

CHAPTER 3. AGROSOCIO-ECONOMIC BACKGROUND AND RURAL CREDIT SITUATION OF THE STUDY AREA

The study covered four districts of the Chiang Mai Province namely ; Hangdong, San Pa Tong, Chomtong and Doi Tao. These districts are located in the southeastern part of Chiang Mai City in the agriculturally-rich Chiang Mai valley (Figure 2). A national highway stretches across these four districts making it accessible to the city market. Doi Tao which is basically upland land type, is about 135 km. and is the farthest while the nearest is Hangdong, about 15 km. from the city. The present chapter devotes to describe the physical environment, socio-economic profiles of the farm borrowers and agricultural credit situation in the study area.

3.1 General Background Information

Most of the farm villages in these four districts have adequate access to market centers, as evidenced by a well developed feeder roads system in the area, with the exception of Doi Tao and part of Chomtong district, that still has some areas with less developed village road network. Crop cultivation in Doi Tao and partly in Chomtong are rainfed while in San Patong and Hangdong which are near the center of the valley, are mostly irrigated. Irrigation water for agriculture is sourced from the Ping river and its tributaries that passes through some of these areas and the city of Chiang Mai.

Among the four districts in this study, Doi Tao is considered outside of the Chiang Mai valley lowland agro-ecosystems. Hence, crop

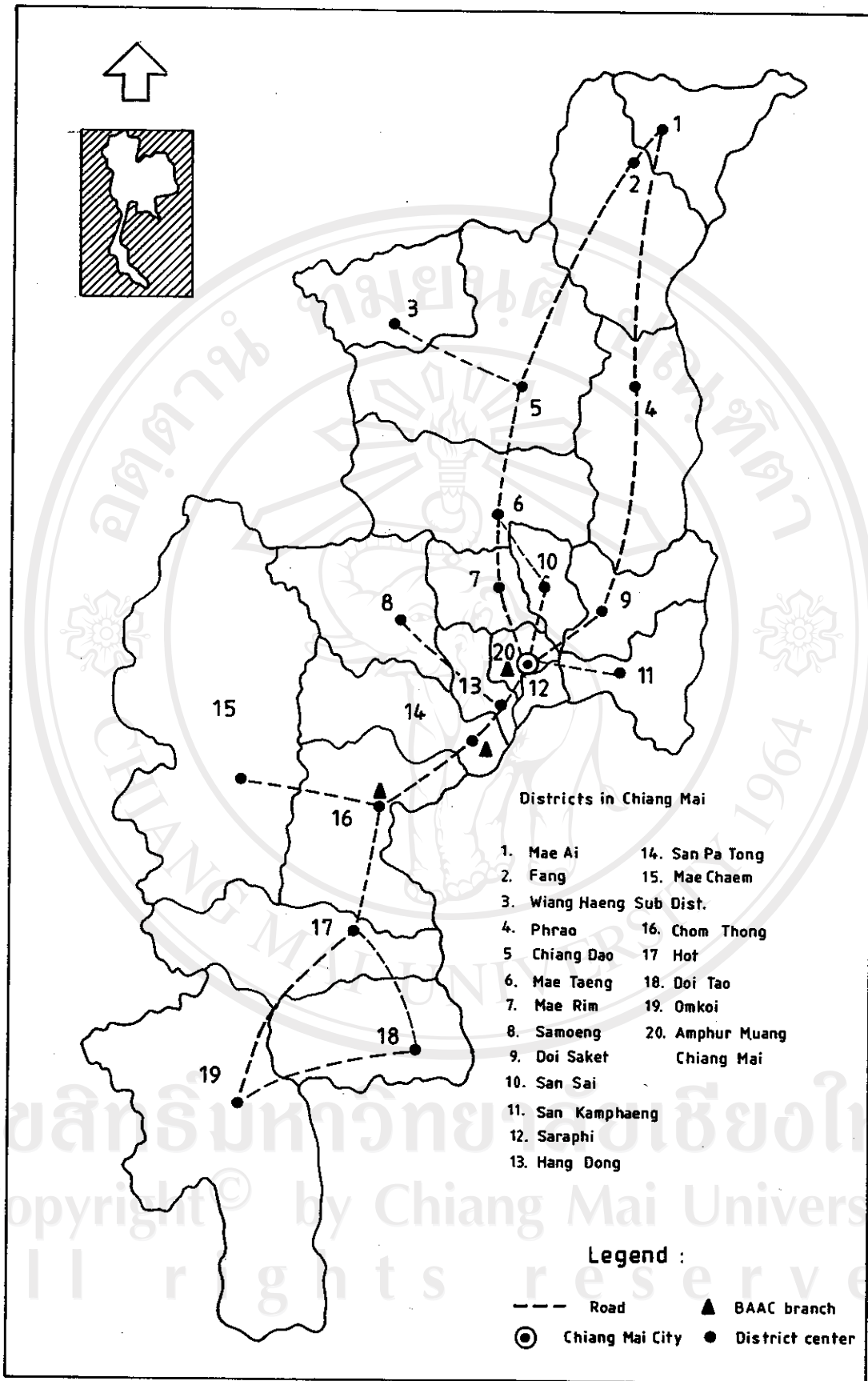


Figure 2. Map of Chiang Mai Province showing the study area.

(Yahya, A.G. 1991)

productivity particularly rice , could vary from the other three districts because of inadequate irrigation infrastructure (Figure 3).

3.1.1 Crops Planted

Almost all of the economic crops in the province are grown in the valley. Coffee, tea, some vegetables, fruits trees and other forest products are grown in the highland part. More than 60 percent of the province is the Chiang Mai valley. Crops such as; rice, soybean, onions, garlic, most vegetables, tobacco and fruits are cultivated in this fertile valley. The province does not only produced most of its needs for these crops but also for the entire country as well. In fact 74 percent of soybean, 80 percent potato, garlic and onion production and other vegetables are coming from the province particularly in Chiang Mai valley (OAE, 1989 and 1990). This underscores the economic importance of the agricultural output of the province. Majority of the farmers in the valley are rice based, except in the upland where water is limited, like Doi Tao and part of Chomtong, soybean based cropping system and other upland crops were dominant.

Of the 18 districts of the Chiang Mai province, Hangdong, San Patong, Chomtong and Doi Tao combined, cultivate about 40 - 50 percent of the rice and soybean area of the province (Table 2). Onion, garlic and vegetables are grown commercially in San Patong, Chomtong and Fang District.

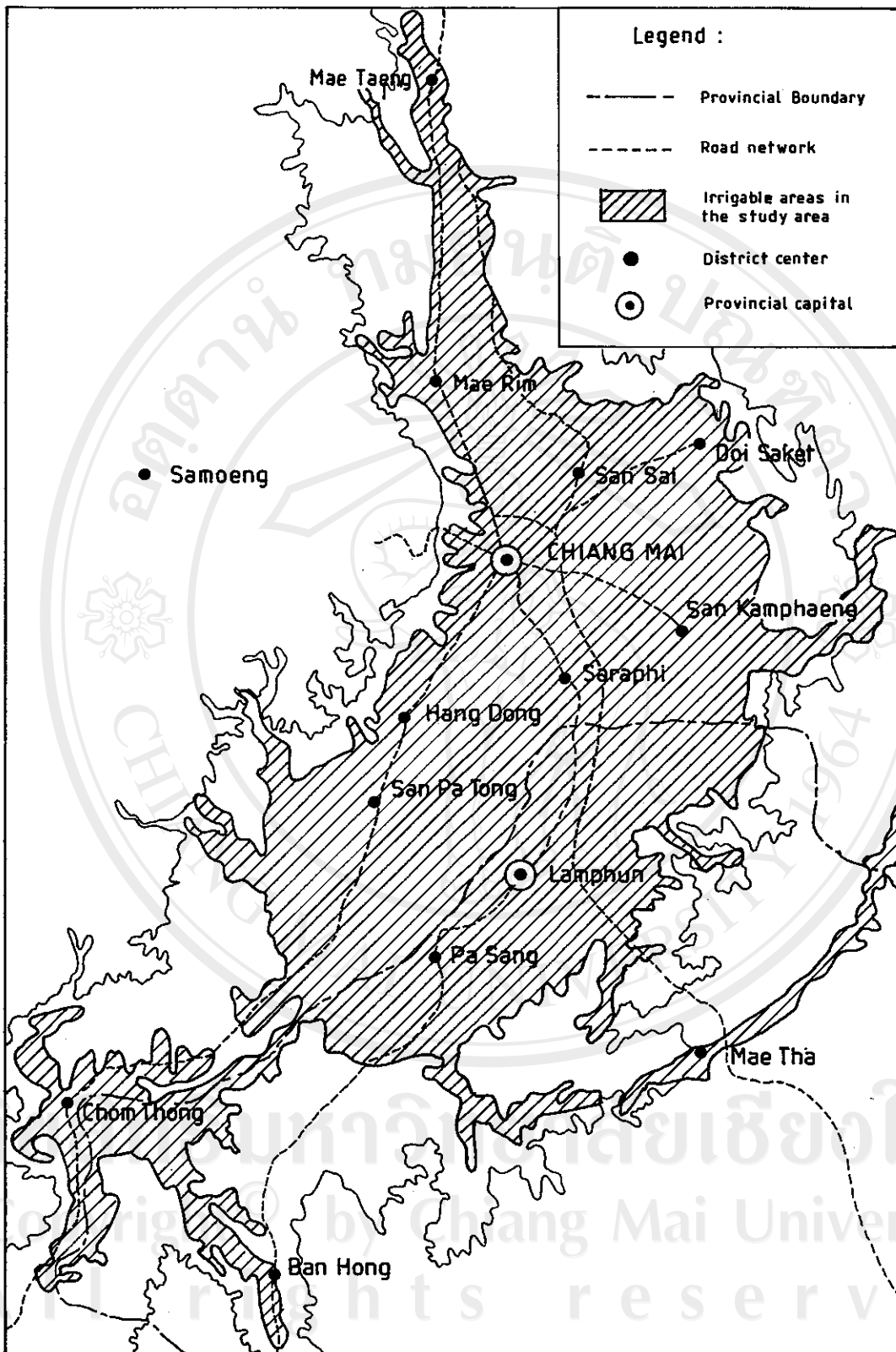


Fig. 3 Map of irrigable areas in Chiang Mai Province.

(GYPMANTASIRI et al. 1980)

Table 2. Percent distribution of borrowers for rice and soybean in Chiang Mai Province, 1990

Districts	Rice(%)	Soybean(%)
Amphur Muang	2.55	2.24
Sarapi	2.44	2.84
Sasai	6.46	11.07
Doi Saket	8.26	1.07
Sankamphaeng	21.78	0.72
Ken Amphur Ban Ti	2.01	0.00
Mae Raem	2.29	3.92
Phrao	3.54	16.23
Chiang Dao	11.48	6.65
Kung Wiang Heng	1.98	4.52
Hang Dong	6.34	13.28
San Pa Tong	18.48	6.06
Chomtong	9.97	6.93
Mae Chaem	0.46	7.96
Hod	0.68	0.69
On Koi	0.18	0.21
Doi Tao	0.27	20.84
TOTAL	100.00	100.00

Source: BAAC (Chiang Mai), 1991

3.1.2 Cropping Patterns

Rice based cropping system is dominant in the three districts (Hangdong, San Patong and part of Chomtong). In Doi Tao however, although farmers still plant upland and some lowland rice but majority grow soybean either monocropping or with other upland crops.

In rice based system, farmers mostly practice rice-soybean cropping pattern and some planted vegetables or watermelon after rice. Rice-garlic and rice-onion-soybean were also practiced in San Patong.

Chomtong and Doi Tao had little different cropping pattern. Rice or soybean cultivation in Chomtong for example, is followed by

chili, tomato or tobacco. In some parts of Doi Tao, rice is planted after soybean in flat areas during favorable season. Soybean-based system which is the planting of upland crops like chili etc. after soybean, is practice in undulating areas .

3.1.3 Farm Household Production and Income

Average landholding in soybean was 5.17 rai⁵ per household with an average cultivated land of 8.92 rai per household. This was slightly higher than in rice where landholding and cultivated area were 4.65 rai per household and 6.59 rai per household respectively.

Rice generally in all four districts is cultivated for home consumption. San Patong and Hangdong situate most of the rice farmers. Farm size range from 1.00 to 33 rai per household with an average yield of 536.78 kg per rai. The average number of adult members of the family able to help in the farm operation was 2.3 person per household. Hence, hired labor was used more than non-hired labor. The average labor used was 13.69 man days per rai which 9.71 man days hired and 3.98 man days non-hired. Money available for rice cultivation range from Bht.150.00 per rai to Bht.3200.00 / rai / household. Total average cost was Bht.986.25 per rai with an average income of Bht.1875.40 / rai / year.

Soybean on the other hand is also cultivated across the four districts. The farm size range from 1 to 35 rai per household with an average yield of 205.83 kg per rai. The average total labor use was

5/ One hectare is equal to 6.25 rai

15.27 man days per rai. Non-hired labor also was 2.58 man days per rai an the average. Money available for soybean cultivation range from Bht. 200.00 to Bht. 4300.00 per rai. The total average cost was Bht. 1171.31 per rai of which Bht. 208.00 was non-cash. Average farm income was Bht. 1662.8 / rai / year.

3.1.4 Market and Other Support Services

Low output price was the main market problem of the farmers in entire study area. This problem was felt much in soybean cultivation where the average cost was higher than rice. Farm gate price was Bht 7.00 per kg for soybean and Bht. 3.50 per kg for rice. Table 3 suggest that apart from price related problems, physical constraints e.g. information, accessibility , etc., were not considered as serious problems. Most buyers and traders go to the farmers' field during harvest time.

A well developed feeder road system to every village provide adequate access for the farmers to the market and technology information source. The proximity of BAAC in most districts of the province insured ready available credit assistance in the area. Cooperatives and farmers' association that cater to the marketing and credit needs of the farmers are also organized viably in most sub-districts and villages of the province (Table 4).

Table 3. Distribution of farmers having market problems in Chiang Mai Province, crop year 1991-1992

Problems	Cropping systems					
	Rice-soybean		Rice		Soybean	
	Number of household	%	Number of household	%	Number of household	%
Yes */	78.00	65.55	24.00	50.00	39.00	59.09
No	41.00	34.45	22.00	44.00	26.00	39.39
None	0	0	2.00	4.17	1.00	1.15
Total	119.00	100.00	48.00	100.00	66.00	100.00

*/ Most of these problems indicated by the farmers deals with ;
 -- Product price being too low
 -- High price of inputs

Table 4. Membership to association of farmers for rice-soybean cropping system in Chiang Mai Province, 1992

Name of association	Frequency	%
B.A.A.C.	87.00	37.33
Cooperative	41.00	17.6
Farmers group	45.00	19.31
None members	60.00	25.75
Total	233.00	100.00

On the sources of production technology, not only that the farmers received relevant information from the agricultural technician in each subdistrict (tambol), but "farmer to farmer" type of technology information dissemination had been identified to be useful. This was enhanced with the presence of viable cooperative and farmer's association in the area.

3.2 The Agricultural Credit System

3.2.1 Demographic Profile of Farm Borrowers

Less than 10 percent of the farmers have at least a year in high school. The average age was 47 years and most of them only finished up to grade 4. The youngest was 20 and the oldest was 71 years old. Exposure to farming started as early as 13 years old. Average farm experience of the respondent farmers was 22.3 years. The dependency ratio was about 1.3 per household. Dependency in this study was defined as the number of household members not able to help in the farm. Although the average household size was 6.2 persons but only 2.00 persons on the average were able to help in the farm. Maybe because of the high rate of people going to Chiang Mai market for non-farm employment opportunities.

3.2.2 Sources of Credit

There were four major sources of formal credit namely; BAAC, cooperatives, farmer's group and other private commercial banks.

Cooperatives obtain their money for credit to farmers from BAAC at a special rediscounting procedure while farmers group is an informal grouping of farmer borrowers agreeing within themselves to solidarily avail of farm credit from BAAC. More than 90 percent of the formal credit market is captured directly or indirectly by BAAC (Table 5).

The informal source of credit can be categorized into two major sources; private money lenders and relatives. The former are usually village merchants or traders serving some of the farmers with non-farm related credit needs e.g. medicine, funeral, education, etc. Providing this type of credit service to farmers will assure the merchant of a marketing tie up with the farmers. Loans from relatives and friends are provided occasionally interest-free while other private money lenders charged between 60 - 95 percent per year. Table 5 shows that about 75 percent of the overall agricultural credit market in the province, is captured by the formal source .

Table 5. Distribution of rice and soybean farmer borrowers by type of sources in Chiang Mai Province, crop year 1990-1991 *

Source	Number of Borrower	%
Formal		
B.A.A.C.	111	55.78
Cooperative	30	15.07
Farmers group	2	1.00
Com. banks	5	2.51
Informal		
Private lenders	45	22.61
Relatives	4	2.01
Others	2	1.00
Total	199	100.00

* The figures also include medium and long term formal borrowings
Source : Formal Survey

3.2.3 Types of Credit Extended

The formal source of credit provides three general types of loans to the farmers. The short term loan which normally matures in one year is charged at 12.5 percent per annum, medium term with 3-5 years maturity at 11.5 percent per annum and the long term loan with 6-15 years maturity at 9-10 percent interest per annum. Majority of the farmers used land titles as loan collateral, hence, those having large landholding has the high tendency of getting medium or long term loan which requires larger loan security value. Normally, the bank's loan appraisal system is based upon 60-70 percent of the value of the previous income or 80 percent of appraised value of the loan collateral (BAAC, 1990). Loan such as buying a vehicle, repair of the house and other non-production related nature, can also be extended by the bank provided it is supported with a very solvent collateral. Most of the loans for rice and soybean in the surveyed respondents, were of short term nature although there were about 11 percent of the loans reported for soybean and rice that were medium term.

The informal source was availed by farmers mainly for some of their non-production related credit needs e.g. education, funeral, emergency, food, etc., which cannot sufficiently be secured by collateral. Also in few cases, some informal loans extended by relatives, which are interest-free, were the farmers' main alternative source of money for farm operation.

3.2.4 Farm Household Borrowing

In terms of distribution, there was a greater percentage of borrowers for soybean than in the other cropping system (Table 6). Those that practice rice-soybean system availed more credit than rice based system. As mentioned earlier, rice is cultivated mainly for home consumption and soybean is for the market. The average formal borrowing was Bht. 9,128.02 per farm for soybean, Bht. 6,556.04 per farm for rice. In general, the average formal indebtedness of farm household in the province was Bht. 8,846.16 per farm household.

Table 6. Distribution of farm borrowings by type of cropping system in Chiang Mai Province, crop year 1991-1992

Category	Rice-Soybean		Rice		Soybean	
	No. of HH	%	No. of HH	%	No. of HH	%
Borrower	61.00	58.98	22.00	34.38	52.00	75.36
Non borrower	52.00	46.02	42.00	65.62	17.00	24.64
Total	113.00	100.00	64.00	100.00	69.00	100.00

n = 246

In the informal sources, it is quite difficult to determine with certainty some of the important details e.g. interest rate, maturity, etc. of the farmers indebtedness because of the confidential nature of their credit transaction.

3.3 Highlights

The four districts represented an almost complete agrosocioeconomic spectrum of farms in the province. Hangdong and San Patong which are close to Chiang Mai city market, have better soil type and sufficient irrigation. The districts of Doi Tao and Chomtong are upland areas with poorer soil. Rice-soybean, rice-onion / garlic are predominant in areas with sufficient irrigation. Rice or soybean and other upland crops e.g. chili, tomato, tobacco, etc. are common in Chomtong and Doi Tao. From the average cultivated area across crops, rice cropping systems absorbs more non-cash labor than soybean. Presumably because cultivation is more oriented for consumption.

More than 80 percent of farm-borrowers were able to reach grade four. Formal borrowings are sourced from BAAC, cooperatives and other banks while informal sources are traders, neighbors and relatives. About 75 percent of the credit market is serviced by formal sources. Hence, the analysis in this study focuses on short-term formal credit.

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