The Poisoning Effect of a Lovers Triangle: Highlanders, Opium and Extension Crops, a Policy Overdue for Review.

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It is generally believed that opium cultivation is an ancient highlander skill passed down from generation to generation. The fact is that highlanders and opium did not come into the world as a married couple.

Archaeologists are of the opinion that opium was first used in Neolithic times, in Anatolia in the eastern Mediterranean, and came to the Far East most probably after the death of Christ (McCoy, 1973: 3).

Early in the seventh century an Arab merchant took opium to China as a medicinal plant. There is some evidence that it was in use before this but this is difficult to confirm. Chinese literature makes reference to the use of opium in the historical saga of *The Three Kingdoms*. A Chinese surgeon, Hau-To, is said to have melted opium *Cannabis indica* in water and administered it to patients prior to surgery (Geddes, 1976: 201). Opium smoking did not become common in China until after a respectable European merchant introduced the habit in the 1500s.

By 1733 the principal portion of the opium trade was in the hands of the Portuguese. A few years later (1781), the British

East India Company jumped into the game when they started to export opium from India (McCoy, 1973: 59; Geddes, 1976: 202).

We could say that Great Britain found that the best way to dip its hungry hands into the riches of China was to first drug the people. The truth is that the imperial Chinese court never approved of this activity in much the same way that the Middle Kingdom of the contemporary world, the USA, now imperiously disapproves. In 1729 the Chinese Emperor prohibited the opening of opium dens, as well as the sale and smoking of opium for pleasure.

In 1839 the Governor of the Kwang-Tung Region destroyed 1,430 tons landed by the British who retaliated by indiscriminately bombarding the populated Chinese coast. Superior firepower ensured a British win. Under duress China opened designated ports to European merchants on the understanding that the landing of opium would not be opposed.

Seventeen years later the matter was reopened and the Opium War broke out again. Following the defeat of China, opium once again flowed in from British India as riches flowed out. China accommodated the problem by supporting opium growing and imposing an import tax from which they could draw revenue (McCoy, 1973: 63; Geddes, 1976: 202).

During this period I suppose we must conclude that the Chinese people smoked opium for pleasure. Let us not forget that this was also the situation in most of the colonised countries of Asia. It was Europeans who were the first to really promote, on any economy of scale, the smoking of opium for pleasure. When the noble merchants of civilized Europe sat in splendour on a wealth of gold and capital accumulated through opium trading, who asked about the morals of it all? The Chinese have reason to remember because the problem of opium addiction remained an issue until after liberation.

Grandstaff has said that the Hmong were growing opium before the middle of the nineteenth century and at this time they and other ethnic minorities from the South of China were marketing raw opium (Grandstaff, 1976: 171-173).

About one hundred years ago, hill people moving from China through Burma, Vietnam and Laos, brought their agricultural experience and skills to Thailand. They also brought opium seeds.

Since 1360, during the reign of King U-tong, and throughout history, up to the Fourth Chakri King, successive Thai rulers demonstrated their disapproval of the use of opium as anything other than a medical drug. However they experienced constant difficulties in implementing an effective policy of prohibition. Since the reign of King Rama III, the Ung Yi, a Chinese secret society, opposed Thai eradication policies. The British East India Company, by far the most successful international trader in opium, whose operations in China had proved to be so successful, was also making trouble for the Thai government. Chinese addicts and traders resident in Siam opposed restrictions on its use and special provision was made to keep them happy. The trade also promised to provide revenue. In 1807 the Thai government set up a state monopoly to manage opium imports and sales. In 1813 a secure opium store-house was built and between 1813 and 1840 opium trading was brought under a new system of management. This provided income for the government and helped reduce the amount of opium entering the black market (McCoy, 1973: 66-67; Geddes, 1976: 208; Chantaboon, 1983b: 14-15).

In 1955 the Thai government under a military regime declared opium illegal and in 1958 a bonfire of opium was lit at the Pramane Ground (Sanam Luang), a big ceremonial and recreation ground in the heart of Bangkok. In an attempt to deal with the problem of opium addicts an Opium Act was passed (1959). Unfortunately, even at this early stage, many addicts switched over to heroin. It was at this point that heroin started to be a problem (Geddes, 1976: 201.Chantaboon 1983b: 15).

During the early period when the government held a monopoly over the opium business it was cheaper for users to purchase their needs on the black market. Before 1830, although some Hmong and Yao had already moved into the North, supplies came in from China because there was not enough opium grown in Thailand.

After World War II, Lahu, Lisu and Akha from Burma had already begun, in greater numbers, to take up residence in Thailand. Some of those who arrived at this time clearly remember when and how much opium they sold to the government (Chantaboon, 1983b:-17). They brought with them not only a knowledge of how to cultivate opium poppies but they were also accompanied by Yunnanese entrepreneurs who managed the commercial relationship between highland producers and lowland markets (McCoy, 1973: 65-67; Geddes, 1976: 207).

In summing up we can say that the highlanders brought opium into Thailand from China where it had been forced on a reluctant government by European colonialism. Today the loudest contemporary voices raised against it are those whose grandfathers accumulated the original capital advantage in the trade which helped give them the economic predominance they enjoy today.

When Crop Extension Goes Marching In

Why this interest in eradication from overseas? Perhaps it is because when Europeans, especially the British, look in the mirror provided by history, they are ashamed of what they did in the past? Is it, as the Bible would have it, that the sin of the fathers is visited upon the children? Certainly the problem is now very much at home in the industrialized nations. The war against narcotics is a lesson learned rather late. We are all aware that heavily addictive drugs not only diminish human dignity (which is no doubt a cost the commercial establishment could profitably live on) but also that the cost in terms of the legal, medical and

social welfare services called on to combat the problem are very expensive.

In fact foreign awareness of the problem is not just a post-war phenomenon. Concern grew throughout the nineteenth century, especially in Britain where the British Royal Commission on Opium was set up (1893-94) to examine objections raised by missionaries and others. Perhaps not surprisingly, the Royal Commission examined the situation, noted the rising opinion against opium and declared that it was too profitable to give up.

A chronological list prepared by McCoy tells the story (McCoy, 1973: 137).

1906: The House of Commons unanimously declared trade in opium immoral (!).

1909: An international conference in Shanghai resolved to put pressure on colonial powers to stop the opium trade.

In 1946, at the first United Nations meeting on drugs Thailand was embarrassingly singled out as the only country in South-East Asia where the state maintained an opium monopoly.

1947: Thailand announced that is would only allow opium to be grown in the mountainous areas of the North. This provided a further incentive for highlanders faced with a civil war in China to migrate to Thailand and grow opium (McCoy, 1973: 137).

The declaration of the Opium Law (1959) which made the growing, smoking and trading of opium illegal coincided with the establishment of the Hill Tribe Welfare Committee. It was one legislative change in a policy package. The objective of this policy was not only to suppress the opium business but also to

protect forests from the encroachment of shifting cultivators and remove what was and still is considered to be a threat to the national watershed system. This Committee subsequently became the Hill Tribe Committee (1968) (Public Welfare Department (Thai), 1978: 2-31).

In 1960 the Hill Tribe Division of the Department of Public Welfare commenced work. They were not the first. Several years before this the Border Patrol Police had worked with highlanders (with generous help from the U.S.A.) as part of a government effort to secure their loyalty.

Since 1960 many organizations have set up development work, especially agricultural development projects.

At the present time there are more than ten organizations carrying out experimental work in the highlands involving demonstrations and providing support for farmers. The policy of all agencies is to stabilise settlements by introducing permanent agricultural systems. This is done by providing extension advice and material support for farmers to grow cash crops in place of opium.

There are so many extension crops that a complete list would take a long time to read. Instead let me classify them into groups.

Temperate crops: This group includes field crops, fruit trees, perennial trees and also flowers. We could call this group of crops **superior** not only because of the social status of those who promote them but also because of their exotic (for Thai) names, growth habits, smell, and taste. There is a high expectation that plants from this group will replace opium because temperate crop growers enjoy a high market price for their produce.

Sub-tropical crops have always been grown in Thailand such as corn, cotton, ginger, soya bean, red kidney bean, mung bean, cassava, mango, longan, etc. This group is not quite so difficult to grow but does not exhibit the promise of the first group. Moreover their harvests command lower prices. This group takes second place to temperate crops and extension personnel working with them also feel that this pegs their prestige at a lower level.

Varieties of indigenous crops bred overseas. Tropical plants such as the Wagashima soya bean, red kidney bean, giant sweet pea, garden pea, seedless pomegranate, coffee etc. This group appears to be more promising than the second group and, provided there are customers, growers enjoy a higher local price than that secured by the more common produce listed above.

This system of classification is my own. Some organizations support the first and third groups and try to avoid the second. Some support all, regardless.

Agricultural Extension: easier said than done

A list of long distance runners in highland development work includes the Department of Public Welfare which has been operating for more than 20 years; the Royal Project for more than ten years; the Thai-Australia highland Agricultural Project between 1972-1979 and the UN/Thai Programme for Drug Abuse Control (UNPDAC) which started work with extension crops and development in 1972. Much of the work pioneered by UNPDAC has been incorporated into the Office of the Narcotics Control Board (ONCB) set up under the Office of the Prime Minister (1977).

The Watershed Conservation Division of the Department of Forestry has supported agricultural extension activities for highlanders since 1976. In 1979 the Agricultural Extension Division started work. A little later a development project was

set up in Mae Chaem managed by the Northern Agricultural Development Centre under the Ministry of Agriculture and Agricultural Cooperatives which received supporting funds from the U.S.A. (1981). The year before that a soft loan was provided by the World Bank for the Department of Public Welfare to set up a five year project which works in six northern sub-catchments.

There are many other projects but it is not the aim of this essay to record them all. The point is to offer the comment that until now none of these efforts has resulted in any of the agencies involved being able to say unequivocally that they have found the answer to development work in the highlands either in agriculture or conservation work. Opium is still being grown.

The highlanders standard of living is as low as ever.

As for the extension workers themselves, they face many problems that can be seen quite easily. The new crops pose a considerable challenge.

Growing them is a complex business. Land preparation, delivery of services, provision of inputs, plant care, weeding, application of fertilizer, handling both during and after harvest, storage and packaging are all new for both the highlanders and extension officers alike. Some types of plants need quite specific care; some need more labour than traditional crops; farmers require more money to purchase inputs and so on. The greater complexity ensures that many problems follow.

Pests and disease. Many of the new crops have very specific needs and a low resistance to infestation by insects and diseases. Where soils lack critical trace elements and minerals these need to be purchased along with fertilizers. There are always new types of pests and diseases making their presence felt in highland extension work.

Communication. Not only is there a language problem between extension workers and their clients, the sociology of knowledge of each side is mutually unintelligible. This creates a big obstacle to development work. Part of this problem concerns the fact the extension workers do not understand the customs, traditions and social behaviour of the highlanders just as the highlanders do not understand either the Thai or the foreigners who are also engaged in the work.

Market and Price. The price of agricultural produce is set in markets outside the highlands. Usually the farmer has no independent knowledge of the market and must accept what project officers tell him. This makes it extremely difficult for him to do any planning by himself.

The marketing side of hill crops is still relatively poor; government activities in this field are weak. This sometimes leads to a strange problem in which extension work precedes market planning. Highland framers are supposed to take extension advice in good faith even though it does not include such information as: likely returns from the harvest; who will buy their produce; where they will sell it; how they will get it to market; how it may have to compete with lowland produce that does not have to meet high transport costs. The good faith shown by highlanders is often amazing. They will go along with extension worker plans even though they are well aware that they face serious transport problems.

Another problem of introducing crops to the highland milieu is the adaptability of the new varieties to the physical situation and whether they will fit within both the framework of local cropping practices and the social system.

Bias in the "Balance"

In the past the government approach to problem solving has concentrated almost exclusively on the economic side of

development. Many organizations provide rhetoric to the contrary but if we look carefully at their planning we can see that the balance between social and economic objectives definitely favours the latter. Economic plans are carefully prepared. The allocation of funds for research, experiments, demonstration workshops, training and extension work is always given on the promise of a fruitful outcome. In response to this optimism a lot of money is invested in infrastructural development for agricultural extension. When we look at the other side of the coin, at social considerations which make it necessary for us to consider issues of quality rather than quantity, the nature of the bias in development work becomes evident.

Education is one field in which society attempts to deliberately cultivate and nurture human qualities. Many agencies promote highlander education, open schools and provide extramural training. These are facts that can be quantified.

Assessing education policy, the Office of the Primary Education Commission has noted that "hill tribe education policy has never been clearly planned..." but remains part of a general educational policy rather than treated as a case in which special difficulties are involved in articulating theory and practice. The government has never paid any significant attention to hill tribe education and has never provided sufficient budget or other support. The state of highlander education is now no better than it was twenty years ago. Most courses are the same as used in general primary schools rather than specially designed for elementary school aged hill tribe pupils. Subject matter, teaching styles and learning conditions are not compatible with the highland milieu and as a consequence both pupils and parents are not convinced that either schooling or education is important (Office of the National Primary Education Commission, 1983: 76). The national, standard educational curriculum laid down in 1978 applies to most hill tribe schools. Courses defined then, remain in use.

This is not to say that the responsible government agencies have not attempted to face up to the education problem. In 1965 the General Education Department developed a curriculum for hill tribe schools but could not secure project support for lesson plans, textbooks and assessment methods. In the absence of an agreement between those responsible for professional tasks and administrators who had authority to allocate money, the project did not get off the ground (Ibid: 52). This collapse may be accounted for solely by a lack of funds. Another attempt was made (1977) by the Adult Education Project for the Hill Tribes. This project was a General Education Department project which arranged for instruction to be given to adults. The Department also prepared a texbook as well as a teachers' handbook (Department of General Education, 1978: 4). This undertaking was later transferred to the Department of Non-Formal Education which still runs it.

In fact the curriculum for Adult Education has not yet been adjusted to the needs of hill tribe people (Sunthorn, 1984: 7) but this does not imply absolute neglect. The work now associated with the Non-Formal Education Department commenced in 1978 as the Hill Areas Education Project (HAE) (Northern Regional Non-Formal Education Center, 1980).

This was a really serious effort because, for the first time, the government showed its mind and truely confronted in a comprehensive manner, the problem of highlander education. The HAE Project addressed itself especially to issues concerned with educational philosophy as it applies to the development process. In the 1981 curriculum these issues are identified as teaching aids (texts etc), organizing education services around clusters of villages focused on community education centres, setting up a monitoring system and making provision for self-supervision, indentifying new modes of administration, professional development of personnel and co-ordinating work between the different participating line agencies. These issues were all considered and define a huge task which remains to be done.

The curriculum is in fact the result of five years experimental planning (Ibid. 1985: 1-11). In 1983 the National Primary Education Commission Office hosted a seminar on the question of how best to provide primary education for highlanders. Matters considered included problems of administration, related services, supervision, budget, teaching and learning, equipment and instructional media, buildings, the role of teachers, pupils and parents, welfare and coordination. (Office of the National Primary Education Commission, Ibid, 1985).

The Office of the National Education Commission showed a great deal of interest in education for highlanders and in 1985 set up a project as part of a national level search to identify a primary education system which could be made available to all ethnic minorities. The object was to convince hill people that the Bangkok view of what it means to be Thai was not only politically correct but culturally acceptable. All of this was designed to unravel the endemic issues of alienation, isolation and poverty and enable the authorities to enhance their contribution to hill tribe advancement. The research provided an opportunity for preliminary discussions to be held on the social role of education.

Another matter undertaken as part of this exercise was the issue of public health. Not long ago public health services were not available in the highlands. Where they maintained any sort of presence the emphasis very definitely fell on curing sickness rather than preventing it. This curative approach has its limitations.

Suggestions as to how official methods of working could be changed were proposed by the Ministry of Public Health, Mahidol University and the National Research Council at a national seminar on the Psycho-Social Aspects of Public Health supported by the World Health Organization.

At that seminar a search was started to identify the social and cultural constraints operating in the national public health service. The gap between public health personnel and patients became a topic of investigation. The problem of poor communications attracted special interest and was seen to be the product of a situation in which medical officers trained in modern medical science are unsympathetically disposed towards patients who come from a small town or rural background. The researchers found that existing services emphasized curing in preference to preventative measures. Patients who were supposed to be the recipients of the service were not prepared to ask for help and were not willing to work together to improve the efficiency and effectiveness of local sanitary services (Ministry of Public Health, 1981a: 1). One of the speakers stated that for as long as he was aware, those in charge of sanitary services had chosen to give more attention to the acquisition of new curative medical technology rather than promoting public health and preventative medicine. (Perhaps all such ministries all over the world are misnamed and ought logically to be called Ministries of Illness!). No more progress has been made in preventive medicine which encourages people to maintain a healthy environment and help themselves but somehow new technology for dealing with illness and disease is much more attractive to the medical profession (Ministry of Public Health, Private Communication, 1981b: 1). These observations applied equally well to services available to both Thai and highland people.

The best way of tackling this problem is to use tools and communication techniques developed as a part of a health education curriculum (Ministry of Public Health, 1981c: 7).

Under the Fourth National Plan the Ministry of Public Health made provision for minority people but officers assigned to duties in the field met with many cultural obstacles and difficulties such as language, living conditions and transport. The hill tribes' low level of education in Thai and lack of knowledge concerning the manners and skills of modern society

as well as a lack of detailed data on hill tribe sanitary practices greatly impeded implementation of health care (Office of the Under-Secretary, Ministry of Public Health, 1984a: 1).

1981 was the year in which the first serious attempts were made to tackle hill tribe sanitary problems. The first area targeted for development was Mae Chaem district, Chiang Mai, where activities were mounted as part of a pilot project. The main objective of the work was to identify an appropriate approach to highlander problems consistent with public health service resources (Ibid: 2; Office of the Under-Secretary, Ministry of Public Health, 1984b: 2-3).

Starting from this project the Ministry of Public Health has made a serious effort to identify a package of public health provisions which would be most effective in the highlands. In 1984, with support from UNFPA, the Ministry of Public Health arranged a workshop where the ideas and experience of other concerned organizations could be brought together to set the parameters within which a new policy would be set up (Office of the Under-Secretary, Ministry of Public Health, 1984c: 1);

Although steps have been taken to formulate a public health policy we should keep uppermost in our minds the words of Dr. Charus Suwanwela and his team:

> Culture and the values of a community are the important factors in deciding on what are community problems, a process of decision making based on observations by third persons always misses the point. Health care for the people must be replaced by health care by the people. The problems people are working with now should be considered in the absence of prejudice and with careful judgement. The appropriate method and process should make for better practise as well as make use of development theory... (Charus et.al., 1980: 50).

We can summarize development efforts in the highlands back to 1960 relatively briefly. While much has been done in the

economic field, this work lacks both continuity and coherence. Work in education started twenty years behind and public health behind that again. Nevertheless we have a proverb to comfort ourselves "Better late than never" (never mind who said it!). I myself feel that highlanders have developed a new appreciation of how education can help them and see it as a way to secure social promotion, command the respect of others and earn more money by securing better jobs. As in any period of rapid social change there are many inconsistencies. For example modern medicine is seen as a brand new spirit to cure sickness and gets rid of diseases quicker than old spirits. The material scientific understanding that should have accompanied this development is missing. There is a lack of balance here.

If we must always sit down and argue the case every time as to why the social side of development work should proceed as quickly as the economic aspect, we would spend all our time talking. Development literature reports on a lot of research and there are a lot of textbooks in which well documented casework is available. The preoccupation with economic development as the most important issue collapsed long ago.

Efforts We Ought to Review

If we set the question "What was the original idea behind promoting cash crops for highlanders?", the answer is most likely to be "to replace opium and bring their standard of living up to that of lowlanders". If this is true we should next consider that if the promotion of cash crops is to replace opium, a policy decision has been taken to extend this strategy throughout the highlands of Thailand. Certainly, among the many issues which stimulated government interest in the highlands, opium cultivation can be listed loosely alongside the matter of national security and deforestation.

In the beginning, policy was made on a very flimsy information base. Officials had to rely on their opinions and judgement in place of knowledge. As time passed we came to know

better. We know there are four hill tribes struggling to grow opium as a part of their economic system, namely, the Hmong, Mien, Lahu and Lisu,and to complete the picture, a few Akha. Other ethnic groups such as the Karen, Htin, Khamu and Lua, at least 65 percent of all highland ethnic minorities do not traditionally grow opium. The significance of this is clearer when we realise that the number growing opium in the highlands make up at most only 35 percent of the total hill tribe population (statistics collected by the Tribal Research institute, 1983), and the figure today is likely to be as low as 15 percent.

The majority do not grow opium. Moreover,of those ethnic groups listed as growers neither every village nor every household in villages which grow opium are actually engaged in cultivating the crop. Today (1987) the proportion of growers is likely to be much lower than it was two decades ago.

Incidence (%) of Sample Villages Growing Opium (1983)

- Hmong	60.4%	of villages from a sample of	101
- Lahu	34.6%		222
- Mien	40.0%		45
- Lisu	66.6%		90
- Akha	14.2%		91

(Chantaboon, 1983d: 6-7)

We can see that projecting an opium crop replacement policy on all highlanders by extrapolating information from a minority of farmers is deeply faulted and quite unreasonable.

It is possible to argue that the extension of cash crops to strengthen highlander participation in the market is not just to replace the opium crop but also to improve their standard of living. This second objective needs to be explored but in the time being do not forget that the initial programme was begun for security reasons, to combat the opium problem and devise a strategy to tackle forest destruction. There is a surprising file

of research results available (Binney, 1968; McKinnon, 1978; Lee, 1978, 1981; Durrenberger, 1983a: 87-98; 1983b: 221-223). Most of this information was collected in the course of anthropological research, and these professionals all confirm that opium is grown mainly because it is the only way in which highlanders can secure their rice needs.

Highlanders sell opium for money. They use the money to buy needed rice. If we look back twenty years a very clear picture emerges. Twenty years ago few anticipated that electricity would become available, that domestic water supply schemes would be set up. Transport was by mountain ponies and mules. The availablity of industrial goods which tempt people to earn more money so they can spend more was not very well developed. The neccessities of life were still rice, salt, gunpowder for muskets, iron for making knives and agricultural equipment, needles, thread and silver. Between 1936 and 1937 when the Dutch scholar Bernatzik travelled through hill tribe villages in Thailand he recorded that the Hmong traded with Chinese-Yunnamese for iron pots, metal pans, flint-stones and matches, sulphur for making gunpowder, salt, cowry shells, buttons, floral patterned cloth, silk, small mirrors, rope, needles and thread (Bernatzik, 1947: 424).

From this list we can sense the continuity of such trade but in more modern times the changes have been so great we should realise that we are scratching for information in the wrong place.

Because, in general, hill tribe communities have a strong preference for growing their own domestic foods it is not difficult to appreciate how important rice is as their staple. Not so long ago what opium was grown was for medicinal purposes (Grandstaff, 1976: 171). It was only in relatively recent times because of a variety of reasons (high price of opium, shortage of land and increased population) that highlanders started to grow more opium to make more money to buy rice.

Why do we direct nearly all of our attention, effort, intelligence and money to pushing people into the market? Do we want to encourage aggressive commercial farming in the highlands?.

Doesn't anybody wish to dissent? Does cultivation for domestic consumption have no value to either national planners or those responsible for carrying economic development forward? Is only one way to prosperity permitted? Does subsistence cultivation have no value because it is only for people rather than capital gains? Why don't we investigate in the right place instead of looking for cash crops to replace opium? Is this choice more difficult to pursue? Let us see.

Let me return to the point that the government is involved in the highlands to improve the people's standard of living. Let us accept this as a sincere manifestation of the development ideology of middle class, urban society.

By tradition, hill tribe communities invested their labour in a subsistence economy supplemented by trading but the main objective was to produce the bulk of their consumption needs. When, for various reasons, production fell short, they were forced to diversify their production strategies. If the resources available to them were inadequate, for example if there was no primary forest, they had to make use of secondary forest (Cooper, 1976: 298; Durrenberger, 1983, 2: 221).

> As all the primary forest is felled swiddeners are forced to clear gardens in secondary forest. If they can arrive at a symbiotic relationship with their new environment by devising by trial and error if necessary, an appropriate periodicity governing clearing and fallowing in a way that maintains soil fertility, then they have solved the basic problem of human survival: a stable relationship with a renewable and essential resource (McKinnon, 1978: 11-12).

Therefore to push highlanders into making money is not the only way to solve the problem. Having money doesn't mean they will be assured of good health, make optimum use of their environment or achieve greater social harmony.

Government offices and agriculture extension agents working in the highlands have found that it is really very difficult to persuade hill tribe people to stop growing opium and grow other crops. These officers have also found that it is even more difficult to persuade the non-opium-growing groups to cultivate cash crops. There are some villages in which such a policy has been successful but they are the exceptions rather than the rule. Their "success" is out of proportion with the effort put in by the extension agency.

Karen, whom the Thai call *yang* were renamed by a development worker *yang-ma-toi* (hot asphalt: sticky and slow moving). Clearly they demonstrate their reluctance by their behaviour (development workers want results fast!).

In this situation it is possible to see some important aspects of development policy, that is problems in **the economic system.** If we examine a survival based economy we focus on a system which lies deeply embedded in the reality of socio-cultural life whereas an **economy for trading** is a quite different system. If we try our best to replace the first system with the latter we challenge the total socio-economic system and its complex internal interrelationships.

We need not make the effort here to restate the sociological reality that economic and social systems of any society are closely interrelated with each other. Changing any single part of the system has a profound impact on every other part of the system.

When we can see this clearly we can begin to understand why the lot of hill tribe development workers like us is so very

hard. We have extended a challenge to highlanders which our offspring will in turn extend. But even over two generations we will not get far at this creeping pace (or are we waiting for our great-grandchildren to help us out!).

To draw a clearer picture I would like to focus on something closer to home: food. For the hill people in general, rice and other domestic crops are the most important things to them, first for human consumption and next for animals (depending on the type of corn).

Highlanders have four farming systems (Chantaboon, 1983c: 2), the most unique of which is a mixed cropping system. Sanit Wongsprasert has surveyed crops planted in early maturing rice fields and found nine other crops. In slow maturing rice fields he found 17 crops and in opium plots 43 other useful plants scattered throughout the cultivated area (Sanit, 1979: 54-60, 77-88). In this respect corn fields are the same as rice and opium fields: many other crops are grown together.

Chantaboon Sutthi has collected data on the mixed cropping systems of six hill tribes: Hmong, Mien, Lahu, Lisu, Akha and Karen. Plants are intercropped for a variety of purposes but all are consumed in one way or another. Some are used as staple or supplementary food, others in the preparation of herbal medicines. Then there are fibre plants like cotton and hemp from which cloth is made. Some plant materials are used to make tools, and others as raw materials to produce whisky and other beverages; some feed those addicted to opium and tobacco; some provide cooking, seasoning and lighting oil (sesame, poppy, castor), and dyes, while others supply materials for ritual? purposes, ornaments, and talismans (Chantaboon, this volume). The Karen have a special plant to keep moisture levels down in rice stores (Chantaboon, 1983c: 1). Walker has prepared an inventory of crops planted in Lahu Nyi rice fields. His list includes rice and three other types of grain, three types of legume, two types of oil plants, four types (ten varieties) of

tubers, two types of vegetable, seven types of squash and six spices (nine strains) (Walker, 1970: 382-384).

The use of these plants is closely integrated into the daily life cycle of highland communities. Another observation worth mentioning is that they do not think of diseases and insects as serious pests but they do have a big problem with foraging animals (Chantaboon, 1983c: 1). Fencing is important. Remember, these plants along with the farming systems into which they fit are deeply structured into highlander society.

Even the distinguished anthropologist Kunstadter shows amazement at "the ability of the Lua' and Karen, farmers (who) even as young children, (can) distinguish successfully between the 84 cultivated varieties (plants grown in swiddens) plus 16 useful uncultivated varieties that grow together with numerous weeds, even at the stage when plants are less than a centimeter in size" (Kunstadter, 1978a, 1: 90).

It is not unreasonable to ask "How can we presume to place extension crops within such a complex system let alone pretend we should replace it altogether?". Any simplification of the system in pursuit of cash rewards automatically implies that many valuable plants would be lost.

Some Karen and Lua have said that even though their harvests from irrigated fields are good they still grow hill rice in swiddens because they get the bonus of the 25 other plants they can grow there (Chantaboon, 1981: 79).

Even though they could grow extension crops there would be no great advantage in doing so. As an agricultural policy such a strategy has little to recommend it. This also applies to the opium poppy. When he looked carefully at the socio-cultural role of opium as distinct from its contemporary economic significance Chantaboon Sutthi found that is serves 11 economic

functions, 14 social roles, and is used in 18 medicinal applications (Chantaboon, 1983b: 24-36). Opium belongs within highland society and cannot easily be eliminated solely on the strength of outside opinion.

The idea itself of changing the economic system of the highlands is best explored in the next case.

To my knowledge no extension cash crop has ever been offered that would fit inside the existing mixed cropping system. How realistic is it then to expect that the extension crops promoted in the highlands can replace the broad domestic purposes served by traditional crops when they do not fit into established farming systems and patterns of labour use, or use customary agricultural methods? If we think this problem can be avoided by indulging the optimistic hope that the new crops will fetch prices to enable the farmer to buy replacements to satisfy his subsistence needs are we not being more than a little crazy?

In the past all agricultural activities complemented social activities and cash crops faced considerable difficulty in penetrating this system.

The new cash crops come with their own technical superstructure: plants are first placed under investigation, then under trial as part of an extension experiment. Temporary and artificial marketing agreements are entered into in which the price is set by the co-operating parties. Information about the real market situation has always posed a big problem for Thai academic and civil service agriculturalists.

We must spend a lot of money to take care of cash crops promoted under development programmes. This includes special seed crops which require fertilizers and chemical pesticides to get rid of new pests, and new kinds of crops which make it necessary to buy new tools and equipment. It is not difficult

to appreciate that given their lower standard of living, highlanders face many problems, not the least of which is a chronic shortage of funds. Poor transport is another and it is quite clear that the high cost of getting goods to market presents a considerable barrier to agricultural development. Many villages are perched on steep slopes where it is difficult to construct and maintain roads. Many new crops are very sensitive, fragile and quickly deteriorate: as observed by one humorist it would obviously be better if all villages were reached by asphalt or concrete roads, or best of all, by super highways! Seven years ago Peter Kunstadter observed "Under existing conditions, even the simplest modern technical devices are far too expensive for the average upland farmer, and the costs of modern technology, including fuel and agricultural chemicals, are bound to increase in the foreseeable future" (Kunstadter, 1978b: 302). He was right.

We cannot easily jump over every obstacle placed along the road of acceptance of all new cash crops. The technical problems are considerable. Let us imagine (again) that the hill tribes have accepted the **new economic system** and have already abandoned their old ways. What if for some reason the new crops fail? How would they retrieve something from the situation? With little or nothing growing in their fields, what can be eaten?

I would like to offer a research topic to anybody interested! Please review the policy of extending cash crops for hill tribe development. Is it suitable for them or not? Are we headed down the right path or not?

Is it a great leap forward or backwards? Are we able to appreciate that *yang* (Karen) are not *yang-ma-toi* (hot asphalt) but natural Yang who have their own modest and profound philosophy of life which runs much deeper than the development workers understanding or purpose?

I believe that it is **only by adjusting the traditional agricultural survival system** that we will be able to shore up the cracks that are appearing in highland society. Even attempting this task

with the sincerity it deserves will make for a much more meaningful and close relationship with highlanders because the traditional system has strong roots in humanitarian ethics as much as reason. In the process of adapting themselves to their environment their forefathers accumulated experience and through trial and error built up a considerable wisdom concerning agro-eco systems. This knowledge has been passed down from generation to generation and must be acknowledged and understood: it is the means by which all the parties involved could come to a better appreciation of what must be done.

The highland mixed cropping system is adapted to high altitudes (Chantaboon, 1983c: 6-8) and for that reason highlanders choose locations in which they can replicate the traditional land use system. Many things must be considered: water sources (especially water for drinking while working in the field), distance from settlement, aspect of slope (orientation to solar radiation), altitude, soil moisture, wind direction, rock and soil type, nature of parent material and composition of established vegetation (Walker, 1970: 332-342, Chantaboon, 1981: 84-98). Such knowledge is only built up over many years experience.

It can be argued that once highlanders have become engaged in the cash economy it is no longer possible for them to turn back to a production system for domestic use only. Indeed the seductive power of the market is increasing. Farmers' needs increase in direct proportion to their knowledge of what is available and how it can be used. I agree with this argument (even though I can see some weaknesses).

Another good argument runs that to support the domestic economy implies support for swiddening (or "slash and burn" as it is sometimes dramatically described) but given current population densities and the amount of land claimed for other purposes (ie. forestry, national parks) there does not appear to be enough land available for everybody to continue with this system[1].

1. This observation originated with Dr. Nicholas Tapp out of one of our many informal discussions.

I am caught in some doubt that I am able to choose the right gate to the patch of development. By this I don't mean to say that we must choose extreme change, abandon cash crops, turn our back on the market and return solely to a subsistence economy. Such thinking is too narrow. The decision making process should consider both systems. In other words we should target economic development strategies following a policy that asks us to first identify the most appropriate level of intervention between the two economic systems. In the past and up to the present the government has given heavyweight support to economic development by promoting cash crops almost exclusively and we dare to say that the state is remiss in this matter because the demise of subsistence cultivation will bring much trouble. To anticipate this end, to match the reality of the two systems, we must bolster the subsistence system so that it can continue to serve as the foundation of the highland socio-economic system and keep entry into the market economy in second place. In this context cash crops would only have meaning as a necessary supplement when consumption needs can no longer be secured by domestic production. I do not think it is wise that they be promoted as part of a general policy of progress.

Such a new policy of balanced development would make it necessary to adjust project planning appropriately. The budget allocation formerly made and given over to research, experimentation, demonstration, training and the promotion of extension cash crops must be rearranged and readjusted. We should abandon the principle of a general allocation and provide special support for efficiency, effectiveness, and to accelerate efforts that can ameliorate the degenerating parts of specific systems.

By degenerating parts, I mean points of weakness, potential breakdown and crisis in the subsistence system. To ease crisis points in the system we still need more knowledge but there is a shortage of those knowledgeable enough to support such work. We do not have a strong research approach to mountain rice;

there is not much money available and few researchers are engaged in this field. It can be said that UNPDAC was a pioneer agency and consultant in this matter. One rice experiment station officer at San Pha Thong took up this work and expected to identify an appropriate hill rice strain (Chupinit, 1978: 18). He succeeded in breeding a rice strain suitable for some highland conditions (Ibid: 55-57, 60) but the matter was not taken up as part of a formal station work plan (Ibid: 42, 53-60, 64). The project is long since finished and no important development followed from it.

Between 1980-1983 the Faculty of Agriculture at Chiang Mai University also undertook research into highland rice production and produced a very interesting report (Faculty of Agriculture, CMU, 1983). The data from this report tells us that a collection was made of 300 highland rice varieties, about 200 of which are indigenous, and more than 100 exotic, brought into Thailand for cross-breeding (Ibid: 52). In the last year of the project the scientists were able to cross-breed six highly productive varieties (Ibid: 138) and these have subsequently been made available for wider distribution[2].

In 1980 the Rice Research Institute of the Department of Agriculture and the Department of Public Welfare agreed to start a rice field grain improvement project for the highlands. Between 1980-1981 the Public Welfare Department collected 300 varieties of highland rice grown by highlanders for the Department of Agriculture.

In 1982 the performance of these varieties was tested at different altitudes from a low of 330 metres to a high of 1,300 metres. The criteria for testing took into account taste as a priority issue as well as resistance to dry conditions, cold and disease. Production levels were recorded and the response to fertilizer measured.

2. Personal communication with Dr. Jakri Senthong.

Between 1983-1984 the Department of Agriculture arranged for numerous rice tasting sessions by hill people to help them select the most delicious variety. In 1984 the Department of Public Welfare again collected rice varieties and some 106 types were sent to the Rice Research Institute where they are still under investigation[3].

Observations on highland rice varieties are not readily available except to the few who have a special interest in the data. Distribution of information has always been limited and still remains at some remove from the eyes and ears of highland extension workers. When we switch our attention to corn, the second most important crop in the subsistence economy, we meet even fewer researchers. The remaining 40 crops so important in domestic consumption have failed to attract any interest at all.

Actually I wonder how much consideration has been given to the changes that occur when plant material is removed from its natural environment? Some edible plants brought down from the highlands and grown on the lowlands under completely different conditions did not grow well and tasted bitter. More research should be carried out on the relationship between grain crops and their nutritional status. Their food value is something that should be clearly established (this is an aspect which is invariably neglected).

Other important agricultural research which should be promoted is examination of the economic system as structured into highlander cultural traditions. Research on this issue would contribute much to our understanding of the adaptation process and direct the work of scientists and planners along more positive lines. Field research of this nature would also place us in a better position to understand the man-land relationship. If we could find a way to accelerate recovery of the biomass, then it is possible that cyclical swiddening itself could continue as a stable agricultural system which could support communities of sedentary farmers.

3. Personal communication with Mr. Chantaboon Sutthi of the Tribal Research Institute.

So far I have focused my attention on a critical review of a myopic development policy that deals solely with the commercial economic aspect of development. I have argued that much more attention should be given to social development. This aspect is no more or less important than the economic and it must be emphasized that development means improvements in the quality of life as much as an increase in the quantitative, material standard of living.

It is unlikely that we would hear of a university graduate educated to respect the law as well as his science driving a tractor into the forest to clear land for cash crops. Commercially successful highland farmers with a capital surplus know only that they can extend their land holdings in this manner. In exploring the possibilities inherent in the capitalist mode of production what else can we expect of a rational, if less well educated farmer, with access to savings and a proven ability to mobilize labour? And do not think that I merely hypothesise. This has actually happened in Tak, Nan, Kamphaeng Phet and Phetchabun

If a well balanced development policy was being implemented we would not hear any more complaints from development workers that hill tribe people only ask for assistance and never help themselves. Perhaps we would also not hear how a highlander died after an injection given by a quack doctor because the people would be aware of such dangers and we would not allow such practitioners to administer "cures". Perhaps then we would not have to listen or face up to comments aired about the shortage of people of quality in the highlands (even if they are rich!): our sentiments would be formulated in a quite different way.

The wisdom of development priorities is overdue for critical examination. My case for putting the subsistence economy first and awarding second place to cash crop production should be considered as part of that reexamination.

If we are to adjust the contemporary cultivation system it would be easier if policy was based on the philosophy that people must first satisfy their own needs rather than have outsiders attempt to force change and convert them to a new system. This holds true because it would place the grounds for response on the profound level of basic human needs. The accumulated wisdom and skills of their historical experience and confidence developed in their own socio-cultural system would be called into play. It would be easier to intervene in small ways than to attempt to radically change the whole. Then again there are many plants grown by highlanders that have already passed the adaptation process. In such a case any adjustment in grain production should be carried out within the system rather than bringing all sorts of new varieties which face so many obstacles.

If we accept this point we must pay serious attention to the study of subsistence plants which naturally occur in the region (or in the culture), which could be engineered and reintroduced into the traditional mixed cropping system. Experiments should be mounted to identify a farming system close to highlander agricultural practices that will regain the ecological equilibrium maintained in the past.

My second point which needs to be explored is the assertion that the quality of social development is of equal importance to that of economic development.

The Problematical Future

If we insist on cash crop promotion for highlanders as a principle of policy we are heading for trouble. Not only the problems I've already indicated but others that we bring upon ourselves and may not know about until it is too late to do anything about them. Each case has its own characteristics.

The first point I would like to develop concerns highlander ecological systems. From the very first contact in modern

times until today, the hill people have been punished by the accusation that they are destroyers of the forest and the watershed and that as a consequence of their method of cultivation upset the ecological balance of their environment. In these charges something is missing. Some research results conclude that swidden agriculture protects soil surface erosion even on high slopes under heavy rain (Nye and Greenland, 1960).

The argument that swiddening irrevocably destroys the forest, available organic matter and elements essential for plant growth is treated with scepticism by Nye and Greenland. They observe that a more dangerous situation is likely to develop from logging operations. As long as short periods of cultivation are followed by a long fallow, swiddening does not seriously diminish humus levels. The humus is renewed with regeneration of the forest and as a matter of fact most nutrients are locked in the biomass until released by fire (Ibid: 134; McKinnon, 1977: 13-16). The missing factor I mentioned is the increased population in the highlands. Lowlanders have moved to take up residence in the mountains. The number of highlanders has increased by natural causes and continuing immigration. All of this makes for the development of imbalances in the ecological system which do not justify blame. The stigma attached to the agricultural system known as shifting cultivation should be removed.

To come back to the cash crop economy, how does it help maintain the environment? How ecologically informed is this strategy?

We are able to see one point clearly. The advocates of the system appear to be willing to support monocropping even though many different crops have been introduced separately and with difficulty over a wide area in the face of rising costs. Irrigation systems have been extended and chemical fertilizers introduced. But an important feature of any monocultural agro-eco system is that over an extended period of intensive

production pests and disease multiply considerably, especially in tropical regions (see Jazen, 1977). This problem was previously avoided by farmers because by planting in small scattered fields at some distance from each other and frequently moving their gardens, the hazard was avoided (Janzen, 1977: 52; Nye and Greenland, 1960: 75-76). Land rotation and burning fields reduced pests, diseases and weeds (Janzen, 1977: 52). The introduced cash cropping system made it necessary to use chemicals to combat pests and disease. This takes money and there is no guarantee that in the long run resistant strains will not develop (Janzen, 1977: 53-54).

It is unfortunate but true that the quantity of chemicals used must increase because there is no other way of combating the problem.Clumsy use of chemicals can quickly become a danger to both farmers and consumers. Highland farmers entirely new to their use and unaware of the dangers are especially vulnerable.

This could become a big problem in the future. What sort of residue is left behind? Chemicals that do not break down dissolve in moisture and flow into the headwaters of the river system. If this residue is absorbed by animals and plants, what impact does this have on human health? How badly is the water polluted for down-stream users? Then there is the recurring cost of replacing chemical fertilizers which break down quickly under tropical conditions. More fertilizers and chemicals means spending more money (Ibid: 52).

Single cropping systems inserted into mixed cropping systems have as yet unknown consequences. However, single cropping systems do increase the chances of pest and disease infestation. By definition other plants besides those grown for sale are weeded out and the nutrient up-take is confined to both a single root level as well as the same nutrients. For these reasons it is not surprising to see a post-harvest soil surface left wide open to erosion. In tropical regions where heavy rain is concen-

trated into relatively short periods it is little wonder that land under monocropping with generous use of chemicals is particularly vulnerable (Nye and Greenland, 1960: 136).

To document my case I must also point out that single cash crops other than opium do not make much money for small holder farmers. To optimise his resources the farmer needs access to more land, labour and capital. Where his access to these factors of production is strictly circumscribed the failure of a crop can mean disaster. How can he then survive?

On the other hand, swidden mixed cropping saves both labour and capital. Cutting and burning reduces the necessity to weed and provides materials for fencing. Cultivation is extended gradually and care of the garden always remains within the bounds of available labour. Swiddening, at the lowest cost, delivers the best results.

There are other advantages in such a system which inhibits the spread of pests and diseases. The shade from different plants helps retain soil moisture even through dry periods. The variable depth of the root systems and different food needs ensures a broader up-take of nutrients. If some crops fail there are others which remain (Chantaboon, 1983: 6-8, Webster and Wilson, 1971: 103).

One chronic problem constantly discussed is that of land tenure rights or land ownership. Any policy for hill tribe agricultural development that does not face this chronic problem must remain largely ineffectual (McKinnon, 1978: 14; Kunstadter, 1978b: 303-307). The promotion of cash crops, if such a policy is to be consistent, must also provide the means with which to raise money and as land has always been used as collateral to guarrantee repayment of loans, a firm and legal arrangement should be made (Kunstadter, 1978b: 305).

If the law cannot be changed to extend this right then it will remain very difficult for highlanders to secure credit on their own account. Will the government then provide loan money? It will be difficult to provide for all. If the government cannot do this, highlanders who stand at the expensive end of the credit business will soon find themselves in serious trouble.

Then again, if there are some successful cash crops in the mountains, surely they must attract traders from the lowlands anxious to invest money to secure healthy profits (Kunstadter, 1978b: 304). This has in fact happened at many places, even in the Doi Inthanon National Park (Tribal Research Institute and Northern Agricultural and Development Centre, 1984: 12). In such a site success can make trouble for all.

But by supporting subsistence cultivation as the main policy, the question of land ownership for highlanders remains an issue that cannot, if we are to solve these problems, be approached in a slapdash manner. Carelessness could well result in an unsatisfactory situation like that of the American Indians (U.S.A.) who quickly sold their allotted land cheaply, an act which led to their impoverishment and social breakdown (Kunstadter, 1978b: 307).

Kunstadter has written, "The issue is not that they should be unable to sell it, but that they should realize the benefits of keeping it" (Kunstadter, 1978: 307).

As we can see the promotion of cash crops has always been accompanied with terms of praise for adopter farmers who are next called "progressive farmers". Nearly all such "risk takers" enjoy an immunity from risk provided by a strong socio-economic position within their community. It is their socio-economic status which provides them with the courage to grow new crops and remain within the good graces of the authorities.

Along with the extension effort go the profound changes which accompany the development of capitalism and the rise of the attitude that the stronger we become the more we get. Commercial success in cash cropping brings profit and greatly increased capital. Those who understand how this more predatory system works are able to invest their wealth and with the use of machinery extend their fields well beyond the area worked by a household which relies on hand labour.

Good demonstrations of this bad example can be readily found at Ban Chedi Kho, Amphoe Mae-Sod, Changwat Tak. The growth of cash cropping has greatly extended the gap between the rich and the poor, the haves and those who have not. Communities wishing to achieve such development should know, extension crops provide a short cut to wealth. Take up cash cropping immediately: it is guaranteed to work for you even though it may destroy both the harmony of your community and the ecological balance of the environment.

An Inconclusive Conclusion

Six years ago Sanga Sabhasri wrote, "Some might state, suppose all hill people stopped growing opium in the next five years the UN would pull out their aid, and so would Thai agencies The hill people would be left with an unstable economy" (Sanga, 1978: 209). Fine! More than five years has passed and what some might have feared has still not happened. Highlanders are still growing opium. The United Nations is still helping. All the agencies engaged in work in the highlands five years ago are still there and have been joined by more. The number of foreign organizations has increased.

For how long should we develop the hill tribes? It seems to me that the more work we do, the more problems we create.

In this paper, I have made an effort to give reasons why the conduct of hill tribe development is unsatisfactory. For me there are two main reasons for this.

First is the imbalance between economic and social development in the highlands. The second is that the cash crop policy as a central principle of economic development is inappropriate. I have suggested an alternative, a subsistence crops policy as a first priority to which cash crops should be given second place. Both government and non-government agencies must be involved. Plans could be adjusted to suit different needs. Research into the daily life of communities needs to be carried out to establish a real understanding of their farming systems and the nature of the plants they use and eat. Do not be discouraged by rumours spread by highland development workers that it is difficult to get money to mount such studies.

In writing this review I have not broached many new ideas. Many observations offered have been stated before. I am but a new wave to reach the shore, part of a well established school of scientific opinion which I have willingly joined. We must maintain an open mind so that we can accept that the success we have announced can be seen for what it is as an "unsuccessful success".

McKinnon has expressed this feeling, and he is one of few expatriate workers with the confidence to speak about experts who feel constrained to say quite misleadingly, "how rosy things are. (When in fact they should)...**admit to themselves as any competent scientist should that even in the best of circumstances it is in fact extremely difficult to achieve anything of real substance.** This is an ethical as much as a practical problem and this then becomes a call for a level of professional competence as a product not only of intelligence, qualifications, experience and that social mystique granted by age and status but something which is fundamentally dependent on personal honesty, integrity and receptivity" (McKinnon, 1977: 27-28).

As the Chinese proverb has it "change the mind, then find the shore", only then will the poisoning effect of the lovers triangle be no more.

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