them. Pack ponies are used to transport the personal and household goods. Fruit trees are planted in Yao villages and when they move they take the seedlings and some cuttings, leaving the mature trees in place. Han Se Hoang noted that according to village oral history, Lao Chi Kuey villagers made their way into Thailand from Laos some 40 years ago. In 1973 the village moved to this site from across the river.

Swidden farming was traditional among these Yao villagers. Ten years ago, however, Han Se Hoang began arranging paddy fields. He hired lowland Thai to come to the village and instruct him on how to build bundings and

organize an irrigation and drainage system. This resulted in his now having 12 rai (1.92 ha.) of paddy fields. When the village moved in 1973, Han Se Hoang kept the same fields because the new site was not far away.

Consulting with an elderly village man (72 years of age) who had been born in Laos, Han Se Hoang reported that the traditional kitchen gardens contained pineapples, guava, peach trees, sugar cane, and pepper trees, and all of them can be found in Lao Chi Kuey today.

Han Se Hoang has several children in the village school. There are 30 pupils, some of them Thai (because their school is closed). The teacher is a Yao girl from a village family "of the middle economic level." She completed the seventh grade in the primary school at Pong. She plans to marry Wichien, the Lahu schoolteacher in Case #1.

CASE #3.--The Akha village of Ban Sa Ngo Klang (a Thai name meaning "the middle Sa Ngo village") is part of the Doi (Mount) Sa Ngo project, one of the King's Projects in Chiang Saen district, Chiang Rai province. As such, it is one of nine villages where the Public Welfare Department (PWD), the Accelerated Rural Development (ARD), the Land Development Department, and the Royal Irrigation Department have organized projects. The first government programs in the vicinity began with the 1964 opening of a school by the Border Patrol Police (BPP). In 1970 the village became one of the King's Projects. ARD constructed a road into the community, the Royal Irrigation Department built a dam, PWD organized agricultural extension work, and the Land Development Department came to do research on the soils. As a result of this development the original Akha settlement fissioned into several communities, all of them within the same locale. Ban Sa Ngo Klang is in the midst of them, thus its name.

PWD posted an agricultural technician and a medic in the village, and they have a combination extension station-dispensary on the hill above the settlement. One of PWD's major projects in the village is an improved farming effort with 70 rai (11.2 ha.) of paddy. Coffee and fruit trees are being introduced into the village, and at the extension station there are sheds filled with seedlings. A new PWD project is to introduce mung beans and pineapples into the village's crops.

As part of his project, the King donated 3,000 Baht (\$150) to a "Buffalo Cooperative." The villagers matched with  $\text{฿}$  200 (\$10) as their "counterpart fund" for the purchase of ten water buffalo. When one of the farmers borrows a buffalo, he pays a small fee, which will be used for

the purchase of additional buffalo. Also, as part of the King's Project, the Mae Chø Agricultural College has a volunteer program wherein students visit villages to lend assistance to the farmers. They are flown into the village for one day every month by helicopter. Medical doctors also are flown in by helicopter to conduct a one-day medical assistance.

Until it fissioned, the original village had been in this locale for sixty years. Mo, the Akha farmer interviewed, is 37 years of age. He was born in the village and serves as assistant headman. He noted that swiddening was traditional. Fields are farmed for one year and then allowed to fallow for three years while a new growth dominated by Imperata grass and bamboo thrived. Staples in the past were upland dry rice and maize, each planted in separate swiddens. Villagers also grew cucumbers, chili peppers, and pumpkins in the swiddens.

Farming innovations in the village pre-date the King's Project. In 1968, Mo began to arrange his first paddy field of one rai (0.16 ha.). He and his wife had observed the lowland Thai in the vicinity in their paddy farming and they copied their bundings and irrigation canals. They did this using their traditional Akha hoes because they had no other tools at their disposal. They arranged a small nursery and purchased the paddy rice seeds from the Thai, paying  $\text{฿ } 15$  (\$0.75) for 1 tang (20 kgs.) and Mo noted that in 1978 the price would be  $\text{฿ } 22$  (\$1.10) for the same amount. They could not afford any fertilizer. Their yield on the 1 rai was 35 tang or 700 kgs. of paddy (probably unhusked), which the family consumed,

Mo took advantage of the King's Project and as a result of the agricultural extension assistance available (for the PWD extension worker in the village), he increased his paddy fields to 6½ rai (1 ha.)

A portion of the harvest is sold as a cash crop and the remainder is kept for home use (he now has six members of his household). He now owns a plow and obtains buffalo he needs from the cooperative.

When Mo was interviewed in April 1978, he was busy working on a patch of mung beans, another innovation introduced by the PWD extension service. He said that he received the seeds from PWD and he would repay the cost when he sold some of the harvest.

Mo realized some cash income last year selling 45 chickens and 3 pigs at ₪ 950 each (for a total of ₪ 2,850 or \$142.00). In addition, Mo and his family gather bamboo shoots in the forest, selling them for ₪ 50 (\$2.50) per bunch (of 100 shoots). This is an activity that they engage in annually for a two-month period.

CASE #4.--The Red Lahu village of Pu Kai is located on a mountain side in the vicinity of Mae Chan, Muang District, Chiang Rai province. The Public Welfare Department (PWD) has designated this locale the Pu Kai Development Area, and it includes the Lahu village of Pu Kai (101 population), Pong Nam Tok (86), San Ngoi (70), Pu Song (61), and Li Kai (127). The agricultural extension projects include paddy cultivation, fruit trees, coffee, and some kitchen garden improvements. There also are health program to improve sanitation and there is a small dispensary. Two PWD extension workers live in Pu Kai.

Pu Kai settlement is reached by a winding path of the side of the mountain. In the dry season it is accessible by motorcycle (two came up the path while we were in the village). The village has been in this location for four years. Previously it had been located at a higher elevation. When it was decided to move, ten of the eighteen households elected to remain in the old site.

Pu Kai, the headman (for whom the village is named) engages in both cash-crop and subsistence farming. He also has participated in some of the PWD projects so he has begun growing some new crops. In the 1977 planting season, Pu Kai farmed a 6-rai (0.95 ha.) swidden of upland dry rice. In addition to the 4 members of his household who labor in the fields, he hired two laborers, paying them either 50 Baht (\$2.50) in cash per day or 1 tang (20 kgs.) of rice for a two-day work period. In the swiddens they also grow pigeon beans which are consumed by the family and are fed to the pigs. Maize is grown in another swidden along with yams, cucumbers, pumpkins, gourds, chili peppers, and sesame. Sesame is a cash

crop. The price varies depending on the time of sale. Earlier in the planting season when the supplies of sesame are low, it is sold for  $\text{฿ } 105$  (\$5.25) per tang but later in the year the price diminishes to  $\text{฿ } 95$  (\$4.75) per tang. The Red Lahu have a traditional variety of soy bean that they sell for  $\text{฿ } 5$  (\$0.25) per tang.

Normally, Pu Kai, like other villagers, vends pigs and chickens which the lowland Thai come to the village to purchase, but his stock died of disease. Other sources of cash income include gathering of a brown, fragrant tree bark (called kia in Thai) that is used in the production of joss and sells for  $\text{฿ } 1$  (\$0.05) per kilo. Large flat rattan baskets used for winnowing and for drying are used to dry this bark, and several could be seen in front of village houses. Pu Kai collected 30 kilos of this bark during the past year. He also gathers a variety of small chestnut (castanopsis, called luko in Thai) that sell for  $\text{฿ } 50$  (\$2.50) per tang. Pu Kai and other villagers also gather the spikes of broomgrass which is used in making brooms and sells for  $\text{฿ } 5$  (\$0.25) per kilo. One source of non-cash income is hunting for wild boars, wild bulls, and barking deer. Normally, the flesh of these wild animals is shared with kinfolk and other villagers.

Pu Kai's kitchen garden contains banana, papaya, and guava trees, sugar cane, pineapple, bird peppers, taro, lemongrass, mint, and sweet basil, all of which are consumed by the family.

Red Lahu villagers often work for the lowland Thai during the planting season for  $\text{฿ } 15$  (\$0.75) per day. Workers supply their own food,

The PWD agricultural extension works (two of them) have introduced some new varieties of mint for the kitchen gardens. Pu Kai also worked with them in 1977 arranging a fish pond, the first in the village. The PWD is proposing a project to have the villagers plant 3,000 seedlings of coffee, 60 of litchi and 50 of jackfruit. Pu Kai already has planted 26 jackfruit seedlings, and he has prepared some ground for planting coffee seedlings.

CASE #5.--The Lua village of Santisuk ("Peace Village"), in Mae La Noi District, Mae Hong Son province, has been in this location since 1967. The previous location had been at a higher elevation at Ban Chan Mo on the border of Chiang Mai and Mae Hong Son provinces. Most of the households in the old site practiced swidden farming, but there were a few that also had small paddy fields. Because of increasing population and the restricted amount of land three households moved to what was to become the village of Santisuk. One of these families was that of Y Khon and her husband (a Khmu). One family began to arrange less than one rai (0.16 ha.) of paddy while all three families practiced swidden farming. Two years later, the family of Nai Noon moved to the new village as did others from the old site. The settlement now has 40 households and some 260 people.

Y Khon's husband is dead and her son, Ha Huan (about 33 years of age) is currently the village headman. She lives in his house, a spacious structure built of wood planks in the Thai style. All of the villagers practice swidden farming but five households also have some paddy fields. The two informants pointed out that all of the villagers were experienced a shortage of swidden land because the Royal Forestry Department was conducting a reforestation project in the vicinity and they were planting seedlings on fallowing swiddens (the villagers have a system of rotating swiddens wherein fields are farmed for one year and then allowed to fallow until a thick new growth appears).

Y Khon's son, the headman, has around 25 rai (4 ha.) of swiddens. She noted that no one in the village has title to any swiddens but there

is talk that the government plans to give certificates of land occupancy (this probably is not true). The headman farms upland dry rice and some soy beans but the family consumes all of the yield. His livestock consists of 3 small pigs and 30 chickens, some of which he sells. Y Khon and Nai Noon pointed out that most of the villagers lack sufficient rice to feed their families all year so they rely on kitchen garden produce -- yams, sugar cane, bananas, papaya, and other fruit. They also gather wild fruit and vegetables in the forest. Many earn cash by working for the Royal Forestry Department on their reforestation. Their pay is  $\text{฿ } 15$  ( $\$0.75$ ) per day.

The Thai government projects for this village have been very limited. Electricity has been installed but few have it because of the cost; installation costs  $\text{฿ } 1,000$  ( $\$50.00$ ) with additional fees of  $\text{฿ } 5-10$  ( $\$0.25-0.50$ ) per month. The government built the dirt road into the village and dug a well. They complained that there are numerous government programs for the hill people, but few for the lowland Thai. They both said that they had been Lua when they lived in the mountains but now they identified themselves as Thai.

CASE #6.--The Striped Meo (so-called for the striped design on the women's skirts) village of Pang Faa is located near the National Highway #108, some 45 kilometers north of Mae Sariang in Mae Hong Son province. It is in a forested area with tall trees but little underbrush and a small stream runs through the settlement. The village has 17 households and around 200 people (including the children). The houses are of the Meo variety built on the ground but rather than the usual planking for walls, most houses have split bamboo. As is typical of the area they use the dry dipthocarp leaves for thatching.

According to Se Hang Chung Chao, the 41 year old headman of the village, they have been in their present location since around 1971. Previously, they had lived in the higher elevations of Doi (Mount) Maprik in Phai district, Mae Hong Son province. Their village was one of those in the area of the "key villages" in the Mae Tho UNPDAC project. Se Hang Chung Chao's father was headman and after he had been told by one of the UN extension workers that the government was going to ban opium production, the old man decided that he and his villagers would have to abandon opium poppy cultivation and adopt paddy farming. To do this they would have to move to the valley where there was level land and available water. The old headman and his son went to the lowlands and selected the present site of the village. They abandoned their houses, taking all of their household and personal belongings on pack horses to the lowlands where they hired a truck to complete the move.

They located the new settlement near the road so they would be accessible to markets. The village first cleared some swiddens to farm

while they prepared paddy fields in the forest away from the road. They learned from the neighboring Thai how to arrange bundings and irrigation canals. They also obtained rice seeds from the Thai. They have around 80 rai (12.8 ha.) and are planning to expand their paddy farming to an additional 300 rai (48 ha.).

All of the paddy farming is conducted by 4 (of the 17) households while the remainder continue to swidden. Chung Chao, the headman, is one of the paddy farmers. He arranged 4 rai (0.64 ha.) of paddy fields himself and then purchased an additional 8 rai (1.28 ha.) from a local Thai. He obtained the cash for this transaction --  $\text{P} 12,000$  ( $\$600.00$ ) -- by selling cattle, a silver neckpiece, his rifle, and embroidery made by his wife. His harvest last year was ample, but it was not a good year and he could not sell any because his family (10 members) needed most of it. Also, since he is village chief, he was obliged to lend some rice to needy villagers.

After the rice harvest he cultivated soy beans and garlic in the paddy fields. His garlic crop was approximately 1,000 kgs., and he sold most of it for  $\text{P} 5$  ( $\$0.25$ ) per kilo for a total of around  $\text{P} 5,000$  ( $\$250.00$ ). He also grew some 10 tang (200 kgs.) of soy beans which his family consumed. The chief's kitchen garden contains papaya, sugar cane, chili peppers, and bananas. He plans to plant litchi mango, and coconut seedlings (he will obtain 10 of each variety from the PWD extension agent).

His stock includes 1 water buffalo for plowing the paddy fields and 2 cattle used to pull a cart. He has 6 pigs, some 20 chickens but he never sells any (they are used for home consumption).

The villagers fish but they do not hunt because of lack of game in the vicinity. Adults do not gather any food but the children collect teak seeds that they sell for  $\text{฿} 15$  ( $\$0.75$ ) per tang (20 kgs.).

Thai, Chinese, and Yunnanese traders visit the village from time to time to purchase farm produce (such as the large amounts of garlic harvested by the chief). For small sales, the villagers normally carry their own produce to the markets.

The headman's wife and another woman were embroidering while we talked. They were doing repetitions of the same designs with the same colors as part of a project sponsored by the Princess Mother and implemented by the Border Patrol Police (BPP). The BPP furnished the women with cloth and thread, and they are paid  $\text{฿} 6$  ( $\$0.30$ ) for each piece. They said they can do two of them a day.

The headman has two children in school -- one in the fifth grade and the other in seventh grade. The school is located down the main road in the Tambon of Mae La Luang. It is a government school that gives instruction up to the 8th grade. To study further, a student must go to Mae Hong Son secondary school. The boy in the 7th grade wants to continue, and the chief is in favor of it, noting that when he has finished school he will find work outside the village.

Some ten days before we visited the village, a group composed of two households (around 40 people) who had migrated from the old village site on Doi Maprik arrived in the village. They had kin in the village, and they had decided that they would also adopt paddy farming. They were camped in small temporary shelters of bamboo and thatch until they could construct houses. They already had begun to clear swiddens.

CASE #7.--The Pwo Karen village of Me Chang is located about 15 kms. up in the mountains above the Hill Tribe Development Center in Mae Sariang District, Mae Hong Son province. It is reached by a dirt road that winds over the mountains past some very steep swiddens. The village has been in this location for 80 years and most of the houses (built on piling of around 700 centimeters) are of wood planks with cogon (Imperata) grass thatching on the roofs. Houses in the village are arranged so that no house will be in a direct line with the front entrance of another house. Amidst the houses there are fenced kitchen gardens. There are 48 households in the village.

Wan (who has tatoos on his arms, chest, and legs) and his wife live in the house of his father, a widower. They have both swiddens and paddy fields. With the three members of the household working they cleared 8-10 rai (1.28-1.60 ha.) of swiddens for their staple of upland dry, non-glutinous rice. One part of a swidden was planted to maize and another was devoted to gourds, pumpkins, great cucumber, and taro.

Wan's paddy fields--about 5 rai (0.8 ha.) are a recent innovation. He has noted that the Skaw Karen near the Hill Tribe Center (the village around 5 kms. away) were adept paddy farmers as was his Karen neighbor. He decided to have paddy fields so that he would have something more permanent to hand down to his children. He and his wife used hoes to arrange the paddies, and they also prepared the soil for planting using hoes (he has no buffalo or plow). They planted both glutinous (pa-y in Karen) and non-glutinous rice (krob), using no fertilizer. Wan obtained advice on rice seed and pest control from the PWD extension service. In

late May 1977 they began to prepare the soil and by July the seedlings were ready for transplanting. Since they needed additional labor, they called on kin and neighbors as part of a mutual aid pattern among the Karen. The same mutual aid system is used for harvesting.

On the 8-10 rai (1.28-1.60 ha.) swiddens they harvested around 200 tang (4,000 kgs.) of rice and only 20 tang (400 kgs.) from the paddy fields because of drought and pests. Wan's kitchen garden contains mango, papaya, and banana trees in addition to eggplant, string beans, and sugar cane. None is sold. All of the villagers, however, grow tobacco that is sold and bartered within the village and between villages. When a villager is short of tobacco, he may buy some from the Thai. Tobacco usually sells for between  $\text{฿}$  25-30 (\$ 1.25-1.50 US) per kilo.

Wan and his family gather wild bamboo shoots and some wild vegetables which they consume. A tree bark used for making joss (this same bark is gathered by the Lahu in Case #4) and they vend it for  $\text{฿}$  2 (\$0.10 US) per kilo. The villagers also hunt some barking deer but this is not an important source of food.

Wan has some pigs and chickens and last year he sold two pigs for  $\text{฿}$  60 (\$3.00 US) each. The buyer was a friend who wanted the pigs as offerings in a spirit sacrifice. Some villagers have cattle, water buffalo, and elephants. A village man in the group gathered in the house during this interview owns an elephant that he purchased in Mae Sariang. Elephants are used as pack animals (for such things as transporting rice to the market) or to pull logs.

Thai traders sometimes visit the village to sell salt, cloth, and ornaments for personal adornment.

Although some village men have gone for the training program at the Public Welfare Hill Tribe Training and Development Center Wan and the group note that few have responded to the programs. Only about 6 villagers are planning to grow any coffee. Wan and his friend Palesam (the man with the elephant) are planning to grow some coffee this year and they have obtained some seedlings from the PWD extension agent. The PWD demonstration plot has been prepared -- it covers 10 rai (1.60 ha.) -- and the two young men have sections of it.

The major problem in the village of Me Chang is shortage of rice. There are well-to-do villagers who do have enough most years but there also are the less fortunate who experience an annual shortage.

CASE #8.--The White Meo village of Tong-Sa is located several kilometers above the UNPDAC site at Chang Khean A in Muang District, Chiang Mai province. The village has 35 households, one of which is a Yao family, but the remainder all are of the White Meo ethnic group. The family visited was that of Lao Chum, a farmer of 67 years. His household consists of him, his wife, two married sons and their wives and children, a total of 13 people (6 adults and 7 children). Their house is a relatively large Meo house of wood planks built on the ground. The main part of the roof is of cogon (*Imperata*) grass thatching while the ends are of leaf thatching. The interior of the house is divided into several rooms with wood plank walls. The main room, used for work and cooking, has a large brick and dirt stove built to accommodate an enormous circular iron pot that is used to prepare a mash for the pigs.

Lao Chum, the head of the household, remembers migrating five times during his 67 years. The pattern of the movements had been to move in a southwesterly direction. He had been born in Chiang Rai province, and he has been in this location for twenty years (both sons born here). When the Meo move, they take only their household and personal possessions, packing them on horses.

When Lao Chum selects the site of a swidden, he examines the soil -- dark soil is desirable but yellow-colored soil is to be avoided. The size of the swidden depends on the size of the household. At present, Lao Chum has around 7 rai (1.12 ha.) of swiddens. All of the adults in the household supply labor for clearing in burning the fields. (He noted that when the father dies, the sons establish their own households and farm separate

swiddens.) Maize is planted first and most of it is used to feed the pigs. Upland dry rice is planted and is consumed by the family. Secondary and cash crops (potatoes, kidney beans, and soy beans) also are grown in the swiddens. The cash crops are new, the result of the UNPDAC agricultural substitute crop program. They have been growing the potatoes for 5 years, and the amount they cultivate depends on the current market prices. In a good year, Lao Chum and his family harvest around 100 kilos but only 50 kilos in a bad year. The prices vary from  $\text{฿ } 1.40$  (approximately  $\$0.08$ ) to  $\text{฿ } 4$  ( $\$0.80$ ) per kilo. They usually harvest between 6 to 10 tang (180-200 kgs.) of kidney beans, selling at around  $\text{฿ } 50$  ( $\$2.20$ ) per tang (20 kgs.). Transport of crops to the market in Chiang Mai is either done privately (the village as it turns out owns a small country bus) or the produce is carried on the UN truck. The UNPDAC extension teams have given considerable support to the cash crop effort in this village. The UN, for example, gave Lao Chum 2 tang (40 kgs.) of kidney beans and after the harvest he returned the 2 tang. The UN station sometimes buys his cash crop but if there is no need at the station he sells the crop in the Chiang Mai market.

Lao Chum reports that he uses his swiddens for 3 years if the yield is good but if the first crop is sparse, they abandon the swidden. Swiddens adjudged to be fertile are allowed to fallow for 5 years before being re-farmed.

Coffee is the new cash crop being pushed by the UNPDAC center. Lao Chum says that he is interested and is awaiting the extension agent to look for suitable land for coffee cultivation. Lao Chum noted that this is a new crop and he must learn how to grow and care for it.

The family gathers banana fronds that are dried and used for thatching the ends of the roof. There is no hunting here nor any fishing by these villagers.

CASE #9.--The Akha village of A-Yo Mai is located in the uplands of Mae Chan district, Chiang Rai province. Situated there some nine years, this village has 28 families, numbering 132 people (74 male and 59 female). The migration pattern of this Akha village has been to move towards the southwest.

The houses in the village have log frames and are built on low (about 2 feet) piling. The exterior walls, inner partitions, and floors are of split bamboo. The roofs are thatched with cogon (*Imperata*) grass. The interior of the house visited (a family of the Mai Yu clan) is divided into two large rooms. The room where the women sleep has the open hearth for cooking meals and shelves containing the gourds and bamboo tubes used for carrying and storing water. Another open hearth is located in the other room where the men sleep. Personal belongings are stored in baskets along the walls.

At the front entrance there is a sizeable veranda that serves as a work area and a gathering place. The roofs of the Akha houses slope almost to the ground, giving the impression from the outside that there are no walls.

In spite of the fact that the village of A-Yo Mai is located in a watershed (Mae Salaep) where the Department of Public Welfare (PWD) has had agricultural extension programs going since 1975 (see section on Public Welfare Programs among the hill people), they have had no impact on economic activities. All of the villagers continue to practice swidden farming. Officials of the PWD (notably Wanat Bhruksasri) contend that this was because of the high rate of opium addiction (they claim 30 percent of the villagers). They assert that household heads who are addicts are too lethargic to be interested in any innovations.

In the Mai Yu household the elderly (65 years) mother recalls migrating about ten times during her life. She first moved when she was a small girl and lived in the village of Paiya-Pai near the Burmese border. After the Lahu attacked the village her family moved into Thailand. They abandoned the house itself, taking only their personal and household goods.

Her family consists of herself and her husband, a farmer of 72 years, their son, his wife, and their four children. The son described how he and his wife prepared their 6-rai (0.95 ha.) of swiddens. In January and February they cut trees and brush, leaving the very big trees standing. In March and April they burn the dried wood, and in early May, before the rains begin, they plant. The men make holes with a hoe consisting of a shaft of carved wood 2 meters long to which a metal scoop is attached. Women follow, dropping seeds into the holes, which are then covered. Upland dry rice is planted in one swidden and maize in another. Vegetables are cultivated along the edges of streams.

The rice fields must be weeded three times and the maize fields only once. In June, soy beans and sesame are planted between the rows of maize. The rice is ready for harvest in September. An estimated 20 cans of shelled maize (440 kgs.) were harvested, and most of it is used to feed the pigs. Both sesame and soy beans are the family's cash crops. They harvested around 8 cans (or 176 kgs.) of soy beans which they sold at the

rate of ₪ 80 (\$4.00) per can for a total of ₪ 640 (\$32.00). The sesame harvest totalled 5 cans or 110 kgs. and sold for ₪ 80 (\$4.00) per can for a total of ₪ 400 (\$20.00).

In addition, the family sold some of their livestock. Five pigs brought ₪ 3,000 (\$150.00) and 10 chickens sold for ₪ 70 (\$3.50) for a total of ₪ 700 (\$35.00). Animals, however, are not sold every year, but only when the family needs cash. Pigs and chickens also are used as offerings in rituals.

Most years the family is forced to purchase rice in town and at the rate of ₪ 3 (\$0.15) per kg. The family also makes periodic purchases of salt, paying ₪ 12 (\$0.60) per can and they usually buy 3 cans. From time to time they also buy vegetables to supplement their diet. For family consumption, young rattan shoots are gathered in the forest as are hearts of banana trees. In April the men of the family often hunt for barking deer or wild boar, using a muzzle-load rifle. Usually the game is shared with kin and neighbors. Using nets, the family can fish all year around in the nearby streams. They share the catch with friends and some of the fish are dried.

The 6 rai of swiddens now being farmed can be recultivated for another 3 years and then they will be left to fallow for 3 or 4 years before being cleared anew. The elderly lady and her son indicated that they would be interested in having irrigated paddy fields.

CASE #10.—Known by his Christian name, Aaron Lee (Alu Vila is his Lahu name) is 35 years of age and the headman of the village of Goshen in Mae Chan district, Chiang Rai province. All of the village residents are members of the Baptist Church, and all of them had immigrated from Burma, where their village also was called Goshen, when the American missionary Geoge Young moved to Thailand. Aaron's father Chalo, an elderly man with a quick manner, has been the Lahu chief in northern Burma for an area that included some 450 villages (with an estimated 1,523 households). Chalo was supported by the Nationalist Chinese (who called him Li Chuong Yen) and he collaborated with the Nationalist Army in its struggle against the Chinese Communists.

Normally, among the Lahu the role of headman but in this instance, Aaron replaced his aging father. He is recognized as Village Chief (Pu Yai Ban) by the Thai authorities, for Goshen village and he also serves as Kamnan or Tambon (commune) Chief, giving him authority over seven villages — Goshen, three other Lahu villages and three Akha villages.

In Goshen, all of the families have swiddens and some also have paddies which are traditional among the Lahu. The normal planting cycle is to farm a swidden for three years or, if the soil is adjudged to be very fertile, for a longer period. The fallowing period normally is around three years and then the field is cleared and farmed again. Aaron estimates that an average family has around three swiddens, one of which is being farming while two fallow.

Aaron has no idea about the size of his fields but he measures everything in terms of the number of cans (a kerosene can of 8-10 kilos). For

a swidden, for example, 8 cans of rice seed are used in planting and 60 cans of dry rice are harvested. In a bad year only 25 cans of rice are harvested. For the paddy fields 5 cans of seeds are used to produce 90 to 120 cans of paddy.

Seven years ago, Aaron decided that since there was not enough land to increase his swiddens, he would arrange a paddy field. He used only 1 can of seeds on the first field for four to five years, realizing a crop of 5 cans of paddy. In time he increased the number of paddy fields. Last year he did not sell any paddy. He also cultivates sesame but did not have enough to sell. Another cash crop is soy beans and he sold 10 cans at  $\text{฿} 120$  per can ( $\text{฿} 1,200$  or  $\$60.00$ ), and the maize cash crop was sold at  $\text{฿} 25$  per can and Aaron had 216 cans for  $\text{฿} 4,400$  ( $\$220.00$ ).

Aaron has a wife and one child, a girl, who is a student in the Baptist United Village School in Nam Lat, close to Chiang Rai city. Aaron is a very active member of the Baptist Church and he also participates in school affairs. He himself received a primary school education in Mae Chan,

CASE #11.--The Nam Lat United Village School (which is described in the section describing programs of The Thailand Baptist Convention in Part 2) has a teaching staff made up of hill people who have completed primary school and have had some secondary level training. The young woman in charge of the kindergarten is Boonthieng (her Thai name), a Karen of 28 years of age. She is a native of Nam Lat village, which is mostly Karen. She is married to a Thai and has two small children.

Her family has been Christian for "many generations" and her mother's father, a pastor, led a migration of Christian Karen from Burma to Lampang. From there they moved to Chiang Rai and some thirty years ago settled in Nam Lat village. Boonthieng's father had land he farmed but he sold it so he would have the means to send his children (six of them, three boys and three girls) to school. Boonthieng is the second child, and she completed her primary school education in Chiang Rai and then continued on to secondary school, receiving her certificate. She worked in the Chiang Rai Hospital as a nurse's aid for eight years, and in 1976 she began teaching at the United Village School.

Since she now had the Maw Saw 3, she would like to study for the Maw Saw 4 and be admitted to the Teacher Training School in Chiang Rai. This is difficult for her to do because she lacks the money needed to continue her education.

CASE #12.--Chatri Yawan is a 26 year old Pwo Karen who is on the staff at the United Village School. He is from San Kla, a Christian village in San Kla district, Kanchanaburi province. San Kla is a sizeable settlement of around 1,000 households composed mostly of Pwo Karen but there also are Mon and Thai residents. Chatri is the youngest of five children. His father has around 5 rai (0.8 ha.) of paddy fields and a grove of banana and other fruit trees.

Chatri studied at the Christian primary school in San Kla and continued his education to the ninth grade at the Samuk Christian Academy. He then studied at Prince Royal Collage in Chiang Mai for two years. The San Kla Mission asked him to come back there and he was given a job in a local Christian hospital. Late in 1977 he obtained his present position as "house father" at the United Village School where he is in charge of all of the male students. He married a Karen girl from Nam Lat village and they have a small infant.

Chatri would like to be a dentist (he made this decision when he was working in the San Kla hospital). On May 31, 1978 he wrote to us at USAID/Bangkok asking for help to continue his studies. He has been accepted by Mahidol University but he does not have the means to study dentistry without a scholarship.

CASE #13.—A group of United Village School students.

A. Hanii, an Akha student of 15 years is from Doi (Mount) Pa Ni, a community of 75 households, in Mae Sai district, Chiang Rai province. Her father (who had two wives) moved the family from Burma "because there were too many bandits" when Hanii was very small. Her father is now dead so her "two mothers" and her elder sister farm upland rice in the family swiddens. She is the first one in the family to go to school. She began primary school five years ago and she expected to stay at the school for two more years. Her family pays the cost of her schooling — \$ 1,100 (\$55.00) per year (not including school uniform) by selling rice and maize. During school holidays, Hanii returns to the village where she helps with farming and other chores. She would like to study nursing when she leaves school.

B. Xe-Liu Bo-ling, a 12 year old Yao girl, is from Kun Bon village in Mae Chan district, Chiang Rai province, a community of 102 households. The village has been on its present site for twelve years and previously it had been located in Mae Sai district further north. She is the eldest of five children. Her father had studied for six years of primary school, and he wanted her to have some schooling. He is a Christian so he got her accepted at the United Village School after she had studied several years at a Border Patrol Police School in her village. Her father is a swidden farmer and he pays the school costs. Now in the fourth grade, Xe-Liu Bo-ling would like to continue her studies and become a teacher.

C. Judy (Da-li Tho is her Lahu name) is a 13 year old Lahu girl from the village of Ho Che, a community of 143 households in a "Hill Tribe Settlement" in Mae Chan district, Chiang Rai province. There are eight children in her family and her elder sister and her husband live in the house. She began her studies in a small village school run by the Baptist Mission. Her brother-in-law pays for her schooling by selling maize and soy beans from the family farm. Everyone in the family helps with the swidden farming, and she does also when she returns to the village for holidays. She would like to continue her studies and become a nurse.

D. Chuan My Se-Ming, a Lisu girl of 12 years, is from the village of Huai Kri in Mae Suai district, Chiang Rai province, a community of 112 households. Her village had moved from Doi (Mount) Chan six years ago. She is the youngest of eight children. Her parents are Christian and wanted her to be educated. The Baptist Mission is paying for her education. She would like to continue her studies and become a teacher.

E. Se Thao Toa is a Blue Meo (Hmong) boy of 11 years from the village of Pang Ka Kanon in Kamphaeng Phet province, a small hamlet of 3 or 4 Meo households, mixed with a group of Thai households. His family has only lived there for one year. They migrated from Mae Pao in Thuong Chiang district but there was no security in the area. They also had lived in Tak province previously. He is the eldest of six children. His parents are Christians and his father is a pastor. They farm swiddens, growing maize and bananas. Although his father's income is small, he has managed to send this boy and three brothers and a sister to school. This student would like to continue his studies but he has not yet decided what he would like to do.

F. Tim, a Karen girl of 12 years, is from the village of Mae Yao in Muang district, Chiang Rai province. She is the fourth of eight children. Her family are Karen Christians. All of the family helps farm the dry upland rice swiddens. She is the only one to attend school. Her father is poor so he borrowed money to pay for her education. She has been a student in the school for two years and she would like to become a teacher.

Factors Inhibiting Socioeconomic Development

In any given society there invariably are some factors that inhibit socioeconomic development. These may be geographic (such as lack of water or fertile soils), cultural (e.g. values against a "work ethic" or local taboos), or bureaucratic (lack of decision-making, excessive corruption, or an inefficient civil service). The Thai government has identified over-population and lack of available land as two such factors among the hill people. Two additional constraints against socioeconomic development (as well as against any integration of the hill people into the Thai nation) that were noted by many of those interviewed during the present study and also by other investigators (e.g. Hearn 1974: 201) were; (1) the matter of citizenship for the hill people born in Thailand; and (2) the problem of land tenure.

(1) Citizenship -- Having citizenship would remove for hill people many of the legal barriers preventing non-citizens from participating in the mainstream of socioeconomic development. As citizens they would be able to own land, hold licenses, and generally benefit from a range of government-sponsored programs. Having citizenship also is a prerequisite for the hill people's developing any sense of identity with the Thai nation.

According to Thai law, anyone born in the kingdom has the right to be a citizen. The matter of citizenship for hill people born in Thailand, however, is clearly complicated by various factors, the most outstanding of which are the notion that citizenship is something of a reward that is

bestowed upon hill people who have assumed a Thai ethnic identity, and the difficulties involved in determining who among the hill people was indeed born in Thailand.

The attitude that citizenship should follow assimilation is expressed in the opinion recently voiced by Judge Sophon Ratanakhon (1978: 52) of the Ministry of Justice in his declaration that:

For administrative and security reasons, the system of identity cards and birth and death registration may be introduced to the hill people. Full citizenship may not be granted to them automatically until they are ready and willing to accept the full obligations of a citizen. In the meantime the government should provide schools, make them feel that they are part of the nation, and given them the chance to assimilate into the Thai community.

The situation is further complicated by the difficulties involved in ascertaining whether or not a highlander was born in Thailand. Birth records are rare among the hill people. Also, some groups have a pattern of periodic migration, so they have had little contact with the local officials. Furthermore there has been over the years continual immigration of hill people over the borders from Laos and Burma.

These factors, however, have not totally prevented any hill people from obtaining citizenship. Various individuals familiar with the situation in northern Thailand have pointed out that the granting of citizenship is left up to the provincial governors and the processing -- registration, photographing, and so forth -- are the responsibility of the district officers (Nai Amphoe). One result is that the situation varies from district to district (and in some cases citizenship can be bought through the payment of a bribe).

Kunstadter (1971: 18-19) reports that the Karen in Mae Hong Son province are viewed somewhat differently than the other hill people, but even those Karen with Thai citizenship encounter legal problems. Because the Karen have lived in Thailand for many generations, they have traditionally been considered to be "Thai people," as contrasted with "tribal people" such as the Meo, Yao, Akha, and Lahu, all of whom are more recent arrivals and who are almost exclusively upland farmers. Because the Karen live in the hills and border regions where normal lowland administrative services have been slow to reach, the Karen have been recipients of Border Patrol Police programs designed for the hill people. In spite of the fact that most Karen hold Thai citizenship, Kunstadter notes "legal requirements may prove to be barriers or hurdles to Karen seeking to enter into the mainstream of the urbanizing Thai social and economic system. Karen feel they may be discriminated against, especially at the local level, by overly-zealous enforcement of civil-service requirements for proper birth-registration. Names and dates of birth of Karen born in hill villages were often incorrectly recorded in district office records in the early days of registration, and this or some other similar legal argument may hold up the appointment of Karen as teachers."

(2) Land Claims -- It is highly desirable that the Thai government settle on a definite policy for granting land titles or long-term leases (that eventually would lead to titles) to the hill people who have been farming the same plots for long periods with the intent of remaining

sedentary. Such a policy is vital for the process of socioeconomic development among the hill people and it would symbolize their status as members of the Thai nation. With some legal recognition to their claims the hill farmers would be more strongly motivated to make capital improvements on their land -- such things as arranging terraces and paddy fields, renewing swiddens, expanding rice production and cash-crop production, and establishing fruit groves. Having land titles or leases also would make the hill people feel more involved in the Thai legal structure. It would create ties between them and the administration.

Protecting land claims also would help prevent conflicts over land that have already taken place among hill groups and between hill people and lowland Thai moving into the uplands.

(a) Thai-Highlander Land Conflict -- Kunstadter (1971: 17-18) sees a potential conflict between the Karen and Thai in Mae Sariang district, Mae Hong Son province as the upland areas become more accessible to the outside world. The Thai Government has not recognized and will not enforce highlanders' traditional claims to land except that used as house or village sites, or as irrigated fields. With new roads being built, upland areas are being increasingly opened for homesteading and settlement by lowland Thai, or opened for mining or commercial lumbering. Conflicts between Karen and Thai could easily arise from the peculiarities of Thai law, which classifies upland areas as "waste" land, and thus subject to claim and development by anyone. Irrigated agriculture, mining or tree

farming, entitles the developer to make a claim for a land title, but swidden farming does not. The law, Kunstadter points out, clearly favors commercial agriculture, industrial development and sophisticated lowlanders over the hill people.

Kunstadter goes on to note that the laws of land ownership in the Lowlands are much better defined. Irrigated fields are real property, title to which can be obtained by Karen as well as by Thai. Karens living in the lowlands often claim to have been the original developers of irrigated fields in the areas they now occupy, and generally they have been able to maintain control of these fields in spite of the increasing influx of Northern Thai into these areas.

(b) Highlander-Highlander Land Conflicts

Lack of official recognition of hill people's land claims in the past have caused some competition among various ethnic groups. Kunstadter's recent study of the Karen and Lua (1971: 7) revealed that the Karen first settled in Mae Sariang district, Mae Hong Son province when they obtained swidden farm land from the Lua to whom they paid an annual title of one-tenth of their harvest. The northern princes granted the Lua title to their lands and the right to collect rents. In return the princes were paid a small tribute. The Karen paid the Lua their rent and also paid the princes in the form of specially woven cloth. When the Bangkok government assumed control of northern Thailand around the turn of the century, and the northern princes lost their right to collect tribute and

allocate land, the Bangkok government claimed title to all of the hill lands, subjecting the Lua and Karen to head taxes. No recognition to Lua land claims was made and the Lua were not allowed to collect rent. One result was that the Karen, through sheer weight of numbers, took over increasingly large amounts of Lua land.

In recent years, however, the lack of definition of traditional land rights is turning out to be a double-edged sword as Karen come into greater competition with the Meo. In their southward movement, the Meo have sometimes found suitable soil in areas occupied by Karen. Sometimes the Meo have offered to purchase cultivation rights from the Karen villages and in some cases the Meo have merely occupied and taken control of land which was customarily reserved for watershed protection. Karen reaction has been mixed: sometime they have sold the land and sometimes they have attempted to resist. In some cases they have appealed to Thai authorities for assistance in protecting traditional land claims.

It is clearly understood by the Karen that the Meo are able to move into their territory because the Meo are more powerful. Also, territorial rights in the hills are not legally enforced. Karen attempting to protect their land have been shot, and, although the police have investigated, the Meo remain. In their overall relations there is mutual dependency between Karen and Meo but the balance of power is in favor of the Meo because of the present administrative situation in the hills where traditional use-rights

to land are not protected by governmental authorities (Kunstadter, 1971: 28-29). (See case # 6 for an example of a Meo village relocating in the lower elevations to adopt paddy farming.)

Thai Land Tenure and the Hill People -- The basis of Thai land law is that all land in the kingdom belongs to the King, or in the modern sense, to the State. Land can be divided roughly into type categories -- land with document of title (cha-node), and land without document of title. The first category includes plots of land that have been developed and usually they are found in cities, towns, or in some long-settled portions of rural districts. The government surveys such plots, fixes their boundaries, and records them in the Registration Book. This type of land can be privately owned, although in theory, it still "belongs" to the King, who grants ownership to citizens. Owners of such land enjoy full rights over it, but the State may repossess it for public utilities or for national security, making appropriate compensation to the owner. (Ratanakhon, 1978: 45-46).

The 1954 land law promulgated by the Land Department outlines the procedure for obtaining a Title Deek, a clear land title. According to this law, those wishing to obtain title to their land had to apply for a Saw Kaw I or Certificate of Land Occupancy within 180 days from the date the law went into effect on December 1, 1954. The law specifies that the Saw Kaw I Certificate of Land Occupancy be obtained by filling out the official Saw Kaw Nuang form in duplicate. After having the village headman

certify the accuracy of the land occupancy and the signatures of two witnesses, the form is then submitted to the district authorities, who sign a receipt and affix an official seal to the application. One copy is kept at the district offices as an official record while the other is returned to the applicant. According to the law, anyone who failed to apply for the Saw Kaw I within the specified period of 180 days after December 1, 1954, would be considered to have abandoned his claim to land he occupied, giving the state the right to dispose of it.

The Saw Kaw I in effect is only a statement of intention to make a claim for a given plot of land. It does not certify that the bearer has any legal possession or right of occupancy of the land. The Saw Kaw I is not a transferable document, although it can be inherited.

The law also provides for a similar document called the Bai Jong or Certificate of Land Preemption, although this is issued by the government to individuals (rather than being requested by the individuals), giving them the right to occupy particular categories of land. The person holding a Bai Jong must make use of the land within six months or be subject to expulsion by the Director General of the Land Department. Like the Saw Kaw I, the Bai Jong cannot be transferred except in the case of interitance.

Both the Saw Kaw I and the Bai Jong qualify individuals to make application for the Naw Saw 3 or Certificate of Land Utilization. This is a document issued by the Chief District Officer (Nai Amphoe) to the land

occupant who holds the Saw Kaw I or the Bai Jong to certify that the land has been put to use. The law provides that the Naw Saw 3 cannot be issued on land in any of the following categories:

1. Government forest preserves;
2. Land for public use, such as shores, waterways, highways, or lakes;
3. Hill or mountain land or land identified by the government as a natural resources reserve.

This law also stipulates that the 3/5 of the total land must be used as a rice farm, orchard, or fish hatchery and be occupied by the applicant in accordance with certain articles in the Civil and Commercial Code.

Upon receipt of the application for the Naw Saw 3 Certificate of Land Utilization, the Chief District Officer ascertains whether the land in question is in an area where there are no prohibitions against issuance of a Naw Saw 3 and also whether the land in question is being utilized in accordance with the law. If the applicant qualifies, his request is processed and he is issued the Naw Saw 3 Certificate of Land Utilization, which can be transferred to another party.

The Title Deed is the clear title to land in the Thai system. This deed is issued to those who hold the Naw Saw 3 Certificates of Land Utilization, and this is done through one of two procedures. The first procedure is called the Area Coverage Issuance, which results from the Ministry of Interior's decision to issue deeds to claimants in specific

areas, usually within specific districts. The Minister of Interior announces this decision in the Royal Government Gazette, specifying the boundaries of the area to be surveyed and mapped for the issuance of title deeds. When the schedule is fixed, the governor of the province concerned makes a public announcement thirty days in advance of the day and time prescribed when the individual owners must escort the local authorities in a survey of the lands they claim. When title deeds are issued as a result of this procedure, the individual owner is not liable for any expenses other than the normal fee.

The alternate procedure is the Individual Issuance, which is done on the request of the individual claiming land for issuance of a title deed. In this instance the individual receiving the title deed is liable for all expenses.

The title deed contains the name and residence of the landowner, the location of the land, a map of the plot of land with an index of registration. It is signed by the land official and the provincial governor and it is affixed with official seals.

As a clear title, this deed is transferable. There are, however, certain limitations placed on the title holders. Should he, for example, fail to use the land for five consecutive years, ownership of the land reverts to the state. The holder of the Title Deed also may lose his ownership if another person peacefully and openly possess the land with

the intention of being its owner for an uninterrupted period of ten years.

Of the 10.6 million plots of land identified in Thailand only 3,066,783 (29%) are registered as Naw Saw 3 lands while 2,618,349 (25%) are registered as Title Deed lands. This means that a total of 5,685,132 plots or 54 percent of the total identified have been subject of the land tenure procedures. The relatively low number of Naw Saw 3 Certificates of Land Utilization and Title Deeds issued since 1954 are attributed by the Land Department to the ever-increasing work load and the limited staff (the Land Department has requested support from the U.S. Aid Program in FY 1979 to organize a Computerized Land Registration Project).

It is noted below that some of the Karen who have farmed in lowland areas for generations have title to their lands, although the source of this information does not specify whether they have Naw Saw Certificates of Land Utilization or Title Deeds. Given the character of the land law, however, it is clear that no highland farmer cultivating fields in the mountains whether they be swiddens, terraces, or small upland paddies has either type of land title. It also is unlikely at this stage that any of the Certificates of Land Right (Ekasarn Sid Nai Tidin), a long-term lease officially known as a Temporary Land Development Contract in Land Reform Areas, issued by the Agricultural Reform Office, have been given to hill people. These certificates are for use of land that is affected by the Agricultural Land Reform Program that resulted from the 1975 Land Reform Act.

Certificates of Land Rights are issued for land in areas that are state-owned (such as national forest preserves) where it is prohibited to grant land titles of any kind. The recipient of a certificate of Land Rights is a lease and his lease cannot be transferred although it can be inherited. Section 8 of the Land Code provides that should land of the public domain cease to be used as public land, it can be reclassified as private land by Royal Decree, thus permitting the agricultural Land Office to issue Naw Saw 3 Certificates to the individual holding a Certificate of Land Rights lease.

It would appear the only a few of the hill people who have long been farming paddy fields in the lowlands have either Saw Kaw I Certificates of Land Occupancy or Naw Saw 3 Certificates of Utilization. According to the letter of the Thai Land Code, the hill people practicing swidden farming are in violation of the law. According to the Land Code, persons who have neither the right of possession nor permission from the land officer are forbidden: (1) to hold or to take possession of land belonging to the State or to damage or set fire to forest; (2) to destroy or damage State land within localities declared by the Ministry of Interior in the Royal Gazette; and (3) to do anything tending to destroy natural resources in State land. As Judge Sophon Ratanakhon (Ratanakhon, 1978:49-52) points out, "Thus a person who practices swidden cultivation starts his business by committing a crime as soon as he moves onto the land. When he begins to clear the ground by cutting and burning trees, he breaks another law and he remains liable to punishment as long as he stays on the land. After

a few years, if the land is exhausted and he moves to a new site, he commits a new series of crimes."

Still, as Judge Ratanakhon notes that "one who holds land with the intention of keeping it for himself, even illegally, may be considered to have possession of the land by the Law of Property." Therefore a person practicing swidden farming has the right not to be disturbed or deprived of his land by unlawful interference by any other private citizen, although he may lose the land if the government wants it. A swidden farmer, however, who leaves a swidden to fallow, loses his claim to that land.

Concerning swidden farming, Judge Ratanakhon observes that:

"It is time for the government to make a careful and serious study of all kinds of shifting cultivation in all areas. That which is harmful to the economy of the nation should be put to an end. If there is any good reason for not enforcing the law prohibiting it, then some other effective measures should be adopted to deter it. If it is proved that shifting cultivation of some kinds or in some areas is not harmful and could be allowed, then the occupation of the land for this kind of farming which now is illegal must be legalized. This means that such cultivation should be allowed on hill and mountain land on which shifting cultivation could be carried out without endangering natural resources. If it is the government's policy not to allow anyone to have title to land on hills and mountains, then the government should grant some kind of long lease to people who already occupy it. Such a lease would make occupation of such land legal and under control of the government. This would be better than allowing people to commit a crime without punishment, which is not a good policy from the administrative point of view. This would also encourage people to develop neglected land and turn it into cultivated fields. Under the present circumstances one cannot expect people who practice swidden cultivation to establish stabilized farms or to invest their money to develop land in which they can never have any proper right."

Judge Ratanakhon concludes his discussions of highland land problems with the following opinion regarding the highlanders' land claims:

"To implement the government's existing plans to control and improve their areas of cultivation, suitable measure must be set up which conform with the government's policy for conservation of the nation's natural resources. Some kind of right in the land they occupy should be recognized and regulated to prevent disputes and to encourage their sense of belonging to the land. Some of the hill people's customs may have to be recognized by law, such as the custom that land may belong to a family or to a community, and the custom that the one who first clears the land retains use-rights to it and can always come back to the land even if he leaves it for some years. According to the present law only a person, natural or juristic, can hold land. A family, a group of persons, or a community cannot, since they are not legal entities and therefore can have no right, unless they form themselves into a juristic person, such as a company, association, or cooperative."

PART 4

Socioeconomic Conditions Prevailing  
Among Northern Thailand Highlanders

Introduction

The present analysis is based upon a large survey of socioeconomic status of hill people conducted by the Tribal Research Center (TRC) of the Public Welfare Department (PWD). The survey has been conducted over a three year period starting in 1975 and is continuing at present.

At completion, TRC will have interviewed an estimated 14,000 people representing 2,200 families located in some 17 watersheds of Northern Thailand. The total highlander population of Northern Thailand is estimated to range between 300,000 and 500,000 persons. If we use the average figure 400,000 as a reasonable estimate for the highland population, the TRC survey represents a sample size of 3.5% of the total number -- very large indeed.

USAID/Thailand has been fortunate in receiving, through the auspices of PWD and TRC, 9 of 17 watersheds for which data are currently available. Within these 9 watersheds, 9 district ethnic groups are represented. Our sample size is 9,568 people in 1,523 households or 2.4% of estimated total population. The overall accuracy of the survey is yet to be tested and hence the data should be viewed as preliminary and subject to possible revision. Data for two watersheds have been revised and the revisions did not change data values by more than five percent. Further, we can say that the TRC is staffed with knowledgeable and conscientious people

and the author would be very surprised to find large magnitudes of error. Moreover, working in favor of accuracy in prediction, is the large size of the sample. Systematic bias (interviewer consistently committing the same error) may be present within a watershed but this bias should not occur over all watersheds as different teams canvassing each watershed can be expected to commit different errors.

The selection of 17 watersheds from the many hundreds available was not done on a random basis. The selection criterion appears to be watersheds where PWD already has established field offices. It is not certain how this bias affects the data but it is probable that the survey watersheds are more accessible. This being the case we can expect that the level of socio-economic indicators for our sample are higher than prevail among hill people in general.

Below, we begin our discussion of the several socioeconomic variables in the following order: land use; household size; social integration; rice sufficiency; cash income; income distribution; durable goods and services; cash crop income; and, household expenditures. Each of the variables (with exceptions noted) will be analyzed for each ethnic group and by elevation of village. Following the analysis of the socio-economic variables is a section called the Determinants of Opium Production which test the various variables for their influence upon opium activity. We end the statistical portion of the Report with a health survey Appendix D.

Land Use

There are basically three types of agriculture in the hill regions: stable, rotation and swidden (slash and burn). The survey reports that 31% of agricultural land is given over to stable farming and 12% is rotation and 57% is swidden farming. Obviously, crop substitution in particular and agriculture programs in general must recognize the importance of swidden farming. Further, it is important to recognize that within all three farm systems upland paddy is by far the most important crop. Paddy accounts for 78%, 83% and 66% of rai in stable, rotation and swidden farming, respectively. Only within the swidden system does poppy cultivation assume importance -- accounting for 5% of swidden rai. In three of nine watersheds no poppy cultivation was reported. The fact that only 5% of swidden (and virtually no rai in stable and rotation farming) is given over to poppy growing runs counter to the popular image of large tracts of land given to opium production. In Table 28 below, we have data for twenty villages that reported some rai in poppy production. Two caveats are in order here: first, a twenty village sample, from the many hundreds that exist, is very small and generalizations are therefore dangerous; secondly, the reported rai in poppy is undoubtedly biased downward due to the illegal nature of the activity. With these reservations in mind we note that the average number of rai in poppy is 22 rai per village (the variance from mean, however, is large). The Tribal Research Center of PWD reports that there are about 2,200 hill tribe villages scattered throughout Thailand. This would indicate that perhaps 48,400 rai are in poppy production throughout hill tribe areas (22 rai/village x 2,200 villages = 48,400). This is an estimate considerably less than has been previously put forward.

Household Size and Population Age Distribution

Data from the 1970 census (the latest available complete data) tell us that average household size in rural Thailand is 6.4 persons per household. The highland household average of 6.3 (Table 8) is not statistically different from the whole of rural Thailand. Looking at Table 8, the Meo and Yao appear to have significantly larger families. Statistically however, only Yao households are larger than Thailand's rural average. The Lisu, on the other hand, have statistically smaller households than the average for rural Thailand. We conclude that hill groups (excepting Lisu and Yao) do not have smaller or larger households than exist in the average Thai rural family. Moreover, the age structure for highland groups is virtually identical to that of Thai society in general (excepting the over fifty age group where the Thai populace has two percent more people aged fifty or over indicating a slightly longer lifespan).

Various authors and institutes have put highland population growth rates at between 3.5 and 4.0 percents. If these very high growth rates are reasonably accurate and the household size and age distribution in Table 8 are also accurate then child mortality among hill people must be exceedingly large. Unfortunately, we do not have child mortality data from the TRC survey and cannot confirm the above suspicion. It remains an open question and an obvious area for further examination.

Table 8

Household Size and Population Age Distribution by Ethnic Group

<u>Ethnic Group</u>	<u>Persons/ Household</u>	<u>% Age 0-6</u>	<u>% Age 7-14</u>	<u>% Age 15-49</u>	<u>% Age Over 50</u>
Akha	6.3	20 %	23 %	50 %	7 %
Htin	5.8	23	25	47	6
Karen	5.7	22	21	48	9
Khmu	6.3	24	23	45	8
Lahu	6.2	29	23	43	5
Lisu	5.3	24	21	44	11
Meo	7.0	27	22	44	8
Shan	6.0	21	26	45	8
Yao	7.9	23	23	44	10
<hr/>					
Average	6.3	24 %	23 %	45 %	8 %
National Ave.	6.4	23	23	44	10

If we array the data on the basis of elevation, as opposed to ethnic identity, we get much the same picture. Lower elevation hill people living in altitudes 900 meters or below do not have statistically larger or smaller household size than the national rural average. However, groups above 900 meters elevation (Akha, Lahu, Meo and Yao) do have statistically larger families (Table 9). Again, the age composition of the population is very close to the national average and appears to be unaffected by altitude at which the highlanders live.

Table 9

Household Size and Population Age Distribution by Elevation

<u>Elevation (Meters)</u>	<u>Persons/ Household</u>	<u>% Age 0-6</u>	<u>% Age 7-14</u>	<u>% Age 15-49</u>	<u>% Age Over 50</u>
100-300 <u>1/</u>	6.0 %	22 %	20 %	49 %	9 %
301-600 <u>2/</u>	6.1	23	23	45	9
601-900 <u>3/</u>	6.0	22	22	47	9
900 + <u>4/</u>	7.9	25	22	45	8
National Ave.	6.4	23	23	44	10

1/ At this elevation the following groups are found: Karen and Khmu.

2/ Lahu, Lisu, Yao, Karen, Khmu, Htin, Shan, and Meo.

3/ Karen, Lahu, and Akha.

4/ Akha, Lahu, Yao, and Meo.

## Social Characteristics

### A. Social Integration

On an ethnic group basis we have data showing the extent to which various groups have complied with the legal requirements of officially registering their presence in Thailand and obtaining Thai Identification Documents. These actions, we believe, are fairly good proxies for social integration. It indicates, on the part of hill people, an awareness of and/or a willingness to comply with Thai law. Moreover, this same data show the extent to which RTG officials either have failed or been successful in reaching remote hill people. Registration and identification are both crucially important to living in Thailand as all business with RTG entities must first be preceded by submission of these documents. Despite the importance of registration and documentation it would appear that a concerted effort, on the part of Thai officials and the hill people, has not been made to comply with legal residence requirements. This is especially true when we recall that these watersheds, from which the present data come, already have Thai government offices.

Since both documents are necessary to conduct official business the total column in Table 10 is misleading since it only points out the percentages that have registered or possess an ID card. Unfortunately we do not have data reporting the numbers who have registered and have an ID card.

Table 10

Social Integration by Ethnic Group

<u>Ethnic Group</u>	<u>Officially Registered</u>	<u>Possess ID Card</u>	<u>Total</u>
Akha	-0- <u>1/</u>	-0- <u>1/</u>	-0- <u>1/</u>
Htin	28 %	22 %	50 %
Karen	53	33	86
Khmu	75	22	97
Lahu	61 <u>2/</u>	4	65
Lisu	-0-	-0-	-0-
Meo	22	1	23
Shan	99	1	100
Yao	44	21	65
Average	<u>42 %</u>	<u>12 %</u>	<u>54 %</u>

1/ Only one village surveyed.

2/ Only two villages surveyed.

As expected, social integration (as measured by our proxies) diminishes as village elevation rises. Higher elevation implies more remoteness and correspondingly less communication between hill people and lowland Thai.

A statistical aberration occurs at the 601-900 meters range where we find the percents of registered and ID card holders lower than the next highest elevation. This occurs because of a preponderance of Akha villages at this level and the Akha have zero percent registered or possessing ID cards.

Table 11

Social Integration by Elevation

<u>Elevation (Meters)</u>	<u>Officially Registered</u>	<u>Possess ID Card</u>	<u>Total</u>
100-300	67 %	28 %	95 %
301-600	50	19	69
601-900	26	8	34
900 +	36	17	53

B. Opium Addiction

Opium addiction (we believe this survey uses a definition similar to what would be used by Western medical doctors) differs widely among ethnic groups and between sexes within these groups. The principal abusers appear to be males in the Akha, Lahu, Lisu, Meo and Yao tribes. Students of hill people have indicated to the author that opium addiction or heavy use is neither condoned nor long tolerated by village society. Addicts are a constant source of societal disruption due to their inability to engage in productive activity and their constant need to search for and steal opium intended for market. The social

stigma attached to addiction gives interviewee's every reason to deny addiction and it is almost certain that the data underestimate the true extent of opium addiction.

Opium addiction in Thailand (which may or may not include an estimate for hill people) is put at 400,000. This represents about .09% of Thai society which is considerably below the hill people average of 4.7%. Obviously opium addiction is a serious hilltribe problem.

Further analysis of data from the remaining watersheds and data from other sources may point out that the addiction problem is sufficiently serious so as to make crop substitution unworkable without accompanying detoxification programs. The Akha, Lahu and Yao have 10.3%, 8.7% and 10.5%, respectively, of their population addicted to opium. Indeed, the level of addiction among most ethnic groups is so high as to warrant immediate consideration of drug abuse programs. It is difficult to understand how poppy production can be reduced in the face of such high addiction rates as are reported in Tables 12 and 13.

Table 12

Opium Addiction By Ethnic Group

<u>Ethnic Group</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Akha	8.4 %	1.9 %	10.3 %
Htin	-0-	-0-	-0-
Karen	0.9	0.06	.96
Khmu	0.3	-0-	0.3
Lahu	6.1	2.6	8.7
Lisu	3.9	2.7	6.6
Meo	4.0	1.2	5.2
Shan	-0-	-0-	-0-
Yao	7.3	3.2	10.5
	<u>3.4</u>	<u>1.3</u>	<u>4.7</u>
Average	<u>3.4</u>	<u>1.3</u>	<u>4.7</u>

On an elevation basis, addiction is not serious among the population living in low altitude areas, i.e. 100-600 meters. This is probably based upon the fact that opium poppy will not grow below 900 meters elevation and the ethnic groups living at lower levels simply do not have access to production sites. Moreover, drug consumption at lower altitudes is more dangerous due to the greater police presence. That heavy use of opium is greater in more remote areas corresponds with the above findings; Akha, Lahu, Lisu, Yao and Meo, who are the principal abusers, also live in the highest regions.

Finally, it is undoubtedly true that remoteness not only hampers the ability to suppress production but also decreases the ability to educate against drug consumption.

Table 13

Opium Addiction By Elevation

<u>Elevation (Meters)</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
100-300	0.1%	-0-	0.1%
301-600	1.1	1.0%	2.1
601-900	5.1	1.2	6.3
900 +	4.1	1.2	5.3

C. Educational Attainment

As demonstrated in Table 14 below only the Shan are roughly comparable to Thai national averages for educational attainment. The Meo, Akha and Lahu are woefully deficient in the numbers of school children they enroll in Thai public schools. Language and other cultural barriers as well as physical remoteness obviously play a part in the low education levels. The Meo, Akha and Lahu are among those groups that inhabit the highest elevations where the number of schools per population rapidly diminishes and Thai language ability falls markedly.

Table 14

Educational Attainment By Ethnic Group

<u>Ethnic Group</u>	<u>No Education</u>	<u>Grade 1-4</u>	<u>Temporary Primary and Adult Education</u>
Akha	95 %	5 %	<u>1/</u>
Htin	84	15	<u>1/</u>
Karen	72	21	4
Khmu	50	45	5
Lahu	93	7	<u>1/</u>
Lisu	76	13	11
Meo	99	<u>1/</u>	<u>1/</u>
Shan	31	69	-0-
Yao	80	13	5
Average	76%	21%	3%
National Ave.	26	62	12

1/ Less than 1%.

As indicated in Table 15 below, the no education level increases from roughly two times the national average in the 100-300 meter altitude to three and one-half times the national average in the 900 meters plus elevation.

Table 15.

Educational Attainment by Elevation

<u>Elevation (meters)</u>	<u>No Education</u>	<u>Grade 1-4</u>	<u>Temporary Primary &amp; Adult Education</u>
100-300	53 %	40 %	3 %
301-600	74	21	3
601-900	82	13	3
900 +	89	8	1

D. Thai Language Ability

As is the case with educational attainment only the Khmu and Shan, many of whom are enrolled in Thai public schools, have a high degree of Thai language ability. Only 10% of the Khmu and 7% of the Shan have no Thai language skill at all; 35% of the Khmu and 62% of the Shan understand, speak, read and write Thai. The Akha, Lahu, and Meo, who as mentioned earlier, have large percentages of population with no education, correspondingly show high proportions with no Thai language ability. No Akha surveyed read or write Thai and only a small proportion can understand and speak. If we exclude the Khmu and Shan, 51% of the hill tribes have no Thai language ability at all. This statistic has important implications for the RTG and foreign donors. Program success, to a large degree, will probably depend upon what language is employed in the program. It will be difficult to find project managers knowledgeable in both Thai and tribal

languages and hence language will probably be a constraint working against large size programs.

Table 16  
Thai Language Ability by Ethnic Group

<u>Ethnic Group</u>	<u>No Ability</u>	<u>Listen, Speak Read, Write</u>	<u>Listen, Speak, Read</u>	<u>Listen, Speak</u>	<u>Listen</u>
Akha	71%	-0-	-0-	9%	29%
Htin	19	6%	8%	76%	81
Karen	40	21	21	55	60
Khmu	10	35	37	88	90
Lahu	70	5	5 1/2	19	30
Lisu	55	12	NA	42	45
Meo	66	5	5	32	34
Shan	7	62	63	92	93
Yao	<u>34</u>	12	15	60	66
Average	41 %				

1/ Data are not available for one watershed.

As expected the percentage of those with no Thai language ability is smallest in the lowest elevation. Lack of language ability increases with altitude and is highest among those living in the 601-900 meter elevation. In the remote areas, above 601 meters only 9% of the total

population can understand, speak, read, and write Thai. We again encounter the statistical aberration where Thai language ability increases when moving to the 900 plus elevation. In this case it is due to the preponderance of Yao who possess a moderate degree of Thai language ability.

Table 17

Thai Language Ability by Elevation

<u>Elevation (meters)</u>	<u>No Ability</u>	<u>Listen, Speak, Read, Write</u>	<u>Listen, Speak, Read</u>	<u>Listen, Speak</u>	<u>Listen</u>
0-300	14%	37%	39%	83%	86%
301-600	34	16	18	60	66
601-900	70	9	10	24	30
900 +	49	9	11	46	51

E. Principal Occupations

Most ethnic groups have about half of their total population engaged in farming activity. The exception is the Lisu, where the percentage is only 34%. Moreover, Lisu have more people classified as household workers than do other groups. The Akha, Lahu and Meo have very low proportions of population who are students. On the other hand, the Shan, who we previously saw are better educated and more able in Thai language, also report the greatest proportion of students, i.e. 32%. Shan also have the lowest percentage (7%) of population who are not in labor force which contrasts

to 20-35% for other ethnic groups. The number of people engaged in business, trade or government work is uniformly small for all groups.

Table 18

Principal Occupations by Ethnic Group

<u>Ethnic Group</u>	<u>Farmer</u>	<u>Household Worker</u>	<u>Student</u>	<u>Not in Labor Force</u>	<u>Business, Trade, Govt., Other</u>
Akha	44 %	15 %	5 %	34 %	2 %
Htin	54	7	8	30	1
Karen	49	11	13 <u>1/</u>	23	4
Khmu	51	7	17	23	2
Lahu	48	7	7	37	1
Lisu	34	22	17	25	2
Meo	54	8	2	35	1
Shan	46	15	32	7	-0-
Yao	46	10	14	27	3
Average	<u>47%</u>				

1/ Data are not available for one watershed.

When the data are arranged by elevation there are no differences in the proportion of farming population. About half of the work force are farmers regardless of elevation. The same holds true for the percentage of household workers. However, with respect to students and business, trade and government activity it is worth noting that the higher the altitude

the less important are these categories. Finally, we note that those not in the labor force tends to increase as elevation rises, indicating a higher dependency ratio in the more remote areas.

Table 19

Principal Occupations by Elevation

<u>Elevation (meters)</u>	<u>Farmer</u>	<u>Household Worker</u>	<u>Student</u>	<u>Not in Labor Force</u>	<u>Business, Trader, Govt., Other</u>
0-300	48 %	10 %	16 %	20 %	6 %
301-600	48	11	13	25	3
601-900	52	6	2	36	4
900 +	48	10	7	31	4

Rice Sufficiency By Ethnic Group and Elevation

In this section we do not discuss rice sufficiency in any detail. A rather extensive discussion of this topic appears in the next section entitled Determinants of Opium Production.

Hill people were asked if they had sufficient rice to carry their families through the year. As is seen below the percent of affirmative answers is quite low. Rice sufficiency differs widely by group with only 15% of Htin villagers producing sufficient rice as opposed to 53% of the Shan. All tribes, however, clearly produce too little rice with an average rice sufficiency of 37%.

Table 20

Percentage of Population By Ethnic Group With Rice Sufficiency

<u>Ethnic Group</u>	<u>%</u>
Akha	28
Htin	15
Karen	50
Khmu	42
Lahu	33
Lisu	36
Meo	43
Shan	53
Yao	<u>35</u>
Average	<u>37%</u>

As indicated in Table 21 below, rice sufficiency appears to be unaffected by village elevation.

Table 21

Percentage of Population By Elevation With Rice Sufficiency

<u>Elevation (meters)</u>	<u>%</u>
0-300	52
301-600	36
601-900	47
900 +	34

### Cash Income By Source

Two features stand out in Tables 22 and 23 below: first is the very low absolute level of cash income and second is the predominance of agricultural income as a percent of total cash income. The first piece of information conveys the degree of market integration by ethnic group. Cash per capita incomes range from a low of \$14.84 for the Meo to a high of \$47.82 for the Yao. The figure for the Yao is high relative to Khmu and Shan (who we know to be better economically and socially integrated into Thai society) and probably include income from opium sales.

Average per capita cash income for farmers in the Northern region has been estimated to range from a low of about \$68 to a high of about \$92. In comparison, highland ethnic groups are very low in their degree of involvement with the market economy.

Secondly, agriculture as a source of income varies from 38% to 80% of total cash income. The Akha, Lahu and Yao, in particular, derive more than half their total cash earnings from agriculture. By dividing agricultural income into its crop and livestock components we can see that importance of each varies widely by ethnic group. Livestock income, for example, is as important as crop income for the Akha, but this does not hold true for the Htin, Khmu, or Meo. Similarly, salary and wage hire are important for the Htin, Khmu and Karen, where it amounts to over 30% of total cash income. These groups, however, generally live at 600 meters or below. In contrast, salary and wages are of minor importance for the Meo and Lahu who generally live at 900 meters and higher. Hunting

and gathering is another widely varying source of income, forming as high as 34% of total Meo cash income but only 1% for the Lahu. For all groups, however, cottage industry is of small importance ranking from zero earnings for the Meo to less than 5% of total cash income for others.

Clearly, whether on an ethnic group or an elevation basis, agriculture is the predominant source of cash income. Cottage industry and business activity are very minor sources of cash income.

Table 22

Average Annual Per Capita Cash Income by Source and as % of Total Money Income  
\$ per year (% of total)

Ethnic Group	Agricultural Income		Non-Agricultural Income					Total Cash Income Per Capita
	Crops	Livestock	Salary and Hire Wage	Hunting-Gathering	Cottage Industry	Religious	Business	
Akha	\$ 7.41 (32)	\$ 9.07 (38)	\$ 3.45 (15)	\$ 2.27 (10)	\$ 0.77 (3)	\$ 0.19 (1)	\$ 0.21 (1)	\$ 23.37 (100)
Htin	5.81 (37)	0.19 (1)	7.22 (46)	2.17 (14)	0.02 (0.1)	-0-	0.31 (2)	15.72 (100)
Karen	8.75 <u>1/</u> (25)	6.57 <u>2/</u> (19)	11.92 (33)	4.91 (14)	0.33 (1)	0.39 (1)	2.57 (7)	35.44 (100)
Khmu	12.38 (33)	2.12 (6)	14.53 (38)	3.53 (9)	0.07 (0.2)	<u>3/</u>	5.46 (14)	38.09 (100)
Lahu	14.15 (60)	4.66 (20)	3.50 (15)	0.31 <u>4/</u> (1)	0.13 (1)	0.08 (0.3)	0.61 (3)	23.44 (100)
Lisu	13.50 (39)	6.21 (18)	9.38 (27)	1.77 (5)	1.24 (4)	0.21 (1)	2.02 (16)	34.33 (100)
Meo	7.68 (52)	0.40 (3)	1.62 (11)	5.05 (34)	-0-	-0-	0.09 (0.6)	14.84 (100)
Shan	8.19 (32)	2.49 (10)	5.53 (21)	8.20 (32)	0.03 (0.1)	0.62 (0.07)	1.30 (5)	25.76 (100)
Yao	27.84 (59)	7.14 (15)	7.63 (16)	1.03 <u>4/</u> (2)	1.09 <u>4/</u> (2)	0.71 (1)	2.38 (5)	47.82 (100)

1/ Including forestry income in one watershed.

2/ Excluding data for one watershed.

3/ Almost nil.

4/ Data are not available for one village.

Table 23

Average Annual Per Capita Cash Income by Source and as % of Total Money Income  
\$ per year and (% of total)

<u>Elevation (meters)</u>	<u>Agricultural Income</u>		<u>Non-Agricultural Income</u>				<u>Total Cash Income per Capita</u>	
	<u>Crops</u>	<u>Livestock</u>	<u>Salary and Hire Wage</u>	<u>Hunting- Gathering</u>	<u>Cottage Industry</u>	<u>Religious Business</u>		
0-300	\$21.54 (41)	\$ 4.58 (9)	\$ 18.53 (35)	\$ 4.11 (8)	\$ 0.61 (1)	\$ 0.24 (0.5)	\$ 3.12 (6)	\$ 52.73 (100)
301-600	7.82 (29)	4.52 (17)	7.12 (26)	4.46 (16)	0.37 (1)	0.16 (0.6)	2.78 (10)	27.23 (100)
600-900	5.45 <u>1/</u> (29)	2.49 <u>2/</u> (13)	6.57 (36)	1.31 <u>2/</u> (7)	0.35 (2)	0.06 (0.3)	2.49 (13)	18.72 (100)
900+	21.26 (64)	2.81 (8)	6.69 (20)	0.24 (0.1)	-0-	0.02 (0.05)	2.69 (18)	33.71 (100)

1/ For seven villages this also includes forest income.

2/ For this category data are not available for seven villages.

Money Income Distribution

In Table 24 we have, for each ethnic group, the absolute number of families that fall into various income classes. Table 25 depicts the same but on an elevation basis. As is readily seen in each of the tables, income is not uniformly distributed and it is a mistake to think that ethnic groups are homogeneous in terms of income. On the one hand, Htin and Karen have the largest percentages of households in the lowest income classes of \$99 and below with 78% and 71%, respectively. The Yao, Lahu and Lisu, on the other hand, have the largest percentages of household in the highest income classes of \$350 and above with 32%, 13% and 10%, respectively.

55% of highland households earn \$99 or less of cash income or about \$16 or less per capita cash income. This unfavorably compares to a cash income per person range of \$68 to \$92 for Northern Thai. Families in this low cash income bracket typically have 63% of total income as income in-kind. Estimated total income per capita for highlanders, then, would be about \$41. This is very low indeed and well below the World Bank's absolute poverty level of \$78.

Interesting, but not surprising, is the fact that the percentage of households in \$350 and below classes fall as elevation rises or the percent of incomes above \$350 rises as village elevation also rises. We do not interrupt this as greater wealth and monetization being associated with remoteness. We think the phenomenon is undoubtedly due to the presence of opium production and marketing at this higher elevations. Table 25 reveals that opium marketing appears to be important

(\$500 cash income per household is very large for hill people) for a small number of families at 601 meters elevation and higher. If this is factually correct it follows that police suppression and bringing social pressure to bear upon these marketers should be an effective method to combat opium activity (see further discussion under Cash Crop Income below).

Table 24

Distribution of Household Cash Income by Ethnic Group

<u>Income</u>	<u>Akha</u>	<u>Htin</u>	<u>Karen</u>	<u>Khmu</u>	<u>Lahu</u>	<u>Lisu</u>	<u>Meo</u>	<u>Shan</u>	<u>Yao</u>
\$ 0-49	14	44	177	67	17	4	73	3	24
50-99	22	28	123	69	40	15	25	21	18
100-149	16	13	51	44	19	7	28	10	14
150-199	6	7	32	32	11	7	19	6	21
200-249	7	1	10	18	10	6	8	4	14
250-299	6	2	10	4	5	4	7	2	17
300-349	3	-	7	8	1	1	3	1	8
350-399	1	-	2	5	6	2	5	-	10
400-449	1	-	3	5	1	-	3	-	1
450-499	-	1	-	6	5	-	1	-	7
Over 500	2	1	10	9	4	3	3	2	37
Total Number of Households	78	97	425 <sup>1/</sup>	267	119	49	175	49	171

<sup>1/</sup> Not all households reported their income.

Table 25

Distribution of Household Cash Income by Elevation

<u>Income</u>	<u>0-300</u>	<u>301-600</u>	<u>601-900</u>	<u>900 +</u>
\$ 0-49	50	260	107	37
50-99	74	264	65	20
100-149	4	162	29	13
150-199	4	120	16	8
200-249	3	65	12	6
250-299	-	52	7	9
300-349	2	33	7	4
350-399	1	24	4	6
400-449	-	13	2	2
450-499	-	17	1	5
<u>Over 500</u>	<u>1</u>	<u>48 <sup>1/</sup></u>	<u>9</u>	<u>21 <sup>2/</sup></u>
 Total Number of Households	 <u>139</u>	 <u>1,058 <sup>3/</sup></u>	 <u>259</u>	 <u>131</u>

1/ The large number of families (albeit small percent) earning over \$500 at this elevation is probably due to legal economic activity in the lowlands and not to highland poppy cultivation.

2/ This high number of families (16% of all families at 900 meters and over) earning over \$500 is, we believe, due to opium marketing. If this is correct, opium marketing (as opposed to home use) is highly concentrated among a relatively small number of households.

3/ Not all households living at this elevation reported their income.

Per Capita Durable Goods and Services

For the nine ethnic groups we have average population per durable good or social service for eight important goods or services. As the number of observations per ethnic group were too few to disaggregate, we do not have available goods and services by individual ethnic group. Below are the averages:

435	person per school;
957	" " rice mill;
638	" " sewing machine;
354	" " sundry goods store;
141	" " bicycle;
145	" " ox-cart;
683	" " motor cycle; and,
14	" " radio receiver

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Unfortunately, we lack national averages with which to make comparison, but it would seem to us that the population per rice mill, sewing machine and motorcycle are rather high, if not by Thai national standards. The truly surprising statistic is the large number of radios per population. 14 people per radio means that approximately half of all hilltribe families own a radio. The implications for communications, education and agricultural extension are enormous. We are told there already exist radio stations programming in hill tribe languages and these stations can reach the remote watersheds. It would seem that a decline in cultural autonomy is inevitable due to

the large number of radio sets already in the hills.

Cash Crop Income

Tables 26 and 27 below present data on the five most significant cash crops. Of greatest interest is the opium crop which is significant as a cash crop for only the Htin, Meo and Yao, opium becomes more important as village elevation rises.

Also important is the status of sesame as a cash crop. For each ethnic group that reported any production, sesame is an important source of cash income. In terms of elevation, however, (and especially at the 900 meters or higher altitude) sesame is distinctly inferior to tea as an important source of cash income.

Perhaps the most important point to be learned from Tables 26 and 27 is that, on average, opium is a very marginal money earner for the great majority of households. It appears to be important only to the Htin, Meo and Yao and then only for those villages living at the highest altitudes. Since opium production is of great interest, we have (in Table 28) listed the twenty villages (of sixty\* in our sample) that reported any rai in poppy production. Clearly, opium production is concentrated in the Meo and Yao villages and is an important source of cash income in only a few villages (for the Htin, opium is relatively important as a source of cash crop income, but there was significant under reporting of the number of rai devoted to it). Opium production for market is not a generalized phenomenon among hill tribe households. Moreover, this conclusion confirms our earlier analysis that household

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\*Regarding opium production we received data for one additional watershed and hence, in this instance, our sample size is sixty villages as opposed to fifty-one for other variables.

cash incomes in excess of \$500 are concentrated among a few households and this is certainly due to opium marketing activity.

These conclusions, if correct, have wide ranging significance for future hilltribe programs. First and most obvious is that suppression of opium production will be made easier if enforcement is concentrated upon a few major growers in certain ethnic villages that are found above 900 meters. Secondly, it means that a narrowly defined program of crop substitution or wider involvement with integrated rural development can be elevation specific. An elevation specific program has the advantage of bringing limited resources to bear upon the major opium growing target group. Integrated rural development is possible with limit personnel and funds when it is elevation specific, i.e. concentrating programs among the worst opium producing groups at the highest elevations.

Table 26

Percent\* of Crop Cash Income Derived from Major Crops by Ethnic Group

<u>Ethnic Group</u>	<u>C R O P</u>				
	<u>Sesame</u>	<u>Soybean</u>	<u>Opium</u>	<u>Paddy</u>	<u>Corn</u>
Akha	70%	NA	NA	14%	NA
Htin	NA	NA	21%	NA	78%
Karen	40 <u>1/</u>	5% <u>2/</u>	1 <u>2/</u>	24 <u>3/</u>	26 <u>1/</u>
Khmu	NA	NA	1 <u>2/</u>	2 <u>2/</u>	78
Lahu	92	7 <u>2/</u>	NA	4 <u>2/</u>	1 <u>4/</u>
Lisu	62	24	1	6	4
Meo	NA	NA	21	6	77
Shan	NA	NA	NA	NA	99
Yao	35 <u>1/</u>	37 <u>2/</u>	11 <u>1/</u>	10 <u>4/</u>	26

\* Percents will not sum to 100 due to differing sample sizes.

1/ Only 3 watersheds are covered in this average.

2/ Only one watershed is covered.

3/ Only 4 watersheds are covered.

4/ Only 2 watersheds are covered.

Table 27

Percent of Crop Cash Income Derived from Various Crops

<u>Elevation</u>	<u>C R O P</u>							
	<u>Sesame</u>	<u>Soybean</u>	<u>Opium</u>	<u>Paddy</u>	<u>Corn</u>	<u>Ground-Nut</u>	<u>Chilli</u>	<u>Tea</u>
0-300	2%	3%	0.3%	6%	50%	1%	12%	1
301-600	34	8	5	5	42	0.5	2	<u>1/</u>
601-900	70	0.6	-	13	1	-	6	-
900 +	6	-	10	1	15	-	-	68

1/ Almost nil.

Table 28

Opium Production and Income

<u>Watershed</u>	<u>Ethnic Group</u>	<u>Village Population</u>	<u>Rai in Poppy Production</u>	<u>Cash Income From Poppy (\$)</u>
Mae Kaning	Yao	59	6.5	-
	Khmu	380	2.0	10.00
	Yao	99	11.0	280.00
	Meo	481	188.2	1,885.00
	Yao	176	4.0	46.10
	Yao	162	9.0	-
	Htin	130	1.6	420.00
Bun Sopit	Htin	432	5.0	77.50
	Meo	655	22.0	100.00
	Khmu	189	16.0	-
Tha Lamyai	Karen	167	2.0	45.00
Nam Chan	Lahu	69	2.0	-
	Lisu	260	3.0	50.00
	Yao	179	77.5	1,836.50
Mae Sai	Lahu	84	4.5	NA
	Yao	238	42.5	NA
Huai Chompu	Yao	400	31.5	229.00
	Lahu	196	1.0	-
Wang Pang	Yao	126	2.0	100.00
	Yao	106	3.0	20.00
		<u>4,588</u>	<u>434.3</u>	<u>\$ 5,099.10</u>

### Household Expenditures

Expenditures data are not available for the Htin, Meo and Shan. For those tribes for which we have data the incidence of non-reporting is high. Further, expenditures in most cases were reported from memory and caution must be exercised in interpreting this data. We regard the data as impressionistic and only indicative of general magnitudes. Expenditures data on an elevation basis are far too deficient to warrant discussion.

Of primary interest is the general low level of expenditures which (as in the case of money income) indicate a low degree of monetization. Five of the six ethnic groups for which we have data have annual household expenditures between \$34 and \$44. The Yao lead with expenditures of \$93. These levels of hill tribe household expenditures are far below those of Northern Thai farm households. A 1973-74 farm income and expenditure survey indicates that Northern Thai farm families expend about \$224 annually for food, medicine, clothing and education. The comparable figure for hill people is roughly \$26.

Also of interest are the proportionate amounts of expenditures by category. Consistent with our rice deficiency data, the largest expenditures are upon rice and other food. Opium expenditures account for 12% to 25% of total expenditures. Spending upon medicine and hospitalization is very low. Farm input expenditures are so low as to indicate that little or no modern farm inputs are currently employed.

The overall picture given by the expenditures data is that of a group that appears to be on the threshold of monetization. Their subsistence agriculture is not sufficient and hence the most important portion of their trading activity is for food. The very low levels of spending upon household and personal items indicate how distant they are from even elementary consumerism.

Table 29

## Average Annual Household Expenditures by Tribe \$ per Year and (% of Total Expenditures)

Ethnic Group	Rice	Other Food	Opium	Medicine-Hospital	Clothing	Household Items	Personnel Items	Farm Inputs	Ceremony	Transportation	Other	Total
Akha	\$7.12 (19)	\$4.76 (14)	\$8.96 (25)	\$0.56 (2)	\$4.93 (14)	\$2.64 (8)	\$0.50 (1)	\$1.24 (4)	\$0.68 (2)	\$0.89 (3)	\$2.67 (8)	\$34.95 (100)
Htin	----- NA -----											
Karen	<u>1/</u> 4.99 (15)	9.31 (26)	<u>2/</u>	3.96 (12)	5/08 (15)	4.00 (12)	0.74 (2)	1.95 (6)	0.45 (1)	0.61 (2)	3.2 (9)	34.30 (100)
Khmu	<u>3/</u> 1.81 (4)	18.52 (46)	-	4.54 (11)	8.84 (22)	3.45 (9)	-	0.36 (1)	-	0.16 (0.4)	2.77 (7)	40.45 (100)
Lahu	4.52 <u>4/</u> (13)	2.66 (8)	5.46 <u>4/</u> (16)	0.44 (1)	6.13 (17)	2.28 (7)	0.75 (2)	6.17 (18)	2.25 (7)	1.59 (5)	2.23 (6)	34.48 <sup>1</sup> (100) <sub>183</sub>
Meo	----- NA -----											
Shan	----- NA -----											
Yao	<u>4/</u> 9.11 (10)	8.89 (10)	22.22 <u>4/</u> (23)	3.36 (4)	19.56 (21)	6.17 (21)	3.60 (4)	2.89 (3)	4.61 (5)	3.15 (3)	9.62 (10)	93.18 (100)

1/ In one watershed only 16 out of 188 households were sampled.

2/ Not available in one watershed; not applicable in the rest.

3/ Not available in two out of three watershed.

4/ Not available in one watershed.

The Determinants of Opium Production and Marketing

It is generally recognized that the motives for using opium are both numerous and complex. Anti-drug use programs in the industrialized countries recognize the complexity of drug use (i.e. due to urban poverty, unemployment, lack of economic and social mobility, etc.) and attempt to deal with this problem through a multifaceted approach. Just as the reasons for drug consumption are intricate, it may well be that the reasons for opium production are similarly complicated.

In addition to the possibility that opium production and marketing may be very complex (arguing against the probability that a narrow crop substitution program can be successful) there may exist a basic methodological problem with crop substitution. Given that it is possible to initially find a substitute to opium (suitable in terms of off-season labor input and value added), will the alternative crop remain attractive?

It is believed that opium originating from Thailand supplies about one-third of Europe's heroin demand. Significant success in reducing Thai opium production will surely drive up European "street prices" and soon be translated into higher supply prices in Thailand. The formerly attractive price of the alternative crop is no longer so. Indeed, given what "street prices" for heroin conceivably could be, there may not exist alternative crops.

Not only must an alternative crop be price competitive but it should also have at least some of the following "advantages" of opium: cultivation and harvesting are done in the dry off-season; opium is suitable to

land other than would be used in rice cultivation; opium has a high value to weight ratio and is easy to transport; and finally, opium has market drawing power. That is, the cultivator need not assume transportation, legal or tax risks by bringing the opium to market. The purchaser will come to the producer. Due to the mutual distrust which often exists between hill people and lowland Thais this is an important attribute of opium (Van Roy 1971 : Chapters 1 and 2).

In this section we run some simple correlation test in an attempt to discover what socio-economic variables, if any, are related to opium production. Of sixty villages in this survey, twenty villages have reported some rai in poppy production and thirteen villages have reported some cash income from opium sales. Since there are only two variables to measure opium production and marketing, a topic for which information is very scarce, we use both variables to test for correlation. Due to the illegal nature of the activity we can, of course, expect significant under reporting. Further, because of the small number of villages in the sample and the unknown distribution, we use a non-parametric correlation test.\* In each situation we employ a Null Hypothesis of no correlation and reject the Null Hypothesis when the sign of the coefficient is

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\* Throughout this section we use the Spearman rank correlation statistic which is a non-parametric correlation test to be used when the theoretical distribution is unknown and the sample size is small (i.e.  $N < 30$ ).

as expected and the correlation coefficient is statistically significant. We will accept a significance level as low as 80%. Rejection of the Null Hypothesis implies acceptance of the Alternative Hypothesis that indeed a significant correlation exists between the variables under analysis. In the following order, we examine the relationship between poppy production and: (a) rice sufficiency; (b) off-farm employment; (c) cash and in-kind loans; and, (d) social integration. (Low social integration is measured by the degree to which hill people are addicted to opium, are not officially registered and do not possess Thai ID cards, possess no educational attainment, and have no Thai language ability.)

The first three variables test whether opium production is related to economic sufficiency and integration while the remaining four variables (incorporated in social integration) give us an inkling of correlations between opium activity and social integration.

A) Rice Sufficiency and Poppy Production

As noted above the majority of highland land is put into rice cultivation regardless of the type of farm system practices. Despite the fact that most land is devoted to the growing of rice, hill people are not self-sufficient in this commodity. On average, only 37% (Table 20 above) of the hill people report that they produce sufficient rice to meet their needs.

There are two competing hypotheses regarding the relationship between food sufficiency and poppy production. First, one group advocates projects designed to increase the productivity of the indigenous farm

system. Projects would seek to achieve sufficiency in conventional upland crops like paddy, corn, soybean and sesame with a view toward eliminating crop deficits and the consequent need to grow poppy to exchange for food. This view is somewhat exemplified by a joint RTG/Australian project to raise productivity of conventional highland crops and livestock.

A second hypothesis seeks to directly replace opium production with new non-traditional high value cash crops. Here, projects employ modern inputs and technology to grow coffee, strawberries, cut flowers, winter vegetables, etc. The underlying reasoning is that hill people will continue to want a growing number of consumer items for which they must trade. The opium problem, then, is finding substitute crops that are attractive in terms of labor input and market price. This hypothesis is partially exemplified by the RTG/UNDP project designed to introduce high value cash crops as an alternative to poppy. The above descriptions are cavalier in their brevity but nonetheless describe the essential elements of the two hypotheses.

To test the first hypothesis, we arranged villages in rank order of rice sufficiency and rank ordered these same villages in terms of rai in poppy and percent of cash crop income derived from opium production. Spearman rank correlation coefficients were found for each of the two comparisons. Our Null Hypothesis is that there is no correlation between rice sufficiency and the percent of rai in poppy and the percent of cash crop income derived from poppy. That is, we hypothesize that

hill tribe food sufficiency has little or nothing to do with growing and marketing of poppy. The alternative hypothesis is that rice sufficiency does indeed have an influence upon poppy production. When hill people achieve food self-sufficiency they have no reason to grow and market poppy except much reduced amounts for personal consumption. In terms of our correlations, to be able to reject the Null Hypothesis of no correlation we expect moderately strong correlations (.40 to .60 for cross-sectional data) and statistically significant coefficients. The sign of the correlation coefficient (for these tests only) must be negative.

The Spearman rank correlation coefficient for rice sufficiency and rai in poppy is  $r = .075$  (sample size is  $N = 18$ ) and the coefficient for rice sufficiency and cash crop income from poppy is  $r = .39$  ( $N = 11$ ). Neither coefficient is statistically significant at even the 80% level of confidence. Moreover, the signs of the coefficients are positive and hence we cannot reject the Null Hypothesis. We conclude then, that rice sufficiency, in and of itself, does not affect the amount of poppy production or sale.

To test the second hypothesis (that opium production can be replaced by high value cash crops) we use off-farm income as a proxy for high value cash crops. Those villages that derive high proportions of income from off-farm salary and wages, cottage industry and business should also be those villages most willing to replace opium production with new non-traditional cash crops. Again, we arranged villages in rank

order of off-farm income and rank-ordered these same villages in terms of percent of rai in poppy and percent of cash crop income from poppy. The Null Hypothesis is again that there is no correlation between off-farm income and rai in poppy or cash income from poppy. The alternative hypothesis is that there is indeed a significant relationship. Again, we will reject the Null Hypothesis (and implicitly accept the Alternative Hypothesis) if the correlation coefficients are strong, statistically significant, and negative in sign.

The Spearman rank correlation coefficients between off-farm income and rai in poppy and poppy cash income are  $r = .46$  ( $N = 17$ ) and  $r = -.69$  ( $N = 10$ ), respectively. Both coefficients are statistically significant at the 90% level. In the first case, we cannot reject the Null Hypothesis and must conclude that off-farm income is unrelated to the number of rai in poppy. In the second case, however, we reject the Null Hypothesis of no correlation and accept the Alternative Hypothesis that cash income from poppy is smaller the greater is off-farm income.

#### Cash and In-kind Loans and Poppy Production

Indebtedness to opium traders is sometimes given as a partial explanation why hill people engage in poppy production. At the village level the socio-economic survey reports the aggregate amount of cash and in-kind loans made to hill people of that village. A priori we expect that cash and in-kind loans will be positively related to opium production and sales. The first Spearman correlation is between loan volume and the number of rai in poppy and the second is for loans

and cash income derived from opium sales. The first correlation is found to be  $r = .45$  ( $N = 16$ ) and is statistically significant at the 90% level of confidence. The second correlation,  $r = .26$  ( $N = 10$ ), is low and not statistically significant at even the 80% level of confidence. We reject the Null Hypothesis for the first test and conclude that there is a positive relationship between indebtedness and the number of rai put into poppy production. In the second instance, however, we cannot reject the Null Hypothesis and thereby accept that indebtedness and cash income from opium sales are related. The first relationship may hold true because the number of rai to be put into poppy is a production decision and does depend upon one's loan obligation. In the second instance cash income from poppy is available at harvest time and may be used to reduce some loan obligations and hence a poor correlation.

In any event, the results provide moderate evidence that poppy growing is influenced by indebtedness. Not too much should be made of this, however, because of the small sample size. But it does suggest that provision of formal credit to hill people warrants further examination.

Below, is a summary table of correlation coefficients, sample size and level of significance for the above tests.

	<u>Correlation Coefficient</u>	<u>Sample Size</u>	<u>Level of Significance</u>
<u>Rice Sufficiency</u>			
Rai in Poppy	.075	18	Not Significant
Poppy Income	.39	11	Not Significant
<u>Off-Farm Income</u>			
Rai in Poppy*	.46	17	90%
Poppy Income*	-.69	10	90%
<u>Cash and In-kind Loans</u>			
Rai in Poppy	.45	16	90%
Poppy Income	.26	10	Not Significant

Social Integration and Poppy Production

Here we test four proxies for social integration for their relationship with opium production and marketing. The general hypothesis is that the better integrated are hill people the greater is their social and economic mobility and hence the less likely they are to engage in illegal activity.

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\* Note that one coefficient is positive and the other is (correctly) negative. Since rai in poppy and poppy income should be positively related this may appear as an error. What has happened is that there are different villages in each of the two samples.

In particular, we a priori expect to find: (a) positive correlation between opium addiction and poppy production/marketing; (b) negative relation between narcotic activity and the percent officially registered and possessing Thai ID card; (c) positive correlation between narcotic activity and the percent of no educational attainment; and finally, (d) positive relationship between the percent with no Thai language ability and poppy activity.

Below we present a summary table of correlation coefficients, sample size and level of significance.

	<u>Correlation Coefficient</u>	<u>Sample Size</u>	<u>Level of Significance</u>
<u>Opium Addiction</u>			
Rai in Poppy	.05	17	Not Significant
Poppy Income	.53	10	80%
<u>Registration and ID Card</u>			
Rai in Poppy	.04	17	Not Significant
Poppy Income	-.11	12	Not Significant
<u>No Education</u>			
Rai in Poppy	.10	20	Not Significant
Poppy Income	.45	13	80%
<u>No Thai Language</u>			
Rai in Poppy	.21	20	Not Significant
Poppy Income	.46	13	80%

As indicated in the above table the results are mixed as to whether the degree of social integration (measured by our proxies) influences opium production or marketing activity. On the one hand the amount of cash income a village derives from opium sales is related to the number of addicts the village has, the number of people with no education and the number of people with no Thai language ability. On the other hand, the number of rai put into poppy is unrelated to a villages' addiction, education or Thai language level. Further, the degree to which a village is registered with the government and its inhabitants have Thai ID cards does not influence illegal narcotic activity.

Again, we must be careful not to infer too much from these uneven results, but we believe, it is not unfair to say that there is moderately good evidence to demonstrate that the degree of social integration affects opium marketing activity,

## Appendix A

### The Physical Environment of Northern Thailand

#### Mountains and Rivers.

The topography of northern Thailand is characterized by a predominance of hills and mountains with relatively narrow valleys. The Phi Pan Nam mountains and the Mekong River form a natural boundary that traces the frontier with Laos. The Thanon Thong Chai and Tanaosee ranges extend along the western border with Burma as far south as the Kra Isthmus, separating the extensive Chao Phraya plain draining into the Gulf of Siam from the Salween and Irrawady drainages of Burma to the west.

Flowing southwards between the parallel mountain ranges are the four rivers (listed from west to east) -- Ping, Wang, Yom, and Nan. They are the four principal tributaries of Thailand's greatest waterway, the Mae Nam Chao Phraya. The Wang and the Yom join the Ping and the Nan respectively before the latter two meet just north of Nakhon Sawan to form the Chao Phraya. The headwaters of these major rivers are in the mountains and hills of the North. Watersheds are defined by the four north-south parallel mountain ranges known collectively as the Phi Nam range. The Mae Kok river in Chiang Rai province and the Mae Ing River in Lampang, rising on the northern slopes of this range, flow northward into the Mekong River. The Pai and Yuam rivers in Mae Hong Son province and the Mae Moei in Tak province originate on the southern and western slopes of the Phi Pan Nam range and drain into the Salween River in Burma. The Ping, Wang, Yom, and Nan rivers begin on the southern and eastern slopes.

The Ping is the largest of the four rivers and its drainage includes the Mae Taeng, Mae Faek, Mae Chaem, Mae Ngad, Mae Nam Li, and Mae Nam Tun. The Ping River plain is wide, long and relatively flat, while the other river basins are narrow and elongated. Elevations of the valley floors vary from 150 meters to 380 meters above sea level.

Mountains in all of the headwaters, especially to the west of the Ping River valley and east of the Nan River valley are rugged. Limestone massifs in Chiang Mai and Lampang provinces form scenic landscapes with barren, craggy ridges and many caves. Several peaks range from 1500 to almost 2600 meters. The highest peak in Thailand, Doi Inthanon (2590 meters) rises to the west of the Ping River southwest of Chiang Mai. A major karst topography exists in the Chiang Dao area.

The rolling hills between the major rivers are usually deeply cut by streams. Plateaus in the true sense of the word are not found in northern Thailand. In addition to the major valley plains of the Ping, Wang, Yom, and Nan rivers, there are several small intermontane basins, especially in the western part of the region. Some eroded terrace lands are found on the peripheries of many of the valleys.

Soils. -- Upland soils tend to be predominantly red-brown podzolic and reddish brown lateritic soils. The Pai and Ping northern headwaters consist of steep land with some limestone crags and red-brown earth. The mountain soils of the Yuam drainage on acid to intermediate rock, are mainly shallow red-yellow podzolic types. The lower-lying portions drained by the Yuam, however, have red-yellow podzolic soil on old alluvium. Such

soil is well drained, clayey and loamy, low in base, and low in fertility.

A variety of soil types is found in the valley plains of the Chao Phraya and Mekong tributaries. Common to all of the valleys are old alluvium, red-yellow podzolic soils. In the Ping, Nam, Kok, and Ing valleys, the soils close to the rivers are alluvial, poorly drained, and clayey with high to moderate fertility. Undifferentiated soils of lava and volcanic rock are found in parts of the Wang and Yom valleys. Scattered in the plains of the Ping, Wang, and Yom is gray podzolic soil on old alluvium. Red-yellow podzolic soils on residuum and colluvium, formed from acid rocks, and of relatively low fertility are found occasionally along the foothills.

Local soil variations are important in highland farming and upland farmers select the sites for their fields on the basis of subtle differences. Clayey soils may retain more water than sandy ones, allowing swidden crops to survive longer and better during a dry spell in the rainy season. Opium thrives in limestone soils, so opium poppy growers seek even tiny pockets of limestone soil. Many have developed methods of keeping them in production for many years.

Climate. -- Northern Thailand has a monsoonal climate characterized by a distinct rainy season that begins in May or June with rains from the southwest. The peak is during July, August, and September (during this time the monthly average rainfall in the Chiang Mai valley is 250 mm. and perhaps twice that much in the hills). Following the diminishment of the rains in October and November, temperatures drop. December is sunny

and cool and temperatures begin to climb in February leading to a hot, dry period in March and April. Rainfall tends to be heavier in the mountains than in the lower elevations because the valleys, particularly those in the northern margin of the Central Plain are in a rain shadow. Lowland annual rainfall averages between around 1200 and 1700 mm., but the lowest annual minimum rainfall recorded in Thailand was 546.5 mm. at Tak in 1951. Generally the pattern of the monsoon rain is regular but at times precipitation may be spotty and the beginning of the rains is often uncertain, varying by as much as a month or more. As a result, although irrigation is almost always assured downstream from large catchment basins, rainfed paddy fields, swiddens and even irrigated fields in small upland valleys are subject to major variations in availability of moisture, making production in these fields more variable and riskier than in the irrigated lowlands.

Temperatures in the North represent the extremes for Thailand. The lowland absolute minimum of 0.1°C was recorded in Loei in January 1955 while the absolute maximum of 44.5°C was recorded at Uttaradit in April 1960. Frost has been reported during the winter in the mountains notably at levels above 1500 meters. No upland weather station has been in operation long enough to accumulate substantial records. (Walker, 1975 A: 1-3; Smitinand et al., 1978: 24-26)

Forest Types. -- The forest types in northern Thailand may be classified into two main categories -- evergreen and deciduous. Further subtypes are associated with differences in altitude, soil, rainfall, and

land use. The three types of evergreen forests in northern Thailand are the Lower Montane, Coniferous, and Dry Evergreen.

The Lower Montane forest is found at elevations from 1000 meters upward where annual rainfall is between 1500 and 2000 mm. resulting in high humidity. This type of forest still exists in the mountains between Mae Sariang and Chiang Mai as well as between Chiang Mai and Tak where there is red granitic or brown-black calcareous soils. A continuous closed canopy suggests the primary nature of this forest type. The Lower Montane forest is two-storied. The upper story contains oaks, false chestnuts (Castanopsis), laurels, birch, and others. A predominance of false chestnuts and birch (Betula) indicate the impact of man. This is apparent on the Doi (Mount) Sothep, west of Chiang Mai, where five species of false chestnut have been identified and where birch is becoming predominant. The lower story consists of laurels and other species.

Shrubs of several genera are abundant in the Lower Montane forest. Herbaceous species form a rich ground flora. There are several genera of bamboo and ferns. Lianes are relatively infrequent. Epiphytes are abundant on the trees. In addition to liverworts and lichens, there are numerous epiphytic ferns and orchids. Sphagnums are found in boggy areas at high elevations. In the region where the summits and ridges are open and exposed, the vegetation is sparse, similtary to a subalpine type of forest.

Because of lack of transportation, the Lower Montane forests are almost unusable as a source of economically valuable species. There are

many valuable timber trees in these forests but systematic exploitation thus far has not been possible. Only minor forest products have been collected on a small scale.

The Coniferous forest is an edaphic type which usually occupies steep slopes and exposed ridges subject to extensive erosion and leaching, on either grayish sandy or brownish gravelly, and sometimes lateritic soils. Rainfall in Coniferous forest areas usually is between 1000 and 1500 mm. annually. This is a three-storied and rather open forest. The upper story is composed of the two-leaved pine (*Pinus merkusii*) and the three-leaved pine (*P. kesiya*). The middle story is dominated by oak and false chestnuts and some other evergreen species. At the lower elevations the middle story is mixed with dipterocarps. The lower story is composed of small trees and tall shrubs.

Ground flora of the Coniferous forest is varied and mainly composed of tall grasses and a variety of herbaceous species.

The two-leaved pine, a source of oleo-resin, and the three-leaved pine, used for pulp and paper, have been placed on the list of species reserved for the purposes of national economic development. Resinous pine wood is gathered locally for torches and kindling.

The Dry Evergreen forest is found in scattered areas among the depressions on the peneplain and in the humid valleys of the low hills. Soils are either granitic or calcareous loam and annual rainfall ranges between 1000 and 2000 mm. Present Dry Evergreen forests are remnants of a luxuriant and extensive forest which once covered the peneplain. These

forests are three-storied. The upper story consists of Anisoptera oblonga, A. costata, and a number of disterocarps and other species. The middle story is characterized by Chaetocarpus castanocarpus, Euphoria longana, and several other species. The lowest story has smaller-statured trees of the general Aglaia, Amoora, and others. In addition, there are scattered palms and some bamboos. Lianes are abundant while epiphytic orchids and ferns occur sporadically. There usually are numerous strangulating figs such as Ficus altissima and F. drupacea. The dense undergrowth is composed of members of the ginger family, ferns, and other plants.

Forests of this type are more accessible to exploitation. Eaglewood, which is caused by fungus attack on Aquilaria crassna is seldom collected because of the scarcity of the tree. Bamboos and rattans are sources of building materials for the hill people.

The Deciduous forests are of three types -- Moist Mixed Deciduous, Dry Mixed Deciduous, and Dry Deciduous Dipterocarp forests. The Moist Mixed Deciduous forest usually is found at elevations up to 600 meters above sea level. Such forests have three stories and usually thrive on loamy soil of either calcareous or granitic origin. Precipitation is usually between 1000 and 1500 mm. annually.

The upper story has teak, Lagerstroemia tomentosa while the second story includes Mitragyna brunonis, Premna tomentosa and other species of teak. The lower story also has teak -- Cratoxylon cochinchinense, Mallotus philippinensis, and other species. A few palms may be scattered around

this type of forest. Shrubs, bamboos, and epiphytes (orchids, epiphytic ferns and other types) are abundant. Lianes are scattered. The ground flora is composed of herbaceous species such as Kaempferia, Curcuma and other plants.

The Dry Mixed Deciduous forest is found scattered at both higher and lower elevations on sandy loam or lateritic colluvial soil. Annual rainfall is between 600 and 1000 mm. The upper story contains the Xylia kerrii species of teak while the lower story has Dalbergia ovata, Millettia brandisiana and other varieties of teak. There also is bamboo. Ground flora resembles that of the Moist Mixed Deciduous forests but there is a predominance of Crotalaria and Desmodium. Ferns, orchids, and other epiphytes are frequent. Along ridges at elevations between 300 and 500 meters, the forests are more open because of high evaporation, excessive exposure, surface erosion and considerable leaching of the soil. Ground flora in this type of forest is subject to annual ground burning.

Mixed Deciduous forests have considerable economic value because many commercial species of trees are plentiful. Cutting and exploitation of teak is under Thai government control. Also, a number of other plants are used by local villagers and sold for food, medicine, bark (chewed with areca nuts and betel leaves), manufacture of joss sticks, caulking, construction, and so forth.

The open, two-storied Dry Deciduous Dipterocarp forest is so-called because of the predominance of species belonging to the family Dipterocarpaceae. This forest type is found on the undulating peneplain and

on ridges, normally where the soil is either sandy or lateritic and has been subject to extreme leaching and erosion as well as annual burning. The upper story is composed of dipterocarps -- Quercus kerrii and Melanorrhoea usitata. The second story includes low shrubby trees such as Strychnos nux-vomica and S. nux-blanda.

Ground flora is dominated by tuber and rootstock-bearing species due to the selective effects of fire. There also are small bamboos and members of herbaceous genera. Dillenia hookeri is common and forms clumps of low bushes. Epiphytes are common in the Dry Deciduous Dipterocarp forests and include ferns and orchids. In some places the soil is podzolic and with the inundations of the rainy season one result is an annual plant community of species of Eriocaulon, Habenaria, Spathoglottis, and Drosera.

Compared with the other deciduous forest types, there are fewer marketable species. Nonetheless, in these forests, trees are able to coppice freely and thus their regeneration and availability for fuel are assured. Commercial timber trees include the dipterocarps which are used for construction. Dipterocarpus tuberculatus and D. obtusifolius provide an abundant supply of commercially valuable firewood.

Melanorrhoea usitata is the source of lacquer used in the manufacture of lacquerware. (Smittinand, et al 1978: 30-32)

## APPENDIX B

### Ethnographic Summary: Social, Economic, Political, and Religious Systems of Northern Thailand

#### Northern Thai.

Settlement Pattern and Housing. -- Northern Thai peasants live in relatively small, long-established and reasonably autonomous villages. Of their settlements are strung along a road or waterway with their paddy fields extending behind the village. Houses are constructed on piling and depending on the household's wealth, they are built of enduring teak or fragile bamboo. Roofs are traditionally thatched with leaves, although zinc sheeting has now become popular among those who can afford it (Walker, 1975: 4).

Economy. -- Agriculture, with paddy the staple crop, is the predominant economic activity of the northern Thai villagers. Their agricultural year begins around mid-June when their fields are flooded by the monsoon rains. The men plow and then harrow the fields using a steel plow and wooden harrow, each drawn by a single buffalo or bullock. First, rice is planted in small nurseries and after a period of at least thirty days, the seedlings are transplanted in the larger fields. In August many of the farmers "tread the mud", stepping on any weed growth and smoothing out the mud with their bare feet. Until early November, when the harvest begins, there is a slack period during which the villagers engage in crafts, petty trade and fishing in the rivers, streams, irrigation ditches, and the flooded paddy fields. From early

November until mid-December the rice crop is harvested with a sickle. Threshing is done with a wooden flail and the paddy is winnowed. It is then stored in granaries near the farmers' houses. The greater part of the crop is glutinous rice, the preferred type among the northern Thai.

A well-developed irrigation network allows the northern farmers to grow secondary dry-season crops, and in some places a second paddy crop. Soon after the harvest, many farmers plant soybeans alongside the rice stubble, and normally the soil is still sufficiently moist to allow this crop to grow without irrigation. Tobacco and a wide variety of vegetables are planted from late December through January. Fields used for these crops are cleared of stubble with a hand hoe and watered from wells and irrigation ditches. In February the farmers plant groundnuts, the last side crop. Groundnuts are planted in raised parallel beds and irrigation water is allowed to flood between the beds. In March a second paddy crop is planted in areas where irrigation water is plentiful. March also is the month when the soybeans, vegetables, and tobacco are harvested. Groundnuts are harvested at the very end of April and into May. By June the second rice crop is ready for harvest. Most of this second crop is of the non-glutinous variety and most of it is sold (Kingshill 1960: 28-31; Walker 1975 A: 3-4).

Sociopolitical Organization. -- North Thai farmers live in more or less autonomous households usually comprising the household head, his wife and their unmarried children. Young men usually spend some time in their wives' parental households after marriage and then establish

their own households after the arrival of the first child. Often the youngest boy or girl remain with the aging parents and inherit the parental house. The northern Thai are unique in having clans traced through the female line to a founding ancestress whose identity usually has been forgotten. The major function of these clans appears to be religious with ritual activities centered around a shrine or set of shrines dedicated to spirits associated with the founding ancestress. There is a regulation that one must marry outside of this clan, and marriages take place in a rite called "crisscrossing the spirits," in which offerings are made to the spirits of both clans (Kingshill 1960: 47; Davis 1973: 53-62).

Walker (1975: A: 6-7) points out that Theravada Buddhism is one factor that "serves to integrate the Northern Thai peasantry into the life of the nation as a whole." He also adds that "Another factor is their ties, economic and social, with the urban power centers of the north which are in turn linked to Bangkok." Generally, each northern valley has one predominant settlement, whose size and sophistication depend on the size of the valley. Such a settlement may be no more than a large village of a thousand people, or it may be a small town serving as district headquarters and the chief market town for all villages in that district. Then there are the larger towns and cities. Chiang Mai, a good example of the latter is the second largest city in Thailand with a sizeable population, which, along with towns such as Lampang and Chiang Rai, functions as an important center of trade, commerce, administration,

and education. Modern communications (roads, air services, telegraph and telephone) link these centers with one another and also with Bangkok. These urban centers contain the high-ranking Thai officials and the Chinese minorities. Chiang Mai also has an influential farang (Euro-American) population. Walker notes that lowland villages and even remote hill settlements feel the forces of change -- social, economic, and cultural -- emanating from these towns.

The northern Thai villages are linked in a chain of administrative authority to Bangkok. Government-recognized villages are mu ban (often these are composed of several small settlements or ban), in which the adult population elects its own headman or pu yai ban (literally "big man of the village"), whose position is confirmed by the local administration. Around a dozen villages form a commune (tambon), the head (kamnan) of which is selected by the village chiefs. He is allowed to hire an assistant (sarawat) to help him in the administration of the commune. Commune heads, their assistants and village headmen all receive small monthly stipends from the government. They are obliged to follow government administrative directives and to attend the monthly meeting held at the district office.

The administration unit higher than the commune is the district (amphoe), headed by a nai amphoe or district officer who is directly responsible to the governor of his province. The district officer is a civil servant (unlike those below him) appointed by the Ministry of the Interior. In order that he may be an impartial judge of district

affairs, he is not selected from the local population. Normally he remains district officer for three or four years and is then moved to another district. In carrying out his administrative duties he is assisted by a group of civil servants representing various government ministries and departments (police, excise, education, health, land settlement, post and telegraph services, and so forth). All of these assistants are from outside the district and in northern Thailand many of them come from the central region.

Religion. -- Theravada Buddhism is the major formal religion in the northern Thai valleys as it is throughout the rest of Thailand. Every northern Thai settlement of any size has a wat or cluster of temple buildings, the more important of which are often the only masonry structures in the settlement. The wat is both the religious and social center of the Thai village. Here the monks and novices chant their daily offices and order their lives according to monastic discipline. Every young man is expected to don the monk's robe at some time, preferably before marriage, as a rite of passage to maturity. Often, village youngsters serve as novices, helping around the wat in return for an education which includes the study of both academic (Buddhist philosophy and ethnics, Buddhist history, Pali) and practical (carpentry, sculpture, painting, and so forth) subjects that are taught by the senior monks. A talented novice might be sent to one of the monastic schools at the district and province centers and even ultimately to one of the Buddhist universities in Bangkok.

Each wat has a head monk or abbot, and there usually is a core of older monks who teach the young monks and novices and who also perform rituals for the lay community, particularly at marriage, housewarmings, funerals, and at times of illness. Monastic vows in Theravada Buddhism, however, are never for life and a man may leave the wat at will. He also is free to rejoin if he so desires.

Four times a month at the quarters of the moon, the villagers gather to hear a sermon and recite the "five precepts" which require abstention from taking life, stealing, committing adultery, lying and indulging in intoxicants. The wat is a place where villagers can come in the evening to seek the company of the monks or of each other. Many a secular concern is raised at the wat, which also is the location of village fairs, film-shows and other entertainments.

Few lowland peasants concern themselves about such complex Buddhist philosophical concepts such as that of nirvana -- freedom desire through the extinction of Self. According to orthodox Theravada teaching, only a monk who has renounced the secular world can ever hope to achieve nirvana. For the northern Thai peasant the most important religious idea is that of merit and demerit. Merit is acquired through the performance of good deeds, particularly those which uphold Buddhist religious principles. Such good deeds include financing the construction or repair of a religious building, entering the monkhood, feeding the monks, observing Buddhist holy days and following the five precepts. Demerit is incurred primarily by disobeying these precepts and this must be balanced by "making merit."

Merit may be acquired either by individuals or groups (such as households or villages) and may be transferred from one person to another (as when a youth takes the robe, thus making merit for his parents) or from one group to another (as the monastic community makes merit for the lay community). The greater the favorable balance of merit, the better incarnation the individual is apt to enjoy in the next life.

The northern Thai believe in a myriad of spirits (phi) which are everywhere -- in the house, in the sky, in water, and in the forest. These spirits are blamed for most of life's misfortunes. Shrines to propitiate them are erected in front of houses, at village gates, on the summits of hills, and at the bases of trees. Offerings placed on these shrines include alcohol, food, and flowers. When misfortune strikes, a spirit-doctor (maw phi), who is paid a fee, performs a ritual to propitiate and exercise the spirits believed to be the cause. There also are mediums -- individuals possessed of spirits -- and one may communicate with the spirits through these medium. (Walker 1975 A: 5-7.)

depending on the size of the family. Furnishings include wooden beds and tables. A fireplace is sunk into the floor of the main room, and there is a Chinese-style earthen stove for cooking mash for the livestock. Separate storage bins are built on piling as are the temporary huts in the fields. (Le Bar et al. 1964: 78; Jaafar 1975: 63-65.)

Economy. -- The Meo economy in Thailand is based on swidden farming with upland dry rice (glutinous and regular) and maize the staples and opium poppies the primary cash crop. The agricultural year normally begins in February with the selection of fields. The household head inspects the soil, tasting and feeling it before making his choice. Claims to the fields are then made by inserting a splinter of wood into the notch of a tree. During March the fields are cleared using knives and axes to fell the larger trees. By late April the cut wood is dry enough to burn. After the rains begin early in May, maize is planted using dibble sticks to make the holes. At the same time, various types of gourds are planted to provide a food supplement and also to protect the exposed soil. No weeding of the maize fields is required because of the rapid growth of this crop.

In June the dry upland rice is planted. Again the dibble stick is used to make the holes. Gourds and sweet potatoes also may be planted in the rice swiddens. Weeding of the rice swiddens occupies the villagers in July. Small huts constructed in the middle of the fields shelter young villagers who guard the fields against marauding birds and wild animals.

Poppy fields are planted in August. The seeds are broadcast and the plants cover most of the ground, preventing weeds from sprouting.

By October, the maize crop is ready to be harvested. It is stored in temporary huts built in the fields, later to be transported to the village on pack horses. Maize is used primarily as pig feed but should there be a shortage of rice, it is consumed by the villagers.

November is the time to harvest the upland dry rice. A small sickle is used and the rice is left to dry until December when it is threshed. By November the poppy plants are well along so secondary crops of peas, beans, spinach, and tobacco are planted amongst the poppy plants. A second opium poppy crop may be planted during the month of November. During December the poppies are weeded and thinned.

In January, the peas, beans, spinach, and tobacco are harvested. By February the petals of the poppies are dropping and in early March the opium harvest can begin. The poppy pods are tapped with a two-or three-bladed knife and the sap exudes from the cut. In the strong sun it congeals, later to be removed with a four-inch blade (similar to an artist's palette knife). The opium harvest last from four to five weeks, and it marks the end of the Hmong agricultural year. (Keen 1966 B; 31-35; Jaafar 1975: 69-70.)

An upland dry rice swidden can be farmed from one to three years before being left to fallow. Poppy fields, however, will produce continuously for up to 20 years.

There are reports that the Meo in northern Nan province have adopted wet rice farming. The main crop is a mixture of glutinous and non-glutinous rice. (Le Bar et al. 1964: 78.)

Industrial Arts. -- The Meo are considered to be skilled in wood and bamboo work, and in basketry. Most villages have a blacksmith who works with a piston bellows on iron bars purchased from Chinese traders. Highly skilled silversmiths make women's jewelry from old silver coins (e.g. the sapeques from the colonial period in Indochina). Hemp and cotton are made in the home by spinning, weaving, and dyeing. Many Meo women are skilled at embroidery and applique work. Some Meo also are familiar with the technique of dyeing batik patterns with wax.

#### Animal Husbandry

Domestic Animals. -- The Meo are noted for the special care they take with their domestic animals -- pigs, chickens, dogs, cattle, and ponies. Buffalo are not common domestic animals. (Le Bar et al. 1964: 78-79)

Sociopolitical Organization. -- The two most important units in Meo society are the family and the clan. At the village level the family is the most influential institution. The family group normally consists of the parents, unmarried children, and married sons and their families. It is not uncommon to have three, sometimes four, generations in one household. The eldest male is usually the head of the extended family. Geddes (1976: 52-54, 73) notes that patrilineal descent is of only limited relevance. The lineage is a spiritual community united by the fact that all its members worship the same set of ancestors. "These ancestors

no less than other levels of the line include women, and after a very few generations they become grouped together in a manner which eliminates the sex distinction."

The Meo families are organized into clans whose membership is traced through the male line. The surnames are borrowed from the Chinese. Marriage within the clan is forbidden. On marriage, a woman is incorporated into her husband's clan. In Thailand, Meo clans are dispersed rather than localized in any particular village or villages. In any one village, one can usually find representatives of from four to six different clans.

The clan is an important economic as well as social group. Clan members living in a single village or group of neighboring villages tend to plan their crops in the same vicinity and exchange labor when required. Clan members also gather several times a year for such events as weddings, funerals, and for the lunar New Year. Recruitment of new clan members can be accomplished in several ways other than by birth or marriage. An unattached Meo whose relatives have died in war or through sickness or old age may be adopted into another clan, although such adopted members do not enjoy the same status and privileges as the regular clan member. Another method of incorporation is through the ritual of blood brotherhood. This ritual involves the prospective blood brothers drinking a mixture of chicken blood, alcohol, and rice. (Le Bar et al., 1964: 80.)

Geddes (1976: 55-57) reports that the Blue Miao in Thailand have twelve clans. Reports of a greater number arise from the fact that the Meo often have two names for the same clan -- one used among themselves and the other when talking to outsiders. The clan membership is traced through the male line and women marrying members of a clan are accepted as members of that clan. Women become members of their husband's clan. Geddes points out that "The interests which the clans serve are security and prosperity in the wide world of natural and supernatural forces," and he compares them to clubs in the social sense and sects in the religious sense. As to the latter, Geddes notes that "As their religious aspect is fundamental to their conception, we may define the clans and their subdivisions as essentially religious associations conferring rights of community upon their members through the spiritual bonds between them." In the social sense, the clan is important for the reciprocity that is expected of its members. Geddes (1976: 63-64) points out that there also is an element of common property rights among clan members, and since this extends to the right of fellow clansmen to settle within a particular territory, clan ties can be an important aid in migration.

Geddes (1976: 65-72) also reports that "Within the clan there are associations of persons who regard themselves as more closely linked with one another than with other members of the clan. These groupings we shall call sub-clans." As the clan, the uniting principle of the subclan is that the members share the same spiritual association symbolized by

common ritual practices and mythology. Unlike the clans, however, they do not have names to perpetuate their distinction. They exist as single groups only so long as the ritual of their members remains the same.

The local community, according to Geddes (1976: 88-101) "be it a single large village, a cluster of villages or a main village with smaller satellites -- offers economic, social, religious, and political advantages. Its main economic importance is that it is usually a trading centre. Opium buyers will come there, and a large village usually has one or several stores run by Chinese or Thai traders."

"The identification of members with a village and the concept of collective interest which the shared activities and common ceremonies promoted is important for its successful operation as a political unit. The village was probably traditionally a political unit, but in Thailand, as in most other modern situations of the Meo, its position in this respect has been affected by the national administration, which may give official status to a selected headman." Village leadership operates in two spheres -- mundane affairs and those concerning the supernatural. The two types of leaders, therefore, are secular religious.

The secular leader should be a man highly regarded by his own clan for his judgement and he should be selected by consensus as the most suitable man for the office. Most villages to have one clan numerically stronger than others, a situation which is usually determined by the circumstances of the migration.

In every Meo village there is a shaman who assists in troubles with the spirits and acts as medium in contact with the supernatural world. The main work of shamans is in connection with sickness, in either its cure or prevention.

Religion. -- Traditional Meo religious beliefs center upon the existence of good and evil spirits and the concept of multiple souls. The pantheon of spirits can be divided into four categories, two of them composed of benevolent and two malevolent. The benevolent spirits include the ancestral spirits and household spirits and deities associated with the door, the hearth, stove, house-post, and roof-post. The malevolent spirits include both valley demons and city demons.

The Meo also have a conception of an integrating power, vital force or soul shared by all living creatures, vegetation, and minerals expressed by the word pli. (Jaafar, 1975: 68).

Among the Meo there are both male and female shamans. The occupation is not necessarily hereditary -- a person may become a shaman involuntarily through being possessed by a spirit, after which he can communicate with his teacher-spirit. Shamans interpret omens, foretell the future, and exercise evil spirits, but they do not engage in black magic or witchcraft. When not engaged as shamans, they function as ordinary members of society. Although the shaman has no clear political role, he may exert considerable influence on the headman especially when the time comes to consider moving the village to a new location.

Heads of families and ordinary citizens may carry out ancestral

sacrifices and make hunting magic. The Meo believe strongly in the interpretation of dreams and omens and in the efficacy of divination, activities which may be carried out either by shaman or by other individuals, including the village headman. (Jaafar, 1975, 68-69; Le Bar et al., 1964, 81).

Karen

Settlement Patterns and Housing. - - Karen villages in Thailand normally are composed of around twenty-five houses but the range is from small villages of two houses to as many as sixty. Then Karen prefer to locate their settlements in depressions and valleys near a stream or spring from which they can draw their water. The houses are arranged relatively close together. Karen villages have no focal buildings such as a wat or gathering place.

Around fifty years ago, the Karen in Thailand had long-houses, divided into several rooms and inhabited by an average of twenty to thirty families. Often such houses comprised a village. After a year or two, the longhouse would be moved to a new site chosen by the headman with the recommendations of the village elders. At that time, choices of new village sites were made on the basis of a defense strategy. In time this pattern changed so that now, each family has its own residence. Karen houses are usually constructed of bamboo and are set on low piling several feet off the ground. Grass (Imperata Cylindrica) is used for the roof thatching, and roofs slope to the floor level, obscuring the walls from the outside.

Lowland Karen villages tend to be larger than those in the uplands, but the house style is the same. Some lowland settlements have Buddhist stupas (chedis) and associated salas. (Ikjima 1970: 20, 24; Mohd, and Walker 1975: 89)

Economy. -- Swidden Farming. The upland Karen are swidden farmers who produce a staple crop of dry mountain rice and some secondary crops that unlike most hill people does not include opium poppies. The Karen have a relatively stable form of swidden farming that involves their cultivating a field for one year, after which they allow it to fallow before farming it again. Essentially this is a system of rotating agriculture.

The planting cycle begins during the dry season in January with the slashing down of secondary regrowth and lopping of branches on the larger trees to prevent shading of the rice crop. This is done by work groups organized on a household basis with some labor exchange on the basis of kinship, friendship, or simply because fields are close together. The fallen vegetation is allowed to dry during the month of March. At the end of this month the burning begins, and this must be done with great care. If the burning is premature, for example, the field may be strewn with a mass of unburnt tree-trunks and branches, necessitating a second burning. This is a tedious task that involved stacking up the unburnt timber to burn it again. Some observers note that the Pwo Karen carefully control the burning, organizing fire-fighting parties to assure that the fires do not get out of control but that the Sgaw Karen are more careless in this regard, allowing the fires to burn into adjacent fields.

Once the fires have subsided, the Karen household constructs a hut in the swidden for the field workers. It also serves as a temporary granary harvest. Fences also are built around the swidden to prevent foraging by

the livestock which normally is allowed to graze freely around the village territory.

Planting begins around mid-April, just before the beginning of the rainy season. The Sgaw Karen perform rituals aimed at ensuring the success of the crop. The household work groups, which may number as many as fifty people, swarm over in the fields the first day. Using an iron-tipped dibble stick, men dig holes for the rice seeds. Women follow behind, dropping seeds into the holes, which are not covered (some are washed away in the first rains). With the first weeding, some seedlings are transplanted to correct overseeding and underseeding. When the planting is completed, the work group is rewarded with a feast of chicken or pork stew and rice washed down with rice alcohol.

Some of the poorer Sgaw Karen plant a certain amount of early-maturing rice, which is ready for harvest about one month before the regular rice. This enables them to have rice before the previous year's harvest is exhausted. A large variety of secondary crops is cultivated by the Karen in their swiddens. These range from herbs to yams, melons, and cotton. Maize is an especially important secondary crop because it matures in July when rice stocks normally are low. The cobs are roasted for eating or kernels are mixed with the rice to eat.

By mid-May, when the planting is done, there is a slack period during which the Karen farmers mend field fences and construct traps to catch the rodents that invariably attack their crops. Such rodents provide an important source of meat in the upland Karen diet.

Even before the rains begin the rice plants have begun to spout, sustained by the residual moisture in the soil. By mid-June, when the rains are steady, growth accelerates and the weeding of swiddens takes place. Usually a small group of two or three people will work together using L-shaped weeding hoes. Weeding continues until the rice is about to ripen around mid-September. Many of the secondary crops such as maize, mustard greens, and other vegetables are ready for harvesting by late June. While the Karen are weeding they also gather some of these secondary crops.

Paddy Terrace Farms. -- Karen with wet-rice terraces begin preparation of them for planting in June when the rains have begun. Farmers with both terraces and swiddens must carefully allocate their time and labor to maintain both systems at one. The first terrace paddy is ready for harvesting by late September or October depending on the variety and local conditions. Among the Pwo Karen, harvesting begins with small patches of glutinous rice which are important for ceremonial purposes. The farmers when begin harvesting the non-glutinous rice, at first cutting only the ripe rice heads. In the harvest, the stalks are cut and dried. Threshing is done on a platform built for that purpose. After winnowing, grain is stored temporarily in the field huts after which it is transported to the village. Among the Pwo Karen the threshing is done by family members and there is a taboo against any non-household member passing through the swidden at this time.

The Pwo Karen mark the end of the rice agricultural cycle with a small ceremony conducted by individual households. This does not mean

the end of work in the fields, however, and farmers continue to harvest their secondary crops such as sesame, millet, sorghum, and various kinds of melons. (Hinton 1970: 1-23; Kunstadter 1970: 63-88.)

Land Tenure. -- The Karen Pwo village community is vested with swidden land-use rights which are part of its territory. Ritual and secular authority over the village lands is centered in the "old village head" (sjae cheng khu), who is the chief male ritual authority in the village. This man leads propitiatory rituals held to ensure the success of the annual crop. He also decides, in consultation with the council of adult male villagers, whether newcomers may become members of the community. Individual households have usufructuary rights over particularly sections of village land for purposes of farming swiddens. A swidden being farmed is recognized as being the usufruct of the household working it, and that household enjoys pre-emptory rights over any fields in fallow which it once farmed. A villager may seek permission from a family to farm a fallowing field and should this be granted, that family forfeits its usufruct. Rights over fallowing land may be inherited but the inheritor must make use of the land soon after the death of the former user. This type of village land is not transferable without the consent of the "old village head."

Various factors determine the size of the swiddens farmed by a single Karen household. The most important factor is the size of the household to be sustained by the swidden, household composition also is primary because it determines the size of labor force available to work the swidden.

A household with several adult males is able to farm a larger swidden than a household that is larger but with only one adult male.

Paddy terraces, unlike swiddens, can be alienated, although the purchaser of a terrace is not receiving title to the land but only to the improvements that the vendor has made -- such as dikes, diversion canals, dams, and so forth. Should the owner of terraces allow his improvements to deteriorate beyond repair, he no longer has the right to sell the terraces. (Hinton 1970: 5-19; Kunstadter 1970: 60.)

Sociopolitical Organization. -- In Karen society the basic unit is the nuclear family (i.e. mother, father, and children). Among the Pwo Karen, however, there is a common pattern for married daughters to remain in their parental houses for a period before they and their husbands establish their own households. Generally there is a certain emphasis on the female line, and in most Karen villages many, sometimes all, of the households are linked through female lines. In addition, the Family Spirit (bgha) veneration stresses the female line. The Family Spirit is associated with a long-dead ancestor who protects all of those related through the female line. Persons thus affiliated gather (even from other villages) for the ritual, presided over the eldest female of the line, to propitiate the Family Spirit with offerings usually consisting of a pig or a chicken. This ceremony may be required by a family member's illness or some other calamity that might result from an offense to the Family Spirit. Such a ritual also may be performed annually to ward off misfortune. (Hinton 1969: 35-37; Iijima, 1970: 29-30, 34.)

It was noted in the economic section that the household provides the labor for farming and household composition determines to a great extent the size of the swiddens. The maximum cooperative group might comprise the parental household together with the households of sisters and brothers, married daughters and sons, and perhaps one or two unrelated households voluntarily affiliated with the group. Generally all labor exchange is based on strict reciprocity -- a day's labor for a day's labor.

Marriage in Karen communities is described as stable with divorces relatively rare. Polygyny (plural wives) is not permitted. Premarital sex is frowned upon and if a couple is discovered having sexual relations they are compelled to be married, paying a fine in addition. Adultery is considered a serious offense because the act is believed to anger the Spirit of the Earth, which must then be propitiated with elaborate and expensive sacrifices. It is not uncommon for the households involved to be forced to leave the village lest the entire community be cursed with misfortune.

Inheritance is bilateral with both sons and daughters having almost equal rights. The youngest daughter is generally entitled to a slightly larger share because she is expected to remain in the house to care for her aging parents.

Leadership patterns among the Karen vary from village to village. There may be a headman and one or two religious leaders or the headman may also play the role of religious leader. The headman is responsible

for organizing village ceremonies and settling disputes. The authority of the headman is not absolute, for he must abide by the majority decisions made by a loosely constituted council of the village elders. The headman and household heads also cope with village problems through a process of consensus rather than by any formal vote-taking. The role of a village headman who also performs religious functions is inherited through the male line.

At the present time Karen villages in Thailand are subject to Thai administrative authority. District officials appoint the "official headman" for a village or group of settlements. This official headman may or not be the traditional politico-religious leader. One investigator noted that the some Pwo Karen villages, hardly anyone wanted to be the government-appointed headman because the villagers did not recognize his authority. (Hinton 1969: 13-28; Iijima 1970: 31; Kunstadter 1969 A: 15, 27-28, 1969 B: 24-28; Le Bar et al 1964: 61.)

Religion. -- Like the other highland people the Karen are basically animists, believing in numerous spirits. There is belief in a "supreme being" who is variously described as "Father," or "creator," and "master creative deity." Other important deities are the Family Spirit (bg̃ha) (who is described briefly in the section on sociopolitical organization), the "Spirit of the Area," and the spirit who is "Owner of the land" and everything on it. Among the Pwo Karen, the Spirit of the Area and the Owner of the Land are important in agricultural rituals and other village

ceremonies presided over by the traditional religio-political headman.

The Karen believe in a kind of soul (or souls) that leaves the body, resulting in sickness or death. These souls are thought to be immortal, continuing to exist after death in an afterworld where they live much the same as beings on earth do. Eventually they are reincarnated as human beings.

Christianity has made significant inroads among the lowland-dwelling Karen in Burma and Thailand. Many Karen Sgaw have become Christians. (Marshall 1945, 13; Mc Mahon 1876: 120; Hinton 1969: 33-36; Kunstatter 1969 A: 31; Le Bar et al. 1964: 62.)

Lahu.

Ethnic Identity. -- The people call themselves Lahu to which they suffix various qualifiers. The Lahu Na (Black, Great or Independent Lahu) have been established for some time in southwestern Yunnan and northeastern Burma from where they have migrated more recently into northwestern Laos and northern Thailand. The Lahu Nyi (Southern Lahu, an offshoot of the Lahu Na, are found in Burma and are the most numerous of the Lahu groups in Thailand. The Lahu Shi (Yellow Lahu) live primarily in Yunnan and Burma, but are also found in small numbers in Thailand. The Lahu Shehleh emigrated to Thailand from Yunnan around 1925. The various Lahu groups in Thailand differ somewhat in dialect but only the Lahu Shi are unintelligible to other Lahu. The Lahu may also be known locally by clan names, e.g. the Lahu Shi of Thailand are of the Ba Kio and Ba Lan clans (Lahu Shi Ba Kio or Ba Kio). (Le Bar et al. 1964, 30.)

Differences in dialect, dress and aspects of social and cultural life distinguish one Lahu division from another, but all appear to recognize a common ethnic identity as "Lahu ya," -- "the Lahu people." Usually each Lahu village is inhabited by members of one division who marry within that village or among neighboring villages of the same division. Members of different Lahu divisions, however, may intermarry and a single Lahu village is sometimes inhabited by members of more than one Lahu division. (Walker 1975: 112.)

Settlement Patterns. -- Lahu settlements average between fifteen and twenty-five houses and are generally situated on flat or gently-sloping

ridges at elevations above 1,200 meters (4000 feet). Good water supplies, high land suitable for opium poppy cultivation and slightly lower ground for upland dry rice are important considerations in locating a village.

In the northernmost Lahu areas, houses are of wood planks and are constructed on the ground while further south they are built of bamboo on piling. Roof thatching is of grass or leaves. Subsidiary buildings are granaries and chicken coops. Water is channelled into the village from a spring, waterfall or stream by a rude but effective aqueduct of bamboo tubes, split in sections and placed end to end. Each section is supported by a pair of forked sticks.

Among the Black and Red Lahu, the ritual center of the village is the "blessing house" (bon-yeh) or "palace house" (haw-yeh), situated at the higher ground in the settlement and slightly apart from the other structures. Here the Lahu villagers hold the semi-monthly rituals in honor of their supreme deity, G'ui sha. In the absence of such temples, the focal point of the Lahu village is a shrine dedicated to the Spirit of the Locality or a fenced dancing circle. (Walker 1975; 115.)

Sociopolitical Organization. -- Young refers to the "clans" of the Thailand Lahu, mentioning specifically that the Lahu Shi are of the Ba Kio and Ba Lan clans (Young 1961: 30). These, however, appear to be surname groups traced through the male line. Walker (1975: 115-16) reports that among the Lahu Nyi in Thailand this male-linked group has no corporate unity but kinship connections do have significance at certain times of life. Kinship, for example, restricts the choice of a spouse since both marriage

and sexual relations are prohibited between persons tracing common descent through the male line within three generations. Kinship influences the closeness of a Lahu's relations outside the household. Kinsmen in different households within the same village or in different villages may visit each other frequently and perhaps cooperate in farming.

The basic social unit in Lahu village society is the autonomous household, which often comprises two or three generations -- a husband and wife, their children, and sometimes a son-in-law or daughter-in-law and grandchildren. After marriage, a couple commonly will live with the wife's parents for a period. Mean household size is slightly over seven persons with ranges of 2 - 21. Each household is led by the "house master" (yeh sheh-hpa), usually the eldest male in the household. On the death of the eldest male, his widow becomes titular head of the household but the real power is held by a senior male, often a son-in-law.

The Lahu household constitutes the fundamental economic unit. Rice swiddens, livestock, agricultural produce and jewelry are held by the household head on behalf of the household as a whole. In addition, economic and ritual responsibilities are vested in households rather than in individuals.

In the Lahu village the household heads select one of their number to be the "master of the village" (hk'a sheh-hpa). Among the Lahu Nyi and Sheh Leh this office is elective. The village headman is responsible for maintenance of law and order within the community. An informal council

of elders, which usually includes household heads but also may have younger men, assists the headman in his administrative and judicial responsibilities.

If a Lahu village has a priest, his role in the community generally extends far beyond the domain of religion. His voice is supreme in religious affairs and second only to the headman in secular matters. This is the case in Christian villages as well as among the traditionalists.

Walker (1975: 116-17) points out that conformity to community prescriptions is the basis of village solidarity and stability among the Lahu. All of the households are expected to accept the decisions of the village leaders. If they do not, they are expected to leave. It is not uncommon, therefore, to have Lahu communities fission because of unresolved conflicts, household quarrels, and disagreements with village leaders.

Frequently, a Lahu village recognizes the seniority in its area of one particularly headman not necessarily its own. This "area" may comprise no more than two or three villages or more than a hundred. When a village moves into a new area, it tends to conform to the existing power structure both in the hills and in the neighboring lowlands. Today as in the past, influential hill "chiefs" have received recognition not only from their hill neighbors but also from valley leaders, such as Shan princes, Chinese mandarins, or modern district officials of China, Burma, Laos or Thailand. (Walker 1975: 117-18; Wongsprasert 1977: 5-9.)

Economy. -- The Lahu rely on swidden cultivation to produce their staple upland dry rice crops as well as their opium poppy cash crop. Being migratory swiddeners (as opposed to stable swiddeners like most of the Karen), the Lahu are forced to move their villages every few years when the fertility of the surrounding soils is exhausted.

In the Lahu Nyi village in Thailand studied by Walker (1975; 121- ), the three major crops were rice (high and low elevation, early-maturing, glutinous and regular), chilli peppers, and opium poppies. There the agricultural cycle begins in January with the selection and clearing of new fields. Preparation of swiddens involves cutting and burning the forest land, and planting is done with dibble sticks on the steep slopes. Fields are weeded constantly because of the rapidity of new growth. The rice crop is generally stored for household consumption.

Cash cropping is not new for some of the Lahu. An early traveller through Kengtung state in China reported that the Lahu Shi grew cotton which they sold to Chinese merchants. Chilli peppers also are traditional cash crops. There also is a long history of opium poppy cultivation among the Lahu. Because the poppy crop does not grow well below 1200 meters (4000 feet), the Lahu prefer to farm the higher slopes of the hills.

Some Lahu, however, have been engaged in farming at lower elevations. Lahu adoption of irrigated rice cultivation in Burma was reported as early as 1900. Before the 1949 revolution, some wealthier Lahu headmen had irrigated paddy fields. There have been reports that in southern Yunnan the communist government has made a concerted attempt to replace

traditional swiddening by opening up more irrigated land. (Walker 1975: 121-22.)

Among the Lahu in Thailand the main domesticated animals are swine and chickens. Some villagers have ponies and mules for transport and there are a few cattle. Hogs are occasionally fed rice bran or crushed corn but the Lahu are considered more casual in their attitude toward animal husbandry than are, for example, the Lisu and Meo.

In northern Thailand the Lahu go down to the plains to trade dried meat and chili peppers for salt. They also are visited by opium traders that purchase their product. (Young 1961: 18-21; Le Bar et al. 1964: 31.)

Land Tenure. Swiddens are claimed by the family that farmed them. Everyone knows who is using which fields and claims to fallowing fields are respected. The claim to a field that has been left to fallow an inordinate period of time (6 or 7 years in some cases is normal) is considered lost, although this happens more often with rice fields than with poppy fields that are considered particularly fertile. Paddy land, however, is subject to more formal land tenure legalities. One Lahu village (Lo Pa Khrai in Chiang Mai province) studied by Sanit Wongsprasert (1977: 17-21) is located near lowland Thai and it is not uncommon for the Lahu to purchase paddy fields from them. The villagers built an irrigation system and paid between ¥ 1200 and ¥ 3500 (\$60 - \$175) per hectare. The Lahu also claim the land around their houses, and while a house may be sold, the land is not specifically included of the price since it is considered an intrinsic part of the house. Disputes over house sites do not occur.

Religion. -- Over the centuries the Lahu religious beliefs and practices have been greatly influenced by diverse traditions emanating from the lowlands. This influence varies from place to place, but the degree of it generally makes it difficult to identify a "Lahu" religious system.

Most Lahu accept the existence of a great number of good, neutral, and malicious spirits. There are spirits whose primary function is to guard the villagers, their livestock and their possessions. Most important of these are the House Spirit and among some Lahu, the spirit associated with the immediate locality. Malevolent spirits are those associated with persons who have died an unnatural death and spirits that possess individuals.

The village priest (mentioned in the section on sociopolitical organization) mediates between the villagers and G'ui-sha, the deity recognized as the highest of all supernatural and as a creator-divinity. The priest also leads the rites connected with the village temple.

A particularly interesting feature of Lahu religious life has been the periodic appearance of messianic figures whose influence has transcended the village and spread among the Lahu and others over a wide territory. Very recently a Lahu prophet claiming miraculous power led his people against government troops in the Shan State of Burma. It would appear that at times when the traditional Lahu society is subjected to great stress from the lowlands (as now is the case in Burma's Shan State), the Lahu are apt to turn to the leadership of a holy man. He alone is able

to unite the fiercely independent village communities into a wider polity in order to combat the lowlanders' organizational advantage and at the same time offer supernatural means of countering the lowlanders' technological superiority. (Walker 1975: 118-21; Wongsprasert 1977: 9-11.)

YAO (Mien)

Settlement Pattern:-- Yao villages normally are located at elevations between 900 to 1,000 meters so that their settlements are below those of the Mao (Hmong), Lahu, and Lisu. Since they do not have stable swidden (as do other groups such as the Karen), Yao villages are moved periodically to new locations where fresh swiddens will be farmed. In more recent times, the Yao in Thailand have been moving down to lower elevations and even into the valleys. Yao houses are built directly on the ground. Walls may be of wood planking or split bamboo and roofs are of cogon (Imperata) grass. (Tan 1975: 23-24.)

Economy.-- The Yao are swidden farmers. Their subsistence crop is upland dry rice but their cash crop is opium poppies. Secondary crops include maize, chili peppers, pumpkins, melons, potatoes, beans, tobacco, and cotton. When they move to the lowlands, the Yao adopt paddy farming. Among many of these in the lowlands, soy beans and peanuts have become important cash crops (which have replaced opium poppies).

Livestock includes hogs, the most important of the farm animals (they are fed a maize mash) because they are the most prestigious offerings to the spirits; chickens, oxen, and buffalo. Ponies are raised for transport. Yao craftsmen make their own knives, hoes, axes, and muzzle-loaders. Some make rice-paper. There also are adept silversmiths among the Yao. Women do fine embroidery. (Le Bar et al. 1964: 92; Tan 1975: 27-28.)

Sociopolitical Organization.-- The extended family is the basic social unit in Yao society. Each household is made up of a nuclear family (parents and their children) and married sons and their families. Since it is extremely important to have male offspring, those without sons adopt male children. Miles (1972: 103) reports that 87.5 percent of the adopted children in the Yao village of Pulangka were from other ethnic groups.

Yao society is divided into patrilineal clans and subclans. Unlike the Chinese there is no clan exogamy. Sexual relations are prohibited up to the second cousin level.

Yao village chiefs are selected by the elders of the community. Most disputes are handled by the chief and settled by imposition of fines. Village affairs usually are settled by democratic process through group decisions. Another important figure in village society is the "spirit doctor." (Le Bar et al. 1964: 92; Tan 1975: 24-25.)

Religion.-- The Yao recognize a world of spirits and a world of living men, and the two interact with each other. In the spirit world there is a spirit world government in which different deities are ranked hierarchically. There are 18 Great Spirit Gods. Yao houses often contain paintings of these gods, placed on a special altar where rituals are held following funerals. Ancestral and local spirits also are venerated. Ancestor worship plays an important part in Yao family life. Offerings are made on ritual occasions, an important thing for the welfare of the family.

Since propitiation of spirits is extremely important, the village Spirit-doctor (sib mien mien) is a person of high position in village society. They are called upon to perform marriage rites, funerals, and other occasion, such as when illness or misfortune strikes (the texts which they read are in Chinese because it is believed that the spirits do not understand Yao). In order to become a Spirit-doctor one must serve an apprenticeship and acceptance requires a payment of rice-paper or cash. There also are spirit-mediums (bogwa and bothung) who, unlike the Spirit-doctor, become possessed of spirits. (Miles 1967: 3; Tan 1975: 26-27.)

LISU

Settlement Pattern and Housing.-- In Thailand, the Lisu settlements usually are situated along mountains ranges of 5,000 feet or more because of their opium poppy farming and also because they are less resistant to the malaria found in the upland valleys. Village sites must be near good water sources, fertile soil, and physical distance from other ethnic groups. It has been reported that the Lisu prefer to settle where soil fertility has been proven by other groups. Accessibility to a market town is another important consideration, and in Thailand most Lisu villages are within half a day's walk to a market center. In spite of their preference to be apart from other groups, the Lisu reliance on good opium-producing soils puts them in close contact with Meo, Yao, Lahu, and Akha who seek the same soils.

Lisu villages vary in size from five or six houses to 150 dwellings. Some villages remain in a site for 40 or 50 years while others may be abandoned after only 5 years. Lisu settlements have no particular pattern, but the houses must be located below the ritual center of the village. This is a shrine for the guardian spirit of the village (apa mo), and it is situated in a fenced compound. Lisu houses are either built on piling and resemble the houses of the Lahu or they are constructed on the ground in the Chinese manner. Wood logs and bamboo provide the major construction materials and the roofs are of grass (Imperata) thatching. Every Lisu house has a veranda. (Rashid and Walker 1975: 159; Le Bar et al. 1964: 28; Dessaint 1972: 199.)

Economy.-- The Lisu are traditional swidden farmers with upland dry rice the staple and opium poppies the important cash crop. Swidden normally are used for two or more consecutive years and then are abandoned for a new site if there is sufficient land in the vicinity. Opium poppy swiddens usually are a long way from the settlement and the Lisu take meticulous care when preparing a field for planting. As secondary crops the Lisu in Thailand farm millet, chili peppers, maize, beans, melons, and yams.

Most Lisu groups keep goats, pigs, ponies, chickens, and dogs. Some raise sheep and cattle. Only pigs and chickens are consumed, and in Thailand the pigs are fed twice daily a mash of maize and other ingredients. Bamboo work, weaving, and blacksmithing are found in Lisu villages. Trading is traditional. Cash obtained from the sale of opium is used to purchase a gun or rifle, silver ornaments and other luxuries available on local markets. (Young 1969: 32; Rashid and Walker 1975: 162; Le Bar et al. 1964: 29.)

Sociopolitical Organization.-- Institutionalized courtship, prepartial sexual freedom, and the free choice of marriage partners are reported for the southern Lisu of the Shan State - Tengyueh - Chiang Rai area. An eldest married son may be expected to live in the father's house or establish his own house closeby. (Le Bar et al. 1964: 29.)

Religion.-- The Lisu recognize a large number of spirits including those of recently deceased ancestors. Lewis (1970: 56) suggests

that the spirits in the Lisu pantheon may be divided into two broad categories. First, there are the ni or ne, including ancestral spirits, forest spirits, "tame" household spirits, local supernaturals and ghosts of dead humans. In the second category, which has no collective name, there are a number of named supernaturals of varying degrees of important, the most important is Wu-sa, the creator.

A Lisu village usually has several specialists to deal with the supernaturals on behalf of the community. There is one priest or meumeu pha connected with the resident "spirit of the hill" (apa mo) who is honored with a shrine in every Lisu village. There also are several ne pha or "spirit men" associated with the ancestor cult. The major function of a "spirit man" is to divine which spirit is causing a particular illness or other misfortune and then to "sing" the spirit out by going into a trance. (Lewis 1970: 58; Dessaint 1971: 331.)

AKHA

Settlement Patterns.-- Akha settlements vary in size from an around ten to as many as 200 houses. According to Kickert (1969: 37) the average number of people living in an Akha household is seven. He adds that the ideal "large" household comprises the head of the family, his wife, their eldest son with his family and the youngest son. Other sons are encouraged to establish their own households after marriage. Villages usually are located around 1,200 meters or more. Akha avoid the highest mountain peaks, preferring to settle on ridges which are free from cloud cover. The village elders choose the actual site which should be physically attractive and meet with the approval of the spirits. Good soils are important as are ample water supplies. When an Akha settlement is established, the first house to be build must be that of the village priest. When his house is completed, the village is considered founded. (Kickert 1969: 35.)

Economy.-- Akha farm upland dry rice using the swidden method. They also grow cotton from which they produce fabric. Tobacco is cultivated in all villages. Secondary crops include sugar cane, sesame, chili peppers, peanuts, potatoes, taro, maize, and various types of vegetables. Young (1961: 5) reports that the Akha in Thailand grow relatively little poppy for opium production.

Kickert (1969: 36) notes that swiddens are seldom more than three hours' walk from the village. Once a swidden is cleared, a small hut is constructed on it to provide shelter for the farmers. A small

shrine to the spirits is arranged nearby. The Akha recognize permanent rights to land. They neither buy nor sell land nor do they consider land to be something which may be inherited. As Kickert (1969: 36) puts it, "Land is not owned; it is used."

In addition to their farming, Akha villagers raise a variety of livestock, including chickens, pigs, buffalo, cows, and goats. The Akha are skilled hunters. They also collect wild honey, wasp larvae, nuts and fruit in the nearby forests. They are considered very proficient fish-trappers. Blacksmiths are important in Akha villages because they manufacture and repair the farming tools and they also are skilled gunsmiths. (Young 1962: 5.)

Sociopolitical Organization.--- Akha society is divided into a number of patrilineal clans, which are not localized. Each properly constituted Akha village should be occupied by people of three different clans. Women marry into clans and are accepted as members. (Jaafar and Walker 1975: 174.)

Although the eldest male is head of the household, the eldest woman is considered the "mother of the house." Men are given priority in almost all matters. The Akha are especially concerned with having many sons who will continue the family line into the next generation. If a couple fails to have sons, they can be adopted. (Jaafar and Walker 1975: 176.)

Every Akha village has a headman, and usually there are a number of assistant headmen. The duties of the headmen are to settle disputes,

judge cases and establish appropriate fines. The primary headman is expected to provide a feast for the whole community twice a year. The secondary headmen have to give one feast annually, and they provide the pig for this festive occasion. Today in Thailand all of the Akha villages are part of the local Thai administration and their headmen are recognized by the provincial authorities. (Kickert 1969: 40.)

Religion.-- Akha religion is animistic in content with a strong emphasis on the cult of the ancestors. Spirit, including ancestral spirits are called ne. Some of the ne are malevolent and cause illnesses while others are associated with familiar objects such as trees. Also included are guardian spirits of the house and of the village. A sacred post within the house symbolizes the family ne, i.e. the ancestral spirits, who are given particular prominence.

The Akha believe in a supreme deity called A poe mi yeh to whom all other spirits are subservient. Offerings especially to this deity are considered unnecessary because he is thought to partake of all offerings made to the other spirits.

Akha villages normally have three ritual specialists. The most important is the village priest (dzoe ma) who is also the most prominent resident in the community. He is responsible for looking after the six sacred places of the village -- the gates (primary and secondary), the swing, water source, village burial ground, and the site for offerings to the spirits of land and water. There also is the spirit-priest (boe maw), who is said to be able to communicate with the spirits, pleading with them or threatening them as the occasion warrants. (Le Bar et al. 1964: 37; Jaafar and Walker 1975: 177-78.)

LUA

Settlement Pattern.-- The Lua often have relatively large settlements. On the Bo Luang plateau the largest village has 250 houses and Young (1962: 68) notes that the average is around 30 houses. Kunstadter (No date: 9) reports that the Lua village of Pa Pae in Mae Sariang district, Mae Hong Son province, has 51 houses. Lua houses are solidly constructed of sawn boards and roofs may be of tile. Built on piling, they resemble Northern Thai houses.

Economy.-- The Lua are primarily subsistence farmers, raising their staple rice crops both in swiddens and in paddy fields. Kunstadter (No date: 9) reports that the Lua of Pa Pae village farm their swiddens in a regular cycle of one year of cultivation followed by nine years of fallow. Beginning in the 1930's, the villagers began converting most of the easily levelled land in the narrow valley into paddy fields watered with the aid of small dams build across the Mae (River) Amlan at the beginning of each rainy season. He also notes that their secondary crops include a large number of vegetables, roots, tubers, fruits and other grain species planted in the swiddens and in dry season gardens.

Sociopolitical Organization.-- Among the acculturated Lua in Thailand the village headman is appointed by a local Thai official. In the more remote areas, the Lua select their own chiefs by consensus of adult villagers.

Household members are usually of the same patrilineage (lak phu) and they share a claim to specific communally held swiddens. People living in the same household should work their irrigated fields and swiddens together and share in the products thereof. Once a household has split, however, fields can no longer be worked together. Swidden use-rights must be divided into distinct units by the adult males in the household. Some of them also may apply to the village elders for new swidden sites. Kunstadter (No date: 38-39.)

Religion.-- Lua religion basically is animistic and ancestor worship is traditional. Many have become Buddhists and in recent years a number of Lua have converted to Christianity. Kunstadter (No date: 46) describes the Lua of Mae Sariang district, Mae Hong Son province as claiming to be Buddhists but at the same time venerating their traditional pantheon of spirits. Their Buddhism consists of respecting Buddha images, and possessing and honoring other religious objects or photos of Buddha distributed by government agencies. They may visit one of the Mae Sariang temples whose abbot is known to be friendly to hill people. They also may attend a Buddhist festival in the valley.

Daily agricultural, seasonal, and life crisis rituals are in the Lua animist and ancestral worship tradition rather than in the Thai Buddhist form. The distinction between these traditions is blurred, largely due to the long period of contact between the Lua and the Northern Thai.

SHAN

The Shan are Tai-speaking people whose language is related to Thai and Lao, and they have a script that reflects strong Burmese influence.

Settlement Patterns and Housing.-- Shan settlements usually are permanent and they are variable in size, usually containing between 200 and 500 residents. Larger settlements function as market towns, and it is in these villages in Burma where the hereditary prince (saohpa) has his residence (haw).

Shan houses are usually of bamboo and are raised on piling around 8 feet high. The gable roof, which slopes down slightly beyond the flooring, is of thatch. There is a veranda and in the main room an open hearth and sleeping spaces.

Economy.-- The Shan are primarily settled wet-rice agriculturalists with a variety of garden crops. Animal husbandry is secondary to agriculture. Domestic animals include cattle, horses, water buffalo, pigs, and chickens. Localized cottage industries include pottery making, sculpture, lacquerware, paper manufacturing, silverwork, and cotton cloth manufacture. The Shan traditionally are traders, moving over the uplands and also down to the plains to trade with the Burmese.

Sociopolitical Organization.-- In Burma the Shan have traditionally had states (muong) ruled by hereditary princes (saohpa). The shifting political fortunes of these princes makes it difficult to determine the number of Shan states existing at any given time in history. Under the British there were some 15 major Shan states as well as a great many

dependencies and minor territorial divisions representative of special political considerations.

Among the commoners in Shan society there are no clear-cut kin groups. Descent in the family is traced through both the male and female lines.

Religion.-- The Shan are predominantly Theravada Buddhists. Boys spend a period in the wat, serving the monks and learning from them the precepts of Buddhism. While the monks are not organized hierarchically, they are divided into sects according to the strictness with which they observe the religious vows.

Along with Buddhism, the Shan hold to a variety of occult beliefs and practices which combine indigenous animism with ancient Brahmanic influences. Around the age of 14, boys are tattooed by specialists with designs on the legs, chest, back or arms. (Le Bar et al. 1964: 192-97.)

HAW (Yunnanese)

Economy.-- The Haw have relatively advanced farming techniques and methods of animal husbandry greatly admired by other hill people. In addition to being farmers, the Haw in Thailand are adept traders. (Le Bar et al. 1964: 2.)

APPENDIX C

Highland Population

There has never been an official census of the highland population and in the absence of accurate information estimates have varied between 300,000 and 500,000. Between 1972 and 1976, the Public Welfare Department has enumerated tribal population in some 18 provinces. Below we summarize the results of the various enumerations:

<u>Ethnic Group</u>	<u>No. of Villages</u>	<u>No. of Households</u>	<u>Population</u>
Karen	1,509	33,410	176,975
Meo	133	4,451	31,837
Lahu	179	3,743	21,948
Lisu	82	1,860	11,262
Yao	88	2,623	19,188
Akha	95	2,115	18,566
Lua	37	1,822	18,143
Htin	96	4,053	28,997
<u>Khmu</u>	<u>24</u>	<u>795</u>	<u>4,907</u>
Total	2,243	54,872	331,823

The above data are useful mostly for indicating the relative importance of various ethnic groups but not for absolute size. Kunstadter (1970 B:7) and others have put the rate of natural increase between 3% and 4%. This, of course, rapidly dates the above data. In the absence of better knowledge we will use 400,000 hill people as a reasonable population estimate for planning purposes.

## Appendix D

### Nutrition Survey of Northern Thai and Hill People

For the past decade the Anemia and Malnutrition Research Center (MALAN), Faculty of Medicine, Chiang Mai University, has conducted interviews with parents of in-patient child malnutrition cases. The patients are both Northern Thai and children of highland families. About 300 interviews are currently available from which this study has examined 100 Northern Thai and 56 highlander cases. It is unfortunate that more interviews of hill people are not available. Also, it is important to bear in mind that the 56 cases are not random and do not reflect malnutrition conditions prevailing among the hill people generally. Moreover, the no-response rate is high in some questions and this undoubtedly prejudices the results. It also should be noted that the very fact that the hill children were taken to the Chiang Mai hospital indicates that they were from families with considerable contact with the world beyond their own localities. Nonetheless, this survey data are very useful. The sample includes children from the Karen, Akha, Lahu, Lua, Lisu, and Meo (Hmong) ethnic groups (and two cases whose ethnic affiliation is not noted). It also offers a meaningful comparison of malnutrition conditions among the Northern Thai and the hill people in the Chiang Mai urban area.

From the survey we have data on length of illness, daily diet, medical history of mother and child, family medical history, the Gomez Degree of Malnutrition and vitamin deficiencies. Below, we shall examine the data in this order.

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This project is under the direction of Dr. Ousa Thanangkul, M.D. David Leon, Head of the Computer Section, organized the programming of data for this survey. The authors would like to acknowledge the contribution of Khun Atisai and Khun Malinee of USAID/Thailand who did the compilation and computation of the data in this Appendix.

### Length of Illness

Parents were asked if the child's present illness was one month, one to six months or over six months duration. Most children in both groups were sick for about one to six months (47% of the hill people and 46% of the Northern Thai). However, 38% of Northern Thai were sick for only one month in contrast to 21% of the hill people. In addition, more of the latter were ill for a longer period, i.e. over six months (18% against 12% of the Northern Thai). Unfortunately, it is not possible to determine whether highlander children suffer longer illness as 14% of the hill people sample did not respond to this question and the similar percentage for the lowland Thai is 4.

### Daily Diet

Interviewees were questioned about the child's food intake. They were asked if the child had daily intake of bananas, rice, fruit, vegetables, eggs, milk or meat. There are significant differences in the high protein food intake between Northern Thai and hill people. In terms of banana, rice, fruit and vegetables the two groups are approximately equal. The difference enters in eggs, milk and meat consumption. Almost twice as many Northern Thai consume these important foods as hill people. Below are the respective percentages.

#### Daily Consumption of:

	<u>Banana</u>	<u>Rice</u>	<u>Fruit</u>	<u>Vegetables</u>	<u>Eggs</u>	<u>Milk</u>	<u>Meat</u>
Northern Thai (% Yes)	76	95	54	57	73	38	87
Hill people (% Yes)	61	71	55	66	39	21	48

Medical History of Mother and Child

The mothers of malnourished were asked if they have ever had problems with pregnancy or child delivery. They were also asked if the child, who was the subject of the interview, had ever seen a physician in the past, had ever been jaundiced, exposed to tuberculosis or been pale or anemic. As can be seen below, the percentages of yes responses to these questions are remarkably similar between Thai and hill people. This leads us to conclude that (excepting access to physicians where Thai do better) there are no significant differences in mother-child medical histories of Thai and hill people..

	<u>Access to Physician</u>	<u>Pregnancy</u>	<u>Delivery</u>	<u>Problems with:</u>			<u>Anemia</u>
				<u>Jaundice</u>	<u>Tuberculosis</u>		
Northern Thai (% Yes)	39	14	6	8	10	8	
Hill people (% Yes)	20	13	5	7	13	7	

Family Medical History

In this section of the survey interviewees were asked to respond whether the mother and father's health was good or poor; how many children are living and how many have died; and finally, whether any family member had ever contracted tuberculosis or been debilitated by malnutrition.

In general, Northern Thai parents have characterized themselves as being in better health than hill people have described themselves. Child mortality of Northern Thai is only slightly lower than that of hill people and about the same percentage of people have suffered from tuberculosis or malnutrition.

	Mother's Health Good	Father's Health Good	Percent* of Children Dead	Family Member Had:	
				<u>Tuberculosis</u>	<u>Malnutrition</u>
Northern Thai	86%	95%	17%	8%	17%
Hill people	64%	73%	20%	9%	16%

Malnutrition and Vitamin Deficiency

Medical personnel at the hospital classified patients as to degree of malnutrition and type of vitamin deficiency. Malnutrition was measured by the Gomez standard. Children are weighted and measured for their weight to height ratio which is compared to a Thai norm. If their weight/height ratio is within 10% of the norm they are normal, if it is 75%-90% of the norm they are classified as Gomez Degree 1; 60 to 74% of norm is 2nd degree and less than 60% is degree 3 or very severe malnutrition.

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\* The survey does not give the age limit for children, only the number of living and dead children in the family.

7% of the highlander children were degree 1 while 8% of Northern Thai children were this degree. In terms of the 2nd degree, the percents for hill people and Thai were 7 and 11%, respectively. The 3rd or severest degree of malnutrition affected 86% of the hill people sample as opposed to 81% of the Northern Thai group. There were no reported normal cases as children were brought to the hospital due to malnutrition.

In the case of vitamin deficiency more of the Northern Thai sample were diagnosed as vitamin deficient than hill people. 45% of the Thai sample were vitamin A deficient as compared to 43% of the hill people sample. The respective percents for vitamin B1 are 1% and 5%. B2 deficiency was reported in 22% of the Northern Thai children and only 11% of highlander children. There was no vitamin C deficiency diagnosed in either group and 12% vitamin D deficiency in Thai and 7% in hill children.

#### Conclusions

We hazard some conclusions in this section but again remind the reader of the small size and non-randomness of the sample. Moreover, we believe these inferences to apply only to the Chiang Mai region. As mentioned earlier, another major problem encountered in this survey is that many parents, particularly those from hill people, did not provide answers to all the questions.

Within these limitations we can say that Northern Thai children in the Chiang Mai area probably have access to better nutrition than do highlander children in the same area. This is reflected somewhat in the daily consumption of banana and rice, but especially in egg, meat,

and milk intake. As discussed in the introduction, the hill people who visit the Chiang Mai University Hospital are far more socially and economically integrated into Thai society than is the general highland population. It follows, then, that the generalized highland population, with lower socio-economic conditions, would also have a correspondingly lower nutritional level. Chiang Mai area hill children are almost 50% deficient (vis a vis Northern Thai children) in high protein foods. This being true, means that the general highland population is undoubtedly much worse off.

There do not appear to be significant differences in the medical histories of mother and malnourished children nor in the medical histories of the entire family.

As a consequence of the food intake deficiency noted above, a moderately higher percent of highlander children suffer from the severest degree of malnutrition. Ironically, however, Northern Thai children in the survey were moderately more affected by vitamin deficiencies.

Appendix E

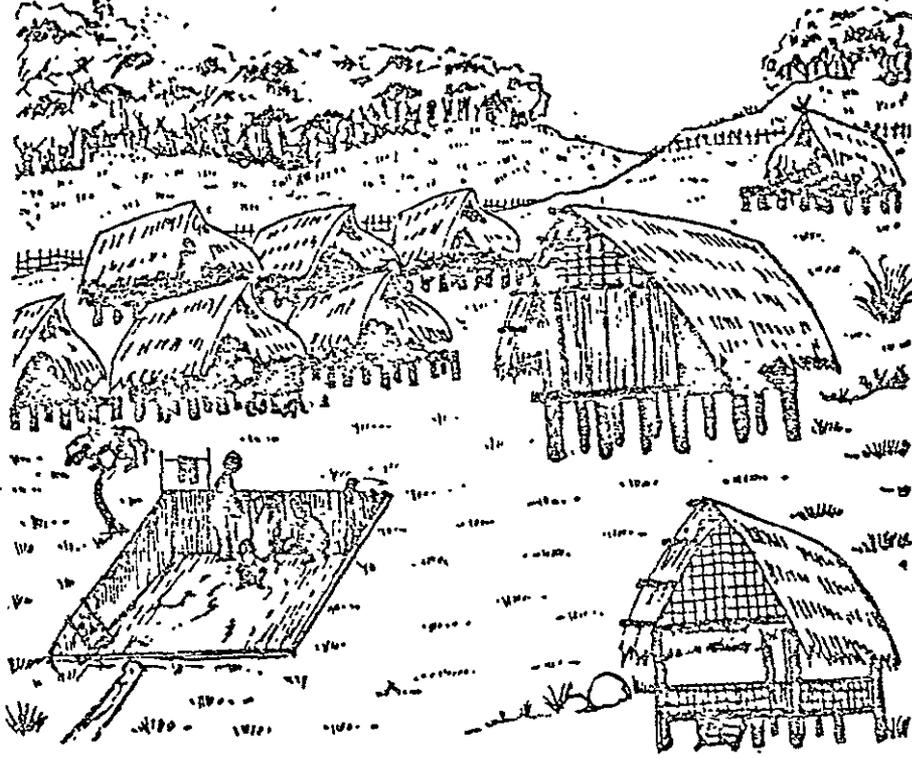
An Example of a Special Education School Sponsored by  
the Public Welfare Department, Ministry of Interior

In Case # 1, the Special Education School in the Lahu village of Cha Pu in Mae Chan district, Chiang Rai province, is a simple structure built of wood and bamboo with a thatched roof. Its two classrooms are furnished with hand-hewn wooden desks and benches for the students. At the front of the room in front of the blackboards are tables and chairs for the teachers. The 31 students are from Lahu village families (a few are mixed Lahu-Lisu),

The two-year curriculum consists of Thai language literacy, basic arithmetic (adding, subtraction, division, and some multiplication), "social education" (civics, social deportment and such), and Basic Special Education, which emphasizes skills that are aimed at "helping the parents in their farming." These skills include some basic knowledge of nature as well as plant and animal care. The material below was taken from the primer, Social Education for Highland Students, Book 2 prepared by the Primary Education Division, Faculty of Education, Chulalongkorn University, and they exemplify the kind of text and the use of illustrations depicting highland children used in the lessons,

TRANSLATION

A house, a table, and a chair are family-owned but a school, desk, black-board and chalk are considered the property of the school whereas roads, central granaries, wats, public salas, rivers, canals, ponds, wild animals, and forests belong to the nation.



บ้าน โต๊ะ เก้าอี้ เป็นของใช้ส่วนตัวของบ้าน  
โรงเรียน โต๊ะ เก้าอี้ กระจานดำ ชอล์ก เราถือว่าเป็น  
สมบัติของโรงเรียน ส่วนถนน ยุ้งกลาง วัด  
ศาลาที่พัก แม่น้ำ ลำคลอง บ่อน้ำ สัตว์ป่า  
และป่าไม้ เป็นสมบัติของชาติ

20



ครอบครัวหนึ่งๆ จะมี พ่อ แม่ ลูก และญาติผู้ใหญ่  
อยู่รวมกัน เรารักกัน เราพึ่งพาอาศัยซึ่งกันและกัน  
เราช่วยกันทำงาน เราช่วยกันรักษาความสะอาดบ้าน  
เรือน เราเชื่อฟัง และไม่ทำผิดระเบียบของครอบครัว

ของเรา

A family consists of parents, children and adult relatives living together - we love each other - we depend on each other - we share our work - we help do some house-work - we obey and will conform with our family regulations.

TRANSLATION

Economy Makes Our Lives Happy

34

We work hard. We know how to divide our time between work and rest. We do not waste our time. We make the best of our free time doing

## ๖. ประหยัดเงินเจริญสุข

เราขยันทำงาน เรารู้จักแบ่งเวลาทำงาน และพักผ่อน เราไม่ปล่อยให้เวลาว่างให้หมดไปเปล่า ๆ เราใช้เวลาว่างให้เพลิดเพลิน เกิดประโยชน์ เช่น อ่านหนังสือ ทำสวนครัว ปลูกผัก เลี้ยงสัตว์

ทำของใช้ง่าย ๆ เป็นต้น

such things as reading, kitchen gardening, vegetable cultivation, tending livestock and doing some simple household handicrafts, etc.



## BIBLIOGRAPHY

- Australian Development Assistance Bureau  
1977 "Thai-Australian Highland Agronomy Project: Second Report,"  
Canberra City, January.
- 1978 "Thai-Australian Highland Agronomy Project: Third Report,"  
Canberra City, January.
- Beauclair, Inez de  
1970 "Tribal Cultures of Southwest China". Asian Folklore and  
Social Life Monographs Vol II. Taipei: The Orient Cultural  
Service.
- Beaver, Raymond W.  
1963 "The Pwo Karen Churches". In Muang Shwe Wa et al. (eds.),  
Burma Baptist Chronicle. Rangoon: Burma Baptist Convention,  
Board of Publications, 327-37.
- Bristowe, W.S.  
1976 Louis and the King of Siam, London, Chatto and Windus.
- Cady, John F.  
1958 "A History of Modern Burma". Ithaca (N.Y.): Cornell University  
Press.
- Davis, Richard  
1973 "Muang Matrifocality". Journal of the Siam Society LXI  
part 2, 53-62.
- Department of Public Welfare, Ministry of Interior  
1976 "The Statement of the Policy on the Hill People's Development  
and Welfare", (mimeographed).
- Dessaint, Alain Y.  
1972 "Lisu Settlement Patterns," Journal of the Siam Society,  
LX, part 1, 195-204.
- Downer, G. B.  
1961 "Phonology of the World in Highland Yao", Bulletin of the  
School of Oriental and African Studies, University of London  
XXIV, 531-41.
- FAO/World Bank  
1978 "Report of the Thailand Northern Rural Development Project  
Preparation Report: Vol. I, Main Report," Rome.

Fisher, Charles A.

- 1966 "Southeast Asia: A Social Economic and Political Geography,"  
2nd edit. London: Methuen & Co.

Geddes, William R.

- 1967 "The Tribal Research Centre, Thailand: An Account of Plans  
and Activities," in Peter Kunstadter (ed.), Southeast Asian  
Tribes, Minorities, and Nations, 2 vols, Princeton,  
Princeton University Press, Vol. II, 553-81.

- 1970 "Opium and the Miao: A Study in Ecological Adjustment,"  
Oceania XLI No. 1, 1-11.

- 1976 Migrants of the Mountains: The Cultural Ecology of the Blue  
Meo (Hmong Ngua) of Thailand, Oxford, Clarendon Press.

Government of Thailand

- 1977 The Fourth National Economic and Social Development Plan  
(1977-1981), National Economic and Social Development  
Board, Office of the Prime Minister, Bangkok.

Hanks, Lucien M.

- 1972 "Rice and Man", Agricultural Ecology in Southeast Asia.  
Chicago: Aldine-Atherton.

Hearn, Robert

- 1974 Thai Government Programs in Refugee Relocation and  
Resettlement in Northern Thailand, Auburn, New York,  
Thailand books.

Hinton, Peter

- 1969 "The Pwo Karen of Northern Thailand: A Preliminary Report,"  
Chiang Mai: Tribal Research Center, Mimeographed.

- 1970 "Swidden Cultivation among the Pwo Karen of Northern Thailand:  
Present Practices and Future Prospects," in International  
Seminar on Shifting Cultivation and Economic Development in  
Northern Thailand. Bangkok: Land Development Department,  
1-24.

Iijima, Shigeru

- 1970 "Socio-cultural Change among the Shifting Cultivators through  
the Introduction of Wet Rice Culture - A Case Study of the  
Karens in Northern Thailand," Memoirs of the College of  
Agriculture, Kyoto University No. 97 (Agric. Economic Ser,  
No. 3), 1-41.

Jaafar, Syed Jamal

- 1975 "The Meo People: An Introduction," in Anthony R. Walker (ed.), Farmers in the Hills: Ethnographic Notes on the Upland Peoples of North Thailand, Data Papers in Social Anthropology, School of Comparative Social Sciences, Universiti Sains Malaysia, 61-72.

Jaafar, Syed J. and Anthony R. Walker

- 1975 "The Akha People: An Introduction," in Walker, Anthony R., (ed.), Farmers in the Hills: Upland People of North Thailand, Data Papers in Social Anthropology, School of Comparative Social Sciences, Universiti Sains Malaysia, 169-82.

Judd, Laurance C.

- 1970 "Evaluation of Church-Sponsored Projects Among Swidden Agriculturalists in Northern Thailand," in International Seminar on Shifting Cultivation and Economic Development in Northern Thailand, Chiang Mai, Thailand, Land Development Department.

Keen, F.G.B.

- 1966a "The Meo of North-West Thailand: A Problem of Integration," unpublished M.A. thesis, Victoria University of Wellington (N.Z.).
- 1966b The Meo of North-West Thailand, Wellington: R.E. Owen, Govt. Printer.

Kickert, Robert W.

- 1969 "Akha Village Structure," in Peter Hinton (ed.), Tribesmen and Peasants in North Thailand, Chiang Mai, Tribal Research Centre, 35-40.

Kingshill, Konrad

- 1960 Ku Daeng - The Red Thomb, A Village Study in Northern Thailand. Chiang Mai: Prince Royal's College.

Kunstadter, Peter

- 1967 "The Lua (Lawa) and Skaw Karen of Mae Hong Son Province, North-western Thailand," in Peter Kunstadter (ed.), Southeast Asian Tribes, Minorities, and Nations. 2 vols. Princeton: Princeton University Press, Vol. II, 639-74.
- 1969a "Thailand" Introduction," in Peter Kunstadter (ed.), Southeast Asian Tribes, Minorities, and Nations, 2 vols., Princeton, Princeton University Press, 639-74.
- 1969b "Hill and Valley Populations in Northwestern Thailand," in Peter Hinton (ed.), Tribesmen and Peasants in North Thailand. Chiang Mai: Tribal Research Centre, 69-85.

- 1970a "Subsistence Agricultural Economics of Lua and Karen Hill Farmers of Mae Sariang District, Northwestern Thailand," in International Seminar on Shifting Cultivation and Economic Development in North Thailand. Bangkok: Land Development Department, 47-143.
- 1970b "Integration and Assimilation of Minorities in Mae Hong Son Province," Paper prepared for the Association for Asian Studies Meeting, San Francisco.
- 1971 "Karens in Northwestern Thailand: An Outline of Relations Between Ethnic Categories," Paper prepared for Symposium, "A Pivotal or Marginal People: The Place of the Karens in Southeast Asia," Paper for Association for Asian Studies, Washington, D.C.
- 1978 "Upland Populations in Northern Thailand," in Wanat Bhruksasri and John McKinnon (eds.), Highlanders of Thailand.
- No Date "The People of Pa Pae: Lua Village on the Margins of A Changing Society in Northwestern Thailand," (Mimeographed).
- Kunstadter, P. and E.C. Chapman  
1970 "Shifting Cultivation and Economic Development in Northern Thailand," in International Seminar on Shifting Cultivation and Economic Development in Northern Thailand, Chiang Mai, Land Development Department, pp. 145-66.
- Lewis, Paul  
1968 "The Role and Function of the Akha Village Priest," Behavior Science Notes, III, No. 4, pp. 249-62.
- Lewis, Paul and Elaine  
1977 "Tribal Economic Report: Thai Tribal Crafts," Progress Report 16, Chiang Mai, Thailand.
- Manndorff, Hans  
1967 "The Hill Tribe Program of the Public Welfare Department, Ministry of Interior, Thailand: Research and Socio-economic Development," in Peter Kunstadter (ed.), Southeast Asian Tribes, Minorities, and Nations, 2 vols., Princeton, Princeton University Press, Vol. II, 525-552.
- Manich, M. L.  
1967 History of Laos, Bangkok: Chalermnit.
- Marlowe, David  
1973 "Notes on a Mountain Flower: Thoughts on the Epidemiology of the Cultivation and Use of Papaver Somniferum in Certain Hill Areas of North Thailand," (Manuscript).

Marshall, Harry I.

1945 The Karens of Burma, Burma Pamphlets, No. 8.  
Calcutta: Longmans, Green & Co.

McCarthy, James

1902 Surveying and Exploring in Siam. London: John Murray.

McGilvary, Daniel

1912 A Half Century among the Siamese and Lao. New York and  
London: Fleming Revell.

McMahon, A. R.

1876 The Karens of the Golden Chersonese. London: Harrison.

Memorandum

1976 Memorandum from the Department of Public Welfare, Ministry  
of Interior, to the Secretary General, Office of the Prime  
Minister, "Policy and Operational Methods of the Hill  
People's Development and Welfare Programme," 8 June.

Miles, Douglas

1967 "Research in the Yao Village of Pulangka, Amphur Pong,  
Changwad Chieng Rai," Field Report No. 3, Chiang Mai:  
Tribal Research Centre (mimeographed).

1972 "Yao Bride-Exchange, Matrification and Adoption,"  
Bijdragen CXXVIII, No. 1, 99-117.

Ministry of Public Health

1978 Department of Health, Family Health Division, "Proposal  
for the Package Project to Thai Minority Groups,"  
Bangkok.

Mohd, Razha, R. and Pauline H. Walker

1975 "The Karen People: An Introduction," in Anthony R. Walker  
(ed.), Farmers in the Hills: Ethnographic Notes on the  
Upland Peoples of North Thailand, Data Papers in Social  
Anthropology, School of Comparative Social Sciences,  
Universiti Sains Malaysia, 87-96.

Primary Education Division, Faculty of Education, Chulalongkorn University

1975 Social Education for Highland Students, Book 2, Bangkok.

Rashid, Mohd, Razha and Pauline H. Walker

1975 "The Lisu People: An Introduction," in Anthony R. Walker  
(ed.), Farmers in the Hills: Ethnographic Notes on the  
Upland Peoples of North Thailand, Data Papers in Social  
Anthropology, School of Comparative Social Sciences,  
Universiti Sains Malaysia, 157-64.

Ratanakhon, Sophon

- 1978 "Legal Aspects of Land Occupation and Development," in Peter Kunstadter, E.C. Chapman, and Sanga Sabhasri (eds.), Farmers in the Forest, Honolulu, The University of Hawaii Press, 45-53.

Ruey Yih-fu

- 1960 "The Magpie Miao of South Szechwan," in G.P. Murdock (ed.), Social Structure in Southeast Asia. New York: Viking Fund Publications in Anthropology No. 29.

Sanit Wongsprasert

- 1977 "The Sociocultural and Ecological Determinants of Lahu Population Structure," Tribal Research Centre, Chiang Mai,

Smitinand, Tem, Sanga Sabhasri, and Peter Kunstadter

- 1978 "The Environment of Northern Thailand," in Kunstadter, Peter, E.C. Chapman, and Sanga Sabhasri (eds.), Farmers in the Forest, Honolulu, The University of Hawaii Press, 24-40,

Suwānbūpa, Aran

- 1976 Hill Tribe Development and Welfare Programmes in Northern Thailand, Singapore, Regional Institute of Higher Education and Development.

Tan Chee Beng

- 1975 "The Yao People: An Introduction," in Anthony Walker (ed.), Farmers in the Hills: Ethnographic Notes on the Upland Peoples of North Thailand, Data Papers in Social Anthropology, School of Comparative Social Sciences, Universiti Sains Malaysia, 21-32.

The Nation (Bangkok)

- 1978 The Nation (Bangkok), "Move to Control Missionaries," May 18.

U.S. Army

- 1970 Minority Groups in Thailand, Department of the Army Pamphlet No. 550-107, Ethnographic Study Series. Washington, D.C.: U.S. Government Printing Office.

Van Roy, Edward

- 1971 Economic Systems of Northern Thailand - Structure and Change, Ithaca & London: Cornell University Press,

Walker, Anthony R.

- 1970 Lahu Nyi (Red Lahu) Village Society and Economy in North Thailand, Chiang Mai: Tribal Research Centre, 2 vols. mimeographed,

1975a "North Thailand: Hills and Valleys, Hillmen, and Lowlanders," in Anthony R. Walker (ed.), Farmers in the Hills: Ethnographic Notes on the Upland Peoples of North Thailand, Data Papers in Social Anthropology, School of Comparative Sciences, Universiti Sains Malaysia, 1-20.

1975b "The Lahu People: An Introduction," in Anthony R. Walker (ed.), Farmers in the Hills: Ethnographic Notes on the Upland Peoples of North Thailand, Data Papers in Social Anthropology, School of Comparative Social Sciences, Universiti Sains Malaysia, 111-126.

Walker, Anthony R. and Syed Jamal Jaafar

1975 "The Zonal Approach to Agricultural Development in North Thailand," in Anthony R. Walker, Farmers in the Hills: Ethnographic Notes on the Upland Peoples of North Thailand, Data Papers in Social Anthropology, School of Comparative Social Sciences, Universiti Sains Malaysia, 205-212.

Wiens, Harold J.

1967 Han Chinese Expansion in South China, Hamden (Conn.): Shoe String Press.

Williams, Alan S.

1977 "History of the United Village School, Namlat, Chiang Rai, Thailand," (mimeographed).

Young, Gordon

1962 The Hill Tribes of Northern Thailand, Bangkok: The Siam Society.

Zan, U & Erville E. Sowards

1963 "Baptist Work Among Karens," in Maung Shwe et al. (eds.), Burma Baptist Chronicle. Rangoon: Burma Baptist Convention, Board of Publications. 304-26.