

# Highland Agricultural Development

## A Case Study

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### ABSTRACT

The highland agricultural development has its own characteristics. The target group, the hilltribe people, consists of very basic and very poor agriculturists who also have problem in communication of Thai language. The target site, the highlands, is a remote and undeveloped area. The background knowledge concerning the people and the site is limited.

We hope that this project will be of interest to you. We cannot claim that we are entirely successful in our work. A lot more has to be done. But we are quite certain that the highlands of Thailand are in the right trend of developmental processes.

### The Problems

Several decades ago, the highland in the north of Thailand, although comprising of some 70% of the Northern Region, was comparatively unknown and therefore neglected. Hilltribe people had emigrated into the country from Burma and China all the time and many of them, due to their natural habits, stayed on the highlands and moved around from place to place in order to find a suitable area for their crops and living condition. One of their crops happened to be the opium poppy, an indigenous crop of the highlands (1,000 meters and above) which at that time (before 1959) was not an illegal crop. The hilltribes sold their opium as cash crop to buy their necessities such as fuel, clothing, and food.

In 1959, in order to comply with the United Nations agreement, Thai Government declared an Anti-Opium Act which immediately illegalized the growing and the possession of opium. It is sad to say that there was no preparation for opium-substitution crops at all when this law was enacted and problems were started on the highlands.

Besides the problem based on opium, there were two more serious ones, namely destruction of forest and watershed as a result of shifting cultivation and also the low standard of living of the hilltribe people which was a burden to the nation. The confrontation of these problems finally stirred up some action from the government and a project aimed to solve these problems was established.

### Role of Kasetsart University

Kasetsart University has long been the most important agricultural university of Thailand. When there were serious problems on the highlands as described earlier, other governmental agencies were not ready to do anything effectively. Chiang Mai University was, at that time, in its early stage and could not take part. Hence, the government assigned Kasetsart University to launch a developmental research program trying to stop the opium growing by using crop replacement, to stop the forest destruction caused by shifting cultivation and to raise the income and standard of living of the hilltribes.

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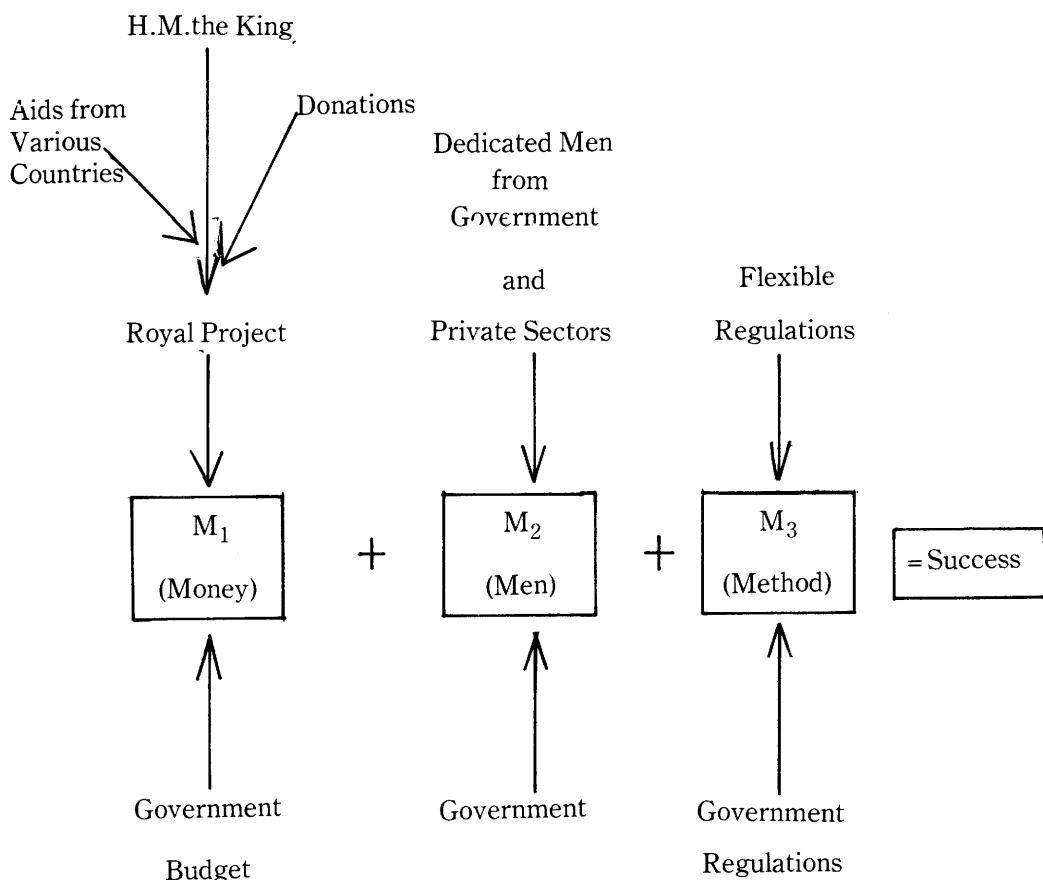
We set up the work in 1965. We worked very hard, walked up and down the hills because there were no accessible roads, and had to start our research from scraps because no one had paid much attention to highland development before. Worst of all, the budget was very limited and sometimes stopped altogether. The government's financial regulations were not helpful either. The work during this early stage was almost hopeless.

## The Royal Project

Almost at the end of our endurance, our work and problems had reached the ears of His Majesty the King. He had been acquainted with the problems on the highlands for quite sometime from his many visits to the hilltribe villages so that he understood our problems very well and graciously gave us his help by giving us necessary fund from his own money. Our lives had been saved and prospered from then on.

In this country, we have much respect and love for our king. After he gave us his personal help, we got attention from everywhere. Financial aid began to flow in and other helps were materialized.

Realizing that the highland development was not a simple matter, His Majesty the King finally set up his personal project called the Royal Project in order to coordinate the work of various governmental and non-governmental agencies and to help prevent or lessen the governmental red tape. It is difficult to use strict governmental regulations in the highland developmental work because it is not a routine work. It often needs quick decision and immediate action. It is therefore very good to have both systems working side by side---the governmental system and the Royal help.



## Work Strategy

After analyzing the situation of the highlands, we came to a conclusion that in order to stop the opium growing, to stop the shifting cultivation, and to raise the standard of living of the hilltribe people, we had to persuade the hilltribes to stay in permanent place and be happy about it. An answer to this would be a good cropping pattern. If they could have permanent income from long-live crops such as fruit trees especially with additional income from annual cash crops, and if this income is at least big enough to buy things of their needs, the hilltribes should be willing to stay at one place. The productive fruit trees will make them quite reluctant to leave their land and their income, and at the end their natural habit of being a wanderer would be stopped.

We therefore started our program by launching several research project aiming to find suitable crops for the highlands with an emphasis on fruit trees. As mentioned before, there had been very little research done on the highlands and our work was rather slow at first. However, after less than 10 years, we could step up a lot faster and now we can say that we have accomplished something from our research. We know many kinds of crops that can be grown successfully on the highlands and we have gained much knowledge of agricultural technology to be used on the highlands. I want to emphasize here that community development of this nature really needs agricultural research as its spearhead.

After the hilltribe people obtained some income from the crops recommended by us, they began to have more and more confidence in us. Other plans for community development could then be injected into the program such as education, health care, cooperative management, national security, conservation of natural resources, and so on.

## Difficulties and Problems Confronted

Along our pace of developmental work on the highlands for 1965 up to now, we have had difficulties and confronted with many problems which might be useful if they will be lined up for discussion as follows:

### 1. The Hilltribe people

There are more than 10 tribes of hill people in Thailand totalling about half a million all over the country. The majority live in the north and the major tribes who grow opium poppy are the Mong, the Lisu, the Lahu, the Akha, and the Karen. Although they are now recognized as Thai citizen, many of them do not read or write or even speak Thai language, and this is a serious drawback in communication. They have, in general, very low basic knowledge in agriculture. The method of crop cultivation has been handed down from generation to generation usually without any improvement for centuries. Only a few tribes such as Mong and Yao are intelligent enough to grasp new technology and new way of life quickly.

In order to overcome this problem, we have to be very patient. We are using demonstration plots and training programs as our solutions which seem to work effectively.

### 2. The land

The mountainous land, in general, belongs to the state and no one has any right to own it. The hilltribes who cultivate on the highlands are trespassers but no one paid attention to this problem for so long and the problem has become severe.

We are trying to solve this problem by making an up-to-date and-use planning with the application of aerial and satellite photograph combined with ground survey. After an appropriate piece of land is located for agricultural use, it will be divided into plots to be assigned to the hilltribes. However, the ownership of the land will be only temporary and the philosophy of "land to the tiller" is strictly used. The land can be inherited but cannot be sold.

### **3. The infrastructure**

The highlands used to be a neglected area of the country and it needs a lot of development concerning the infrastructure. Many roads have been built, water reservoirs were constructed, research facilities in crop production were installed in some selected sites, hydro-electric plants were established in some areas, schools were built for the children, "rice bank" was introduced, canning factories were constructed, and fleet of transportation was provided.

### **4. Agricultural technology**

As mentioned earlier, the hilltribe people are still very primitive in their way of crop cultivation. Some of the tribes might have plows, hand hoes and knives but several others have only a stick as their only agricultural tool.

We have done a lot of research on this field and have also covered investigations on soil improvement and conservation, pest control, irrigation application, elevation and environmental effects, etc.

### **5. The capital**

There is always a misunderstanding that the opium growers are rich. But the fact is that they are as poor as backward farmer anywhere. The ones who get rich are traders, traffickers, drug king pins, and pushers. Hence, without enough capital, it is difficult for the hilltribes to improve or expand their agricultural occupation.

To solve this problem, we have tried to help them by providing seeds and plant material, fertilizers, pesticides and other necessary items of production inputs. These are not for free. Their costs will be deducted when the produces are sold.

### **6. Marketing**

The hilltribes used to have opium poppy as their only cash crop and they used to have buyers come to them to buy the opium. They, therefore, do not care about and do not know anything about marketing. However, when they grow other crops such as fruits, vegetables, and flowers, the marketing system for those crops is not always simple and we have to help them in everything starting from when and how to harvest, how to grade and pack, how to transport the produces to the market, how to make preserved products if necessary, and how to sell. At the same time, we try to let them participate in the processes hoping that one day they will be able to help themselves.

## **LITERATURE CITED**

Bhisatej Rajani (Prince) 1977. "His Majesty's Policy on the Opium Fields of Thailand," Speech delivered to the Franco-Thai Chamber of Commerce on September 13, 1977.

Phisatej Rajani (Prince) 1981. "The Royal Northern Project of Thailand", Paper presented at the "Nepal's Experience in Hill Agricultural Development", March 30 -April 3, 1981. Kathmandu, Nepal p. 199-202.

Punsri P. and S. Subhadrabandhu. 1978. "Fruit Research and Development in the Hill Areas of Northern Thailand.", Report for the Sixth Meeting of the Associa-

tion for Science Cooperation in Asia. Wellington, February 27-March 1, 1978.

Subhadrabandhu S.1977. "Agricultural Extension of Highland Agricultural Project, Kasetsart University", Paper presented at the Conference on Rural Development in the Hill Area of Northern Thailand April 3-5, 1977 at Chiangmai, Thailand.

Subhadrabandhu S. 1979. "Role of Agriculture in Rural Communities", Paper presented at the UNU\*CMU workshop on Agro-Forestry for Rural Communities November 12016, November 1979 at Chiangmai University.