

**FINAL REPORT FOR STUDY ON  
AGRICULTURAL COOPERATIVE PROMOTION  
IN THAILAND**

February 1981

Japan International Cooperation Agency

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P R E F A C E

In response of the request of the Government of the Kingdom of Thailand, the Japanese Government decided to conduct a survey on Agricultural Cooperatives Promotion Project and entrusted the survey to the Japan International Cooperation Agency (JICA).

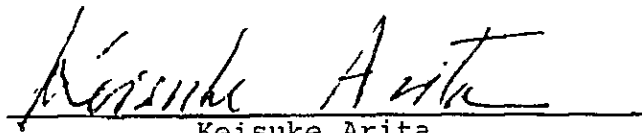
The JICA sent to Thailand a survey team headed by Mr. Hiroshi Yamamoto from July 1 to August 31, 1980.

The team exchanged views with the officials concerned of the Government of the Kingdom of Thailand and conducted a case study of eight agricultural cooperatives selected from different regional characteristics and historical background. After the team returned to Japan, further studies were made through discussions with Thai team visited Japan for three weeks beginning on 8th December 1980 and the present report has been prepared.

I hope that this report will serve for the development of the Project and contribute to the promotion of friendly relations between our two countries.

I wish to express my deep appreciation to the officials concerned of the Government of the Kingdom of Thailand for their close cooperation extended to the teams.

February 1981



Keisuke Arita  
President

Japan International Cooperation Agency



## S U M M A R Y

It has been one of the most important policies of Thai Government to reduce the economic and social gaps between farmers and non-farmers through expanding agricultural production as well as increasing producer's income. Needless to say, it will be the very important key to strengthen the agricultural cooperative movement for concretely realizing this basic purpose in each village.

This study has been carried out for the purpose of making the basic scheme and concrete proposals for upbringing and strengthening agricultural cooperative organizations in Thailand, giving a priority to improvements of organization, business activities, and management of primary societies. And, local studies and information analysis were implemented by the joint study team from Japan and Thailand.

This report is divided into two parts. Namely, Part I. is introducing agricultural cooperatives of case study, and Part II. is the main subject. This Part II. is again divided into three Chapters. The Chapter (1) touches upon conditions surrounding the Thai cooperative movement, Chapter (2) upon its situation and problems, and Chapter (3) upon guideline for its improvement and advancement.

The agricultural cooperative movement in Thailand has a long history of more than 60 years, and various kinds of assistances have been extended for the movement by the Government during this period. However, the cooperative development has been rather limited under the situation that rural credit cooperatives, which are main constituent of the movement, have been playing only the role of a financial channel to extend loans to farmers with borrowings from the Government and banks. Since 1968, it could be possible for societies to organize multi-purpose agricultural cooperatives, through amalgamations, with new functions of marketing and supply businesses. But these multi-purpose societies have found difficulties in fulfilling their functions due to shortages of necessary funds and personal resources for business activities.

It is said that only 9 percent of farmers are affiliated with cooperative societies in the national average. The main reason for this low ratio of cooperative membership will be found in "insufficient services of cooperative businesses" rather than in "farmers' limited intentions of cooperation". Even though most farmers want to be members of societies, cooperative societies cannot have good conditions for meeting their wishes. In other words, it would be expected to organize these many farmers into cooperatives if the cooperative business system were improved. In this context, indispensable would be the system of assistances to be provided by the federations and Government in a uniformed way.

The repayment ratio of member farmers is also said to be considerably low in Thailand. Its background will be found in a fact that member farmers could not get only limited fund, which is generally 20 percent or less than 50 percent at most, of their required money for production and materials. Then, those farmers have to depend upon rural merchants in getting the balance of the necessary fund. At the following harvest season, they need to sell their products first to these merchants so as to settle their accounts. And these farmers, after receiving the balance against their loans from merchants, could pay back to their cooperatives especially when they are urged by the society or when they apply for another loans to the society. Naturally they will be late for the repayment. We guess that this kind of example will be found in most villages of this country. This is suggesting us that we must tackle the problems confronting organization, business activities, and management of agricultural cooperatives in an integrated and systematic way. Problems of multi-purpose businesses including credit, marketing, and purchasing will have to be coped with in the same way.

When we considered possible measures to be taken for improving the cooperative movement, it was recognized again that middlemen or merchants are really playing an important role and maintaining their weightly position in rural areas. We also considered such a fact as a given condition, and emphasized that agricultural cooperatives should



strengthen, for the time being, the following two functions for the purpose of raising the socio-economic level of member farmers:

The first one is to make farmers fully aware of their own farm management in order to make it possible for farmers to understand by themselves how much they have produced values through farming activities and how much they shared from those values, as well as to make them firmly recognize the significance of the existence of agricultural cooperatives as fair transaction bodies.

The second function is to assume the leadership in the regional agriculture, which is backed by establishment of medium and long-term vision.

An integrated and multiple approach will be required for implementing these basic functions. On the basis of thus understanding we revised the chart of "Total System for Upbringing and Strengthening Agricultural Cooperatives" which is shown on page 97.

In this chart, four strategic targets are clarified as essential conditions which will enable Thai cooperative movement to fulfill its functions. Namely,

Number one is to strengthen and expand its foundation of existence. Its important point will be to establish an organizational structure for raising the ratio of members' patronage for cooperatives as well as for increasing new membership.

Number two is to assume the leadership for developing regional agriculture. In this context, it should be emphasized that societies should make their business plans on the basis of correct informations concerning agriculture and farmers in their operational areas which are to be fully collected through improving cooperative guidance activities as well as through providing farmers with advices and necessary informations.

Number three is to activate marketing and purchasing operations of agricultural cooperatives as fair business bodies. In other words, we can say that it will be mainly to carry on transactions of cooperative businesses according to fair rules to be understandable and agreeable to farmers, and to guide farmers to evaluate their own production activities in quantity as well as in value.

Number four is to improve and strengthen functions of financial activities in rural areas, with a view to establishing a system of extending agricultural loans required by farmers. In this regard, those farmers should be guided in correctly combining their farming plans, including production and marketing programmes, based on their own conditions, with their financial plans.

We have proposed an integrated financing system which will support the cooperative movement to attain these four strategic targets. This financing system is comprised of three financial operations, that is, agricultural funds for farmers, funds for cooperative businesses, and funds for cooperative facilities.

In order to realize these targets, each cooperative society is requested to formulate its own development plan in concrete way, taking into consideration characteristic conditions in its operation area. Of course, this should not be a desk plan. It will be very important for the society to have exhaustive discussions among members, officials and main staff of the society. Federations and Government are also to fully provide societies with advices and assistances for their planning. We do not expect that all the cooperatives will be able to start such a planning simultaneously throughout the country. For the time being, it will be suitable that some selected model societies should make their own development plans and practice them successfully, and these successes be followed by neighboring agricultural cooperatives.

The development plan of a model society has to be made aiming for a steady advancement of its movement. Therefore, the society should

begin with grasping the situation of farmers and its operation area. Efforts are also to be made to train its staff as well as to guide members in planning their farming activities. Some leaders are expected to be brought up from member farmers. And, with a view to meeting demands and wishes of members, agricultural cooperatives should improve their systems of business operations and management control. Furthermore, adequate support measures of federations and Government will be indispensable for the success of this model society.



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## GLOSSARY

<u>Acronym</u>	<u>Name</u>
ACFT	Agricultural Cooperative Federation of Thailand
BAAC	Bank for Agriculture and Agricultural Cooperatives
CAD	Cooperatives Auditing Department
CLT	Cooperative League of Thailand
CMPF	Cooperative Marketing and Purchasing Federation of Thailand
CPD	Cooperatives Promotion Department
DA	Department of Agriculture
DAE	Department of Agricultural Extension
JICA	Japan International Cooperation Agency
MOF	Marketing Organization for Farmers
NESDB	National Economic and Social Development Board
RID	Royal Irrigation Department



## FOREWORD - INTRODUCTION AND OBJECTIVES

In response to the request made by the Government of Thailand, the Government of Japan decided to cooperate with the Government of Thailand in conducting a study on Agricultural Cooperative Promotion in Thailand.

The preliminary study team (leader: Mr. Kazuyoshi Inose) was sent to Thailand for 20 days from 19th November, 1979, for the purpose of confirming the contents of the request, making necessary consultation with Thai officials concerned on the scope of works (draft) for the main study and making collection of pertinent information and materials on agricultural cooperatives.

Subsequently, the second study team (leader: Mr. Motonaga Ohto) was sent to Thailand for two weeks from 3rd April, 1980 to make final consultation on the scope of works and to collect supplementary information and materials.

The objectives of the study, which were identified in the scope of work confirmed by the Japanese study team and the Thai Authorities concerned, are as follows.

- (1) To work out a basic plan and to make practical recommendations for the upbringing and strengthening of agricultural cooperatives in Thailand, with special emphasis laid on the improvement of organizational set-up, business activities and management efficiency of primary agricultural cooperatives.
- (2) To serve as on-the-job training for the government officials and the cooperative staff through their participation in the study.

It was also confirmed that the study should be conducted jointly by the teams from both Japan and Thailand.

The main study in Thailand was carried out for two months beginning on 1st July, 1980, and it consisted of a case study of eight selected primary agricultural cooperatives, collection of information and materials regarding the present situation of agricultural cooperatives and analysis of findings. The schedule of the main study and the members of the joint study team are as follows.

Schedule of the Main Study

July	1	TU	Air travel (Tokyo - BKK)
	2	WE	Courtesy call to Japanese embassy, JICA office, CPD.
	3	TH	Discussions with CPD staff, Courtesy call to ACFT.
	4	FR	- do -
	5	SA	Data arrangement
	6	SU	at own disposal
	7	MO	Data collection and discussions
	8	TU	- do -
	9	WE	Travel by road (BKK - Koksamrong) Visit to Koksamrong Agr. Coop.
	10	TH	- do -
	11	FR	Travel by road (Koksamrong - BKK)
	12	SA	Data arrangement
	13	SU	at own disposal
	14	MO	Air travel (BKK - Khon Kaen)
	15	TU	Visit to Muang Phon Agr. Coop.
	16	WE	Travel by road (Khon Kaen - Loei)
	17	TH	Visit to Muang Loei Agr. Coop.
	18	FR	Air travel (Loei - BKK)
	19	SA	Data arrangement
	20	SU	at own disposal
	21	MO	Air travel (BKK - Phitsanulok)
	22	TU	Visit to Sawankaloke L.S. Coop.
	23	WE	- do -
	24	TH	Travel by road (Sawankaloke - ChiangMai)
	25	FR	Visit to Sanpatong Agr. Coop.
	26	SA	Data arrangement
	27	SU	at own disposal
	28	MO	Air travel (ChiangMai - BKK)
	29	TU	Data arrangement
	30	WE	Data arrangement and discussions
	31	TH	- do -
August	1	FR	Visit to Banpong Sugarcane Grower Agr. Coop.
	2	SA	Data arrangement
	3	SU	at own disposal
	4	MO	Travel by train (BKK - Phun Phin)
	5	TU	Visit to Phun Phin Agr. Coop.
	6	WE	Travel by road (Phun Phin - Hat Yai)
	7	TH	Visit to Hat Yai Agr. Coop.
	8	FR	Data arrangement
	9	SA	Air Travel (Hat Yai - BKK)
	10	SU	at own disposal
	11	MO	Additional data collection and discussions
	12	TU	at own disposal (National Holiday)
	13	WE	Additional data collection and discussions
	14	TH	- do -
	15	FR	- do -
	16	SA	- do -
	17	SU	at own disposal
	18	MO	Interim Report Composition
	19	TU	- do -
	20	WE	- do -
	21	TH	- do -

August 22 FR Interim Report Composition  
 23 SA - do -  
 24 SU at own disposal  
 25 MO Progress report and discussions  
 26 TU - do -  
 27 WE Final discussion on Interim Report  
 28 TH - do -  
 29 FR - do -  
 30 SA Data arrangement  
 31 SU Air travel (BKK - Tokyo)

Members of the Joint Study Team

Thai Team

Miss. Peerarat Aungurarat  
 (Organization and Management)  
 Planning Division  
 Cooperatives Promotion Department

Mr. Virasak Choypat  
 (Marketing Business)  
 Agricultural Cooperative Federation of Thailand

Miss. Chongonee Sriprasert  
 (Credit Business)  
 Agricultural Cooperative Division  
 Cooperatives Promotion Department

Mr. Ruangchai Boonyananta  
 (Economic Activities / Coordinator)  
 Planning Division  
 Cooperatives Promotion Department

Japanese Team

Mr. Hiroshi YAMAMOTO  
 (Organization and Management)  
 Institute for the Development of Agricultural  
 Cooperation in ASIA (IDACA)

Mr. Yuji HASHIMOTO  
 (Economic Activities)  
 IDACA

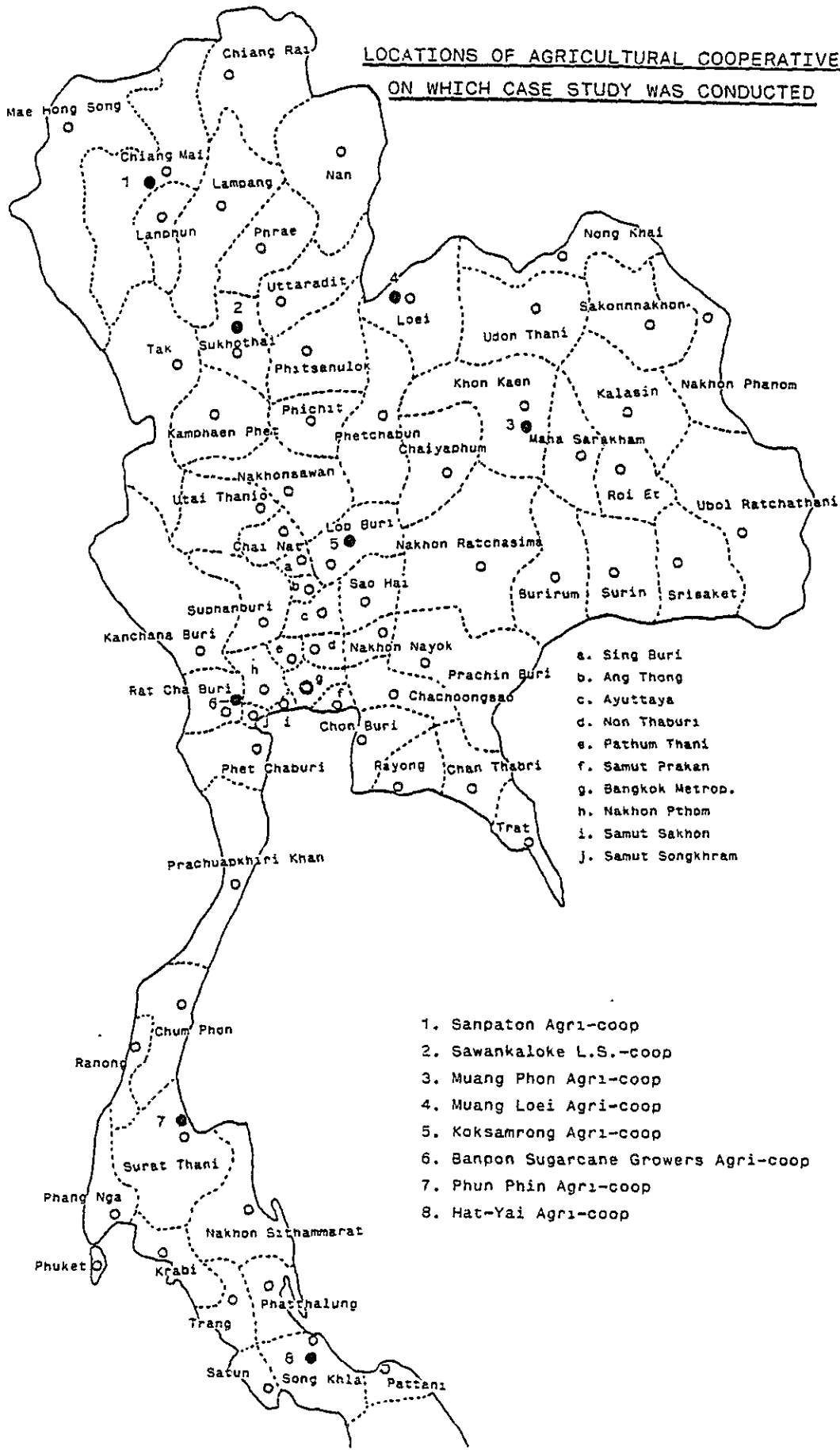
Mr. Yasuo HATTORI  
 (Credit Business)  
 IDACA

Draw-up of the primary draft of the final report of the study was made in Japan in September through October. Thai team visited Japan for three weeks beginning on 8th December and examined the said draft together with the Japanese team. The final Japanese mission (leader: Mr. Motonaga Ohto ) for making discussion with the Thai Authorities concerned regarding the final draft of the final report for the study visited Thailand for 6 days beginning on 25th January, 1981, and this final report was finalized.

As is apparent in the objectives confirmed by both the Japanese team and the Thai Authorities concerned, this report summarizes the basic conception for improving and strengthening organizational set-up, business activities and management efficiency of agricultural cooperatives in Thailand as well as a number of practical recommendations. Needless to say, the basic conception and practical recommendations described in this report should be applied with practical social and economic conditions of each individual agricultural cooperative and difference in the capability should be taken into consideration for establishment of an improvement and strengthening plan for each individual agricultural cooperative.

The member of the study team sincerely hopes that the joint activities be made by both governments as well as agricultural cooperatives of both Japan and Thailand keep on making forward steps in the future.

LOCATIONS OF AGRICULTURAL COOPERATIVES  
ON WHICH CASE STUDY WAS CONDUCTED



- a. Sing Buri
  - b. Ang Thong
  - c. Ayuttaya
  - d. Non Thaburi
  - e. Pathum Thani
  - f. Samut Prakan
  - g. Bangkok Metrop.
  - h. Nakhon Pthom
  - i. Samut Sakhon
  - j. Samut Songkhram
- 
- 1. Sanpaton Agri-coop
  - 2. Sawankaloke L.S.-coop
  - 3. Muang Phon Agri-coop
  - 4. Muang Loei Agri-coop
  - 5. Koksamrong Agri-coop
  - 6. Banpon Sugarcane Growers Agri-coop
  - 7. Phun Phin Agri-coop
  - 8. Hat-Yai Agri-coop



## PART I OUTLINE OF AGRICULTURAL COOPERATIVES ON WHICH CASE STUDY WAS CONDUCTED

A case study was conducted on eight agricultural cooperatives having different regional characteristics and historical background during the main study carried out for the period of two months beginning on 1st July through 31st August, 1980. For selection of eight agricultural cooperatives, careful examination was made by this study team with the following factors as criteria.

- 1) Not to be one-sided to specific area(s) in order to seize the real situation over the entire Thailand as much as possible.
- 2) To make consideration for enabling observation of characteristics of agricultural cooperatives of different scale levels ranging from a representative large scale agricultural cooperative through a small scale agricultural cooperative.
- 3) To make an attempt to study the situation of an agricultural cooperative of rather special management configuration, if it can become a reference indicating one case of agricultural cooperatives in Thailand.

It is a matter of course that the purpose of this case study is not to make analysis of management of these agricultural cooperatives in detail, but the purpose of this case study is to search for the characteristics commonly possessed by these agricultural cooperatives in order to make seizure of the problems and subjects of agricultural cooperatives in Thailand more realistic and to make the measures for upbringing of agricultural cooperatives in Thailand more effectively. In the description of the outline of these eight agricultural cooperatives made in the following pages, therefore, only a brief description is made, and the characteristics, problems and so forth of their various business activities will be either collectively or individually described as required in Part II, based on the purport stated above.

### (1) Sanpaton Agricultural Cooperative

This is a large scale agricultural cooperative organized in a village located in a distance of about 20 km to the south from Chiang Mai. In 1935, seven credit cooperatives were organized with 85 members in total as their constituents. Similar cooperatives were established one after another since then, and the number of cooperatives of this kind became 38 in 1953. Furthermore, a marketing cooperative was established in 1948 and a land purchase cooperative was established in this district in 1958. Since then, 38 credit cooperatives and the marketing cooperative made a merger in 1971, and then the land purchase cooperative was also merged and the current Sanpaton Agricultural Cooperative was formed as the only agricultural cooperative in the district.

The number of members of this agricultural cooperative is 4,986 persons as of June 30, 1979, and they are grouped into 58 regional groups. The estimated ratio of affiliations of farmers in this region with this cooperative is 31 per cent, which is an outstanding level among the agricultural cooperatives on which a case study was conducted in the main study, except for Sawankaloke Land Settlement Cooperative.

Fifteen directors and twenty seven staff members are performing the duties, and besides, two resident officers of CPD are making assistance and guidance. Six staff members out of twenty seven are assigned for marketing business, and this figure represents the attitude of this agricultural cooperative which attaches importance to marketing business.

The financial structure having gross assets of 40,870,000 baht is as indicated in the balance sheet. It is noteworthy in the aspect of procurement that savings amounts to 7,475,000 baht, which is as much as 18.3 per cent of gross amount of procurement, which is about twice as much as capital 3,738,000 baht and that daily guidance to promote steady saving brought a fruit to such an extent that savings have a weight that is of no comparison with other agricultural cooperatives.

Economic businesses are also actively operated. The total volume of marketing business is as much as 6,343,000 baht including rice 900 tons, soya bean 158 tons and garlic 52 tons. The total volume of purchasing business is 8,381,000 baht including fertilizer 830 tons, farm chemicals and seeds. Facilities such as four warehouses of the total capacity of 2,000 tons including rice warehouses of the capacity of 1,700 tons and a rice mill of daily processing capacity of 20 tons are also operated. Farm guidance activities such as land improvement and technical guidance with a model farm of 16 rai fully utilized are also repleted on the other hand. Thus, this agricultural cooperative can be said to be a first class agricultural cooperative from overall viewpoint. Consequently, expectation of members to the activities of the cooperative is large. Requests such as increase of volume of dealings of marketing business, strengthening of production guidance structure, spreading of excellent seeds and expansion of maximum credit limit of production funds have been brought to the management. In response to these requests, this cooperative intends to lay emphasis on processing besides marketing and purchasing businesses and to replenish funds of its own. It is considered that, with such an agricultural cooperative that possesses sufficient latent capacity in the aspects of both managing volition and talent that materializes improvement of management impacts such as support from outside on the increase of volume of dealings through repletion of funds for economic activities and development of new members through supplementation of funds for credit business provide conditions which lead to autonomous development of the agricultural cooperative. As this area is located in the outskirts of large city Chiang Mai, agricultural products of large varieties including onion, peanut and tobacco are produced in this area besides rice, soybean and garlic, which are main items of business of this agricultural cooperative. It is probably necessary for this agricultural cooperative to more positively appeal the significance of existence of the agricultural cooperative to its members through farm guidance business such as draw-up of production plan which make best use of regional characteristics with group activities as the footing.





Profit and Loss Statement of Sanpatong Agricultural Cooperative

Unit: thousand baht, %

Term ended on June 30, 1978		Term ended on June 30, 1979									
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio	Farm guidance business	Component ratio
17,541	100.0	17,976	100.0	3,156	100.0	8,382	100.0	6,343	100.0	95	100.0
		(100.0)		(17.6)		(46.6)		(35.3)		(0.5)	
14,913	85.0	14,477	80.5	1,679	53.2	7,277	86.8	5,467	86.2	54	57.0
2,628	15.0	3,499	19.5	1,477	46.8	1,105	13.2	876	13.8	41	43.0
		(100.0)		(42.2)		(31.6)		(25.0)		(1.2)	
1,111	6.3	1,065	5.9	177	5.6	442	5.3	414	6.5	32	33.3
1,518	8.7	2,434	13.6	1,300	41.2	663	7.9	462	7.3	9	9.7
		(100.0)		(53.4)		(27.2)		(19.0)		(0.4)	
382	2.1	504	2.8								
1,899	10.8	2,938	16.4								
769	4.4	909	5.1								
1,155	6.6	2,029	11.3								

## (2) Sawankaloke Land Settlement Cooperative

An area of 200,000 rai (32,000 ha) sandwiched between Yom River and Nan River in the northern part of Sukhothai Province noted for remains of an old capital located in the distance of 150 km in northwest direction from Petchaboon was disafforested. Three thousand families made settlement in four different phases since 1938 in this area. Four cooperatives organized by these settlers merged in 1968 and the current cooperative was formed. Distribution of land was originally made with 30 rai (4.8 ha) or less per family as a rule, but variation occurred later to a certain extent, and today there are a few farmers who possess lands of 100 rai or more. This cooperative is one of three cooperatives in Japan-Thailand Maize Project area.

The number of members is 3,870 as of March 31, 1980, and they are grouped into 36 regional groups. As a feature of a newly developed area, almost all farmers in the area are affiliated as members of the cooperative, and because of the fact that the management scales are similar among member farmers, this cooperative is blessed with conditions which facilitate unity of all the members. Fifteen directors and thirteen staffs are performing the duties, and the capital is 2,604,000 baht, which is equivalent to 10.2 per cent of total asset value 25,440,000 baht.

Although the point of profit and loss of this cooperative is also the profit of credit business like other cooperatives, a deficit is recorded in the economic businesses in the last two terms, and the total balance is also a deficit of a minor amount. Although economic businesses are operated with volition, it appears that there are problems in the method of determination of commissions and so forth which create the profit for the cooperative, and it is necessary to build up a clear system as for the burden of users within a suitable range for materializing procurement of funds for expansion of businesses through strengthening of credibility of the cooperative itself.

The marketing business is of total dealings of 7,261,000 baht including rice 4,402,000 baht and maize 1,627,000 baht. The purchasing business is of total dealings of 14,260,000 baht including farm machinery 13,565,000 baht, farm chemicals and fertilizer. The rates of utilization of the cooperative by the members for purchase of these agricultural inputs are estimated as 90 per cent for farm machinery, and 50 per cent and 30 per cent respectively for farm chemicals and fertilizer. With farm machinery in particular, large utilization rate is accomplished by the introduction of installment payment system.

As for the farm guidance business, besides operation of a model farm as a part of the maize project, technical guidance is provided with cooperation obtained from agricultural extension office of the Government.

As the largest problems they are currently facing, the leaders of this cooperative indicated lack of funds for collection in the marketing business and lack of loan funds for the credit business, and they think that these factors obstruct expansion of businesses of this cooperative. Because management scales of members are relatively small, it is needed that the cooperative provides supports to farmers as much as possible as for working capital required in various aspects of production activities.

Because this cooperative is blessed with a uniting force as described earlier, it is important to make efforts to strengthen credibility of the cooperative itself such as upbringing of talent and build-up of a system that causes users to bear the expenses of economic businesses so as to create the condition that enables acceptance of support from outside regarding the aspects of funds and so forth which require assistance from organizations outside of the cooperative.





### (3) Muang Phon Agricultural Cooperative

Disafforestation of forests was commenced in 1940's and settlement was also started in the central area of Khon Kaen Province located in northeastern part of Thailand. Credit cooperatives were established one after another and the number of credit cooperatives increased to as many as 80 at one time, but they were merged to three cooperatives in 1970, and they were further merged in 1975 to the present form.

A study was made with this agricultural cooperative with the figures of March 31, 1979 as the reference because settlement of accounts of the last term has not yet been completed. The number of members is 2,227 who are grouped into 45 regional groups. The estimated ratio of affiliation with the cooperative is around 10 per cent. With these figures it can be said that the organization of this agricultural cooperative is about an average organization of agricultural cooperatives in Thailand. Fifteen directors and four staff members are performing the duties, but business activities other than credit business tend to be stagnant as described later.

The finance structure of total asset 10,588,000 baht is as indicated in the balance sheet. There is an allowance in the working fund by the extent of inactiveness of economic activities, and such a result that the debt from BAAC, etc. as a financial resource for the loan of 8,290,000 baht is 6,621,000 baht and it is possible to procure the balance of 1,669,000 baht within the cooperative is obtained.

As for the marketing business out of economic businesses, although the sales of 861,000 baht was recorded because of handling of rice by making use of a 1,000 ton warehouse in the term of 1978, the marketing business completely lost its substance in the term of 1979 because the only income was warehouse charge, as the warehouse was leased to MOF. The MOF system related to handling of rice will be described later in detail in the section of present situation and problems of agricultural cooperatives, but it can be readily imagined that conversion from marketing business to warehousing business will bring a result that causes an agricultural cooperative to further move away from its original shape, although it may be true that it will stabilize profit and loss balance of an agricultural cooperative.

Although the president and other management staff of this agricultural cooperative are willing to additionally construct one warehouse and to introduce facilities such as a rice mill and trucks, no outlook is obtained at all at the present time as for procurement of funds for collection for making use of these warehouse and facilities for the marketing business. Therefore, they are planning to lease the facilities to MOF for the time being and to gradually materialize switching to the marketing business. However, extreme hardship can be expected to change once established business configuration, and in addition, there is a possibility where management with emphasis laid on leasing of facilities, which is a relatively easy form of management, causes neglect of farm guidance to its members, and in turn, even the financing function that is closely adhered to production activities of farmers may be lost. It is probably necessary to make reexamination of the MOF system under the national field of vision.

As for the purchasing business, fertilizer and farm chemicals are the only articles of business. The total dealings was 1,278,000 baht in the term of 1978, and although the total dealings in the term of 1979 grew to 1,630,000 baht, fertilizer is the only article of business.





Profit and Loss Statement of Muang Phon Agricultural Cooperative

Unit: thousand baht, %

Term ended on March 31, 1978		Term ended on March 31, 1979							
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio
1,175	100.0	3,088	100.0	949	100.0	1,278	100.0	861	100.0
		(100.0)		(30.7)		(41.4)		(27.9)	
828	70.4	2,511	81.3	483	50.9	1,241	97.1	787	91.4
347	29.6	577	18.7	466	49.1	37	2.9	74	8.6
		(100.0)		(80.8)		(6.4)		(12.8)	
59	5.0	219	7.1	2	0.2	151	11.9	66	7.7
288	24.6	358	11.6	464	48.9	-114	-9.0	8	0.9
		(100.0)		(129.6)		(-31.8)		(2.2)	
94	8.0	68	2.2						
382	32.6	426	13.8						
96	8.2	129	4.2						
286	24.4	297	9.6						

#### (4) Muang Loei Agricultural Cooperative

This agricultural cooperative in Loei Province located along the border with Laos adjacent to Khon Kaen Province on its north side also reached the present form as a result of a merger made in 1975. Its antecedents are 17 credit cooperatives established in 1949 by 407 members in total in the district. These credit cooperatives were integrated to 7 cooperatives in 1957, purchasing cooperatives were combined with them in 1959, merger was made to three cooperatives in 1969, and final merger was made in 1975 to the present form.

The number of members is 1,912 persons as of March 31, 1980, and they are grouped into 51 regional groups. The estimated ratio of affiliation with this agricultural cooperative is 13 per cent. Fifteen directors and five staff members are performing the duties, and positive attitude is observed in marketing and purchasing businesses besides credit business, which is the nucleus of management.

The total asset is 12,955,000 baht and capital is 1,497,000 baht. Capital account is 22.3 per cent of total procurement amount, and it indicates minor repletion compared to 20.1 per cent of the previous term.

The total dealings of the marketing business is 3,311,000 baht including maize 445 tons, cotton 138 tons and beans 100 tons. Although rice was a main article of business before, today warehousing charge is the only one source of income because of introduction of the MOF system and leasing of the 800 ton warehouse to MOF, like Muang Phon Agricultural Cooperative.

The total volume of purchasing business is 992,000 baht including farm chemicals (main article), seeds and farm machinery. This area is a prominent place of production of cotton in the country and cotton is easily attacked by noxious insects.

Consequently, to which extent it is possible to control them determines the production of the year. Under these circumstances farm chemicals are important production inputs for the farmers who cultivate cotton. For making supply of farm chemicals smooth, therefore, the agricultural cooperative causes the farmers cultivating cotton to submit farming plans one to two months prior to beginning of planting and makes use of these plans as order sheet for farm chemicals.

In addition, this agricultural cooperative provides guidance to farmers to draw up annual farming plans for the purpose of causing credit business to be related to economic businesses. Contrivances are insufficient in the format of the plan and even though an attempt is made to extend loans based on the production plan, there is a limit in the financing amount. Consequently, there may be cases where the members who borrowed the balance of fund from merchants are driven to the situation in which they are obliged to sell their crops with priority to merchants in the harvesting season, and collection of loan by the agricultural cooperative becomes insufficient.

Many problems are still remaining as described above, but these attempts of this agricultural cooperative should be recognized valuable at least.

The management of the cooperative desire repletion of facilities such as warehouses and trucks for making economic activities active, and on the other hand, they consider upbringing of talent who support future development of businesses and strengthening of fund raising ability for covering the problems described above. Although these matters are the problems common to all the agricultural cooperatives in Thailand, this cooperative especially gives an impression on restrictions in the aspect of funds because this agricultural cooperative has volitions toward improvement of the situation.

## Balance Sheet of Muang Loei Agricultural Cooperative

Unit: thousand baht, %

	March 31, 1979			March 31, 1980			March 31, 1979			March 31, 1980		
	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease
Floatng assets	11,889	92.0	107	11,996	92.6	107	10,214	79.0	-174	10,040	77.5	-174
Cash and due from banks	242	1.9	7	249	1.9	7	9,654	74.6	-221	9,433	72.9	-221
Business accounts receivable	427	3.3	18	445	3.4	18	295	2.3	56	351	2.7	56
Loan	9,624	74.5	506	10,130	78.2	506	100	0.8	-100	-	-	-100
Other accounts receivable	231	1.8	-25	206	1.6	-25	66	0.5	95	161	1.2	95
-Reserve for uncollectible accounts	-71	-0.5	-21	-92	-0.7	-21	99	0.8	-4	95	0.7	-4
Interest receivable	854	6.6	-12	842	6.5	-12						
-Reserve for uncollectible interests	-61	-0.5	-1	-62	-0.5	-1						
Final inventory	575	4.4	-444	131	1.0	-444						
Stored goods	16	0.1	6	22	0.2	6						
Others	52	0.4	73	125	1.0	73						
Fixed assets	957	7.4	-100	857	6.6	-100						
Land	337	2.6	-	337	2.6	-						
Buildings and structures	564	4.4	-95	469	3.6	-95						
Furniture and equipment	56	0.4	-5	51	0.4	-5						
Other assets	80	0.6	22	102	0.8	22						
Liabilities total							10,333	79.9	-265	10,068	77.7	-265
Capital							2,593	20.1	294	2,887	22.3	294
Capital							1,339	10.4	158	1,497	11.5	158
Reserve fund							947	7.3	77	1,024	7.9	77
Reserve							101	0.8	24	125	1.0	24
Profit and loss for the current term							206	1.6	35	241	1.9	35
Total	12,926	100.0	29	12,955	100.0	29	12,926	100.0	29	12,955	100.0	29

Profit and Loss Statement of Muang Loei Agricultural Cooperative

Unit: thousand baht, %

Term ended on March 31, 1979		Term ended on March 31, 1980							
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio
2,475	100.0	5,508	100.0	1,205	100.0	992	100.0	3,311	100.0
		(100.0)		(21.9)		(18.0)		(60.1)	
2,001	80.8	4,829	87.7	820	68.0	900	90.7	3,109	93.9
474	19.2	679	12.3	385	32.0	92	9.3	202	6.1
		(100.0)		(56.7)		(13.5)		(29.8)	
163	6.6	350	6.4	13	1.1	107	10.8	230	6.9
311	12.6	329	6.0	372	30.9	-15	-1.5	-28	-0.8
		(100.0)		(113.1)		(-4.6)		(-8.5)	
123	5.0	155	2.8						
434	17.6	484	8.8						
228	9.2	243	4.4						
206	8.4	241	4.4						

(5) Koksamrong Agricultural Cooperative

This agricultural cooperative is located in Lop Buri Province in which Lop Buri River and Pasak River, which are artificial canals connected to Maenam River, and in which mountains of over 200 m are located. Merger of credit cooperatives in the district was gradually made since 1970, and the agricultural cooperative of the present form was established in 1979 as a result of merger of a consumers' cooperative.

The number of members is 2,902 as of March 31, 1980. They are grouped into 50 regional groups, and the estimated ratio of affiliation with the cooperative is as high as 14 per cent.

Fifteen directors and fourteen staffs are performing the duties, and steady activities such as transmission of information through regional groups and guidance for draw-up of management plans for individual farmers are continued under the leadership of capable managers. Economic activities are also developed positively besides credit business.

The capital account is 12,634,000 baht in total including capital of 4,036,000 baht, and the total asset is 36,923,000 baht. Thus the capital account occupies as much as 34.2 per cent of the total raised value, and the finance structure is very stable.

The total volume of the marketing business is 7,327,000 baht including rice 1,000 tons and maize 1,600 tons. Dealing of rice is based on the price supporting policy of the government. That is, 80 per cent of the required fund is borrowed from MOF and the remaining 20 per cent is borrowed from CPD, and rice is purchased from farmers at the government supported price. This rice is stored in the 1,000 ton warehouses possessed by the agricultural cooperative, and it is milled at the rice mill of the provincial federation, before it is shipped to the Ministry of Commerce.

There are many cases where members cannot sell the whole of desired volumes to the agricultural cooperative because there are limits in both the amounts borrowable from MOF and CPD and the warehouse capacity. But the latent force toward future expansion of the dealing volume is preserved compared to the MOF system, which only involves leasing of warehouses to MOF.

The whole volume of collected maize is sold to ACFT (Agricultural Cooperative Federation of Thailand). Although there are many farmers who select merchants for shipment of their products and who are also dependent on merchants for financing because of the location of being close to Bangkok, the agricultural cooperative is operating the businesses systematically as represented by presentation of managing plans through leaders of regional groups and collection of products by the unit of a group.

Efforts for rationalization such as establishment of annual purchasing plans as for the purchasing business, and the sales of 3,859,000 baht is summed up with dealing of diversified articles such as rice, fertilizer, farm machinery, bags for shipping maize and daily necessities.

The volition of the management toward the future is extremely positive, and they emphasize that it will be possible to increase the ratio of affiliation of farmers with the agricultural cooperative to

80 per cent as viewed from the needs of the regional farmers, if warehouses and means of transportation are repleted and if it becomes possible to raise working fund required for collection. Of course it is not possible to expect such a rapid expansion of business and unnecessary friction with existing merchants will probably occur. But it can be considered that such an agricultural cooperative as this cooperative that has sufficient latent capacity and volition can become a catchstone that indicates the future of agricultural cooperatives in Thailand, if it is blessed with assistance from outside in the aspects of fund and upbringing of talent.

Balance Sheet of Koksamrong Agricultural Cooperative

Unit: thousand baht, %

	March 31, 1979			March 31, 1980			March 31, 1979			March 31, 1980		
	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Amount	Component ratio	Increase or Decrease	
Floating assets	24,848	93.9	35,294	95.6	10,446	Floating liabilities	16,500	61.6	24,114	65.3	7,814	
Cash and due from banks	5,076	19.2	2,845	7.7	-2,231	Debt	15,466	58.4	22,499	60.9	7,033	
Business accounts receivable	1,295	4.9	2,749	7.4	1,454	Long-term debt repayment within 1 year or less	-	-	569	1.5	569	
Loan	17,509	66.0	28,253	76.5	10,744	Deposit	735	2.8	836	2.3	101	
Other accounts receivable	45	0.2	22	0.1	-23	Others	99	0.4	210	0.6	111	
-Reserve for uncollectible accounts	-60	-0.2	-149	-0.4	-89	Fixed liabilities	160	0.6	-	-	-160	
Interest receivable	998	3.8	1,505	4.1	507	Long-term debt	160	0.6	-	-	-160	
-Reserve for uncollectible interests	-78	-0.3	-101	-0.3	-23	Other liabilities	124	0.5	175	0.5	51	
Final inventory	-	-	38	0.1	38	Liabilities total	16,584	62.7	24,289	65.8	7,705	
Stored goods	20	0.1	20	0.1	-	Capital	9,886	37.3	12,634	34.2	2,748	
Others	43	0.2	112	0.3	69	Capital	3,044	11.5	4,036	10.9	993	
Fixed assets	988	3.7	1,029	2.8	41	Reserve fund	5,512	20.8	6,605	17.9	1,093	
Land	200	0.7	213	0.6	13	Reserve	391	1.5	550	1.5	159	
Buildings and structures	659	2.5	703	1.9	44	Profit and loss for the current term	939	3.5	1,443	3.9	504	
Vehicles and transporters	8	0.0	5	0.0	-3	Total	26,470	100.0	36,923	100.0	10,453	
Furniture and equipment	121	0.5	108	0.3	-13							
Other assets	634	2.4	600	1.6	-34							
Total	26,470	100.0	36,923	100.0	10,453							



Profit and Loss Statement of Koksamrong Agricultural Cooperative

Unit: thousand baht, %

Term ended on March 31, 1979		Term ended on March 31, 1980							
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio
9,273	100.0	14,550	100.0	3,364 (23.1)	100.0	3,859 (26.5)	100.0	7,327 (50.4)	100.0
7,998	86.3	12,517	86.0	1,891	56.2	3,447	89.3	7,179	98.0
1,275	13.7	2,033	14.0	1,473 (72.5)	43.8	412 (20.3)	10.7	148 (7.2)	2.0
85	0.9	109	0.7	35	1.0	29	0.8	45	0.6
1,190	12.8	1,924	13.3	1,438	42.8	383	9.9	103	1.4
172	1.9	152	1.0	(74.7)		(19.9)		(5.4)	
1,362	14.7	2,076	14.3						
419	4.5	633	4.4						
939	10.1	1,443	9.9						

## (6) Banpong Sugarcane Growers Agricultural Cooperative

This agricultural cooperative which was newly established in June 1975 in Rat Cha Buri Province located in the west mountains in the west of Bangkok is of the character that is considerably different from those of other seven agricultural cooperatives.

When a sugarcane export company by the name of the Sugarcane Products Trading Co., Ltd. was established in 1975, it was requested by the policy of the Government that three parties, that is, producers, government and sugar manufacturing trade, become investors. This agricultural cooperative was established for the purpose of becoming the investor as producers. One third of the capital 10,000,000 baht of this company was invested by this agricultural cooperative, and the remaining two thirds were equally invested by the Ministry of Industry and the sugar manufacturing trade.

A debt of 1,200,000 baht is recorded in the balance sheet. It is a debt from the Sugarcane Products Trading Co., Ltd. in the form that counterbalance is made with investment described above, and virtual investment made by this agricultural cooperative is a little over 2,000,000 baht. Further, dividend income of as much as 2,317,000 baht was obtained from the Sugarcane Products Trading Co., Ltd. in the term ended on September 30, 1978, and therefore, capital account occupies an extremely large position that is as much as 64.3 per cent of total raised amount in the financial structure of this agricultural cooperative.

The number of members is 352 persons as of September 30, 1979, and the number of regional groups is 15. The duties are performed by fifteen directors and three staffs but the economic businesses are limited to purchasing business of the total dealings of 1,361,000 baht mainly with fertilizer and farm chemicals, and no marketing business is made at all, because of the characteristics of the cooperative described above.

It is the present situation of this agricultural cooperative that business activities made by directors as individuals have come up to the fore instead of marketing activities of the cooperative.

Each director, who is a private individual having a marketing quota allotted by a sugar manufacturing company, borrows funds for collection from the subject sugar manufacturing company, purchases products from farmers with these funds, and at the same time, he even loans living funds to farmers in the manner that is competitive with credit business of the agricultural cooperative. Furthermore, individual business of directors also has the main share in the supply of production inputs such as fertilizer, farm chemicals and seeds, job plowing and transportation, and the agricultural cooperative only plays supplementary functions.

It is a fact that the business activities of this agricultural cooperation are naturally limited as long as this cooperative was established with investment in an exporting company as the main object. But how to make adjustment between the business activities of the cooperative and the business activities made by directors as individuals probably is the largest problem for promoting its development in the future as an agricultural cooperative.

Balance Sheet of Banpong Sugarcane Growers Agricultural Cooperative

Unit: thousand baht, %

	September 30, 1978		September 30, 1979		Increase or Decrease	September 30, 1978		September 30, 1979		Increase or Decrease	
	Amount	Component ratio	Amount	Component ratio		Amount	Component ratio	Amount	Component ratio		
Floating assets	4,934	53.1	4,187	49.7	-747		3,127	33.7	2,803	33.2	-324
Cash and due from banks	563	6.1	718	8.5	155		1,200	12.9	1,200	14.2	0
Purchasing accounts receivable	1,867	20.1	1,699	20.2	-168		1,831	19.7	1,357	16.1	-474
Loan	2,391	25.8	1,690	20.0	-701		82	0.9	226	2.7	144
Interests receivable	56	0.6	29	0.3	-27		14	0.2	20	0.2	6
-Reserve for uncollectible accounts	-		-1	0.0	-1						
Final inventory	51	0.5	47	0.6	-4		372	4.0	205	2.5	-167
Others	6	0.0	5	0.1	-1						
Fixed assets	953	10.3	839	9.9	-114		3,499	37.7	3,008	35.7	-491
Land	183	2.0	183	2.2	0						
Buildings and structures	600	6.5	533	6.3	-67						
Vehicles and transporters	87	0.9	54	0.6	-33		607	6.5	698	8.3	91
Furniture and equipment	83	0.9	69	0.8	-14		2,727	29.3	4,052	48.1	1,325
Other assets *1	3,405	36.6	3,405	40.4	0		1,922	20.7	-207	-2.5	-2,129
Total	9,293	100.0	8,431	100.0	-861		9,293	100.0	8,431	100.0	-861
							Liabilities total				
							Other liabilities				
							Floating liabilities				
							Debt *2				
							Purchasing accounts payable				
							Expenses payable				
							Others				
							Capital				
							Reserve fund				
							Profit and loss for the current term				
							Reserve				
							Total				

\*1 Other assets include investment (3,353,000 baht) to the Sugarcane Products Co., Ltd.

\*2 Debt 1,200,000 baht is borrowing at annual rate 12% from the Sugarcane Products Co., Ltd. as a return for the investment.

Profit and Loan Statement of Banpong Sugarcane Growers Agricultural Cooperative

Unit: thousand baht, %

Term ended on September 30, 1978		Term ended on September 30, 1979					
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio
5,261	100.0	1,580	100.0	219	100.0	1,361	100.0
		(100.0)		(13.9)		(86.1)	
2,724	51.8	1,467	93.9	144	65.7	1,323	97.2
2,537	48.2	113	7.1	75	34.3	38	2.8
		(100.0)		(66.4)		(33.6)	
117	2.2	1	0.1	1	0.7	-	-
2,420	46.0	112	7.0	74	33.7	38	2.8
		(100.0)		(66.1)		(33.9)	
6	0.1	32	2.1				
2,426	46.1	144	9.1				
504	9.6	351	22.2				
1,922	36.5	-207	-13.1				

(7) Phun Phin Agricultural Cooperative

In Surat Thani Province located in the narrow part of Malay Peninsula in the south part of Thailand, this agricultural cooperative was organized in 1971 as a result of merger of 14 credit cooperatives in the district. Although credit business only was operated until 1973, economic businesses were also added to the line of business since then with those related to raw rubber, which is the main product of this area, as the main article.

The survey was conducted based on the figures as of March 31, 1979 because the outline of settlement of accounts of the last term was not yet completed. The number of members is 1,099 and the number of regional groups is 28. The estimated ratio of affiliation of farmers with this agricultural cooperative is 11 per cent.

Fifteen directors and five staff members are performing the duties, and the main source of profit is credit business with subloan of borrowing from BAAC as the nucleus.

The financial structure of total assets 8,700,000 baht is as shown in the balance sheet. Excessive weight of accounts related to credit business is conspicuous. Besides, the capital is as small as 698,000 baht which is equivalent to 8.0 per cent of the total raised amount, and the total capital account is only 13.8 per cent, 1,199,000 baht, and imbalance is observed.

A warehouse of 500 tons and a rice cleaning mill having daily processing capacity of 20 tons are provided as the facilities possessed by the cooperative, and milled rice was supplied to merchants and organs such as hospitals and government offices in the neighborhood as well as to the members of the cooperative by making use of these facilities as marketing business, and accomplishment of dealing of rice of 548 tons is recorded in the term of 1978 and the sales of 1,605,000 baht in total in this term together with dealing of raw rubber of 17 tons. But MOF system was also introduced as for rice beginning in the term of 1979 to this agricultural cooperative, and the facilities described above changed into which produce a rent income only.

The purchasing business is such that the sales of 238,000 baht for farm machinery is recorded in the term of 1978 and that accomplishment of dealing of one raw rubber extender is recorded in the term of 1979, and thus this business is extremely unpromising.

As for the credit business, it is said that the number of farmers who withdrew from the agricultural cooperative and entered the farmers' association because of displeasure of the fact that the credit limit from BAAC does not increase and the demand for loans is not satisfied because of shortage of the own strength of the agricultural cooperative itself is nearly 100 persons.

It is the present situation that all the businesses of this agricultural cooperative are tapering off in general as described above, and it is requested that the own force of the agricultural cooperative is built up by steadily expanding the rubber marketing business by the system of marketing on consignment without risk burden such as that is currently performed.

The management condition of this agricultural cooperative is also appealing the necessity of strengthening the credibility of the cooperative

itself by enabling provision of financing that is matched with the production of cooperative members and by increasing repayment ratio through repletion of rubber marketing business. It is expected that this agricultural cooperative makes steady efforts because this agricultural cooperative is a typical agricultural cooperative in the sense that it organizes small farmers.

## Balance Sheet of Phun Phin Agricultural Cooperative

Unit: thousand baht, %

	March 31, 1978			March 31, 1979			March 31, 1978			March 31, 1979		
	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Amount	Component ratio	Increase or Decrease	
Floating assets	7,683	88.2	71	7,754	89.1	71	7,139	82.0	7,216	83.0	77	
Cash and due from banks	590	6.8	-462	128	1.5	-462	5,986	88.7	5,852	67.3	-134	
Business accounts receivable	560	6.4	470	1,030	11.8	470	799	9.2	1,069	12.3	270	
Loan	5,468	62.8	-175	5,293	60.8	-175	33	0.4	35	0.4	2	
Other accounts receivable	164	1.9	19	183	2.1	19	84	1.0	28	0.3	-56	
-Reserve for uncollectible accounts	-95	-1.1	-72	-167	-1.9	-72	141	1.6	157	1.8	16	
Interest receivable	775	8.9	182	957	11.0	182	96	1.1	75	0.9	-21	
-Reserve for uncollectible interests	-52	-0.6	-17	-69	-0.8	-17	281	3.2	229	2.6	-52	
Final inventory	233	2.7	141	374	4.3	141	281	3.2	229	2.6	-52	
Stored goods	10	0.1	4	14	0.2	4						
Others	30	0.3	-19	11	0.1	-19						
Fixed assets	918	10.5	-22	896	10.3	-22	39	0.4	56	0.6	17	
Land	41	0.5	0	41	0.5	0						
Buildings and structures	507	5.8	7	514	5.9	7	7,459	85.6	7,501	86.2	42	
Machinery and installation	334	3.8	-19	315	3.6	-19	1,252	14.4	1,199	13.8	-53	
Furniture and equipment	36	0.4	-10	26	0.3	-10	693	8.0	698	8.0	5	
Other assets	110	1.3	-60	50	0.6	-60	454	5.2	458	5.3	4	
							63	0.7	95	1.1	32	
							42	0.5	-52	-0.6	-94	
Total	8,711	100.0	-11	8,700	100.0	-11	8,711	100.0	8,700	100.0	-11	

Profit and Loss Statement of Phun Phin Agricultural Cooperative

Unit: thousand baht, %

Term ended on March 31, 1978		Term ended on March 31, 1979							
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio
4,144	100.0	2,494	100.0	651	100.0	238	100.0	1,605	100.0
		(100.0)		(26.1)		(9.5)		(64.4)	
3,767	90.9	2,158	86.5	412	63.3	231	97.3	1,515	94.4
377	9.1	336	13.5	239	36.7	7	2.7	90	5.6
		(100.0)		(71.1)		(2.1)		(26.8)	
214	5.2	202	8.1	17	2.6	5	2.1	180	11.2
163	3.9	134	5.4	222	34.1	2	0.6	-90	-5.6
		(100.0)		(165.7)		(1.5)		(-67.2)	
32	0.8	33	1.3						
195	4.7	167	6.7						
153	3.7	219	8.8						
42	1.0	-52	-2.1						



(8) Hat-Yai Agricultural Cooperative

This agricultural cooperative, which is located in the southernmost location among the agricultural cooperatives selected as the objects of the case study of this study, was primarily established in 1969, which was immediately after the establishment of government policy to organize production credit cooperatives as multi-purpose agricultural cooperatives.

Economic businesses were also started in 1972 in addition to the credit business which had been run from the beginning. Song Khla Province in which this cooperative is located is one of tourist provinces with shallow coastline, which is the most beautiful in Thailand, as the east limit. Hotels in Hat-Yai also noted as a commercial town are busy with many tourists from Malaysia and so forth. The main farm product in this area is rubber again, and one has to frown against the odor of acetic acid floating from raw rubber smoking factories a number of times while he drives along the national highway that runs across this province.

The number of members of this agricultural cooperative is 988 persons as of December 31, 1979, and they are grouped into 34 regional groups. Although the estimated ratio of affiliation of farmers with the cooperative is as low as 4 per cent, it is unavoidable in some sense because raw rubber production is the field in which large scale farmers and merchants are strong.

Fifteen directors and three staff members are performing the duties, and a 300 ton warehouse is possessed besides the office as a facility.

The financial structure of total asset 5,563,000 baht lacks stability as indicated by the balance sheet. That is, the capital account is as small as 7.5 per cent of the total raised amount due to presence of deficit brought forward and current deficit.

As for the marketing business, sales of 1,246,000 baht brought by dealing of raw rubber 260 tons is recorded, but in the term of 1980, the cooperative is driven to such a situation that marketing business should be discontinued because fund raising cannot be made due to accumulation of deficit. As for the purchasing business, the only accomplishment of dealing is of fertilizer 30 tons, 128,000 baht. It is not sufficient at all for covering the expenses.

Although the actual situation of economic businesses of this agricultural cooperative is extremely unpromising as described above, cooperative members, who are petty farmers, have large expectation on the agricultural cooperative.

A raw rubber farmer collects liquid from rubber trees, congeals it by adding acetic acid to it, forms rubber into rubber sheets by using a simple rubber extender and ships rubber sheets after naturally drying them. At a petty farming household in which two persons only work there are many cases where the volume of shipment is 10 to 20 rubber sheets, 15 to 30 kg in weight per day, which is far less than the unit in the quantity for directly selling rubber sheets to a smoking factory, which dries rubber sheets by heating them, shaping rubber sheets into different forms and sells the products to exporters, or to a commission broker, and therefore, rubber sheets produced by petty farmers are sold cheaper or are evaluated unfair.

All the more because of the fact described above the management of the cooperative has an ambition to have an own smoking factory in the future and to develop the marketing business to such an extent that negotiation for pricing can be made directly with exporters by recovering credibility and by securing the funds for marketing business through repletion of owned capital by capital increase to cope with the requests of cooperative members.

The expectation of member farmers to the agricultural cooperative causes the management of this agricultural cooperative to have volition for expansion and development of businesses. It seems to be valuable seed for the flower in near future.

Balance Sheet of Hat-Yan Agricultural Cooperative

Unit: thousand baht, %

	December 31, 1978			December 31, 1979			December 31, 1978			December 31, 1979		
	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease	Amount	Component ratio	Increase or Decrease
Floating assets	4,189	78.5	296	4,485	80.6	296	4,716	88.3	250	4,966	89.3	250
Cash and due from banks	249	4.7	24	273	4.9	24	4,484	84.0	252	4,736	85.1	252
Business accounts receivable	44	0.8	-10	34	0.6	-10	196	2.7	-8	188	3.4	-8
Loan	3,668	68.7	233	3,901	70.2	233	36	0.6	6	42	0.8	6
Other accounts receivable	10	0.2	-2	8	0.1	-2	175	3.3	-39	136	2.4	-39
-Reserve for uncollectible accounts	-7	-0.1	-	-7	-0.1	-	175	3.3	39	136	2.4	39
Interest receivable	160	3.0	53	213	3.8	53						
-Reserve for uncollectible interests	-9	-0.2	-2	-11	-0.2	-2						
Final inventory	62	1.2	-	62	1.1	-	37	0.7	9	46	0.8	9
Stored goods	10	0.2	2	12	0.2	2						
Others	2	0.0	-2	-	-	-2						
Fixed assets	1,066	19.9	-47	1,019	18.3	-47	4,928	92.3	220	5,148	92.5	220
Land	348	6.5	-	348	6.3	-	411	7.7	4	415	7.5	4
Buildings and structures	696	13.0	-39	657	11.7	-39	595	11.1	54	649	11.8	54
Furniture and equipment	22	0.4	-8	14	0.3	-8	5	0.1	-	5	0.0	-
Other assets	84	1.6	-25	59	1.1	-25	-135	-2.5	-54	-189	-3.4	-54
Total	5,339	100.0	224	5,563	100.0	224	5,339	100.0	224	5,563	100.0	224

Profit and Loss Statement of Hal-Yai Agricultural Cooperative

Unit: thousand baht, %

Term ended on December 31, 1978		Term ended on December 31, 1979							
Total	Component ratio	Total	Component ratio	Credit business	Component ratio	Purchasing business	Component ratio	Marketing business	Component ratio
2,764	100.0	1,875	100.0	501	100.0	128	100.0	1,246	100.0
		(100.0)		(26.8)		(6.6)		(66.4)	
2,693	97.4	1,753	93.4	406	81.0	120	93.8	1,227	98.5
71	2.6	122	6.6	95	19.0	8	6.2	19	1.5
		(100.0)		(77.9)		(6.6)		(15.5)	
26	0.9	54	2.9	1	0.2	31	24.2	22	1.8
45	1.7	68	3.7	94	16.8	-23	-18.0	-3	-0.2
		(100.0)		(138.2)		(-33.8)		(-4.4)	
25	0.9	27	1.4						
70	2.6	95	5.1						
124	4.5	145	7.7						
-54	-1.9	-50	-2.6						

PART II PRESENT SITUATION AND PROBLEMS OF AGRICULTURAL  
COOPERATIVES IN THAILAND AND DIRECTION FOR  
IMPROVEMENT

CHAPTER 1 CONDITIONS SURROUNDING AGRICULTURAL  
COOPERATIVES

1. Agricultural Economy

(1) Position of agriculture

The situation that Thailand is an agricultural country remains unchanged, although the relative position of agriculture in the industrial structure of the country tends to be reduced year after year because of expansion of non-agricultural sectors such as mining, manufacturing and tertiary industries.

The farm household population in 1978 was about 29 million persons which is equivalent to about 65 per cent of total population of about 45 million persons. This ratio of farm household population to the total population of the country has been reducing year after year as shown in Table 1-1 because the farm household population remained on the same level for a number of years despite the fact that the total population increased by the annual rate of about 2.8 per cent. The number of workers engaged in agriculture in 1978 was about 16 million, which is equivalent to about 62 per cent of total number of workers.

Table 1-1 Progress of farm household population and of number of workers engaged in agriculture

Unit: thousand, %

	Farm household population			No. of workers engaged in agriculture (B)		
	Total population (A)	Farm household population (B)	Ratio (B/A)	Total No. of workers (A)	No. of workers engaged in agriculture (B)	Ratio (B/A)
1970	36,348	28,078	77.25	18,972	14,192	74.81
1975	41,497	28,948	69.76	22,771	15,132	66.45
1976	42,651	29,086	68.30	23,539	15,299	64.86
1977	43,847	29,213	66.62	24,417	15,451	63.28
1978	45,087	29,327	65.04	25,253	15,586	61.72

Source: Ministry of Agriculture & Cooperatives  
"Selected Economic Indicators Relating to Agriculture"

The farm holding land has rapidly increased as shown in Table 1-2 because of promotion of land development.

The farm holding land (mainly paddy field) in 1977/78 is 114 million rai (18 million ha) occupies 35.4 per cent of the total area of the country

321 million rai (51.4 million ha). Mangroves form jungles in Malay Peninsula and along the coasts of Gulf of Siam in the south, there are many unaccessible forests in the mountainous areas and therefore it is difficult to expect such a rapid expansion of the farmland area as before in the future. As to the distribution of farm households classified by the size of holding land, the class of 15 - 29.9 rai is located at the middle as shown in Table 1-4, which indicates transition to classes of larger scale is observed in general.

Table 1-2 Progress of area of land managed by farmers

Unit: thousand rai, %

	Farm holding land (A)	Ratio to total area of country	Area of paddy field (B)	B/A
1955	56,195	17.5	36,881	65.6
1960	61,683	19.2	27,127	60.2
1965	78,817	24.5	40,493	51.4
1970	92,833	28.9	59,171	63.7
1975	116,282	36.2	76,226	63.0

Source: Same as that of Table 1-1.

Note: 1 rai = 0.16 ha

Table 1-3 Utilization of land managed by farmers (1977/78)

Unit: thousand rai, %

	Area	Component ratio
Total area of country (A)	321,250	(B/A 35.4)
Farm holding land (B)	113,796	100.0
Housing area	2,711	2.4
Paddy field	71,087	62.5
Under field crops	25,606	20.8
Under fruit tree & tree crops	10,160	9.0
Under Vegetables & flowers	228	0.0
Idleland	2,977	2.6
Grassland	528	0.5
Others	2,499	2.2

Table 1-4 Distribution of farm households classified by scale

Unit: %

	1966	1971	1976
Less than 2 rai	2.8	1.4	0.7
2 - 5.9 rai	11.0	6.6	3.8
6 - 14.9 rai	28.8	25.1	21.0
15 - 29.9 rai	28.9	30.7	30.4
30 - 44.9 rai	14.3	16.5	17.5
45 - 59.9 rai	7.1	9.0	11.4
60 - 139.9 rai	6.6	10.0	14.2
140 rai or more	0.5	0.7	1.0
Total	100.0	100.0	100.0

Source: International Development Center "Report on Preliminary Study on Policy Classified by Nation to Which Cooperation is Provided for Development of Agriculture and Forestry (Classified by Area)"

In Thailand the ratio of the gross agricultural product to the gross domestic product (GDP) is around 30 per cent. In 1977, this ratio dropped to 28.5 per cent by 2.3 points from 30.8 per cent of the previous year as affected by the damage from a drought of as much as about 7 billion baht (US\$ 0.35 billion). Although agricultural production in 1978 made recovery to such an extent that the heaviest harvests in the history are recorded with both rice and maize as supported by consolidation of canals and construction and repair of roads and bridges, which were executed with government funds also as countermeasures for employment of farmers affected by the damage from a drought, and also by repletion of measures for securing irrigation water and of chemical fertilizer input project, the situation was again worsened in 1979. At any rate, it has remained unchanged that expansion of agricultural production, increase of income of farm households and accompanying correction of economic and social differences from other people are urgent necessities under extremely severe economic policy managing environment represented by worsened international balance of payment caused by rise of oil prices and advancement of inflation. A number of statistics which indicate the position of agriculture in the economy of Thailand are shown in Table 1-5.

Table 1-5 Position of agriculture in the economy of Thailand

		1973	1974	1975	1976	1977
GDP (market value)	million baht	216,543	269,645	296,298	332,177	370,445
Gross agricultural product (included in the above)	%	33.8	31.4	31.3	30.8	28.5
Gross export value	million baht	32,226	49,799	45,007	60,797	71,108
Agricultural products (included in the above)	%	68.7	72.3	66.3	70.4	79.7
Gross import value	million baht	42,184	66,044	66,835	72,877	94,223
Agricultural products (included in the above)	%	13.1	11.8	11.7	10.9	12.7
Annual budget scale	million baht	31,600	36,000	48,000	62,650	68,790
Budget related to agricul- ture (included in the above)	%	8.1	7.9	8.9	8.7	9.9

Source: Same as that of Table 1-1.

(2) Farm household economy

Table 1-6 indicates the gap of GDP per capita between agriculture and non-agriculture. It is clearly indicated in this table that the average per capita income of farmers is only 45 per cent of the average per capita income of the whole country.

Table 1-6 Per capita GDP of agricultural and non-agricultural workers

Unit: baht

	Agriculture (A)	Non-agriculture (B)	B/A
1973	4,959	22,340	4.50
1974	5,667	26,370	4.65
1975	6,135	26,634	4.34
1976	6,692	27,721	4.14
1977	6,824	29,556	4.33

Original source: Same as that of Table 1-1.

By the way, the development of economy and modernization and diversification of agriculture in 1960's caused farm household economy to change into commercialized form that pursues profit from the subsisting economy. As a result, the life style of farmers was also changed by a major extent accompanying the change in the farm household economy. Although labor and leisure were determined by seasonal rhythm of farm works before, working in other areas in off season and double cropping were increased because of the desire for cash income. It is shown in Table 1-7 that the majority of farm household earnings is dependent on non-agricultural earnings such as wages.



Table 1-7 Structure of cash earnings of farm households

Unit: baht per household, %

	1970		1975		1975/1970
	Amount	Component ratio	Amount	Component ratio	
Gross agricultural income	3,877		9,654		2.49
Rice	1,112		2,894		2.60
Other crops	1,791		4,652		2.60
Livestock	974		2,108		2.16
Agricultural managing expenses	2,391		5,421		2.27
Agricultural earnings	1,486	42.1	4,233	44.6	2.85
Non-agricultural earnings	2,045	57.9	5,261	55.4	2.57
Earnings total	3,531	100.0	9,494	100.0	2.69

Source: Same as that of Table 1-1.

Table 1-8 Cash earnings of farm households classified by land area (1973/1974)

Unit: baht per household

	Cash income	Cash expenditure	Cash earnings
Less than 2 rai	15,213	4,344	10,969
2 - 5.9 rai	11,614	3,275	8,339
6 - 14.9 rai	9,495	4,305	5,190
15 - 29.9 rai	10,123	2,960	7,163
30 - 44.9 rai	12,337	4,333	8,004
45 - 59.9 rai	17,841	6,607	11,234
60 - 139.9 rai	25,881	7,459	18,422
140 rai or more	102,188	49,770	52,418
All farm households	13,944	4,650	9,294

Source: Same as that of Table 1-1.

Although it is necessary to take inflation into consideration, recent increase of cash earnings of farmers in recent years is surely conspicuous. On the other hand, however the existence of regional difference and income disparity by class such as that is shown in Table 1-8 is undeniable.

In fact, among the farmers we have visited for the case study was a family of five persons living with a few pieces of metal tableware in a high-floor dwelling of about ten meter square having a roof that barely shelters rain at one extreme and farmer having allowance to expend large percentage of their cash earnings for purchasing durable consumable goods

such as large size color TV sets and refrigerators which are now making penetration under advertisement through mass media to frontier villages at another extreme.

## 2. Trend of Agricultural Production

### (1) Trend of production

The agriculture in Thailand emerged from such a situation that rice production forms the nucleus, and field crop farming as cash crop became flourishing in 1960's as described earlier. As shown in Table 1-9, production of so-called four leading agricultural products, namely, maize, tapioca and sugarcane in addition to rice, has been steadily increasing.

Table 1-9 Progress of production of main agricultural products

Unit: Upper column - thousand ton  
Lower column - index based on the value of 1963 as 100

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978
Rice (unhulled)	9,625 83	10,378 89	13,410 119	15,570 117	13,744 119	12,413 103	14,898 126	13,586 116	15,300 130	15,068 128	13,920 119	17,532 145
Rubber	216 109	259 131	283 143	287 145	316 160	337 170	368 185	382 193	349 176	393 198	425 214	460 237
Maize	1,217 142	1,331 155	1,700 198	1,938 226	2,300 268	1,315 153	2,339 273	2,500 291	2,863 334	2,675 312	1,850 216	3,030 353
Kenaf	429 196	320 147	378 173	385 176	422 193	437 200	469 215	384 176	308 141	183 84	240 110	311 142
Tapioca	2,062 98	2,611 124	3,079 146	3,431 163	3,114 148	3,974 235	5,668 269	6,240 296	8,100 384	10,138 480	12,372 505	16,000 758
Coconut	797 78	725 71	721 71	714 70	706 70	700 70	691 68	684 67	677 66	670 66	6 4 63	670 69
Sugarcane	4,526 96	5,879 124	5,102 108	6,586 139	5,926 125	9,513 201	15,339 282	14,592 308	19,910 421	26,094 521	18,941 400	20,200 427
Tobacco	14 180	17 190	16 188	20 206	22 216	26 229	24 258	31 286	37 307	43 300	43 328	43 330
Kapok	103 115	105 118	97 108	103 115	103 116	104 116	107 119	106 118	106 119	108 120	99 111	102 113
Groundnut	132 166	158 241	124 90	125 55	134 83	153 102	147 58	161 116	100 59	152 55	108 187	135 199
Raw cotton	81 166	117 241	44 90	27 55	41 83	49 102	28 58	56 116	29 59	27 55	91 187	90 199

Source: Same as that of Table 1-3.

As for rice, extremely stabilized production has been continued since over ten million tons of production was recorded in 1968, except the bad harvests of a minor extent encountered in 1972 and 1977. The planted area is in the range of 50 to 60 million rai, and yearly fluctuation is not significant. The crop per rai is in the range of 230 - 280 kg, and it appears that it seems to have almost reached its limit under the current technology level and other environmental situation.

As for maize, its production kept on increasing as it became possible to transport it to destinations of long distances in accordance with expansion of road network, and production exceeded the level of three million tons in 1978. Although its planted area also increased accordingly, changes are minor in the recent years as represented by the figures of 8.74 million rai in 1975, 8.67 million rai in 1976, 8.84 million rai in 1977 and 8.94 million rai in 1978, and it appears that new reclamation of land has reached the limit.

As for tapioca, increase of its production in the recent years can be said to be explosive. Production of 16 million tons in 1978 is nearly twice as much as the production in 1975. Strong demand from the European market supports this rapid increase of production, and the planted area has also been rapidly increasing in parallel with increase of production. The planted area of six million rai in 1977 is twice as much as that of 1974. Increase in the planted area is particularly noteworthy in the northeastern area, and planted area of kenaf, which has been produced in this area traditionally, has been decreasing on the other hand.

As for sugarcane, although its production kept on growing as induced by the strong demand from the overseas market, it is level off in the recent years.

The yields per rai of these four leading farm products are shown in Table 1-10. The yield of rice has been stable as described earlier, and the yield of maize has also been stable except for 1977 when maize suffered from a drought. However, large differences in production capacity are observed among regions, and productivity in the central plain is high in general and low in the northeast.

Table 1-10 Progress of yields per rai of main agricultural products

	Unit: kg				
	1973	1974	1975	1976	1977
Rice (unhulled)	276	260	265	269	231
Rice (including second crop)	285	268	275	281	246
Maize	326	323	349	333	223
Tapioka	2,080	2,080	2,180	2,318	2,062
Sugarcane	8,253	7,540	8,148	8,367	5,349

Source: Same as that of Table 1-3.

(2) Trend of export of agricultural products

Rice, maize, tapioca and sugarcane are also nuclei of export as shown in Table 1-11. Export of rice and maize have been stable over a long period of time.

Table 1-11 Export of main agricultural products

Unit: thousand ton

	1971	1972	1973	1974	1975	1976	1977	1978
Rice	1,576	2,112	849	1,029	951	1,974	2,946	1,607
Maize	1,873	1,844	1,386	2,302	2,105	2,419	1,543	1,972
Rubber	308	318	391	363	332	372	402	442
Tapioka	1,123	1,311	1,836	2,396	2,385	3,717	3,954	6,288
Sugar	175	408	275	444	595	1,124	1,654	1,040
Kenaf	272	255	264	247	158	138	81	91
Shrimp	6	7	15	10	14	16	14	15
Teak	38	40	52	35	43	72	39	15

Source: Information from Customs Bureau.

Hong Kong, Singapore, Malaysia and Indonesia have been traditional markets of rice, but export to the Middle and the Near East and to the African countries has been rapidly increasing since 1976. As for maize, export to the Middle and the Near East and to the African countries is growing these days like rice in addition to stable market, that is, Japan, Hong Kong, Singapore and Malaysia. Because Thailand has no petroleum resources like Japan, it is expected that export to the Middle and the Near East will keep on increasing in the future because of the relations with import of oil. When the domestic demand is observed on the other hand, though the population steadily keeps on growing by the annual rate of 2.6 to 2.9 per cent, rice consumption per head has remained in a fixed level of around 170 - 180 kg in the past several years, and the demand for maize as a raw material for assorted feed of broiler is flourishing. With respect to these two crops there is a fear of occurrence of problems as for adjustment of demand and supply between domestic consumption and export in the future.

As for tapioca, Belgium recently joined the group of buyers in addition to conventional buyers, namely, West Germany and Netherlands. As much as 6.29 million tons of tapioca were exported to these countries in 1978, and the export value reached a level of 10.9 billion baht which surpasses of 10.4 billion baht of rice, and has become the largest export item. However, claims for the quality such as inclusion of foreign matters into tapioca are conspicuous these days in the aspect of quality, and solution of this problem is the largest subject for continuing export of tapioca by a large volume.

As for sugar, the export volume is considered to be about the current level for some time based on the International Sugar Agreement.

### (3) Price guarantee on farm products

MOF (Marketing Organization for Farmers) established in 1974 with an Royal Ordinance purchased rice of 180,000 tons and rice of second crop of 16,000 tons at the government support price in fiscal 1978. This government support price and budget formation of purchasing funds are planned by a committee organized by Department of Agricultural Extension (DAE), Department of Agriculture (DA), Cooperatives Promotion Department (CPD) of the Ministry of Agriculture and Cooperatives, etc., and are decided with an approval the cabinet. MOF is also planning to establish a similar price supporting system for maize and beans, constructs silos and warehouses for storage of these purchased products. MOF also handles fertilizer in connection with these activities, but it is probably necessary to make careful consideration as for the adjustment of fields of business with ACFT (Agricultural Cooperative Federation of Thailand) from the standpoint of upbringing of agricultural cooperatives. As for the details of the MOF, refer to the description made in the following chapter in connection with economic businesses of agricultural cooperatives.

### 3. Progress and Present Situation of Agricultural Development Projects

National economic (social) development plans of four phases have been promoted in Thailand since 1961 up to now. The change of regime occurred a number of times in the mean time, but "Visualization of social justice and fair distribution of the benefit brought by development" was consistently held up as fundamental policy target in every project.

Expansion of income disparity among regions and among economic sectors was pointed out as an evaluation after termination of the First National Economic Development Six Year Plan (January 1961 through September 1966). Accordingly, importance was also attached to social aspects besides economic aspects in the Second National Economic and Social Development Five Year Plan (October 1966 through September 1971), and "reduction of disparity", "improvement of productivity of agriculture and diversification of agricultural production", "repletion of education" and so forth were adopted with emphasis. Table 1-12 indicating input of development funds classified by field also shows that large weights were laid on education and agriculture in parallel with transportation and communication.

"Promotion of economic growth of rural areas and reduction of income disparity between urban areas and rural areas" was held up as one of the main policy targets also in the Third National Economic and Social Development Five Year Plan. As a result, however, income disparity per capita expanded further between the Metropolitan Area having Bangkok as the nucleus and rural areas typically represented by Northeast as shown in Table 1-13. When the earnings per capita in the Metropolitan Area is expressed as 100, the earnings per capita in the Northeast kept on reducing as 15.1 in 1970, 14.7 in 1971, 13.9 in 1972 and 12.7 in 1976.

Table 1-12 Input of development funds

Unit: million baht, %

	Gross amount	Agriculture	Mineral, industry and commerce	Transportation and communication	Energy	Social welfare	Public hygiene	Education	Others
Phase I Result	28,220	13.8	8.3	26.1	16.8	19.7	3.8	7.4	4.0
Phase II { Plan	57,520	19.7	1.9	29.7	8.6	17.9	4.5	11.5	6.2
Phase II { Result	47,128	16.8	1.2	19.2	3.9	10.9	5.8	34.2	7.9
Phase III { Plan	100,275	13.7	2.4	19.4	7.9	2.7	6.3	32.8	14.9
Phase III { Result	92,548	11.8	2.6	18.3	10.9	16.4	4.6	34.3	-
Phase IV Plan	252,450	15.5	1.4	14.7	6.3	16.6	7.7	37.7	-

Source: Bangkok Japanese Chamber of Commerce "General Description of Economy of Thailand (1978)"; original source is from NESDB.

Table 1-13 Comparison of earnings per capita

Unit: baht, %

Year	Metropolitan circle	Central area	Northeast area	North area	South area
1970	9,954 (100)	42.5	15.1	25.2	34.3
1971	10,314 (100)	45.5	14.7	22.3	35.2
1972	10,585 (100)	46.2	13.9	20.3	35.6
1976	12,018 (100)	49.5	12.7	23.4	33.4

Source: Same as that of Table 1-12.

As to the agricultural production, rice increased and maize grew to become one of main export items. However, the growth of both rice and maize was attributed to the expansion of farmland area, which in turn means great reduction of forest area. The forest area which was as much as 57 per cent of the total area of the country was rapidly reduced to 37 per cent in 1973.

On the other hand, economic merits brought by agricultural development are not necessarily connected to improvement of life of farmers. Debts of farmers are increasing and the number of farmers who have to sell their land is increasing.

"Management of fundamental resources and preservation of environment" was newly added besides reduction of income disparity, improvement of employment, strengthening of national security to the main policy targets of the Fourth National Economic and Social Development Five Year Plan (October 1976 through September 1981).

The following six main policies are held up as the agricultural development plan accompanying the Fourth Plan, with "reduction of economic and social disparity through expansion of agricultural production and increase of farmers income" as the basic target, for accomplishing annual growth rate of five per cent of the agricultural sector.

- 1) Improvement of volition of farmers to make cultivation by issue of land ownership certificates and also by execution of land reform
- 2) Promotion of irrigation and consolidation of farmland
- 3) Promotion of diversification of agricultural products
- 4) Promotion of research and development and direct dissemination of results to farmers
- 5) Execution of agricultural product price supporting policy
- 6) Assistance for establishment of agricultural cooperatives and farmers' associations as well as expansion of official agricultural credit

Since it has become difficult to increase agricultural production through expansion of farmland area, the policies stated above are characteristics, in that importance is attached to increase of earnings and stabilization of management through increase of soil productivity and diversification and compounding of agricultural management.

It cannot be overlooked that these policies involve the contents which cause approach to important subjects such as break from regional monocultural agriculture, i.e., development of compound agriculture, expansion of the area of activities of autonomous organizations of farmers such as agricultural cooperatives in the field of promotion of regional agriculture and increase the roles of agricultural cooperatives and agricultural cooperative federations in the farm product markets based on said expansion of the area of activities.

Although the target growth rate of agricultural production was 5.1 per cent per annum in the five year period of the Third Development Plan, the achievement was only 3.9 per cent.



In 1979, which was about the beginning of the latter half of the Fourth Development Five-Year Plan, CPD newly released "Cooperative Development Plan". The followings are held up as the development targets for some time particularly for agricultural cooperatives in this plan, 1) to improve and to stabilize standard of living and income level of farmers and to accelerate development of farm villages, 2) to increase the roles of cooperatives for stable supply and improvement of quality of daily necessities and for keeping commodity price level stable, 3) to diffuse public facilities to local area, and 4) to root the custom of husbandry and saving among the people as the purports.

- 1) To organize 25 new agricultural cooperatives in fiscal 1979 and 25 in fiscal 1980, 50 agricultural cooperatives in total, for the time being, under the target of establishing agricultural cooperatives in every districts and quasi-districts.
- 2) To establish agricultural cooperatives having rights to manage water and to collect water charges in the areas of farmland consolidation and irrigation projects promoted by the government. (12 projects are the objects in fiscal 1979.)
- 3) To strengthen aids related to promotion of marketing of major farm products. To expand rice mills besides construction of cooperative warehouses at 498 sites. As for rubber, increase the volume of collection of raw rubber by agricultural cooperatives year after year with agricultural cooperative collection centers equipped with processing facilities at four places with 68 agricultural cooperatives in ten provinces in the South. To make use of the demonstration center established under the cooperation of Japan as for maize, for improvement of productivity. To make efforts to diffuse improved varieties as for soy beans with four provinces in Northeast and North. To provide assistance for strengthening of marketing systems of agricultural cooperatives regarding tobacco, tea, sugarcane, cassava, coconut, oil palm and so forth.
- 4) To start undertakings with 69 places in 46 provinces (about 660,000 rai) as the objects for increasing soil productivity and for providing irrigation and drainage facilities.
- 5) To provide subsidy for the salary (1,800 baht per month per person) with college graduates or junior high school graduates and up having practical experience in agricultural cooperatives, of 500 persons in the fifth year (to start with 100 persons in the first year and to increase the number by 100 persons every year) for the purpose of upbringing of capable managers in order to improve management and administration. (Full amount will be born by the government for the first five years, and the amount to be born will be reduced by 20 per cent per year in the sixth year and subsequent.)
- 6) To make use of 230 million baht through CPD out of 1,130 million baht to be disbursed from the Farmers Aid Fund in fiscal 1978/79 for anticipating due role agricultural cooperatives in the rice price supporting policy. (900 million baht will be handled by MOF.) To make it compulsory to handle the rice purchased by the government under the rice price supporting policy through agricultural cooperatives or farmers' associations. To strengthen farmer assisting policies through agricultural cooperatives such as upbringing of pig breeding agricultural cooperatives for stabilizing pork prices.

- 7) To strengthen training of CPE staff, members and staff of agricultural cooperatives and family members of cooperatives members as the object, and to conduct one year staff training course for the senior high school graduates (40 to 50 persons per year) at a training center to be established. To make publicity the activities making use of TV, radio, movie, poster, slide picture, show and so forth to disseminate knowledge related to agricultural cooperatives to the people in general. To carry out research and study activities related to trends and problems of cooperatives in Thailand, with cooperation obtained from CLT (Cooperative League of Thailand), colleges and so forth.

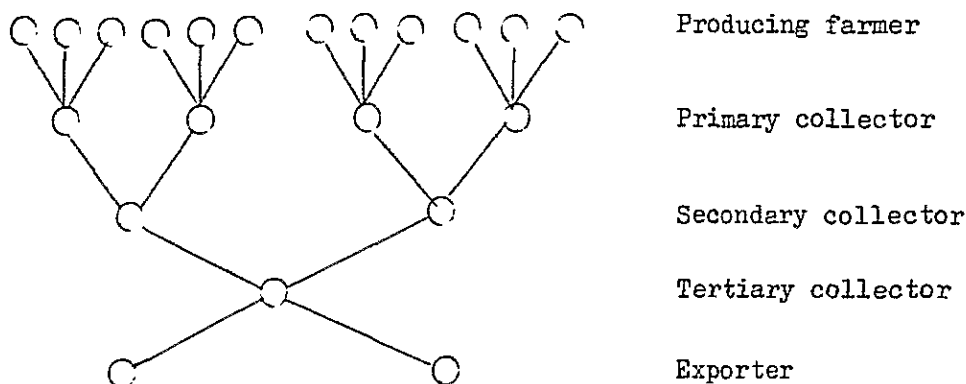
In addition to the contents described above, various measures as the followings were promoted incidentally in 1979 as "the year of farmers" decided by the Government of Thailand.

- 1) Development projects with emphasis on water utilization and road consolidation
- 2) Development of policies for supporting rice prices and for reserving rice
- 3) Strengthening of agricultural credit
- 4) Supply of agricultural inputs such as fertilizer, water pumps, tractors and trucks at reasonable prices
- 5) Promotion of measures for employment in rural areas by road construction works and so forth

Although the growth of agricultural production was only 3.9 per cent per annum at an average in the five year period of 1971 through 1976 as already described, as for agricultural cooperatives, such a high growth rate as 8.7 per per annum was achieved in the number of cooperative members in the same five year period from 306,978 to 465,502. How this expansion of the membership was connected to strengthening in quality of agricultural cooperatives such as marketing and financing measures can be said to be an important aspect.

#### 4. Present Situation of Distribution of Agricultural Products

Let us generally observe the distribution channels of agricultural products in Thailand with focus on maize, which is one of representative agricultural products exported out of Thailand.



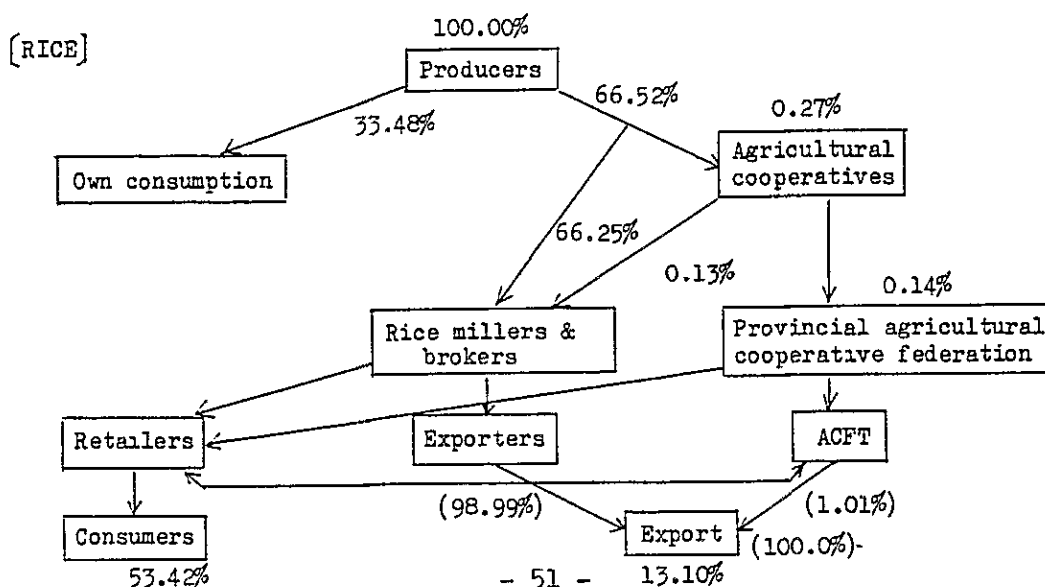
Primary exporters are called village middlemen. There are many cases where they also operate sundry stores or the like which supply living necessities and agricultural inputs such as seeds, fertilizer, farm chemicals and feed to farmers. The volume of collection business of each village middleman is five to ten tons per year in general, and volume of collection in the harvesting season is secured by performing credit sale to farmers and with credit accounts collected by farm products. Main articles handled by village middlemen are maize, beans and minor cereals. As for rice, rice millers directly purchase from farmers in many cases, and the cases where village middlemen handle rice is limited. Primary agricultural cooperatives are equivalent to this stage, and the articles handled by them are limited.

Secondary collectors called regional middlemen are of such a situation that four to five of them are in the capital town or the like of each province, and each one of them usually possesses storage warehouses and drying yards of 1,000 to 2,000 tons.

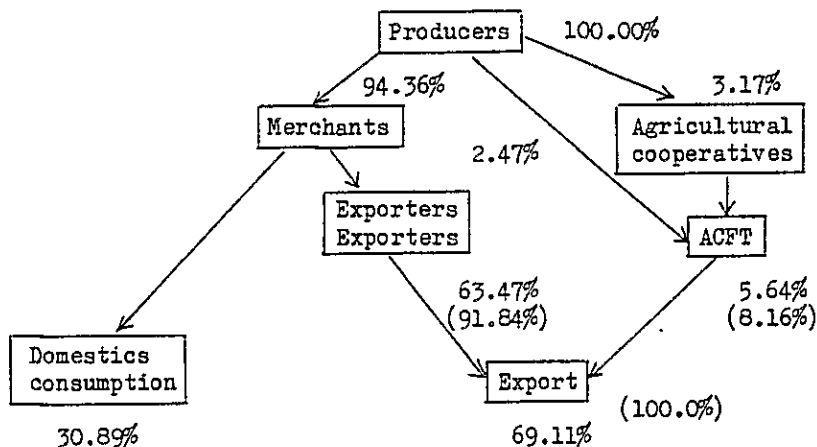
These middlemen have close connection with farmers, through the operation of plowing with tractors, but they do not supply agricultural inputs to farmers.

Those who are located between middlemen and exporters (called shippers) are tertiary collectors called suppliers. Many of the maize suppliers are of large scale today and some of them also work as shippers with 20,000 to 30,000 ton warehouses in Tarua area or the like or with affiliation made with large size silos in Bangkok. About maize, export quota for shippers are divided into those for Japan and those for other countries, and these quota are allotted to about 200 shippers in total. The number of shippers for export to Japan was 108 in fiscal 1978, and 12 shippers out of them are Japanese affiliates. Although it is provided for that export quota can be purchased at US\$20 per ton, it is said that dealing of this quota is made at the price level of US\$40 to 60 per ton. Many of shippers also operate the work of suppliers as described earlier, and there also are many cases where shippers employ buyers called complador and entrust buying work to them.

Let us pursue the real situation of distribution of rice and maize in further detail. The result of the survey on the accomplishment of distribution in 1976 conducted by Mr. Khan Chuvarnond of the Ministry of Agriculture of Thailand is very useful in this matter.



[MAIZE]



Even with rice and maize which are positively handled by agricultural cooperatives, the share of agricultural cooperatives in the processes of distribution is extremely minor as shown above. The share of agricultural cooperatives in distribution of other agricultural products may better be imagined.

Though the share of agricultural cooperatives is minor, provides significance of existence in its own way under the present situation where many troubles occur particularly between village middlemen and farmers regarding the method of weighing and the method of grading at the time of collection and there even are many cases where farmers themselves are not conscious of even the weight of the products they sold. The roles which should be played by agricultural cooperatives in the mechanism of distribution of farm products in the future will be examined in Chapter 3.

## 5. Present Situation of Agricultural Credit

### (1) Debts of farmers and agricultural credit

The phase of debts of farmers has made a large change as commercialized character is strengthened in the farm household economy in the trend of industrialization of national economy and modernization of agriculture which were in full force beginning in the latter half of 1960's.

The amounts of debts which are clearly recognized as monetary debts rapidly increased in accordance with penetration of cash economy. Consequently, modern credit institutions such as BAAC, agricultural co-operatives and commercial banks are expanding their shares as suppliers for funds for these debts, instead of traditional influential persons, rice millers, merchants, relatives, neighbors and so forth.

The loans outstanding of BAAC was 1,194 billion baht in 1970, but it grew to 7.461 billion baht in 1977, which is over six times of 1970. The outline of business of BAAC will be described in the following section, but because of the fact that the growth of gross agricultural product (nominal) in the same period is only about 2.5 times, that is, 38.493 billion baht in 1970 and 105.445 billion baht in 1977, rapid rise of the position of BAAC as a supplier of agricultural credit can be estimated

based on the assumption that production funds are required by the amount that is proportional to expansion of production.

According to a survey made by the Bank of Bangkok in 1969, the total demand for agricultural production funds in the country in 1969 was 13.4 billion baht and the total amount financed by BAAC and commercial banks was 1.36 billion baht, and thus their share was only 10.1 per cent in total. In 1977, however, the total amount financed by BAAC and commercial banks was 13.35 billion baht, while the total demand for agricultural production funds estimated from the growth rate of gross domestic agricultural product is 35 billion baht. Thus it can be estimated that their share rapidly increased to nearly 40 per cent in the mean time.

Rapid increase of agricultural financing made by commercial banks is mainly dependent on the administrative guidance provided by the Government. Kukrit Cabinet commenced administrative guidance in 1975 for sixteen member banks of Thai Bank Association to appropriate five per cent of the loan value of the previous year to agricultural financing. This ratio was gradually increased since then, and today it is as much as eleven per cent including two per cent for enterprises related to agriculture.

Changes are also observed in the causes for debts of farmers on the other hand. Although the majority of debts in the past were for covering household expenditure, today the majority of debts are occupied by those based on the necessity from the standpoint of farm management for securing raw materials and means for production.

Results of a number of surveys have been released up to the present time regarding the trends of debts of farm households and of agricultural financing. Rapid increase of debts of farm households can be read out of Table 1-14, and Table 1-15 indicates that there are considerable differences in the debt value depending on the size of farms. Furthermore, Table 1-17 causes to imagine that the estimation regarding the share of BAAC and commercial banks in the agricultural financing described earlier is suitable in general.

Table 1-14 Debt value per farm household

Unit: baht

Region	1963	1974
Central	6,956	9,563
North	1,377	5,276
Northeast	1,398	3,332
South	1,360	4,388
Average	3,717	7,692

Source: 1963: Pantun Thisyamonde "Agricultural Credit in Thailand" Kasetsart University, 1965

1974: Prajoed Sinsup "A Study of Private Capital Formation in Agricultural Sector of Thailand" Kasetsart University, 1976 (common with Table 5-2)

Table 1-15 Debt value classified by management scale (1974)

Unit: baht

10 rai or less	5,722
11 - 20 rai	6,155
21 - 30 ri	6,767
31 - 40 rai	6,831
41 - 50 rai	8,279
51 - 60 rai	8,605
61 rai or more	11,802
Average	7,692

Table 1-16 Purpose of debts of farm households (1973)

Unit: %

Management scale	Producing fund				Living fund	Total
	Purchase of land	Purchase of in-puts	Purchase of machinery	Sub total		
Small	-	42.36	16.26	58.62	41.58	100.00
Medium	6.75	17.54	52.56	76.85	23.15	100.00
Large	38.89	9.79	24.91	73.59	26.41	100.00
Average	22.99	13.08	35.62	71.69	28.31	100.00

Source: Tongroj Onchan "Agricultural Credit in Chainat Province" Kasetsart University, 1976

Table 1-17 Debt value ratio and interest rate classified by lender in Ayuttaya Province (1976)

Unit: %

	Ratio of debt amount	Interest rate
Landowner	1.5	35.0
Merchant	21.2	28.9
Relative	15.5	28.4
Friend	8.6	32.4
Agricultural cooperative	6.7	12.0
BAAC	46.2	12.0
Others	0.7	13.3

Source: Association for International Cooperation of Agriculture & Forestry "Agriculture in Thailand"

It is necessary, however, to keep it in mind when observing the results of these surveys that they were obtained from limited samples and they are of the character that they do not definitely express the whole image, although it may be possible to learn a trend of a certain extent. It is a fact that financing networks of BAAC and so forth are repleted in the areas in which conditions which allow execution of such surveys with relative ease and realities of farm households which mainly borrow money from old fashioned fund suppliers can be hardly seized.

Furthermore, close attention should be paid to the fact that there are such latent liabilities that do not take apparent form of monetary debts and farmers themselves do not recognize them as debts in the farm household economy in reality. Cases where seeds and other inputs are supplied in the condition that repayment be made by products, and cases where products beyond the actual cost are collected as the transportation cost of products from farmers can be said to be excessive burdens and these situations can be avoided if alternative borrowing of cash are sufficiently available.

The farmers we visited during the case study were considered to belong to the higher class even in the agricultural cooperatives having majority of their members out of middle class farm households. It can be imagined that the debt value would be around 10,000 baht in average, of which 70 per cent or more is borrowed from the agricultural cooperative. It is easy to find actual cases of latent liabilities even with these farmers who are relatively blessed with borrowing opportunities.

(2) Outline of business of BAAC (Bank of Agriculture and Agricultural Cooperatives)

BAAC was started in 1966 as the new existence as the rebirth of the Bank of Cooperatives which was established in 1947 and abolished later due to slump of business. It is a government-operated bank in reality, as 1402.62 million baht, which is equivalent to 98.8 per cent of its capital 1,420 million baht as of end of March 1979, is invested by the Ministry of Finance, and the capital invested by private entities such as agricultural cooperatives is as minor as 17.38 million baht. Individual farmers, agricultural cooperatives and farmers' associations are the objects of loans.

With 58 province branches and 409 district offices, the number of districts included in the business areas is as many as 528 and the number of those who have made registration for use is as many as about 780,000 persons. The number of staff members is 3,632 persons, and 559 persons out of them are working at the main office. The number of agricultural cooperatives counted as objects of loan is 722 and the number of farmers' associations counted as objects of loan is 1,574.

The loan for individual farmers as the objects occupies 60 per cent of total loan from BAAC as shown in Table 1-18, and this share is increasing year after year. Although farmers of upper class occupied the majority of borrowers before, it can be considered that loans to farmers of middle class has becoming common because of such rapid expansion of loan amount. But it is also a fact that reduction of repayment ratio has become a problem on the one hand.

Table 1-18 Agricultural credit by BAAC and commercial banks

Unit: million baht, %

Fiscal year		1976	Component ratio	1977	Component ratio	1978	Component ratio
Loan to			-		(growth rate over previous year)		(growth rate over previous year)
BAAC	Individual farmers	2,983	52.4	4,404	59.0	5,680	61.9
	Agricultural cooperatives	2,173	38.2	2,536	34.0	3,008	32.8
	Farmers' associations	533	9.4	521	7.0	482	5.3
	Total	5,689	100.0	7,461	100.0 (31.1)	9,170	100.0 (22.9)
Commercial banks		3,550	-	5,892	(66.0)	7,881	(38.8)

Source: BAAC "Annual Report" 1978

The loans are of three kinds. One is short-term loan mainly as production funds lent at the rate of 12 per cent with 12 months as the limit as a rule. The second is medium-term loan as funds for acquisition of buildings, facilities, livestock and so forth lent at the rate of 12 per cent with three years as the limit as a rule. The third is long-term loan for repayment of old debts, for repurchase of land and so forth. The short-term loan is the main item.

Loans to agricultural cooperatives are mainly made as short-term and medium-term funds as the original source for subloan to cooperative members. The interest rate is nine per cent, and agricultural cooperatives make subloan to their members with a profit margin of three per cent. Besides, short-term loans of funds for purchasing business funds for marketing business and so forth as well as long-term loans for investment in facilities are also available.

Loans to farmers' associations are also made mainly as the funds for subloan to association members, and besides, funds for purchasing materials and funds for facilities for marketing, processing and so forth are also lent.

Regarding the fact that BAAC is rather laying emphasis on direct loans to individual farmers compared to loans to them through farmer organizations such as agricultural cooperatives and farmers' associations in response to demand for production funds of farmer, although there are some aspects which cause BAAC to think such a choice is unavoidable under the present situation that there are many cases where fund management capacity of these farmer organization is insufficient. Nevertheless BAAC should make efforts to expand the channels of loans through agricultural cooperatives, which are the organizations for ultimate farmers, even when it may be necessary to provide labor for repletion of management capacity of these organizations through provision of human assistance, that is, dispatch of personnel to these organizations, from the standpoint of long-term vision for development of agriculture.



What indicates fund raising of BAAC classified by the source is Table 1-19. 538 million baht out of debt 954 million baht is a loan from OECF (Japan). The bills payable are what were issued to the Bank of Thailand, and this account is equivalent to debts of annual interest rate five per cent in substance.

Table 1-19 Fund raising of BAAC

Unit: million baht, %

Fiscal year (at end)	1976	Component ratio	1977	Component ratio	1978	Component ratio
Capital account	1,484	20	1,607	16	1,773	14
Deposits	1,380	19	1,863	19	2,167	17
Deposits from other banks	3,235	45	4,539	46	5,586	44
Debt	387	5	544	6	954	7
Bills payable	507	7	1,006	10	1,990	16
Others	303	4	295	3	255	2
Total	7,296	100	7,854	100	12,725	100

Source: Same as that of Table 1-18.