AGRICULTURAL CREDIT POLICIES AND PROCEDURES OF COMMERCIAL BANKS WITH A VIEW TO IMPROVED FINANCING OF AGRICULTURE IN THAILAND

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CHAPTER I

INTRODUCTION

In an economically developed country, particularly in the United States of America, the commercial banks have played an important part in the development of agriculture. That is, the commercial banks have actively participated in financing agricultural business. Before the Federal Government stepped in, credit needs of farmers were cared for chiefly by local banks, merchants and dealers. Even though special credit institutions have been created for the purpose of making credit available to meet the needs of farmers, commercial banks are still one of the principal sources of agricultural loans.

The commercial banks, unlike other credit institutions, have special characteristics. They can create money, namely demand deposits, by the process of making loans and investments. The ability of commercial banks to create loanable funds, or in short money, has an economic significance. Through credit-creating power, the operations of commercial banks affect the supply of credit in the whole economy. Agriculture, as a rule, is also affected both directly and indirectly. In other words, it can be said that commercial banks extend credit to agriculture in one way or another.

Nevertheless, the ability of commercial banks to expand demand deposits by the process of making loans and investments is not unlimited. The commercial banks, like most other private businesses, are subject to public regulations and supervision. The amount of demand deposits or loanable funds which all commercial banks, or commercial banking system, can expand depends on the reserve requirements. After reserves required by law have been provided, individual banks can create demand deposits against excess reserves they have available. If they do not have excess reserves, they are not in a position to be able to grant loans by way of creating demand deposit. To understand the operations of commercial banks in granting farm loans is of great importance to agricultural firms.

Objective of the Study

The primary purpose of this study is to present information concerning farm lending policies and practices of commercial banks in the United States. It is believed that commercial banks can and will have a relatively important role in the future development of agriculture in Thailand. This study, therefore, is intended to provide some basis upon which further adaption and modification can be made in accordance with agricultural conditions of that country. Moreover, an attempt also is made to analyze the role of agriculture in the economic development of Thailand.

Scope of the Study

This study does not attempt to cover the over-all structure of the commercial banking system. Rather, it will center attention upon the basic methods and procedures used by commercial banks in rendering credit and services to agriculture. The study is divided into four parts. In the first place, the role of the commercial banks in agriculture and factors affecting their operations and policies are treated to some extent. In addition, the development of agricultural credit, function of commercial banks and the ways in which bank funds are obtained will be discussed as well.

In the second place, the methods of operation and procedures used are discussed in detail. Although all commercial banks in general have the same objective, it should be pointed out here that policy and procedure of individual banks vary. The study, therefore, will focus on general practices and basic techniques with which all banks are concerned.

Third, it deals with some basic facts about agricultural credit and related problems of Thailand.

Finally, it analyzes the role of agricultural credit as well as of agriculture in the economic development of Thailand. The economic development of Thailand can hardly be achieved if agriculture is neglected.

Procedure

Data and materials pertaining to the study are secondary in nature and derived from various sources. However, it can be said that the publications of the U. S. Department of Agriculture, the American Bankers Association, the American Institute of Banking, the Federal Deposit Insurance Corporation, and the Federal Reserve System provided most of the information necessary for the study. Several books and other literature concerning commercial banks also were very useful.

Having participated in the Agricultural Credit Training Course sponsored by the International Cooperation Administration during May 29, 1959 to September 4, 1959 and from March 18, 1960 to May 13, 1960, the writer had the opportunity to visit and discuss with many commercial banks their policy and procedures; and to observe their methods of operation in serving credit needs of farmers in their community. Furthermore, visits with farmer borrowers also were made to discuss with them the ways they had used bank credit to improve their farm operation. Some information and points of view presented in the study, therefore, were drawn from first hand contact with banks and farmers.

For the section on agricultural credit problems in Thailand, information was obtained from the publications and reports of the Government of Thailand, the United Nations as well as publications from the U. S. Government. In addition, the writer also has served as a fieldman of the Ministry of Cooperatives in Thailand. Some of the opinions expressed in this study certainly were derived from this experience. All pertinent information from many sources was utilized in the study.

CHAPTER II

THE ROLE OF COMMERCIAL BANKS IN AGRICULTURE

One of the most important problems confronting the American farmers today is that of the rapid increase in operating capital required for efficient production in agriculture. Advances in technology are certainly considered to be one factor contributing to the increasing capital requirements. In order to be able to produce efficiently, farmers must mechanize their operations. By doing so, relatively large amounts of capital investments are required. Accordingly, the highly mechanized farms undoubtedly require larger units of operation. In addition to technological development in farming, the rising price level also has caused the capital requirements in agriculture to increase to a great extent. It was indicated that the investment per farm in the United States in terms of current dollars in 1960 was about six times of that in 1940, while in terms of constant dollars (1947-1949) it had increased only 85 percent (48, p. 2).

As the capital requirements increase, the question is how can farmers finance their operations. Historically, much of the increased capital requirements was financed by farmers themselves (38, p. 36). During the same period, however, the amount of borrowed funds also increased substantially. The effect of increasing capital requirements in agriculture is shown in Table 1. It should be noted that while farm debts increased, the farmers own equities rose even more greatly.

Table 1. Comparative balance sheet of agriculture in the United States, January 1, selected years, 1940-60.

Year	1940	1945	1950	1955	1960
			(Billion Dollars)		
Assets					
Real estate	33.6	53.9	75.3	99.8	129.1
Livestock	5.1	9.0	12.9	11.2	16.2
Machinery	3.1	6.3	11.3	16.2	18.4
Crops held	2.7	6.7	7.6	9.6	8.0
Equipment	4.3	4.7	7.8	11.4	13.5
Investments	.8	1.2	2.1	3.1	4.1
U. S. bonds	.2	3.4	4.7	5.0	5.2
Deposits and currency	3.2	7.9	9.1	9.4	9.1
Total assets	53.0	93.1	130.8	164.7	203.6
Liabilities and Equity					
Real estate debt	6.6	4.9	5.6	8.3	12.3
Non-real estate debt	3.4	3.4	6.9	9.5	12.0
Equity	43.0	84.8	118.3	146.9	179.3
Total Liabilities and Equity	53.0	93.1	130.8	164.7	203.6

Source: (41, p. 28-29)

The table also indicates an emphasis on non-real estate credit rather than real estate credit. The relatively increasing amount of non-real estate debts as compared with real estate debts is evident. The increase in non-real estate debts to some extent undoubtedly stems from the increasing amount of Commodity Credit Corporation loans.

For the same period of time, as the operating capital required for agricultural production increased, so did the commercial bank credit extended to farmers. Since 1940 the amount of non-real estate credit held by commercial banks has increased by more than fivefold (Table 2), and real estate credit has increased by nearly three times (Table 3). The commercial banks, as a consequence, have become increasingly more important in the agricultural credit field.

At the present time, the commercial banks by far lead all other credit agencies in providing non-real estate credit to agriculture. They also rank high in the field of real estate lending to farmers. By virtue of the fact that commercial banks must maintain a relatively liquid position in order to be able to meet the withdrawal demand of their depositors, they have to emphasize non-real estate loans more heavily than real estate loans. The amount of non-real estate credit and real estate credit held by commercial banks as compared with other principal credit institutions since 1940 to date (1960) are shown in Tables 2 and 3 respectively.

On January 1, 1960 it was estimated that 13,106 insured commercial banks or 98 percent of all insured banks had some type of agricultural loans outstanding (1, p. 3). On the same date, it was reported that there were 14,004 operating banks in the

Table 2. Non-real estate farm* debt: Amount outstanding held by principal lenders, United States, January 1, 1940-60.

Year	Total	All Operating Banks	P.C.A.	Federal Intermediate Credit Banks	Farmers Home Administration
		(In thousand dollars)			
1940	1,504,072	900,079	153,425	32,316	418,252
1941	1,647,477	983,774	170,686	32,371	460,646
1942	1,782,989	1,073,198	185,611	37,382	486,798
1943	1,672,140	924,236	182,658	37,854	527,392
1944	1,688,013	935,764	196,637	33,882	521,730
1945	1,619,521	948,829	188,306	29,792	452,594
1946	1,668,309	1,033,800	194,788	26,487	413,234
1947	1,950,986	1,289,105	230,025	31,701	400,355
1948	2,290,323	1,592,762	289,077	37,916	370,568
1949	2,710,368	1,945,598	366,822	55,750	342,198
1950	2,833,769	2,048,819	387,454	50,825	346,671
1951	3,366,254	2,524,153	450,673	60,073	329,365
1952	4,063,463	3,120,196	561,371	77,841	304,055
1953	4,214,996	3,195,058	599,295	82,931	337,712
1954	3,743,543	2,762,562	541,786	63,557	375,638
1955	3,986,328	2,933,851	576,997	58,276	417,204
1956	4,420,483	3,308,443	644,449	61,907	405,684
1957	4,469,888	3,279,911	699,283	60,007	430,687
1958	4,993,983	3,615,083	885,918	67,192	435,690
1959	5,764,701	4,160,660	1,114,694	83,722	405,625
1960	6,661,178	4,813,836	1,361,198	89,576	396,568

* Exclude Commodity Credit Corporation holding.

Source: (43, p. 140-141)

Table 3. Farm Mortgage Debt: Amount outstanding held by principal lenders, United States, January 1, 1940-1959. (Source: 43, p. 121)

Year	Total	All operating banks	Federal land banks	Federal farm mortgage corp.	Joint-stock land banks	Farmers Home Administration	Life insurance companies	Individuals and others
				(In thousand dollars)				
1940	6,586,399	534,170	2,009,820	713,290	91,726	32,178	984,290	2,220,925
1941	6,493,527	543,408	1,957,184	685,149	73,455	65,944	1,016,479	2,151,908
1942	6,376,080	535,212	1,880,784	634,885	55,919	115,629	1,063,166	2,090,485
1943	5,956,458	476,676	1,718,240	543,895	37,015	159,053	1,042,939	1,978,640
1944	5,395,671	448,433	1,452,886	429,751	10,097	173,695	986,661	1,894,148
1945	4,940,915	449,582	1,209,676	347,307	5,455	195,519	938,275	1,795,101
1946	4,760,464	507,298	1,078,952	239,365	3,208	184,091	891,263	1,856,287
1947	4,896,970	683,229	976,748	146,621	1,641	191,954	888,665	2,008,112
1948	5,064,245	840,647	888,933	107,066	645	197,927	959,715	2,069,312
1949	5,288,331	900,843	868,156	77,920	462	192,328	1,036,383	2,212,239
1950	5,579,278	937,144	906,077	58,650	270	193,301	1,172,326	2,311,510
1951	6,118,359	1,008,359	947,431	44,008	--	220,104	1,352,635	2,545,822
1952	6,675,619	1,046,923	994,128	32,778	--	240,809	1,541,874	2,819,107
1953	7,263,200	1,105,096	1,071,358	23,899	--	268,257	1,716,022	3,078,568
1954	7,772,204	1,131,214	1,169,418	17,628	--	282,098	1,892,773	3,279,073
1955	8,288,837	1,210,676	1,266,953	12,834	--	287,171	2,051,784	3,459,419
1956	9,066,153	1,346,287	1,480,204	--	--	277,869	2,271,784	3,690,009
1957	9,907,623	1,386,270	1,722,381	--	--	289,546	2,476,543	4,032,883
1958	10,507,032	1,414,207	1,897,187	--	--	339,865	2,578,958	4,276,815
1959	11,254,264	1,511,859	2,065,372	--	--	388,010	2,661,229	4,627,794

United States, but only 13,382 banks had insured their deposits with the Federal Deposit Insurance Corporation (45, p. 133). Since all insured banks accounted for 95 percent of all the operating banks, the total number of banks having farm loans outstanding, therefore, would be somewhat higher.

Regardless of whatever the actual total number of banks having farm loans may be, commercial banks still maintain a leading position in the farm credit field both in terms of numbers of banks and volume of credit extended. Since a large majority of the commercial banks in the United States are in towns with less than 10,000 population, they are suited to serve agriculture. Generally speaking, commercial banks have some advantages over other credit institutions in extending credit to farmers. "First, they give prompt credit service with a minimum of red tape; second, they are readily accessible; and third, they alone provide checking account and other banking services in the local community" (28, p. 276).

Functions of Commercial Banking System

Commercial banks are quite frequently referred to as institutions of "deposit and discount" (48, p. 77). This statement, of course, reflects the functions of commercial banks only in a narrow sense. By and large it can be said that commercial banks perform four main functions for modern economic society. These functions are listed as follows:

1. They pool together the idle money in the economy for the purpose of making it available to others who need it. The commercial banks, therefore, bridge the gap between those who have money and those who need it.

2. The special function of commercial banks is to create money or demand deposits against excess reserves they have available in the process of making loans and investments. By creating demand deposits, the commercial banks are said to monetize credit.

3. The commercial banks by way of accepting money for deposit from the general public serve as the custodians of the idle money. Money once deposited in banks is considered to be safe because commercial banks would bear the sole responsibility had loss occurred (25, p. 113-114).

4. Another essential function of the commercial banks is that of transferring of funds from one place to another. Large sums of money can be transferred from one part of the world to another through commercial bank channels. This function is considered to be of great significance to international economic relations (13, p. 120).

In addition to the above four functions mentioned, the commercial banks also provide a number of services for their customers. These services include trust and financial counseling, investment advice and other related services. Banks located in agricultural communities also assist farmer borrowers with farm management service as well as credit supervision. If the present trend of commercial bank lending to agriculture continues, it is expected that more and more commercial banks will participate in providing farm management service to farmer borrowers.

Development of Agricultural Credit of Commercial Banks

As mentioned earlier, the commercial banks in the United

States have engaged in extending credit to agriculture since the beginning of their establishment. It can be traced to the colonial days. Because they were not designed to meet credit needs of farmers, the experience of commercial banks with agriculture during the early period was somewhat less favorabe. During this period, this country was still predominantly agriculture. Commercial banks were established not only in the business centers but also in the agricultural communities. Therefore, they extended credit to businesses as well as agriculture. Volume of bank credit extended to agriculture was expanded as the number of banks increased. These banks actually possessed little capital but they created large amounts of bank notes and loans without being aware of the fact that they were still in the first stage of their development. And because the nature of agricultural production required longer loan periods and was subject to natural hazard and uncertainty, the farmers frequently could not pay back commercial bank loans and usually asked for extension of their loans. Individual banks that maintained relatively large proportion of agricultural loans to their total assets always ran into difficulty. Eventually, they failed (33, p. 225-227).

As a consequence, commercial banks which had been developed later on, launched the discriminating policy against long term lending to agriculture. They confined their operations only to making short term loans. Nevertheless, the argument that commercial banks should provide long term loans to farmers always prevailed. Regardless of this dispute, during this period the large proportion of commercial banks was also established in agricultural sectors. Apparently, they still supplied credit to meet the needs of farmers. However, the experience of commercial banks during this period was not so much different from that of the banks during the early period (33, p. 297-304).

The modern commercial banking system began with the enactment of the National Bank Act of 1863. The Act did not affect commercial banks that were established under state statutes. Therefore in order to discourage state banks from issuing their notes by the process of making real estate loans, Congress enacted legislation in 1865 placing an annual tax of ten percent on the value of money which state banks had issued. The latter Act effectively forced most of state banks either to suspend their operation or to reestablish as national banks. As a consequence, it marked the end of the wildcat banking era. Since then the policies of commercial banks towards agriculture are reasonably favorable. Under the initial provisions of the National Bank Act, national banks were prohibited from making farm real estate mortgage loans. Needless to say, since state banks were not subject to the National Bank Act, the commercial banks as a whole still provided the farmers with relatively large amounts of short term loans as well as of long term loans.

Although they could not participate in long term lending to agriculture under the National Bank Act, the national banks extended credit to other credit institutions which, on the other hand, provided long term loans to farmers (33, p. 312). After the establishing of the Federal Reserve System as authorized in the Federal Reserve Act of 1913, all national banks were forced to be member banks of the System. For the state banks, they can apply for membership if they meet the requirements specified by the Federal Reserve System. For state non-member banks, they are not affected by the provisions of the system.

Under the provisions of the Federal Reserve Act, member banks can make real estate loans subject to some restrictions. These provisions enable the commercial banks to engage in long term lending to farmers. It is considered to be one of the important factors that contributed to the increasing amount of farm mortgage loans made by the commercial banks at the present time (8, p. 23). It is expected that commercial banks will remain as important sources of agricultural credit in the future, both non-real estate credit and real estate credit.

However, history had shown that commercial banks were not in a position to provide credit to agriculture during periods of financial crisis. Even after the Federal Reserve System was created, the commercial banks experienced failure because of their heavy farm loans. This happened during the twenties and the early thirties. It was indicated that bank suspensions during this period were mainly in agricultural areas (24, p. 46). Reasons for heavy bank failures in farm areas was well understood. During the period of financial strain, farm product prices were unusually low; farmers being unable to meet their repayment schedules caused banks which maintained large proportion of agricultural loans to close thier doors and suspend business. The failure of banks to provide credit to agriculture during this period certainly was one of the reasons that brought increased Federal farm credit programs into being.

Sources of Loanable Funds

In addition to their ability to create demand deposit by way of making loans and investments, commercial banks in general acquire capital from three different sources. As has been mentioned previously, this study does not attempt to cover the whole structure of the commercial banking system; therefore, only a brief discussion of the methods of raising funds by commercial banks is presented.

(1) Capital of Banks

The commercial banks, as any other private business, have to have their own capital before they are granted charters to operate their businesses. The capital requirements vary, however. It depends upon the locations in which the newly organized banks want to operate. The capital of the banks is the contribution of the owners. Since commercial banks are profit-seeking organizations, the contribution of the owners is represented not only by the capital stock which they have actually contributed, but by such items as banks' surplus, undivided profits and other reserves. Almost in all cases, these items taken together with capital stock constitute between five to ten percent of the total assets (49, p. 84). As of June 10, 1959, the total capital of all insured commercial banks in the United States was 8.1 percent of the total aggregated assets (Table 4).

Table 4. Assets and Liabilities of 13,097 insured commercial banks, United States, June 10, 1959.

	(1000's)
Total assets	$232,486,485
Cash and balance with other banks	24,647,282
Reserves with Federal Reserve Banks	18,040,039
Securities	81,858,162
Loans and discounts	105,291,575
Miscellaneous assets	4,659,068
Total liabilities	232,486,485
Deposits	206,705,702
Miscellaneous liabilities	6,987,578
Capital account	18,793,205

Source: (45, p. 58)

(2) Deposits

By far the most important source of banks' funds is the deposit of their customers. It is the policy of commercial banks to attract deposits from the general public as much as possible.

In order to attract more deposits, the individual banks must provide good services for their customers. Furthermore, to gain confidence from the depositors, safety of their deposits must be emphasized. In another word, the interests of the depositors must always be protected. For individual banks, the amount of deposits usually is between 8 to 16 times larger than the bank's own capital (49, p. 85). As of June 10, 1959 the total deposits of all 13,097 insured banks accounted for 206.7 billion dollars which was 11 times larger than the total capital account (see Table 4).

(3) Borrowing and Rediscount

In addition to the funds obtained from the above two mentioned sources, the commercial banks also can borrow from other sources or rediscount the commercial paper with other banks whenever it is deemed necessary. In general, when their lending powers have been exhausted, the commercial banks, in order to be able to provide credit for their customers, must secure additional funds from other banks. Prior to the Federal Reserve System, the large city banks generally acted as correspondent banks and performed the service of lending to small banks. At the present time, member banks when in need of reserves can turn to borrow from the Federal Reserve System. However, for non-member banks, they still depend upon their city correspondent banks for additional funds when their reserves have been decreased. Borrowed funds are relatively small when compared with those from the other two sources.

Classification of Farm Loans

Farm loans of commercial banks can be classified into three different categories according to their purposes, maturities, and types of security required. It is by no means a clear-cut classification. One way or another, they tend to overlap with one another.

(1) Short-term Farm Loan

All loans that are not secured by real estate mortgage and have the length of their maturities not exceeding one year are considered as short-term loans. It is the type of loans that are made for financing seasonal production such as to buy seed, feed, fertilizer, feeder livestock and others. Chattel mortgage is commonly used to secure this type of loan. These loans are usually paid off at the end of production season or at the time of marketing (7, p. 125).

(2) Intermediate-term Farm Loan

Intermediate-term farm loans are designated according to their purposes rather than the length of their maturities. Generally speaking, they belong to non-real estate loan category but are used for purposes other than seasonal operation. These are loans made chiefly to finance the purchase of machinery and equipment, livestock other than feeder livestock and other investment items that will last for several years (6, p. 1166).

(3) Farm Mortgage Loan

As the name implies, they include all loans that are secured by real estate collateral. There is a number of purposes for which farm mortgage loans are used, of course. An important purpose of farm mortgage loans is to buy land. However it is not always true that farm mortgage loans are made to finance the acquisition of farm land; on the other hand, some loans used to buy land are not secured by a farm mortgage (20, p. 133). A most interesting fact is that farm mortgage loans also are used for refinancing short-term and intermediate-term loans that become delinquent. Since farm mortgage loans in general are made for relatively long period of maturity, the shift from short-term and intermediate-term loans to long-term ones enables the farmer borrowers to spread their repayment schedules over a longer period. In addition, the cost of obtaining farm mortgage loans is always lower than that of short-term and intermediate-term loans. This kind of practice is certainly beneficial to farmer borrowers.

Indeed, it is not impossible that loans secured by real estate have their maturities less than one year; and, it is also possible that the maturity date of loans made to finance seasonal production is no longer than one year. Furthermore, both loans to finance current operations and loans to buy intermediate investment items sometimes are secured by real estate mortgage.

The survey of commercial bank farm loans in the year 1956 by the Federal Reserve System showed that of the total farm loans made for financing seasonal operation, 6 percent was secured by real estate mortgage; it also showed that 4 percent of such loans had their maturities beyond one year (7, p. 128-132). About 66 percent of total loans made to finance intermediate investments were six month and one year maturity and 16 percent of this type of loan was secured by farm mortgages. Since farm mortgage loans were used not only to finance the purchase of farm land but for other purposes, the survey reported that the maturities of loans secured by farm real estate mortgage varied from less than one year up to over 10 years (6, p. 1170-1171).

General Policies of Commercial Banks Towards Agriculture

Aside from the fact that all commercial banks must operate their businesses within the boundary of imposed laws and regulations, they commonly develop some kind of policy to direct their operations. One which is considered to be of great importance for economic activities is loan and investment policy. As has been mentioned, commercial banks by granting loans and buying investment securities, exert a great influence upon the direction of economic development. Agriculture, as a rule, is also affected both directly and indirectly. The general policies of commercial banks towards agriculture, therefore, require further discussion.

The banks' policies usually are not inflexible. For individual banks, the loan and investment policy must be formulated in such a way that it can be changed or moderated with respect to the economic conditions of the whole economy. In formulating policy, an individual bank must give consideration to the interest of the owners, depositors, creditors as well as of the economy as a whole. However, in some instances, the interests of these groups conflict. Even though there is no rule to maximize the interests of all groups, the commercial banks must operate their businesses in such a way that conflicts among groups are minimized. In formulating policy concerning agriculture, the commercial banks normally specify the types of loans - livestock, dairy, machinery and equipment, crop, farm and building improvement, irrigation, etc. - they want to make. Also, they frequently indicate to what extent they will be committed to agriculture. Nevertheless, no matter what kind of enterprise there may be, commercial banks should give them equal opportunity to be considered when they ask for loans.

On the other hand, the commercial banks are more reluctant to extend their financial assistance to farmers with high-risk-low margin enterprises. Examples of these enterprises are broiler production, laying hens and specialty crop production. They are considered to be highly risky. Unfavorable weather conditions, disease or mismanagement can cause a heavy loss to farmers. Therefore, commercial banks in many cases tend to exclude these enterprises from their consideration. Since commercial banks must try to minimize the conflicts among parties concerned, this policy certainly complies with the above mentioned rule of operation.

If opportunity permitted, commercial banks in all cases diversified their loan and investment portfolio among alternative industries. To secure credit from commercial banks, therefore, farmers must compete with other businesses in the community. Of course, bank credit extended to businesses other than farm enterprises may also benefit farmers indirectly. For instance, commercial banks can make loans to local industrial development corporations, such as the food industry for maintaining and expanding their operations which, in turn, may provide economic incentive for farmers to maintain and increase their production.

There is no way to measure precisely what kinds of agricultural loans that are prevalent among banks. But it would be logically concluded if it is indicated that the types of loans will depend largely on the types of agriculture that prevail in the areas in which individual banks are located. Besides, the commercial banks in the United States have been actively participating in agricultural development programs in their communities. The willingness of commercial banks to take part in providing financial assistance to farmers in the communities in which they are situated is very strong. The initiation of farm management service among commercial banks has pointed out that commercial banks in the United States are always alert and prepare themselves to meet the needs of farmers. This kind of philosophy is unlikely to exist among commercial banks in any economically under-developed countries. The mechanized, efficient, and highly prosperous agriculture in the United States undoubtedly resulted partly from the active role of commercial banks. The following quotation will show how well the American bankers are aware of the importance of agriculture:

"Agriculture is undergoing fundamental changes which reflect readjustments of basic forces of supply and demand for the output of our farms. Bankers are aware of this situation and fully appreciate their responsibility for helping to preserve the strength of this vital part of our economy.....Banks serving agriculture, therefore, must continue to play a constructive role in helping farmers to make the necessary adjustments"(14, p. 14).

If the proportion of agricultural loans held by commercial banks to the total agricultural debts outstanding at any given time is used as the indicator of commercial bank policy towards agriculture, it can be said that the policy of commercial banks is very impressive. Since 1940 the percentage of agricultural loans, both real estate loans and non-real estate loans, held by commercial banks is relatively stable (Tables 5 and 6). The most interesting fact is that it shows the dominance of commercial banks in non-real estate lending to agriculture. Because banks must maintain relatively liquid positions, they always emphasize non-real estate credit which usually is made for a short period of time. Even in the field of farm mortgage lending, the commercial banks are second only to the life insurance companies and the Federal Land Banks as institutional lenders.

The extent to which individual banks are committing themselves to agriculture, on the other hand, can be measured by the ratio of their agriculatural loans to their total loans. On June 10, 1959, it was reported that only 6.2 percent of total

Table 5. Non-real estate farm debt*: Total outstanding and percentage of total held by principal lenders, United States, January 1, 1940-60.

Year	Total	All operating banks	P.C.A.	Federal Intermediate Credit Banks	Farmers Home Administration
	(Thousand dollars)		(Percent of total)		
1940	1,504,072	59.84	10.20	2.15	27.81
1941	1,647,477	59.71	10.36	1.96	27.96
1942	1,782,989	60.19	10.41	2.10	27.30
1943	1,672,140	55.27	10.92	2.26	31.54
1944	1,688,013	55.44	11.65	2.01	30.91
1945	1,619,521	58.59	11.63	1.84	27.95
1946	1,668,309	61.97	11.67	1.59	24.77
1947	1,950,986	66.08	11.79	1.62	20.52
1948	2,290,323	69.54	12.62	1.65	16.18
1949	2,710,368	71.78	13.53	2.06	12.62
1950	2,833,769	72.30	13.67	1.79	12.23
1951	3,366,254	74.98	13.39	1.78	9.78
1952	4,063,463	76.79	13.81	1.91	7.48
1953	4,214,996	75.80	14.22	1.97	8.01
1954	3,743,543	73.80	14.47	1.70	10.03
1955	3,986,328	73.60	14.47	1.46	10.47
1956	4,420,483	74.84	14.58	1.40	9.18
1957	4,469,880	73.38	15.64	1.34	9.64
1958	4,993,983	72.39	17.74	1.34	8.72
1959	5,764,701	72.18	19.33	1.45	7.04
1960	6,661,178	72.27	20.43	1.34	5.95

* All exclude Commodity Credit Corporation holding.

Source: Derived and computed from 43, p. 140-141.

Table 6. Farm mortgage debt: Total outstanding and percentage of total held by principal lenders, United States, January 1, 1940-59.

Year	Total	All operating banks	Federal Land Banks	Federal Farm Mortgage Corp.	Joint-stock Land Banks	Farmers Home Administration	Life Insurance Co.	Individual and others
	(1000 dollars)			(Percent of total)				
1940	6,586,399	8.11	30.51	10.83	1.39	0.49	14.94	33.72
1941	6,493,527	8.37	30.14	10.55	1.13	1.02	15.65	33.14
1942	6,376,080	8.39	29.50	9.96	0.88	1.81	16.67	32.79
1943	5,956,458	8.00	28.85	9.13	0.62	2.67	17.51	33.22
1944	5,395,671	8.31	26.93	7.96	0.19	3.22	18.29	35.10
1945	4,940,915	9.01	24.48	7.03	0.11	3.96	18.99	36.33
1946	4,760,464	10.66	22.66	5.03	****	3.87	18.72	38.99
1947	4,896,970	13.95	19.95	2.99	****	3,92	18.15	41.01
1948	5,064,245	16.60	17.55	2.11	****	3.91	18.95	40.86
1949	5,288,331	17.04	16.42	1.47	****	3.64	19.60	41.83
1950	5,579,278	16.80	16.24	1.05	****	3.46	21.01	41.43
1951	6,118,359	16.48	15.49	0.72		3.60	22.11	41.61
1952	6,675,619	15.68	14.89	0.49		3.61	23.10	42.23
1953	7,263,200	15.22	14.75	0.33		3.69	23.63	42.39
1954	7,772,204	14.56	15.05	0.23		3.63	24.35	42.19
1955	8,288,837	14.61	15.29	0.15		3.46	24.75	41.74
1956	9,066,153	14.85	16.33			3.06	25.06	40.70
1957	9,907,623	13.99	17.38			2.92	25.00	40.70
1958	10,507,032	13.46	18.06			3.23	24.55	40.70
1959	11,254,264	13.43	18.35			3.45	23.65	41.12

**** Less than 0.1 percent.

Source: Derived and computed from 43, p. 121

loans outstanding of all 13,097 insured commercial banks was considered as farm loans (see Table 7). However, the proportion of farm loans to total loans varies widely from bank to bank. They vary because of location, size, and policy of individual banks. A study made by the U. S. Department of Agriculture showed that there were great differences in farm loan ratios between banks located in agricultural and small communities and banks located in centers with population of 2,500 or more. It was estimated that 42 percent of banks in large centers had maintained agricultural loans at less than 5 percant of their total loans. Many banks held few or no agricultural loans at all. It was also indicated that one out of ten banks in such centers had agricultural loans equal to more than half of its total laans. However, among banks located in agricultural areas and banks in small communities, the variations of farm loan ratios were very similar. The precentages of agricultural loans to total loans of banks in both areas ranged from less than 5 percent to more than 90 percent. Also, the percentages of banks for particular classes from lower level to upper level were almost equally distributed (42, p. 40-42). Nevertheless, whatever the proportion of agricultural loans to its total loans may be, the general purpose of variation of the types of their loans is the same for all individual banks, i.e., to make their operations more profitable.

Table 7. Percentage distribution of types of loans outstanding held by 13,097 insured commercial banks, United States, June 10, 1959.

			Percent
Total loans and discounts			100
Loans and discounts net			98.1
Valuation reserves			1.9
Commercial and industrial loans			39.5
Agricultural loans (exclude real estate)			4.8
Loans guaranteed by CCC.		0.2	
Other loans to farmers (exclude real estate)		4.6	
Loans for carrying securities			4.0
Loans to brokers and dealers		2.2	
Other loans for carrying securities		1.8	
Real estate loans			25.3
On farm land		1.4	
On residential properties		18.4	
Insured or guaranteed by FHA or VA	8.6		
Not insured or guaranteed by FHA or VA	9.8		
On other properties		5.5	
Other loans to individuals			21.2
Loans to banks			1.8
All other loans			3.4

Source: (45, p. 132-133)

Factors Affecting the Policy of the Banks

Since commercial banks can create loanable funds only when they have excess reserves, factors which affect bank reserves certainly will exert an influence upon their operations and policies. As a matter of fact, there are several factors by which the operations and policies of commercial banks can be affected. But only two main factors are of great importance. These factors are monetary and fiscal policy and farm policy.

Monetary and Fiscal Policy

The term monetary and fiscal policy used here refers to the policies that influence the amount of bank reserves and deposits, currency in circulation and velocity of their circulation (25, p. 486-488).

The laws and regulations under which commercial banks are governed, in a broad sense, are the expressions of monetary and fiscal policy. Changes in these laws and regulations can alter the direction of loan and investment policies of commercial banks. Also, the ways in which these laws and regulations are exercised, have a great impact on commercial bank operations. The extents to which commercial banks individually are affected can hardly be measured. It will depend on what kinds of instruments have been employed by monetary and fiscal authorities in exercising the policy.

In brief, monetary and fiscal policy is used for the purpose of attaining specific objectives such as full employment, economic growth and stabilization (25, p. 486). It is carried on mostly by the Federal Reserve System. In addition, some kinds of action by fiscal authority, U. S. Treasury Department, have monetary power in effect. Although there are several agencies which can exert an influence on the commercial bank operations and policies, only the actions of the Federal Reserve System and the U. S.

Treasury Department are discussed.

Summarily, the Federal Reserve System has three important methods by which it can regulate bank reserves and influence the quantity of bank deposits. First, it can change reserve requirements of member banks. Second, it can change rediscount rates in order to encourage or discourage member banks to borrow from the Federal Reserve Banks. Finally, the Federal Reserve System through its open market operation can increase or decrease the primary reserves of commercial bansk. Likewise, the U. S. Department of Treasury through its actions concerning national debt and general fund management can change the amount of bank reserves and deposits to great extents.

When their reserves are expanded, whether the commercial banks will create more loanable funds will depend upon credit demand and the prospect of general economic activities. However, in case of reserve contraction, commercial banks, unable to acquire additional reserves, have to be careful about their loan and investment operations. As a profit-seeking business, a commercial bank must manage its loan and investment policy in such a way that profit is realized and interests of all parties concerned are maintained.

Farm Policy

Farm policy in general is part of an over-all economic policy of the Federal Governemnt. It is designed specially for the agricultural sector. Since farm policy will have direct effects on individual farmers, it is a kind of factor that commercial banks in formulating their policies towards agriculture must always take into account.

Generally speaking, there are three main objectives which farm policy is expected to achieve. These objectives are: firstly, to increase efficiency in agricultural production; secondly, to raise and stabilize farm income; and finally, to raise the standards of living and welfare of rural people. In order to achieve these goals, several farm programs have been launched by the Federal Government. Some have been abandoned within short periods of time; but some are still maintained. Because farm policy covers a broad area and is far beyond the scope of this study, only agricultural credit programs will be discussed.

The Federal farm credit programs came into existence as the result of unavailability of credit to meet the needs of farmers. Though credit might be available, farmers found it difficult to get the types they actually needed. Furthermore, the cost of obtaining loans from the existing credit agencies was unusually high. It was indicated that prior to the establishment of Federal Land Banks, the rate of interest on farm mortgage loans varied from 7 to 12 percent (19, p. 337). These problems had resulted in the establishment of Federal credit agencies such as Federal Land Banks, Federal Intermediate Credit Banks, and Banks for Cooperatives. The main purpose of these agencies is to make credit available to agricultural concerns with reasonable cost.

Moreover, the Federal Government in case of Farmers Home Administration also grants loans directly to farmers who can not secure credit from other sources.

To what extent the Federal farm programs will affect the operations and policies of commercial banks is unforseeable. It will depend partly on what farm policy contributes to agriculture and partly on general outlook of agriculture itself. In general, it can be said that farm policy if effective will generate more bank credit in the agricultural sector. For the Federal farm credit agencies, undoubtedly they will provide commercial banks with some degree of competition. Commercial banks are no longer considered as the only source from which farm credit can be secured. Since the federal farm program is limited in scope and cannot be accessed to all farmers, it can influence the operations of commercial banks only to some extent. It is understood that commercial banks have improved their procedures and services as a result of the competition from the federal farm credit agencies, especially from the Production Credit Associations(10, p. 100).

In some cases, commercial banks benefit from the federal farm program. It is in the case of the Federal Intermediate Credit Banks. Commercial banks also are eligible to rediscount agricultural paper with these banks. As a matter of fact, the Federal Intermediate Credit Banks were set up initially with the intent that commercial banks would use their services. But the commercial banks have not done so because they can obtain additional funds from other sources with lower rates than those from the Federal Intermediate Credit Banks. And because restrictions on eligible paper for rediscounting are too severe and the supervisory nature of the intermediate banks is unpalatable, banks have never used their services to any degree. The majority of commercial banks usually turn to the Federal Reserve System. Thus, the services of the Federal Intermediate Credit Banks largely are of benefit to those who have used them such as the Productive Credit Associations.

CHAPTER III

AGRICULTURAL CREDIT OF COMMERCIAL BANKS: PROCEDURES AND TRANSACTIONS

Agricultural Credit Department

As volume of bank credit extended to farmers has increased, how to provide farmers with better services is the problem confronting the commercial banks at the present time. Because the nature of agriculture is different from those of other businesses, banks without men trained in agriculture are hardly competent to serve farmer's needs. Being fully aware of the fact that they share a big part in financing agriculture, commercial banks in recent years are interested in adding to their staffs persons who have been trained in agriculture. This trend indicates the willingness of commercial banks to prepare themselves to fit the needs of farmers. The purposes for which agricultural trained men are employed can be listed as follows:

1. To improve quality of loans;
2. To improve public relations;
3. To permit delegation of authority;
4. To increase volume of business;
5. To assist in promoting changes in local agriculture (32, p. 123).

These men in general are called under different names such as "agricultural representatives", "farm representatives", or "agricultural trained men" (5, p. 5). In this study they will be called bank farm specialists. These bank farm specialists generally have many duties. Their duties may vary from bank to bank but most of them will be concerned with agricultural loan servicing such as making farm visitation, helping farmers to make farm and home plans, and other related services.

Although there is no evidence indicating that there are agricultural credit departments as such, commercial banks, in most cases, prefer to have farm specialists to handle and service agricultural loans. According to the discussion of the role of agricultural representatives in banks at the National Agricultural Credit Conference "many banks, both large and small, were strong in their support of having the farm representative make routine farm loans with the idea of having him become the chief agricultural lending officer. This policy was adopted after the bank felt that the farm representative was properly trained in the lending practices of the bank" (32, p. 124-125). By hiring farm specialists, commercial banks undoubtedly are better equipped for handling and servicing agricultural loans than before. It would not be surprising if commercial banks create separate loan departments for agriculture in the near future. In so doing, commercial banks will be ideally suited to serve agriculture.

Loan Procedures

It has been said earlier that although all commercial banks might have the same objectives, such as to attract more deposits, to serve their community, and to invest funds safely and profitably, the procedures used in the process of making agricultural loans vary in detail from bank to bank. They vary because of the differences in physical, economic, and social conditions of the communities that are served and above all because of the policy of the individual banks (15, p. 25). In addition, the procedures followed vary from borrower to borrower. They also vary because of types of loans. For short-term production loans which in most cases are secured by chattel properties, the appraisal of farm land and buildings is not necessary. But for long-term real estate loans, the appraisal becomes essential. Moreover, repayment capacity is viewed in terms of gross income for short-term production loans but in terms of net income for long-term real estate loans. Nevertheless, in general they always tend to follow the same pattern. This section is devoted to discussing the methods and procedures employed by commercial banks in rendering credit and other services to farmers.

Loan Application

All commercial banks require that borrowers must submit their application for loans to the banks before consideration is taken. This application will give the banks some of the information necessary for evaluating the possibility of making loans to the applicants. The detail in application forms vary from bank to bank, however. But in all cases, other than borrower's name age, address, and information concerning family, the application must provide for the following information:

1. Amount of loan requested,
2. Purpose for which loan is to be used,
3. Term of loan,
4. Interest rate and other fees charged,
5. Proposed plan of repayment,
6. Amount and kind of security, if any, offered (15, p. 24-25).

In some cases, commercial banks also need more information on past experience of the applicant in dealing with other credit agencies. In addition, the names of references may be required. These names, of course, should be well known locally. The information obtained from these sources are very helpful in rating the qualification of the prospective borrower.

Needless to say, most of the information can be obtained from the applicant himself. It is the policy of the banks to discuss with the applicant his request for a loan. The discussion will be concerned with such matters as mentioned above. Furthermore, most banks may inquire from the applicant during the interview the information on such matters as:

1. Size and type of operating unit believed to be most efficient,
2. Profitability of the project or program in which the loanable funds are to be used,
3. Amount of funds believed to be sufficient to carry the program through successfully and any expected additional funds that would be required for financing the program during the season (47, p. 6).

The information required from each individual applicant may vary depending on how well he is known, his character and reputation, and his income and financial condition. The above mentioned requirements usually are not imposed on active customers whose reputations are well known to the banks. If the banks are satisfied with their past experience, these well known applicants may borrow from the banks a considerable amount of money without any security required except their personal promissory note. However, for new prospective borrower, the banks may require additional information on his expected income and financial condition. In most cases, the financial statement and farm budget are required from the applicants if they are new to the banks.

The discussion with the applicant should result in a better understanding between the bank loan officer, bank farm specialist, and borrower. The interview can take place at the bank office as well as at the borrower's place during a farm visit. It is a general practice of the bank farm specialist to make a farm visit after the application for a loan is accepted. A farm visitation will give the farm specialist an opportunity not only to check the farmer borrower's assets and to inspect the farm conditions but also to get acquainted with the farmer and to know him better. In general, the farm visitation and discussion with the applicant will result in making a loan under conditions favorable to both the bank and borrower.

Financial Statement and Operating Statement

A financial statement is a detailed record of farmer's own assets, liabilities, and his net worth at a specific time. In other words, the financial statement will show what a farmer owns and what he owes at a given time. In most cases, a financial statement is required by the bank to which the applicant is new. It is usually prepared by the bank farm loan officer during an interview or while visiting with the farmer borrower. However, in some cases, it is arranged by the farmer himself (8, p. 112).

The financial statement will give the commercial bank a good picture of the financial position of the applicant as well as an indication of the amount of resources he has to work with. Similarly, the form of financial statement may vary from bank to bank. But, in all cases, it provides information concerning values of assets owned and liabilities owed by the farmer. In general, the financial statement shows such items as cash on hand, current debts, values of farm land and building, machinery and equipment, livestock and all other properties owned. In addition, the financial statement should include the following information:

1. An itemization of land owned indicating number of acres, types of crops grown, type of soil, and mortgage condition.

2. The description and condition of farm buildings, machinery and equipment.

3. An itemization of accounts and notes payable.

4. The amount and types of insurance.

5. The types and number of livestock.

6. The description and condition of any other properties owned (46, p. 55).

Since commercial banks in the process of making loans generally give more consideration to earning capacity of the applicant than on his net worth or equity, the financial statement will indicate what quantity and quality of resources the farmer borrowers control. This, in turn, will provide the basis for commercial banks to determine the earning capacity of the farmers. These resources and their relation to the farm income derived from the operating statement are of great importance for making some judgement on the managerial ability of the applicant. If high quality and quantity of resources are maintained but relatively low income is evident, it indicates that the managerial ability of the applicant might be limiting.

The operating statement is a record of income and expense of farm production for a particular period of time. The operating statement will show whether the applicant has profitable enterprises. Since all borrowers are expected to make their repayment out of their farm income, the operating statement will indicate whether the applicant has ability for making repayment if a loan were granted. To be useful in evaluating a farmer's ability, the operating statement should cover the past record of farm operation as well as the proposed plan for future action and anticipated results concerning the specific program for which borrowed money is to be used. As in the case of the financial statement, the farm operating statement is also prepared by the farm loan officer in cooperation with the borrower.

In estimating expenses and income from future production, the problem encountered is what prices and quantities should be used. It should be recognized that the net farm income derived from the estimation is the result of scheduled inputs, outputs and prices used. If these factors are far from realistic, the operating statement based on such figures will not provide a good basis for determining the farmer's ability. The proposed plan and expected result of farm production, therefore, should be estimated from the most reliable data which are available. In addition, other factors that affect yield of production such as variation in weather, disease, etc., also should be taken into account. In doing so, it is unlikely that the result obtained will be over-estimated.

In the preparation of an operating statement, it is desirable that physical data such as crop yields, number of livestock or quantity of milk produced should be included. The operating statement shown in terms of money alone may not provide sufficient information for making any qualitative determination of the farm business. Physical data will indicate information on which farm enterprises are more efficient than the others. The operating statement which includes the physical data will provide most of the information essential for appraising the farm business. At least, it will show the period of farm production and when the farmer expects to dispose of his farm products. Then the schedule for repayment of the loan extended can be made accordingly.

Although the financial and operating statements may provide enough information concerning farm enterprises, in some cases a comparison statement is required by commercial banks. As a matter of fact, the comparison statement is nothing but a series of financial statements over a period of time. The purpose for which the comparison statement is requested or prepared is to consider the improvement of financial condition of the applicant during such period. It will show whether the financial position of the borrower is improved or weakened. The comparison statement will help to justify the applicant's ability in managing his farm business.

Comment Sheet and Inspection Report

After the application is accepted, it is the duty of the farm specialist to investigate the applicant's farm business, his character and his family. It is concerned with his farm, managerial ability, experience, credit needs as well as his financial position. There are several sources from which the above information can be obtained. The bank can contact other banks with which the applicant previously did business and other references that are given. The discussion and visit with the applicant also provides this personal information. The report of the investigation is referred to as "comment sheet".

In addition, it is general practice for bank farm specialists to make farm visits for inspecting and checking the farmer's assets. The inspection report is supplementary to the financial statement. It will give the bank the detailed record of chattel properties owned such as number of livestock and their value, types and values of farm implements and machinery. This report is useful for the preparation of a chattel mortgage. In the case of a real estate loan, the inspection report will be concerned largely with an appraisal of the farm. Furthermore, the investigator should contact the court house to check whether the applicant's properties already have been mortgaged and recorded.

Loan Analysis

When all required information has been assembled, whether the commercial bank will grant the loan requested depends on the result of loan analysis. The bank farm loan officer must make careful consideration whether it is a sound loan and worthy of favorable action. Because commercial banks are profit-seeking organizations, bank funds must be invested in such a way that profit is realized and safety is maintained.

The loan analysis will be concerned largely with the borrower and his family, his financial position, his ability to repay, his credit needs, repayment plan and security to be pledged (8, p. 124). In other words, the important factors need to be considered are the applicant's character, capability and collateral. The application, the financial statement, the comment sheet, the operating statement and the inspection report will provide evidence and information necessary for analyzing a loan requested.

The maximum amount which a commercial bank will lend to the applicant is dependent on the result of loan analysis. As a matter of fact, the amount of loan extended varies with different borrowers, type of security, and amount of risk involved. If chattel property is used as security, the maximum amount a commercial bank will lend to a borrower is usually about 50 to 60 percent of the appraised value of the chattels. For a real estate secured loan, in general not over 50 percent of the appriased value of farm real estate used as security is granted (47, p. 7).

In addition, there are charter regulations governing the amount commercial banks can lend to an individual borrower. These regulations are issued either by the congress or state legislature. The national banks cannot lend more than an amount equal to 10 percent of their capital and surplus to an individual borrower, partnership, association or corporation (25, p. 302). This rule naturally applies to farmer borrowers. For state banks, the limitation of lending varies from state to state but generally does not differ widely from national bank laws. However, the specific extent of variation is not known.

Farm Appraisal

When farm land is used as security for obtaining a loan, the appraisal of farm real estate becomes necessary. The inspection report of the loan officer will be concerned with farm appraisal. In some cases, the commercial banks might employ a professional appraiser to do the job.

Purpose of Appraisal

The main purpose of appraising farm land and buildings in connection with making a real estate secured loan is to obtain estimated values of these assets for determining how large a loan can be made. In case the requested loan is for the purchase of a farm, the appraisal may render an indication of whether the farmer can afford to pay the asking price (17, p. 110).

Briefly speaking, there are only three methods of appraising farm real estate, viz., the capitalization method, the sale price method, and the comparative method. The capitalization method assumes that value of the farm appraised will have some relation to the average annual net income such farm can produce over a period of years. The ratio of net income to land and buildings to the appraised value is called the capitalization rate. In other words, it is a rate at which farm value is estimated from net income attributable to land and buildings. In general, it is an expected rate of return on investment for such farm.

On the other hand, the farm value can be estimated by the sale price method. This approach regards the selling price that typical buyers paid for farm land similar in characteristics to the farm land being appraised as the value of the subject property. The value appraised is based largely upon the past record of actual selling prices with some adjustment for future expectation. For the comparative method, it is nothing but the combination of the two methods mentioned above. By using the comparative method, the values of bench mark farm of the same type are first estimated on the basis of actual selling prices. Then the values of the key farms are checked as to whether there is a consistent relation to the net incomes the farms produce. The value of bench mark farms, thereafter, is used as a basis to determine whether the value of a farm which has been estimated is consistent. This method is considered to be more scientific than the others (28, p. 245-249).

Nevertheless, there is no one method of appraisal which can determine an exact value of a particular farm. Each method requires a high degree of judgement and experience on the part of the appraiser. The appraised value from either one of the three methods, therefore, represents only the best judgement the appraiser can make.

Steps in Making Farm Appraisal

According to William G. Murray there are six steps involved in making a farm appraisal (29, p. 21-23). The brief discussion of these steps is presented.

The first step is the preparation of an appraisal map of the farm in question. The farm location and description can be obtained from the owner. In most cases, an aerial photograph of farm land is available from the U. S. Department of Agriculture or county court house. This map will provide an appraiser with some information concerning type of soil, topography and drainage.

In addition, a farm visiting must be made.

The second step is the determination of the typical cropping system and the estimation of crop yield. Also, the appraiser must consider what system of crop rotation will maintain farm productivity. Furthermore, number and type of livestock which is suitable for particular farm must be considered. A past record of crop yield if available will provide some basis on which future yield can be estimated.

To inventory the farm buildings and other farm improvements is the third step in making a farm appraisal. This is done during the farm visit and inspection. The condition and life of the farm buildings and improvements and amount of annual maintenance essential for a farmer to maintain his production must be carefully considered.

The preparation of an income statement is important and is the fourth step an appraiser has to follow. It will be concerned with the estimation of expected incomes and expenses. The income statement will give information about net income attributable to the productivity of the farm land. The prices used to estimate income and expense is dependent on the judgement of an appraiser. In general, average prices which are expected to prevail over a period of years in the future are used.

Furhher, the value of farm land is determined by capitalizing net income attributable to the land and buildings. The capitalization rates used are somewhat arbitrary. In some cases, the interest rate on farm mortgage loans is used. On the other hand, the present return landlords or farm operators expect to receive on their capital can be used as a basis for estimating value of farm land.

By using the net returns to the landlord as the basis for capitalization, the estimation of many operating expenses can be avoided. It is assumed that the returns to the landlord bear some relation to the value of farm land. It is an income derived from the use of farm land and buildings. The returns to the landlord, therefore, are regarded as sound basis upon which the farm value can be estimated. The value thus obtained is the productive value of the land and buildings.

Finally, the total value of the appraised farm is estimated. To determine the total value, it is necessary to compare the farm being appraised with the sale price of farms in the area which have sold in order to reflect intangible values such as location, communication, community and other factors. All of these value influences must be taken into consideration in arriving at the total value of the whole farm.

Collateral Requirements and Credit Instruments

The security required from an individual borrower by the commercial banks varies depending on how well he is known, his financial position as well as degree of risk and uncertainty involved. As previously mentioned, commercial banks might extend credit to their active customers whose reputations are well known on their personal notes. In these cases, no property is pledged as security. But, in general, it is logical to expect that only production loans made for relatively short periods would be given by commercial banks without collateral. It is unlikely that commercial banks will grant long-term loans, say 10 to 20 years, without security requirements. In most cases, some kind of property is required to be pledged as security for loans extended. For individual banks, there is no agreement as to the extent security should be required. Some banks make a large percentage of their loans on a non-secured basis but others make few or no loans not secured by some type of property (8, p. 90). In other words, there is no uniformity in policy among commercial banks as to how much collateral is required. Some banks may demand relatively large amounts of collateral as compared with the amount of loans extended. The reason for requiring collateral security is nothing but to protect the safety of bank funds.

Promissory Note

The promissory note is a signed promise of the borrower to repay a loan at a specified time and place in addition to a stipulated rate of interest. Every borrower has to sign this note. In some instances, the commercial banks are willing to make loans to a new borrower on his promissory note without collateral security provided that some person or persons other than the borrower agrees to sign the note with the borrower. It is the obligation of co-signers to make repayment of loans if the borrower fails to do so.

Chattel Mortgage

The chattel mortgage is commonly used as the legal document pledging collateral security for obtaining short and intermediate-term commercial bank loans. It is a mortgage on movable properties such as livestocks, produced or growing crops, farm machinery and equipment. The term of chattel mortgage differs from state to state depending on what state the mortgage is made in. However, in general, it is made for a relatively short period of time, say up to 5 years. Unless it is renewed, the chattel mortgage ceases to be in force after its term has expired. The chattel mortgage once made, as a rule, must be filed in the court house for recording. In so doing, the commercial bank will have the first claim on the property pledged under the mortgage. Commercial banks normally will not accept second mortgages. Since the chattel mortgage is a conditional transfer of the title of property, it is necessary for farmer borrowers to obtain consent from the commercial bank before the sale of mortgaged property can be made. Nevertheless, an agreement concerning this matter can be arranged beforehand between the bank and borrower.

Real Estate Mortgage

Aside from chattel property, real estate is also offered as collateral to secure loans from commercial banks. In most cases, loans that require longer periods of time to repay are secured by real estate mortgages. A real estate mortgage, like a chattel mortgage, is a conditional transfer of the title of property to the lender. If the conditions under which the loan is given are met, this transfer is cancelled. To establish priority of claim, the real estate mortgage must be filed in the court house. There can be more than one mortgage on particular real estate, but only the holder of the first mortgage has the full right to claim on property under the mortgage.

As mentioned before, the security required by individual banks varies. However, there is no way to indicate what types of security are prevalent among the commercial banks individually. The survey of farm loans of commercial banks made by the Federal Reserve System which already has been mentioned, indicated that 43 percent of total farm loans outstanding at mid-year of 1956 of all insured commercial banks was secured by chattel mortgages; 27 percent was secured by real estate mortgages; and 5 percent was endorsed. The remaining 25 percent was unsecured loans or otherwise unclassified (6, p. 1170).

Commercial Bank Interest Rates

The primary cost of obtaining loans from commercial banks is the interest paid by the farmer borrowers. The interest which the farmer borrower has to pay for loans extended by commercial banks is calculated two different ways depending on the agreement between the two parties concerned. One is calculated on a simple annual interest rate basis; the other is on a discount basis.

Interest Rate Charges

The rates of interest which commercial banks charge on loans granted at any particular time differ with different banks as well as with different loans within individual banks. They vary because of size of loan, size of bank, location, custom, degree of risk, maturity and repayment plan and security offered. In other words, there is no uniformity in the rates of interest charged on commercial bank farm loans. In addition, the interest rate charged on loans of the federal credit agencies also has some effect on the interest rate of commercial banks. In any case, a commercial bank cannot charge rates of interest on conventional type loans higher than the maximum limitation specified by the law of the state in which the bank operates.

The size of loans is considered as the most important factor affecting the interest rate paid by farmers for bank loans. In general, small loans carry a higher rate than large loans. The high rate on small loans reflects the cost of extending and servicing the loans. Since the cost of extending and administering loans is almost the same regardless of loan size, the cost of extending small loans is relatively high as compared with the amount of loans extended.

The interest rates also vary by types of security, maturity, and methods of repayment of loans. Unsecured loans, as a rule, carry higher rates than secured loans. Also, the rate on short-term maturity loans is higher than that on long-term maturity loans. Moreover, the rate on single repayment loans is higher than that on loans made repayable in installments of similar maturities.

Since 1940 the average interest rate on real estate mortgage loans of banks has remained relatively stable. The rate has averaged below 6 percent (43, p. 152). Nevertheless, the survey of the Federal Reserve System showed that the interest rate of all farm loans outstanding, real estate and non-real estate, at the time of the survey averaged 6.1 percent. The average rate for different size of loans ranged from 7.4 percent on loans under 500 dollars to 5.3 percent on loans of 20,000 dollars or more. Even among secured loans, small loans always carried a higher average rate than large loans. The average rate on loans of different methods of repayment also varied widely. For single repayment, it was 6.1 percent for all sizes of loans. The average rate was 5.5 percent for loans repayable in installments with interest charged on the unpaid balance. The rate was 10.7 percent for loans repayable in installments with interest charged on the original amount of the loans (27, p. 260-265).

Discount Charges

By using a discount basis, the interest is paid in advance. Some banks make loans on a discount basis as well as on a simple annual interest rate basis. It can be said that all commercial banks because of income considerations prefer to make loans on a discount basis. However, for farm loans, the majority of commercial banks believe that farmers are more willing to accept loans made on a simple annual interest rate plan rather than on a discount method (8, p. 80). Because of this and competition from other lenders, it is unlikely that farm loan interest rates on a discount basis will be prevalent among commercial banks.

In addition to interest charged, commercial banks usually charge an appraisal and recording fee in making secured loans to farmers. In some cases, mileage may be charged for travel in connection with making a loan. As would be expected, these practices vary from bank to bank. Also, the amount of these charges varies depending on magnitude of loan, customer, and the amount of work involved. Some banks at certain times indirectly have augmented their interest returns by requiring that the borrower maintains a minimum balance in a checking account. Some banks also cover a charge for establishing title insurance and credit rating.

Repayment Plans and Renewal of Unpaid Balance

From the results of the Federal Reserve survey of farm loans held by commercial banks, it can be said that there are two main methods of bank loan repayment. One is the single repayment plan; the other is a plan whereby repayments are made in installments. The installment repayment or amortization plan is subdivided into two categories, viz., installment repayments with interest charged on the amount of loan outstanding and installment repayments with interest charged on the original principal (27, p. 264).

There is a certain type of bank loan in which the repayment plan does not fall into the two methods of repayment mentioned above. This type of loan is generally known as the budgeted loan. It is a loan made for financing farm operation throughout the production period. The plan is made beforehand as to when and how much a loan is needed during the production period. The plan also indicates when and how much repayment can be made during such period. In general, the plan is made in accordance with the amount of loan requested and the expected income received by a borrower.

The single repayment method is commonly used by commercial banks except for long-term real estate loans. It is widely used for loans to finance seasonal operations and for some loans made for financing intermediate-term investments. On the other hand, it would be expected that the installment repayment plan generally would be used among real estate loans and part of the intermediate-term loans because these types of loans usually are made in relatively large amounts and for long maturities. The above mentioned survey showed that 70 percent of total farm loans outstanding in mid-1956 carried single repayment terms; the reaminder was under the provision of repayment by installment (6, p. 1172). Since short-term maturity loans or loans made for financing seasonal production are relatively small in size and more emphasized among commercial banks, such a result could be expected. Also, it was indicated that the installment repayment plan with interest charged on the original amount of the loan was commonly used for loans to finance intermediate-term investments (27, p. 265).

The single repayment method is the repayment of a loan in full at the maturity date or sometime before it is due. With the installment repayment plan, loans are repaid in part during the term for which the loan is written. The provision of repayment concerning principal and interest by this method is dependent upon the agreement between the lender and borrower. For long-term real estate loans, in general, there are two ways by which the repayment in installments can be scheduled. One is called the standard plan; the other is called the Springfield plan. With a standard plan, all payments except the last are equal in amount and are made periodically throughout the life of the loan. A portion of this fixed amount is for interest and the remaining part is applied on the principal. Interest is paid on outstanding principal. Under the provision of the Springfield plan, a fixed payment on principal, plus interest, is made. Therefore, the total amount of each periodic payment is not equal to one another because interest is paid on outstanding principal. The schedule for periodic repayment under these two methods depends on the agreement between the lender and borrower. Since farmer's income can hardly be expected on regular schedule, installments with irregular payment is more suitable for farm loans. However, to what extent it is used can hardly be indicated.

When the repayment schedule cannot be met, renewal of a loan becomes necessary. Although loans in all cases are made according to the borrowers ability to repay, for numerous reasons borrowers sometimes cannot fulfill their obligation. Therefore, they must ask for an extension of their loan. Otherwise the loan would be declared delinquent.

In general, renewals have been widely used in farm lending (6, p. 1172). To what extent farm loans of individual banks are renewed cannot be determined. However, it would be expected that the percentage of renewals would be higher for production type loans with single repayment provisions. Practically, there are two ways by which loans can be renewed. In the first place, renewal is planned at the time a loan is made. In this case, a loan is made with the terms specifying that it is subject to be renewed when repayment cannot be met at maturity date provided satisfactory effort and progress have been made. It is understandable that loans made by this method would be renewed. The other way is called unplanned renewal. In this case the borrower asks for renewal when he cannot meet payments on schedule.

There is considerable variation in policy among individual banks concerning loan renewal and repayment plans. But in a number of cases, repayment schedules are worked out in such a way that they will conform with the period of expected income. Since uncertainty always prevails in farming, it is unlikely that farmers will achieve such expectation in every case. Delinquent loans and expensive litigation would pile up if renewals were not accepted by the lending banks. As good lenders, commercial banks must give reasonable consideration to production circumstances of farmer borrowers, assist them to overcome their difficulties and make every adjustment that good banking practice can permit (8, p. 98). Therefore, in some cases, renewals cannot be avoided. For this reason, although some banks do not grant loans with maturities that exceed particular periods of time, it is agreed between the bank and borrower that such loans can be renewed at the end of maturity period if borrower is unable to meet payment. In some cases, renewals are planned under the original agreement between the borrower and lender at the time the loan is made if the maturity period indicated does not conform to the realized income from farm production (15, p. 30-31).

Foreclosure of Mortgages

Although commercial banks in all cases take every precaution to prevent loan delinquency, once in a while some banks experience such a problem. It is not the policy of commercial banks, of course, to take foreclosing action whenever they have delinquent loans. In general, the commercial banks will work out arrangements to give delinquent borrowers the opportunity to pay back their loans. If the borrowers still cannot or will not fulfill their obligation under the provision granted, foreclosure of mortgages, thereafter, may not be avoided.

The foreclosure of a mortgage is a legal process. It must be done in accordance with the laws and regulations under which the mortgage in question has been made. For chattel mortgages, the foreclosure might be done with or without court action (28, p. 202). However, the procedure of foreclosure must comply with the law of the state in which the property covered by mortgage is located. Since state laws differ greatly, legal counsel should be employed when foreclosure of mortgage becomes necessary.

Other Service Assistance

The commercial banks, at the present time, not only extend credit to meet the needs of farmers, but also provide them with other services. Some of these services, however, can be considered as part of loan servicing. The most prevalent one is farm management service. Nevertheless, some banks not only perform farm management work as part of farm loan servicing but also operate farms for their customers on a business basis. The farms under their operation, in general, are trust-owned. If they have enough volume of business, these banks may establish a separate department for farm management service. The function of this department is concerned largely with managing farms. But in most cases, this department performs more functions than managing farms. In general, it is the agricultural department which takes care of all aspects of work pertaining to agriculture (18, p. 129).

Generally speaking, there is no question about the usefullness of bank farm management service to farmer borrowers. But the question is how many banks can operate a farm management service beyond that part needed for farm loan servicing. So far there is no data on this matter available. However, this phase of business is likely far beyond the capacity of a small country bank. For small country banks, they may be able to employ a farm specialist to handle farm loans but it is unlikely that they can afford to open a seperate department for farm management service.

CHAPTER IV

AGRICULTURAL CREDIT PROBLEMS IN THAILAND

It has been said that agriculture is Thailand (31, p. 1). For an understanding of agricultural credit and related problems of Thailand, therefore, it is necessary to have some general background of the agriculture in the country.

General Background

Physically and economically, Thailand is essentially an agricultural country. It is estimated that the population of Thailand is 23 million. Of this number, four-fifths earn their living from agriculture. At the present time, although Thailand is coming up to the take-off stage for industrialization, agriculture is the mainstay of the economy. Rice is the main product of the country. Farmers grow rice for market as well as for their own consumption. It is estimated that two-thirds of the population is engaged in rice production. Also, rice is the major source, directly and indirectly, of the Government's revenues.

The total area of Thailand is about 200,000 square miles, but only 18 percent or about 36,000 square miles is being devoted to crop production. Rice farming covers about 80 percent of the total area under production; the remainder is used to produce other crops. The area can be divided into four main parts, Northern Thailand, Central Thailand, Northeastern Thailand and Southern Thailand. The average size of farm varies among the areas so divided. Average farm size ranges from 12.3 acres in the central part, to 10.9 acres in the northeastern part, 10.5 acres in the southern part and 3.8 acres in the northern part of the country. For the country as a whole, the average size is 10.2 acres. It is also estimated that 87 percent of farmers hold title to their own lands (36, p. 62). Only 13 percent of the farmers are tenants.

Relatively speaking, agriculture in Thailand is still in the stage of self-subsistence. The economic farm survey in 1953 indicated that only 45 percent of Thai farmers had received income from sales of rice (36, p. 250). This figure might have changed in recent years, however. But there is no comparative study to indicate whether it has changed or not.

In addition to rice, Thai farmers grow other crops such as soy beans, corn, cassava, groundnuts, tobacco and other field crops. Although they yield relatively fair income to farmers, only small areas are devoted to producing these crops (35, p. 29). Since rice may become more difficult to export, development and expansion of these crops should be encouraged.

Naturally, Thailand is suitable for growing rice. There is heavy rainfall from May to September which provides sufficient amounts of water for farmers to grow rice. Also, there are four big tributaries running from the northern part of the country through the central part to form the big Chao Praya river. These tributaries are the main sources of water supply for the areas through which they pass. Due to the fact that rice farming in Thailand to a great extent is dependent on these natural factors, the variation in flow of water has a great affect on rice production in the country. In other words, a high degree of risk and uncertainty always prevails in rice farming in Thailand.

According to the economic farm survey of 1953, the average total capital investment per farm was 20,543 Bahts (20 Bahts is equal to 1 U. S. dollar) out of which 3,718 Bahts were attributed to work animals and farm equipment. The average net income per farm family was about 5,000 Bahts or about 250 dollars, including both off-farm income and products produced on the farm for family living (37, p. 134-136). It can be seen that capital investment for working animals and farm equipment was relatively low. Since the method of rice farming in Thailand is quite simple and depends mostly on human and animal labor, such results would be expected.

In general, there are two main methods of rice cultivation. One is called the transplanting method; the other is the broadcasting method. The transplanting method is more laborious than the broadcasting one. With the transplanting method, rice seeds are nursed in a special bed. After the seedlings have grown to a certain stage, they are uprooted and transplanted onto a field which has already been prepared. In most cases, it takes about 30 days for the rice seedlings to develop before they can be transplanted. For the broadcasting method, rice seeds are sown on the ploughed-and-harrowed field. After sowing, the seeds are covered by a second harrowing. In general, the method of rice cultivation in Thailand is not optional with the farmers but is governed by such factors as topography, expected condition of water supply and availability of labor (23, p. 93).

Credit Needs in Agriculture

Thai farmers, like farmers elsewhere, need credit for improving and maintaining their production as well as for their family living. Since agriculture in Thailand is in a transitional period, from a subsistent basis to a commercialized one, it would be expected that credit needs in agriculture should increase. Farmers need more credit to expand their production and to improve their methods of farming. It has been reported that it would be possible to increase yield per unit of land area in economically underdeveloped countries within a relatively short period of time by the use of fertilizers, insecticides, better seeds and other simple technological improvements (39, p. 29). This is believed to be true with Thailand's agriculture. But farmers have to secure these items from outside sources. Improvement in technology usually means an increase in capital investment on farms. Before farmers can accept a new method of production, it must be within their reach. It is unlikely that farmers will adopt new technology when they are not in a position to do so. Since Thai farmers in general have relatively low incomes, they can not be expected to finance the increasing capital investment by themselves. Therefore, availability of credit at a reasonable cost must be guaranteed if improvement is expected to be realized in agriculture.

However, an increase in supply of credit available to agriculture is not a sufficient condition to guarantee that development will take place in agriculture. It is only a necessary one (9, p.230). Farmers themselves must be willing to take action. They must have progressive attitudes towards change. Other factors such as marketing facilities and extension service must be geared to induce farmers to change their attitudes and to accept new ideas as well. Unless these factors are parallelly developed, the aim of using credit as a means to improve agriculture is hardly to be achieved.

Present Agricultural Credit System

Although adequate information relating to types and sources of credit to farmers are not available, it can be said that there are three major groups of farm lending institutions in Thailand, namely private or individual lenders, commercial banks, and agricultural credit cooperatives.

Private Money Lenders

The term private money lenders used here refer to relatives, landlords, individual money lenders, local dealers and merchants. As in most economically less developed countries, there are many individuals who make loans to farmers in Thailand. These individuals are considered as an important source of farm credit. It has been estimated that about 90 percent of all credit used by Thai farmers came from this source (22, p. 51).

Within this source, according to the farm economic survey of 1953, relatives provided most of credit to farmers; and second to relatives was local merchants (37, p. 138-139). In Thailand, it is commonly practiced by local merchants to advance credit to farmers under the provisions specifying that farmers must sell their products after harvested to them. It is believed that these individual lenders use their own funds in lending money to farmers. However, in some cases, it is said that these lenders also obtain credit from commercial banks and then re-loan the money to farmers (31, p. 8).

The cost of loans obtained from these sources is, of course, relatively high. It varies from group to group. However, in general, the interest rate varied from 25.64 percent on loans from local merchants to 44.70 percent on loans from landlords (36, p. 112-114).

Commercial Banks

There has been evidence indicating that commercial banks in Thailand also extended credit to agriculture (22, p. 51). But it is believed that the extent to which commercial banks extend credit to farmers is quite limited.

At the present time, there are some 27 commercial banks operating in Thailand. Among them, 16 commercial banks were incorporated under Thai law, the remainder represent commercial banks incorporated in foreign countries. The banking system in Thailand is branch banking. All head offices are located in Bangkok which is the capital city; but there are numerous branches spreading throughout the country. To date, there are 233 branches (44, p. 10). Because some of these branch banks are located in areas which make them close to farmers, there is a tendency that in the future these banks will provide more credit to meet the needs of farmers. When such time comes, the commercial banks will be a relatively important source of agricultural loans in Thailand.

However, at the present time, these banks are relatively unimportant in supplying credit to farmers. It was estimated that not more than two percent of the total credit being used by Thai farmers was provided by commercial banks (31, p. 8). The cost of obtaining loans from these sources was between 7½ and 15 percent annually (22, p. 51).

Agricultural Cooperative Associations

Cooperatives were introduced into Thailand in 1916. The first cooperatives organized were of the agricultural credit type. The main purpose of introducing cooperatives into the country was to help the farmers to help themselves jointly through cooperative association. Since then many types of cooperatives have been developed and designed to meet the needs of farmers. At the end of 1958, there were 10,659 cooperatives in Thailand (31, p. 30).

The cooperative program in Thailand is sponsored by the Government. The Ministry of Cooperatives is the authority in charge of the organization, supervision, and auditing of the cooperative societies throughout the country.

By and large, these agricultural cooperatives are considered to be an important source of agricultural credit in Thailand (22, p. 51). However, after more than forty years of operation, it is estimated that only 8 percent of the Thai farmers has obtained credit through these societies. These cooperatives, in general, have received their loanable funds from the Bank for Cooperatives, the Thai Government and counterpart funds (31, p.10).

Among these cooperatives, agricultural credit cooperatives provided more credit to farmer members than other types of cooperatives. This is always true since 93 percent of total number of cooperatives in Thailand are agricultural credit associations. Other types of cooperatives through which substantial amounts of credit has been granted to farmers are land cooperatives and paddy (rice) marketing cooperatives. The remaining types are insignificant.

The land cooperatives and paddy marketing associations, in general, are not considered as important sources of agricultural credit. These cooperatives obtain their loanable funds directly from the Thai Government. The credit extended to these societies and to farmer members through these channels is considered only a part of the primary function of Government in carrying out these programs (31, p. 20-21).

For agricultural credit cooperatives, the main source of their loanable funds is the Bank for Cooperatives. These organizations also have received small amounts of capital from their members in the form of membership fees and deposits. In addition, there are two Provincial Cooperative Banks operating in Uttaradit and Chiengmai provinces. These two provincial banks receive deposits and supply credit to agricultural credit societies within their provinces. The interest rate charged on loans extended to these organizations is 7 percent per annum. On the other hand, the interest rate being charged on loans to farmer members from all agricultural credit cooperatives is 10 percent annually.

High Cost of Agricultural Loan

It has been seen that the interest rates charged on loans to farmers from the major sources in Thailand varied between 10 percent on loans from agricultural credit cooperatives and 44.70 percent on loans from landlords. This is considered unusually high when compared with the rates of interest paid by American farmers. Of course there are several factors contributing to the high cost of agricultural loans in Thailand. This section is devoted to discussing this subject matter.

Risk and Uncertainty of Farming

There are two kinds of risk and uncertainty concerning Thai farmers. One can be called risk and uncertainty due to production;

the other is due to marketing.

There are only a few farms which have been mechanized. Although mechanization was introduced into Thailand's agriculture at the end of the first World War, it has made little progress (35, p. 23). The majority of Thai farmers still maintain the old method of farming. Animal labor is indispensible. In other words, the nature of agriculture in Thailand is such that there is a relatively high degree of dependence on natural factors. Only a fraction of the total farm area has been irrigated. Of the total area under cultivation, about 14 percent is accessible to irrigation. It is expected that if irrigation projects now underway are completed, they will provide a benefit to Thai farmers covered in the production area of yield increases up to 20 percent (37, p. 128-129).

Except in irrigable areas, the majority of Thai farming are left to rely on the amount of rainfall. Since rice, which is a main crop, requires a substantial amount of water to grow, the variation in the rainy season and accordingly the amount of rainfall make rice production in Thailand highly risky and uncertain. As a matter of fact, either too much water or too little water, in most cases, will result in crop failure. In addition to risk and uncertainty due to weather variation, other things such as disease, pests and insects also have caused great damage to crop and livestock production. Because almost 100 percent of the control of insects, diseases and pests is provided by the Government free of charge, only a small part of the total area is benefited by the program (36, p. 25). For these reasons, it is unlikely to expect that farmers will have stable income.

Marketing risk and uncertainty also has a great effect on farmers' incomes. In general, Thai farmers have received only 30 to 40 percent of the total rice export price (31, p. 78-70). This has resulted partly from the policy of the Thai Government. There is a practice by the Government to maintain the domestic price of rice at low levels in order to acquire more revenues from the export of rice. In addition, there is a relation between the internal price and the world market price. Since most of the commodities exported from Thailand are agricultural products, the situation of world market always affects the domestic price of farm products to some extent. As a consequence, instability of farm product prices would be expected to prevail in Thailand.

It is believed that risk and uncertainty of farming is one factor which has caused the rate of interest on farm loans to be unusually high. Becasue lenders always take risk and uncertainty into consideration for determining the rate of interest, the high rate of interest on farm loans in Thailand partly suggests that there is a high degree of risk and uncertainty in the farming business.

Size of Loan

In general, size of loan always has a significant effect on interest rate. Since the cost of extending loans is almost always the same regardless of size of loan, a loan which is small in size will tend to carry higher rate of interest than a larger one. But to what extent size of loan affects the rate of interest on farm loans in Thailand cannot be measured.

The economic farm survey of 1953 showed that the average size of loan to farmers varied somewhat between 1,092 Bahts of loans from relatives and 2,720 Bahts of loans from local merchants (37, p. 138-139). The study of debt condition of farmers and rice trading in Central Thailand in 1957-8 also indicated that the average size of loan in Thailand ranged between 2,089 and 4,178 Bahts(30, p. 306). The average size of loan in Thailand is relatively small as compared with the average size of loan in the United States. The average size of commercial bank farm loan in 1956 was 1,400 dollars (6, p. 1163), which was about 7 to 10 times of that in Thailand.

On the other hand, small size of loan might indicate that credit was scarce. And because of the high cost of loans farmers were not willing to use more credit to improve their farming, small size of loan was a result. Furthermore, the high rate of interest also indicates that these lenders have a more advantageous bargaining position than farmer borrowers.

Monopolistic Position of Lenders

Another factor which has caused the rate of interest to be high in Thailand is the monopolistic position of lenders.

Urgent needs plus lack of knowledge have compelled farmers to depend on these lenders. Also, because of lack of transportation and communication facilities, farmers find it necessary to rely on local merchants for their supplies which in general are bought on a credit basis. On the other hand, these local merchants are main marketing channels through which farmers dispose of their products. Prices of agricultural products prevailing in local markets are, of course, fixed by these merchants owing to their superior bargaining position and lack of market understanding of farmers (30, p. 121). This practice, undoubtedly, has aggravated the farmers' positions to a great extent.

The monopolistic position of lenders has pointed out partly that an alternative supply of credit might not be readily available. Partly because of lack of knowledge and understanding as well as urgent needs make it possible for money lenders to maintain their monopolistic position. What Thai farmers need is education. Therefore, the extension service should be given priority in any agricultural development program. However, it is not implied that education will solve every problem. But at least the extension service, if effective, will change the attitude of farmers to some extent.

Insufficiency of Marketing Facilities

As mentioned earlier, income of Thai farmers is uncertain due to high degree of risk and uncertainty in production and marketing. In recent years, several programs have been initiated to cope with these problems. These programs include irrigation, seed improvement, insect and pest control, animal breeding, transportation and others. In general, it can be seen that greater emphasis is placed on production problems than on the problem of marketing. As a consequence, concepts and facilities essential for improved marketing of agricultural products are not adequately provided for. Unless marketing risk as well as production risk is minimized simultaneously, it is unreasonable to believe that farmers will adopt new techniques and increase their production. Accordingly, so long as these situations prevail in Thailand, the objective for which a credit program is accentuated would not be realized.

The problem of insufficiency of marketing facilities is a matter of individual farmer as well as general public concern. The Government must take steps in providing marketing facilities for agricultural development. The aim of increasing production would be meaningless if there is a handicap in marketing. It is about time that special attention must be directed towards the problem of agricultural marketing. "Production without an outlet is wasted energy" (31, p. 61). In addition, agricultural development demands that an increasing proportion of production must be sold in the market (9, p. 230). The Agricultural marketing problems in Thailand are treated under three headings, agricultural marketing service, nonstandardization of products, and marketing information.

Agricultural Marketing Service

There are several governmental agencies engaged in providing some part of marketing services to farmers in Thailand. These include Ministry of Agriculture, Ministry of Economic Affairs, Ministry of Cooperatives and Ministry of Interior. However, there is no one single unified agency to perform exclusively marketing services for Thai farmers. It is hardly to be expected that agencies whose functions are concerned almost predominantly with non-agricultural problems to be effective in rendering services to farmers. It is, therefore, a logical opinion that an agency which will have primary functions in the field of agricultural marketing be set up within the Ministry of Agriculture.

Lack of a unified agricultural marketing service agency is one reason why agricultural marketing in Thailand is not as well developed as it should be. This problem also is related to the shortcoming in marketing information and standardization of agricultural products being discussed in subsequent sections.

Nonstandardization of Agricultural Products

Except for rice, at the present time, there is no standard regulation governing the quality of agricultural products. This problem must be solved cooperatively by all parties concerned--farmers, middlemen, exporters and the Thai Government. By virtue of the fact that quality and standardization are of great significance in world markets, lack of standardization has placed Thailand in a disadvantageous position. In order to be able to compete in world markets successfully, regulations governing the quality of agricultural products are required to be promulgated as well as subsequently enforced.

For individual farmers, grade or standard is very essential. Farmers should receive returns from the sales of their products according to product quality. Without this incentive, it would be difficult to expect the farmers to improve the quality of their product. For this reason, differences in price must prevail among different grades.

There is evidence indicating that there is a demand for Thai agricultural products in the world markets, especially in Asian countries, provided that qualities are competitive (31, p. 112-113). But lack of standardization of products has prevented Thailand from obtaining a large share of such markets. In addition there have been malpractices among exporters through degrading quality farm products before being exported. This practice, of course, has already affected Thailand's position in international markets. To assure that Thai agricultural products meet the standard and quality required in world markets, laws and regulations, if enacted, must be enforced vigorously.

<u>Marketing Information</u>

Efficiency in agricultural marketing can not be attained without full utilization of marketing information (19, p. 20). In other words, efficiency can not be attained if there is insufficiency of marketing information. Inadequacy of marketing information is one of the problems concerning agricultural marketing in Thailand. In recent years, there have been some government agencies distributing marketing information to agricultural concerns. The Ministry of Agriculture has published monthly statistics on prices of major products for its provincial officers. The Ministry of Cooperatives also assembles marketing information for its provincial officers for distributing to cooperative members under their supervision. Furthermore, the prices of major products have been broadcast by radio each night by the Ministry of Economic Affairs. Also, some daily newspapers have published prices of these products both locally and internationally.

The question is to what extent Thai farmers have used marketing information from the above mentioned sources. Besides, it is doubtful whether the information distributed is of any value to farmers. In general, this information is not widely disseminated and farmers as well as most provincial officers are not trained in utilizing this information for their own advantage (31, p. 61). However, it is not reasonable to say that Thai farmers market without knowledge of the market situation. It has been observed that Thai farmers are aware of price situations within local markets. Unless they are in need of immediate cash to meet expenses, most rice farmers always store their paddy after harvest for expected higher prices in the late season (31, p. 59).

Inefficiency of Management

Broadly speaking, efficiency of management is defined as the ability of farmers in making their decisions and carrying out their plans in such a way that returns from the farm business are maximized. Insofar as management in this sense is concerned, it is far from being in existence in Thailand's agriculture. In general, most Thai farmers are not much concerned with decision making. Since each year they have been growing one crop, which almost in all cases is rice, no decision concerning selection of enterprise combinations is needed. According to Kamol Janlekha, (23, p. 121-124), rice farmers in Central Thailand also do not take the combination of factors of production into serious consideration. This is because at the present stage of technological development of rice production in Thailand, the marginal products of labor and capital (farm equipment) have already approached zero. Under this condition, the extent to which the production function can be adjusted is quite limited. However, Thai rice farmers may have some decisions to make as to whether or not fertilizers should be used. Hence, the factor combination is involved. But since most farmers are disinclined to use commercial fertilizer because of its relatively high price, fertilization does not prevail in decision making among Thai farmers. The decision which farmers have to make is concerned with the selection of rice varieties. Good management, in village semantics, means only finishing planting work in time or before the deadline set by water conditions. Although the above mentioned situations exist in Central Thailand, the area being referred to, it is believed to be true for most Thai rice farmers throughout the country.

It is believed that lack of management in the sense mentioned above is one of the factors that has caused a downward trend in yield per unit of productive area in Thailand. During the fifty-year period from 1907-1956, total acreage of rice farmed increased about 258 percent but during the same period total production increased only 154 percent (see Table 8). It indicates that average yield per unit of productive area has decreased substantially. It also can be seen that the average yield during the 1952-1956 period was about 79 percent of that during the 1907-1911 period. On the other hand, the bringing of marginal rice land into production certainly is another factor which has caused the average yield to decline. This marginal land naturally is not as suitable for growing rice. Therefore, to be sure that there will be no shortage of rice for domestic consumption and export in the future due to increasing population, some action must be directed towards increasing efficiency in farming.

Generally speaking, there are several factors accounting for the inefficiency of farming in Thailand. These factors are size of farm, knowledge of farmers, and ineffective use of borrowed funds.

Table 8. Rice production in Thailand, 1907-1956.

Years	Harvested area (mean)	Total yield (mean)	Average yield (mean)
	(1000 rai*)	(1000 M. tons**)	(Kg/rai***)
1907-11	9,078	2,880	302
1912-16	12,612	3,267	263
1917-21	12,558	2,270	278
1922-26	15,013	4,340	296
1927-31	15,960	4,068	254
1932-36	18,568	4,726	257
1937-41	19,553	4,555	257
1942-46	21,932	4,442	211
1947-51	31,016	6,781	210
1952-56	33,474	7,333	215

258% mean increase in area

154% mean increase in total production

*rai - .395 acres

**metric ton - 2204.6 pounds

***kilogram - 2.20 pounds

Source (31, p. 82)

(1) Size of Farm

As previously mentioned, the average size of farms in Thailand is only 10.2 acres. With such small farm size, it is impossible for Thai farmers to introduce heavy mechanization. As a matter of fact, even when only family labor is utilized underemployment is prevalent in agriculture. According to the economic farm survey of 1953, during the year individual Thai farmers spent only 100 days on agricultural work on his farm (36, p. 50). So long as monoculture is maintained in Thailand's agriculture and farm size remains unchanged, it is unlikely that the problem of underemployment in agriculture can be solved.

Underemployment indicates that substantial amounts of labor can be drawn out of farming. But the question is: What is Thailand going to do with this surplus labor? Since the marginal product of labor already approaches zero, it is likely that there would be no gain in production by the use of labor intensive methods in farming under the conditions existing in Thailand. Some suggestions are being made in the final chapter to the above question.

(2) Knowledge of Farmers

The inefficiency of farming in Thailand to great extent is due to the lack of knowledge of farmers themselves. This is not, however, to imply that farmers do not know how to farm. Rather, it refers to the degree to which farmers are willing to change their beliefs and attitudes and accept new ideas and adopt new technology in farming.

In general, the level of education of Thai farmers is relatively low. According to the study of debt condition of farmers in Central Thailand, it was estimated that 68 percent of farmers in the area studied finished compulsory education or higher (30, p. 19). Since the Compulsory Education Act has been uniformly enforced throughout the nation, it is assumed that the level of education of farmers in other regions of the country is comparatively the same. Under this assumption, it can be said that the majority of Thai farmers have been educated through the compulsory level.

Although Thailand issued compulsory education in 1921, the nationwide program was not launched until 1937. The Compulsory Education Act requires that all Thai children between 7 and 14 years of age must go to school until they have completed the fourth grade, which is the limit of compulsory level. Because the standard of teaching is generally low in this level, expecially in rural areas, it has been observed that even farmers who have finished the fourth grade have poor understanding. Therefore, merely finishing compulsory education does not mean that Thai farmers have enough education.

Lack of education among farmers undoubtedly constitutes the major obstacle to technological improvement in agriculture in Thailand. To overcome this problem, formal education must be promoted in rural areas. Formal education if effective will enable the farmers to understand the new concepts and techniques of farming as well as to change their beliefs and attitudes concerning their ways of life. It is, therefore, an opinion that compulsory education should be extended beyond the fourth grade level. In addition, such opinion also recommends that priority be given to the extension service in an agricultural development program.

(3) Ineffective Use of Borrowed Fund

Loans once obtained must be used in such a way that at the end of their period there is an improvement in output and income as well as the financial condition of the borrower. Also, credit use is desirable if it contributes to an increase in consumption and well being of the borrower through an increase in income. In other words, to be effective in growth credit must be used as a vehicle for improved techniques of agricultural production for obtaining higher returns (9, p. 22). Thus, the standard of living of the borrower consequently can be improved. But this is not always the case in Thailand. It should be mentioned here that no attempt has been made to show the difference of farmer's equity between before and after loan funds has been used. It intends to point out some of the unproductive ways in which Thai farmers have used their borrowed funds.

The recent study of debt condition of farmers in Central Thailand revealed that more than one third of the farmer borrowers in the area studied had obtained credit for consumption expense, ceremonial occasions and others. It also indicated that some of Thai farmers need to borrow money for purposes other than production, e.g., medical expense, taxation (30, p. 47-49). It can be seen that the ways in which these farmers have used their loan funds are unproductive in nature. However, for loans to finance family consumption expense in the above implied connotation seems to be somewhat unjustified. Since in Thailand the labor used on farms is comprised almost entirely of unpaid family labor, part of the credit for consumption purposes can be considered production credit as well.

The study also showed that some lenders were not willing to grant loans to farmers because of unproductive uses (30, p. 37). This means that some lenders in Thailand also take the ways in which the loan is to be used into consideration before extending credit. This is not to imply that if farmers use their borrowed funds more productively there will be more credit available for them. It is only an indication that so long as Thai farmers use their loan funds for unproductive purposes, the expectation that private lenders will take a more liberal part in financing the development of agriculture is in vain.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

It can be seen from the course of discussion that the condition which will promote the effective use of agricultural credit does not now exist in Thailand. Any program which will improve and correct this problem is certainly recommended.

Indeed, Thailand must recognize the significant role of agricultural credit as well as of agriculture in her economic development. The economic development of Thailand can not be attained as long as the farmers' position is neglected. This is a thesis.

Since more than four-fifths of the population are farmers, the betterment of the farm group undoubtedly will generate development of other sectors of the economy. If the income of farmers is increased, so will their purchasing power. The agricultural development programs, therefore, must be directed towards this end. That is to increase income and standard of living of farmers.

However, before agriculture can be expected to support the economic development of the country, improvement must take place within the agricultural sector itself. But, agricultural improvement is hardly to be realized without credit facilities. Therefore, it is necessary for Thailand to have a strong and well organized agricultural development program with credit consideration being an integral part. As it so happens Thailand's agricultural program emphasis is more on problems of production but less on those of marketing. It is unlikely that farmers will increase their production so long as they are uncertain about the future sale of their products. Also, it is hard to conceive that farmers will improve their farming technique if there is no credit available with terms suited to their needs.

To finance an agricultural development program in Thailand will require not only the participation of the Government but of other sectors of the economy as well. Within the other sectors, special attention is called to the commercial banks. Since the banking system in Thailand is branch banking and most of the branches are located close to farming areas, they should become an important source of agricultural loans. If such time comes, it can be said that the procedures and principles of commercial banks in the United States with some modifications are applicable to Thailand.

Generally speaking, the whole structure of farm lending policies and procedures of the commercial banks in the United States cannot be transplanted into Thailand. There must be some modification to comply with the agricultural conditions as well as with the educational level of the farmers in the country. Furthermore, the commercial banks themselves must first develop a favorable attitude towards agriculture, and be willing to service farmers who ask for loans. At the first stage of this development, it is believed that all kinds of paper work in the process of making farm loans must be taken care of by commercial banks. All forms must be written in a common language which can be well understood by the farmers. The detail of forms such as application form, financial statement, operating statement and comparison statement forms must be carefully designed in such a way that they will be workable under agricultural conditions in Thailand. No attempt is made to indicate the specific detail of these forms.

On the other hand, it must be recognized that commercial banks in Thailand do extend credit to big and wealthy farmers on a real estate basis. It is indicated that the real estate assets of the borrower is the only important factor that commercial banks in Thailand take into consideration for making loans. Since most Thai farmers have small holdings, they cannot be accesible to commercial banks. If commercial banks in Thailand are willing to assist in financing agriculture, they must modify their policy to some extent. They must broaden their farm lending policy to cover other assets both tangible and intangible that farmers possess to be used as security. By doing so, small farmers or tenant farmers who do not own their land can ask for production type loans from commercial banks by pledging other properties such as growing crop, working animals, and gold bracelets as security for loans obtained. This type of loan will enable the farmer borrowers to maintain and improve their farming and increase their income which, in turn, will generate economic activity in the economy. Furthermore, commercial banks should expand their farm lending to other farm organizations as well.

In order to gain confidence from the general public, the commercial banks in Thailand must provide good service and maintain sound banking practices. As it happens Thai people have never used banking service to any extent even though there are adequate banking facilities. This sign suggests partly that Thai people are cautious about the soundness of banking practices. It also indicates partly that they are not familiar with banking concepts. They are reluctant to do business with banks.

Through banking facilities it is believed that substantial amounts of saving of the Thai people can be aggregated and made available for productive use. Instead of individuals exchanging cash money for such items as gold bracelets, jewelry, golden rings and golden necklaces which are the customary forms in which savings are held, the money can be safely deposited in the banks. Or, these items should be allowed to be deposited and then a bank that accepts these items be permitted to create time deposits equal to their value. Under these provisions, more credit will be available through banking channels. But commercial banks themselves must show that they are established for the purpose of safeguarding the general public interests. In addition, to obtain public confidence, the Government should initiate a program of deposit insurance for each depositor in commercial banks. In so doing, more Thai people would be willing to use banks as depositories for their savings which in turn would increase the effective supply of credit funds.

At the present time, Thailand really needs, in connection with financing her agricultural development, the kind of philosophy which prevails among commercial banks in the United States. That is their desire to participate in financing the development of agriculture in the community in which they are located. For years, the commercial banks in the United States have been actively engaged in extending credit to farmers. It is believed this kind of philosophy does not exist at all among commercial banks in Thailand. As previously mentioned, commercial banks in Thailand do grant credit to farmers but to a very limited extent. Usually they confine their lending to only the big and wealthy farmers. It would not be a mistake to assert that commercial banks in Thailand have not given any consideration to the important role of farmers in the economic development of the country.

No attempt is made to analyze the complete role of Government in national economic development. It is taken for granted that in economically underdeveloped countries the government must bear the larger part of any development program. As a matter of fact, it is first necessary for the government to create a favorable climate and incentive for such development.

Particularly in the field of social overhead investment, the burden may fall solely upon the government. This study only intends to suggest some of the things that are considered to be of relevance to improved financing of agriculture in Thailand.

As noted elsewhere, increasing amounts of credit to agriculture is a necessary but not sufficient condition for agricultural development. Moreover, more credit may be wasteful unless it is supported by other important factors such as extension and other educational programs, marketing facilities and generally improved economic condition. It is therefore recommended that adequate attention must be given to solve these problems which are important to the effective use of agricultural loans. Furthermore, a public information program should be initiated to emphasize the major contribution of agriculture to national economic improvement.

Agricultural Policy

One of the major deficiencies in agricultural development program in Thailand is the lack of an over-all agricultural policy of the Government. It is understood that the Thai Government desires to increase agricultural production, particularly rice, in order to acquire more foreign exchange. Emphasis, therefore, is placed upon production problems. But other measures that will create economic incentives to encourage individual farmers to improve their farm operations and increase their income lag far behind.

As mentioned earlier, in order to secure more foreign exchange from export of rice, there has been a common practice by the Government to control domestic price of rice at a low level. In doing so, it is only beneficial to the urban population which is a relatively small group. Although there is some merit in pursuing this policy in order to control the cost of living and carry out the economic development program, this practice undoubtedly affects farmers' positions to a great extent. As a consequence, Thai rice farmers have received from sale of rice only 30 to 40 percent of exported price.

Lack of well organized agricultural development program has caused the downward trend in yield per unit of productive area. In 1957, while rice yields per unit of productive area was still below prewar level, in neighboring Burma yields increased exceeding the prewar level because of the improvement in farming techniques. This result stems partly from the lack of incentive to encourage farmers to improve the method of production and partly from the lack of knowledge of farmers themselves. Unless Thailand adopts a strong and active policy towards agriculture, it is believed that her position in international marketing of agricultural products will be impaired. If this happens, the financial position of the Government certainly will be affected.

Thus it is necessary for Thailand to reevaluate her agricultural policy. In general, the policy towards agriculture must conform with the over-all economic development policy. Of course, the agricultural program must aim directly at individual farmers. Whether or not the agricultural development program is accomplished depends greatly on these individual farmers. Therefore, all economic incentives must be geared to reach down to that level.

<u>Agricultural Extension and Experimentation</u>

It has been recommended that priority be given to an agricultural extension program. Since there is no unified agency for rendering extension services to farmers, it is of the opinion that a general extension service agency be organized within the Ministry of Agriculture.

The general extension service, as the name implies, should cover a broad area of work such as production, marketing, cooperative, credit, and family welfare as well as general education. Without an effective extension program, it is hard to anticipate that other development programs will be achieved.

At the same time, research and experimentation should be carried on extensively. Since rice may not continue to be such an important crop for Thailand owing to keen competition in world markets, other crops should be developed and tested. Then, the results obtained can be conveyed to farmers for expansion through extension channels. The promotion of new practices can be done by demonstration. However, no demonstration should be undertaken until the new results have been extensively tested under actual field conditions. If this is not the case, demonstration may create more harm than good.

To have an effective extension service, the Government must provide well trained extension staffs and financial requirements sufficient for conducting the above mentioned functions. These workers in general must stay in the rural areas to guide and help the farmers in the area authorized. In addition, the extension workers should see to it that adult education programs and youth organizations have been promoted in their localities. Unless the extension people can adjust themselves to the local environment, the extension program may prove to be less successful.

Agricultural Marketing Service

The agricultural marketing service agency which has been proposed must perform all functions pertaining to the marketing of agricultural products such as collecting and disseminating marketing information, promulgating and enforcing laws and regulations governing grade and standard of products and conducting reserach on marketing prospects for agricultural commodities. Since Thailand depends largely on the export of farm products to provide foreign exchange, marketing studies should cover the situation of world markets as well. Moreover, such function as marketing education and extension also should be authorized to the proposed agency.

In addition, in order to gain a favorable position in world markets, laws and regulations governing grade and standard of agricultural products must be enacted. The laws must contain articles providing for inspection, sampling instruction, testing of moisture content and penalties. Such articles as description of container and standard weight also should be included.

This proposed agency must cooperate closely with the extension and experiment agencies in the promotion of new products. The result of marketing research should be released to agricultural concerns through the extension service. The experiment station should develop and study new varieties of crops for which a demand has been found in the domestic market as well as in international markets. As a matter of fact, there is a number of commodities that can be produced and manufactured in Thailand, but lack of study and promotion has caused Thailand to import them from other countries. These products are jute and sugar cane. Since there is demand for gunny bags and sugar, the increase in production and manufacture of these commodities should be encouraged.

Government Loan Insurance Program

In order to encourage commercial banks to participate in financing agricultural development, a program of loan insurance by the Government should be initiated on a pilot basis. Whether or not to join the program should be optional to commercial banks. However, to prevent the making of unsound loans by taking advantage of government insurance, the Government should authorize its agency to supervise the making and servicing of loans. This can be done either by setting up a new agency or by designating an active agency such as the Ministry of Cooperatives to be the agency in charge. All loan supervision can be handled through this authorized agency without any cost to commercial banks. The commercial banks would maintain their independence in making decision as to whether or not particular farm loans should be made.

The central bank or the Bank of Thailand must assist the commercial banks in this matter by rediscounting agricultural notes from those who have joined the program. However, the Bank of Thailand since its inception has not yet effectively performed its function as controller of money and credit. Before October 1959 the Bank maintained its rediscount rate on commercial paper at 7 percent per annum. This is considered to be relatively high and commercial banks are discouraged from borrowing from the Bank. In general, these banks when they are in need of additional funds turn to borrow from other countries. Since October 1959 the Bank of Thailand has reduced its rediscount rate from 7 to 5 percent (34, p. 7-11). This move will provide incentive for commercial banks to use more of the facilities of the Bank. The commercial banks, in their turn, are expected to reduce the interest rate on their loans. To promote the commercial banks to extend more credit to farmers, the Bank of Thailand can support the Government loan insurance program by charging special rediscount rate on agricultural paper.

Promotion of Labor-intensive Method

It has been mentioned that underemployment is prevalent in

Thailand's agriculture. It also indicates that a substantial amount of labor can be drawn off of farms. To overcome this problem, labor intensive industries and labor intensive methods should be fostered. Labor intensive methods refer to a high ratio of labor to capital.

To utilize this surplus labor, community development projects such as road building and improvement should be promoted. The large volume of idle labor in the area can be put to work on the project on a voluntary basis. In order to make the program successful, the Government must provide some financial and technical help. It is believed that through these means more roads can be built and improved.

In addition to the use of labor in community development, some public works of the Government also should be carried out by labor intensive methods. In so doing, it creates opportunity for idle farm labor to earn more income, thereby, increase the purchasing power of farmers.

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