May 31, 1954

To the Graduate Council:

I am submitting herewith a thesis written by Chune Sopochna entitled "Re-examination of Rural Cooperative Credit Association in Thailand." I recommend that it be accepted for nine quarter hours of credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Economics.

R H Spitze
Major Professor

We have read this thesis
and recommend its acceptance:

Peter Dorner
John F. Fischer
Ernest J. Long
J. E. A. Martin
E. O. Wille

Accepted for the Council:

E. L. Waters
Dean of the Graduate School

RE-EXAMINATION OF RURAL COOPERATIVE CREDIT ASSOCIATION IN THAILAND

A THESIS

Submitted to
The Graduate Council
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science

---

by

Chune Sopochna

June 1954

31
33

ACKNOWLEDGMENT

The writer wishes to acknowledge his indebtedness and to express his sincere gratitude to his advisor, Mr. Robert George F. Spitze, Assistant Professor of Agricultural Economics, University of Tennessee, not only for giving him the same guidance and encouragement he lavishes on all his students, but also for his keen interest in the problem treated in this study. To Mr. John Louis Fischer, Assistant Professor of Agricultural Economics, and Mr. Peter Paul Dorner, Instructor in Agricultural Economics and Assistant Agricultural Economist, the writer wishes to express his sincere appreciation for their valuable guidance and assistance in the preparation of the manuscript. To Mr. Pantum Thisaya, his wife, and his sister for their great help in sending the information of cooperative credit in Thailand to him. Finally, to Mrs. Odessa Roberts for her great help in typing the manuscript and bringing it to its final form.

C. Sopochna

326698

TABLE OF CONTENTS

CHAPTER		PAGE
I.	BACKGROUND STUDY	1
	Introduction	1
	Purposes of Study	1
	Sources of Data	2
	Organization of the Study	3
	Background of the Country	3
	Location	4
	Area and Population	4
	Climate and Vegetation	5
	Soils and Land Use	6
	Livestock and Fish	9
	Exports and Communications	10
	Malaria and Nutrition	11
	Farmers Need More Capital	11
	Land Tenure	16
II.	RURAL COOPERATIVE CREDIT IN THAILAND	18
	Meaning of the Cooperative	18
	Meaning of Credit	20
	Agricultural Credit Agencies	22
	Agricultural Credit Cooperatives	26
	Origin and Development	26
	Reasons for the Growth	27

CHAPTER PAGE

II. (continued)

Cooperative Credit in the Period of Experimentation (1916-32). 28

Sources of Credits 30

Working Capital of Cooperative Societies 33

Organizing Cooperative Credit Societies. 36

Organs of Administration 38

Methods of Lending 41

Size of the Loans. 44

Bank for Cooperatives. 45

III. AGRICULTURAL COOPERATIVE CREDIT IN U.S.A.. 52

Introduction 52

Farm Credit Administration 53

Central Office 54

District Offices 55

Local Organization 56

Organization and Operation of the Federal Land Banks 56

Objectives of Loans. 59

Dividends. 62

Appraisal Policies 63

Loan Servicing 64

National Farm Loan Association 65

Production Credit System 70

Production Credit Corporations 71

CHAPTER PAGE

III. (continued)

Production Credit Association. 73

Methods of Lending 74

Association Finance. 76

Field Service. 76

Production Credit Association vs. Federal Land Banks 77

Bank for Cooperatives. 78

Types of Loans 79

Provision of Earnings. 82

Federal Intermediate Credit Banks. 82

IV. PROBLEMS AND RECOMMENDATIONS 85

Problems Identified in This Study. 85

A Proposed Cooperative Credit Program for Thailand . 86

Why the Need For District Banks. 87

Location 89

Types of Cooperative Central Banks 91

Working Capital. 93

Management of Capital. 94

Processing of Loans. 97

Sources and Division of Loans. 97

Eligible Borrowers 98

Supervision and Inspection 100

Organs of Administration 101

Earning of the Banks 105

CHAPTER PAGE

IV. (continued)

Auditing and Report. 105

The Relationship of District Bank and the Bank for Cooperatives 106

General Consideration. 107

V. SUMMARY AND CONCLUSIONS. 108

BIBLIOGRAPHY. 114

LIST OF TABLES

TABLE		PAGE
I.	Number of Credit Societies, Memberships, and Amount of Loans During Experimentation, (1916 to 1932)	31
II.	Composite Balance Sheets for Cooperative Credit Societies, 1940.	35
III.	Number of Credit Societies, of Members, and Amount of Loans Second Period, (1932 - 1949)	39
IV.	Financial Statement of the Bank of Cooperatives During 1951 - 1952	47
V.	Working Capital of Bank of Cooperatives, 1947 - 1952 . .	48
VI.	Loans Made by Bank of Cooperatives, 1947 - 1950.	50

CHAPTER I

BACKGROUND STUDY

Introduction

Purpose of Study

Postwar changes in the structure and practices of Thailand agriculture have been significant. The financial requirement of the farmers has expanded rapidly in recent years, much like the increases experienced in other sectors of the national economy. Farmers are in need of added capital to clear land, improve efficiency, mechanize and make other improvements in order to increase production and compete more effectively in fulfilling their role in the economy.

It is believed Thai farmers are lacking in available credit institutions to provide needed capital funds. The cooperative credit association is one of the favorite sources that farmers could use for their financial requirements. But these cooperative credit societies lack sufficient loanable funds to meet farmers' large financial requirements.

The purpose of this study is to find out whether the farmers really need more credit and whether the cooperative credit system is able to supply loanable funds to meet these requirements. In answering these questions, some specific conditions of the country will be studied; operation of the cooperative credit system will be analyzed and described; and an appraisal and some recommendations will be made.

The cooperative credit system in the United States is also studied to support the recommendations of certain improvements and changes developed in the study.

Sources of Data

Before presenting the available sources of material and data used in this study, the writer would like to indicate that previous studies of rural cooperative credit in Thailand are not available in the U. S. library. Therefore, personal letters and requests for informations regarding this study have been sent to some of the Officials in the Department of Cooperatives in Thailand. Some of the desired information has been secured by the writer. These available data are deficient generally in statistical information. They are, however, sufficient enough to throw some light on the organization and operation of the cooperative credit system to be studied. Therefore, a great deal of the analysis is based upon personal experience and theoretical formulation.

The following are the available sources of data used in this study:

Survey of Rural Cooperatives in Countries in South East Asia, Bangkok: Ministry of Agriculture, 1950.

Thailand and Her Agricultural Problems, Ministry of Agriculture, November 1950.

Report of the FAO Mission for Siam, Washington, September 1948.

Statistic Year Book Thailand, No. 21, 1939-40 to 1944, Bangkok: Central Service of Statistics.

Agricultural Cooperation in the United States, Farm Credit Administration U.S.D.A., Bul. 54, April 1947.

The By-law of Cooperative Credit in Thailand, Bangkok: Ministry of Cooperatives.

Summary of Principal Features of Agricultural Credit Facilities in Thailand, Bangkok: Cooperative Department, Ministry of Cooperatives, 1953.

Report of Principles and Methods of Provincial Bank, by Saranark Jamnien, Coop. Officer.

Books, theses, pamphlets, and lectures dealing with this subject are included.

Organization of the Study

The study will consist of five chapters. The first chapter introduces the study and gives the general views of the country. The second chapter will include an investigation and analysis of the present cooperative credit system. The third chapter is devoted to the description and analysis of the present cooperative credit system in the U. S. The fourth chapter consists of the problems identified in this study and recommendations. The fifth chapter contains the summary and conclusions of the study.

Background of the Country

For the purpose of providing a basis for understanding to readers who have not visited Thailand, a short account is given of the country. The climate, soils, crops, and natural vegetation are treated briefly.

Location

Thailand, an ancient monarchy, noted for picturesque architecture and pageantry, underwent a bloodless revolution in 1932. Since that time, Thailand has had a constitutional monarchy form of government. It is located between Burma on the west and north, French Indo-China on the north and east, and Malaya on the south. Much of Thailand is undulating to hilly and parts of it are mountainous. The low and flat Bangkok (capital) plain lies north of the Gulf of Thailand and is roughly triangular in shape, with each side about 125 miles long. Canals for irrigation and transportation criss-cross this plain of clay soils. They connect the Chao Phya River with other rivers to the east and west.

Area and Population

The area of Thailand is about 200,148 square miles, somewhat smaller than Texas or France. The population in 1952 was 19,192,000.[1] A large proportion of the inhabitants of Bangkok are immigrants from southern coastal China. These Chinese are predominant in the mercantile and rice milling activities, not only in Bangkok but in the towns and villages throughout the Kingdom. In the southernmost three provinces the population is predominantly Mohammedan-Malay. On the higher mountains in Northern Thailand there is a diversity of "hill tribes".

---

[1] The World Almanac 1954, New York World-Telegram, p. 374.

They make clearings on the higher mountain slopes, raising mostly upland rice and opium. Other goods are obtained in exchange for opium.

Climate and Vegetation

Thailand has a warm climate. In the south the temperature seldom falls below 15°C and rarely climbs above 32°C. In the northern valleys farther from the seas and shut in by mountains, temperatures sometimes exceed 38°C in summer and frequently fall to 10°C in winter. The warmest season is between March and May, the time of least cloudiness.

For most of Thailand the rainy season is between May and September, when southwest winds from the Bay of Bengal and the Gulf of Thailand bring in rain bearing clouds. The rain often comes as afternoon squalls. There is often a "break in the rains," a hot, humid, sunshiny, nearly rainless period of some weeks in August. In central and northern Thailand very little rain falls between October and April. On the western windward slopes and mountain exposures the rainfall may reach 3,000 mm. annually, but much of Thailand receives hardly more than 1,000 mm. and some localities hardly 750 mm. The east side of peninsular Thailand is sheltered from the southwest monsoon but receives rain between October and January when Northeast trade winds are strong. Occasional typhoons, coming northwest from the South China Sea and bringing heavy, more protracted rainy spells, fade out over Eastern and Central Thailand.

The natural vegetation reflects strongly the differences in rainfall and soil moisture supply. Pine forests producing turpentine occur on some of the higher mountains of northern Thailand. In the northern and northwestern mountains and valleys, teak is the most valuable tree of the partially deciduous forests. Along the streams and in lowland regions of rainfall the tall yang trees (Dipterocarpus alatus) grow well. Where the soils are very poor, as in most of the northeastern region, slow-growing hardwood trees predominate. Bamboo thickets are dominant on many stony and rocky slopes in Central Thailand. Mangrove forests occupy muddy beaches in protected parts of the seacoast. Brush and low forest grow on much land in regions of shifting cultivation.

Soils and Land Use

The soils of Thailand are diverse. The Bangkok plain has heavy dark clays, suited to rice growing. In the environs of Bangkok, however, excellent tropical fruits, vegetables, and sugar cane are produced. Organic manures and fertilizers are used.

In northeastern Thailand, the soils are for the most part fine sandy loams, distressingly low in plant nutrients. Much of the region is undulating to rolling, with only occasional hills of quartziferous sandstones and a few shallow lakes. In the valleys and depressions, where more water accumulates, rice is grown. On slight elevations and slopes where the soils are deeper and not so poor, the forests normally grow taller and are quite dense. Almost all of the cropped land in the northeastern region is planted to lowland rice. In this region are

extensive plains, where the soil is poor and the summer floods rise suddenly. Here cropping is at present impossible; the only natural vegetation is sparse grass. The area acts as a natural flood control agent. The wide shallow lake which forms during the summer is an important source of fish for the northeastern region.

On the deep red soils formed from dark igneous rocks of the Chantaburi region in southeastern Thailand, black and white pepper were formerly produced in considerable quantities. Now, rubber, sugar cane, and fruits have replaced pepper. Rice, of course, is grown on all the low flat lands on which water can be held.

Being in the rain shadow of the western border mountains, the northern portion of peninsular Thailand is rather dry. Some soils are saline. Rice growing is risky, and too often the crop fails. In this event the farmers go to the forests and make charcoal.

Farther south, where rain is more plentiful, high forests are common on the poor sandy loams and sandy clay loam soils. Hevea rubber does well on the well-drained soils of this region, while rice is grown on most of the plains and in the lower parts of valleys that have not been disastrously disturbed by tin mining.

In Thailand, areas of fertile soil naturally suited to crops other than rice are limited in extent and widely scattered. The hazards of cotton growing in Thailand are numerous. Nevertheless, farmers in the northern and northeastern parts of the Kingdom have long grown considerable quantities of rough, short staple Asiatic types of cotton.

Much of this cotton is ginned, spun, and woven in the home with primitive devices.

Tobacco is an important crop. The darker, strong types of leaf are grown on the more fertile river banks. The production of Virginia-type bright fluecured tobacco for occidental-type cigarettes has assumed considerable proportions. For a satisfactory quality of leaf, the soils on which teak grows well are excellent. This, unfortunately, has led to further damage of the dwindling teak forests.

In many parts of Thailand brown sugar is made by boiling sugar-cane juice in open pans. Sugar is also obtained by cutting off palm flower buds, collecting and boiling to sugar the sweet juice that exudes from the stump. Coconut palms are the source of the finest sugar of this type. Sugar mills for the production of plantation-white sugar are in operation in several districts. Since large areas of land better suited to sugar cane than to rice are not found in Thailand, the main difficulty in sugar-mill operation has been an adequate and continuous supply of freshly cut cane.

Before World War II, Thailand exported annually about 40,000[2] tons of Hevea rubber. This comes almost exclusively from small producers who have been content with the mediocre yields of seedling trees. Much labor is occupied in tin mining and rubber production, so that less is available in peninsular Thailand for growing rice.

---

[2]Report of the FAO Mission for Siam, FAO, Washington, 1948, p. 6.

Livestock and Fish

With Thailand dependent upon rice as the main food and export crop, draft cattle and water buffaloes are of the utmost importance to the farm family. Although most of the cattle and buffaloes are raised in the Kingdom, many are imported from western French Indo-China. Important movements of cattle are from the north and northeast to the Central Plain. In due course many move on to Bangkok, where they are used for meat or for export. In normal times live animals are exported to Hong Kong, Singapore, and Penang. Cattle raising for export has been important on the western side of the peninsula. There appears to be very little movement of cattle northward from the peninsula.

Hogs are raised, particularly in the north and northeast. In central Thailand, especially in the environs of rice mills, Chinese and in some places Annamese are the principal raisers of hogs. In northeastern Thailand, hogs are herded for many miles to the main roads and moved by truck to the railheads for sale in Bangkok.

Poultry are commonly raised, nearly every household having a few chickens. These fowls are hardy but small, and the egg yield is low. Imported breeds of fowls have been nearly wiped out by epidemics. Ducks are raised in quantity, both for meat and eggs. Duck manure is highly prized by the market gardeners of Bangkok.

Fish from the rivers, canals, ponds, and the sea are an important feature of the diet. Fish from highway and railway borrow pits and even from the rice fields make up a significant proportion of

inland fish consumption.[3] Drying with salt and fermentation of the smaller fish in fresh water are the most generally used methods of preservation.

Exports and Communications

The chief exports are rice, teak and other timber, tin, rubber, livestock, and hides. The rice exports are of great economic importance to Thailand. They do much to fill an urgent need in other countries of Southeast Asia. Fortunately, there is good prospect that Thailand's contribution to the world food supplies can be considerably increased.

The principal city and port is Bangkok, a city of nearly a million inhabitants. It stands on the Chao Phya River, about 14 miles from its mouth in the Gulf of Thailand. Vessels drawing more than 4 yards cannot cross the bar at the mouth of the river. They work cargo from lighters in the lee of Si Chang Island, about 45 miles southeast of Bangkok.

Bangkok is the center of an extensive network of meter-gauge state-owned railways which extend to the north, the northeast, southeast into French Indo-China, south and southwest to the Gulf. Railway connections with peninsular Thailand, Penang, and Singapore were interrupted by bombing during the war. Highways, formerly built only

---

[3]Borrow pit is the hole left when dirt is taken from beside a highway or railway to build up the roadbed.

as feeders for the railway, have been greatly extended in the past 15 years. Truck roads are gradually being extended.

Malaria and Nutrition

Agricultural production in Thailand is severely hindered by malaria. The Director of Public Health reported that, in 1943, 57,171 deaths out of 297,053 were due to malaria.[4] Field work has to wait if husband, wife, or child are victims of this scourge. There are new ways of fighting the disease. New and effective drugs have been found, but hitherto they have not been available in Thailand in sufficient amount. However, malnutrition is probably a contributory cause to the high death rate from malaria. These problems can hardly be solved in a short period of time but the task to overcome them is underway.

Farmers Need More Capital

The previous discussion indicates that Thailand is an agricultural country. As such 90 percent of the cultivated land is used in rice cultivation, and about 80 percent of her population engage in agricultural productions. The average size of all of Thailand's farms is 40,000 square meters (about 10 acres); the average cash income per farm, from farm products sold, is baht 2,149 (approximately $171 at the official exchange rate); and the net worth per farm for all the

---

[4] Report of the FAO Mission for Siam, FAO, New York, 1948, p. 8.

farms is an average of baht 23,046 per farm (approximately $1,843). Farm indebtedness is extremely low due to the probable lack of the kind of credit which would enable the farmer to make use of improved means of agricultural production. During the past year farm indebtedness amounted to 2.69 percent of the total farm assets and the average debt for all farms was baht 421 per farm (approximately $33.50).[5]

It is believed that Thailand now has almost reached the limit of natural production from her rice land.[6] That is, under the present method of cultivation, the amount of rice produced will be more or less constant from year to year depending upon climate for its variation. From a study it was found that the area of cultivation had increased approximately 20 percent; however, the crop output had increased very little compared to the increase in area under cultivation.[7] Therefore, rice for domestic consumption and for export will gradually decline in proportion to the yearly increase in population, unless the system of cultivation is improved.

At the present time and probably for many years to come, any scheme for increasing farm production will demand a number of favorable

---

[5]This survey was completed by the Thai Government's Division of Agriculture, Economic and Land Use which was established in November 1953. It has been reported in the weekly paper, entitled Asian Student, March 1954.

[6]Thailand and Her Agricultural Problems, Bangkok: Ministry of Agriculture, 1950, Revised Edition, p. 5.

[7]Ibid, p. 127.

conditions. Theoretically, the rate at which the supply of farm products expands depends upon advances in technology, improvement in the skill of farm people, and investment (or disinvestment) in agriculture, the latter including the development of land resources and changes in producer preferences.[8]

In order to avoid stagnation of the level of rice production in Thailand the government of Thailand is attempting to encourage more extensive plantings and foster a higher per rai yield (1 rai = .4 acre). Better control of irrigation water to permit rice cultivation on a wider scale with increased yields is the first attempt. These irrigation projects, commanding about two million hectares, are under construction in Thailand. The individual farmers who benefit by an irrigation scheme are usually required to provide for minor irrigation of their own farm and pay for the services they receive. As a result of this irrigation project, it is believed that much abandoned and uncultivated land may be put to productive use. This, of course, will require additional capital investments.

On the main staple crop of the country, rice, fertilizers have not been employed. In the pre-war period, the high cost of fertilizer in comparison with the prices obtained for rice has made their use unprofitable. However, under today's cost-price conditions, fertilizer can prove to be very profitable in rice production. Rice yield from

---

[8]Theodore W. Schultz, Agriculture In An Unstable Economy (New York: McGraw-Hill Book Company, Inc., 1945), p. 74.

land already under cultivation can be increased by improving water control, application of manures and fertilizers, improvement of varieties, better cultivation, and by control of pests and diseases. All of these result in additional costs to the farmers.

In some areas upland rice is produced by cutting down trees and underbrush at the beginning of the dry seasons, and then burning the whole lot to ashes just before the beginning of the rainy season. The cultivation of upland rice depends much on the fertility of the soil. It is rather primitive in nature and is shifted from place to place as soon as the initial fertility of the cleared land is lost. This method of cultivation is practiced in most parts of Thailand. This type of cultivation is damaging the forests, which are part of the nation's wealth. However, this is a problem still to be solved in Thailand. In the opinion of the author, new methods of cultivation, soil conservation, rotation practices, and use of fertilizers, should be introduced to avoid shifting cultivation. These methods, of course, call for additional capital.

So far as Thailand is concerned mechanical cultivation in rice lands has been under trial with some success for quite a number of years. The imported tractors have been sold to individuals either for custom plowing and/or for working their own large holding. But it is evident that when a farmer pays out cash to get his field plowed, he has made that much expenditures already; whereas, if he does his own plowing with buffaloes, this cash outgo would be saved and his

labour income increased by the amount.[9] However, opportunities for mechanization are not so many and apply only to large holding of which there is not a great number.

It must be pointed out here that the afore-mentioned increase in production is impossible without additional financial assistance to the farmers. Despite the greater cost, this "increase-in-production" method is believed to be profitable to the farmers because of the high level of present farm prices. However, whether it proves to be profitable or not, the method is dependent upon the relation that exists between cost and price factors. In other words, the amount of the farmer's additional investment is dependent upon the cost of producing an additional unit in cases in which it is profitable. The profit of the farmer will consequently grow. Thus, under theoretically ideal (competitive) conditions, production is carried to the point where marginal cost equals price.

In addition, the author would like to point out some specific recommendation of the FAO Mission for Thailand in regard to the additional capital required by cooperative organizations.

> For cooperatives land-improvement . . . the cooperative can raise small amounts of capital from its own members and borrow other small amounts from the Bank for Cooperatives to carry out its plan of action. (erecting bunds (dikes), installing pumps, diffing small ditches.)[10]

---

[9] Thailand and Her Agricultural Problems, Bangkok: Ministry of Agriculture, 1950, Revised Edition, p. 13.

[10] Report of the FAO Mission for Siam, FAO, Washington, 1948, pp. 89-90.

> . . . the cooperative credit program should be expanded to include the making of loans to tenants who are now largely excluded from the credit program by reason of their lack of security. Loans should be available for consumption and/or production purposes.[11]

> For the cooperative paddy sales societies: . . . that larger amounts of working capital be made available to the cooperative paddy sales societies. When loans from the Department of Cooperatives are granted to augment the working capital of the paddy sales societies, the grants should be made at the time they are needed.[12]

> This program of credit expansion, . . . is contingent upon providing the cooperative societies with more capital. It would seem wise for the Bank for Cooperatives, an agency of the Siamese Government to make plans for borrowing more capital which will cover loans made through the credit societies. It is useless for the Department of Cooperatives to think of lending money to tenants unless the Government and the Bank for Cooperatives are prepared to provide more loan capital.[13]

As has been discussed it is evident that the farmers are in need of a larger amount of additional capital and the cooperative program must be responsible for this requirement.

Land Tenure

It has been reported that Thai farmers are their own Masters. About 87 percent of all the farm land is actually tilled by farm owners making Thailand's percentage of owner-operated farms the highest in all of Asia and the Far East.[14]

---

[11] Ibid, p. 97.

[12] Ibid, p. 98.

[13] Ibid, p. 98.

[14] The survey was completed by the Thai Government's Division of Agriculture, Economic and Land Use which was established in November 1953. This information has been reported in the weekly paper, entitled, Asian Student, March 1954.

It appears then that Thailand has a small percentage of tenancy. But according to the Report of the FAO Mission for Thailand, the tenancy problem is most acute on the Central Plain which is the big bowl of rice production. However, the information to this matter is not available to the author and a quotation will be presented.

> The tenancy problem is most acute on the Central Plain. The undesirable conditions usually associated with tenancy are present. Landlords in most cases have provided practically no housing. Tenants who have had a poor crop are likely to steal away in the night, carrying their meager possessions, rather than meet their share-rent obligations. As elsewhere, a high degree of tenancy is associated with unstable social conditions. Notable features are: little respect for the law, lack of education, and poor farming practices. Neither the landlord nor the tenant gives much thought to the productive factor--the land. The tenant is unwilling to improve the land, for none of the value created by his efforts will accrue to him. The landlord is unwilling to improve the land, for he cannot trust the tenant. Thus, land improvement, with a corresponding increase in productive efficiency, does not and cannot take place in this unhealthy situation.[15]

It is clear even to the casual observer that the tenant situation is unhealthy, unstable, and badly in need of correction so that they will have opportunity to obtain benefits from the cooperative program the same as their fellow farmers.

---

[15] Report of the FAO Mission for Siam, FAO, Washington, 1948, p. 98.

CHAPTER II

RURAL COOPERATIVE CREDIT IN THAILAND

Thailand is an agricultural country where farmers lack adequate low-cost credit to increase farm production. The government of Thailand is attempting to solve this problem through the use of a cooperative credit system. However, this system is faced with an inadequate supply of loanable funds for its members. Therefore, the purpose of this chapter is to describe what is meant by cooperative credit and to survey the present operation of the cooperative credit system in Thailand. It is believed such an examination will contribute to an identification of means to better channel funds from various sources to the hands of needy farmers in the rural areas.

Meaning of the Cooperative

The word cooperation implies many activities. It is difficult to formulate a specific definition that could be applied to all types of activities. Generally speaking cooperation means working together for a common purpose. Such collaboration may be simple and informal as when two or more farmers help each other thresh grain or erect buildings. On the other hand, cooperation may be exemplified by huge business enterprises carried on through formal business organizations.

Many definitions of cooperation have been formulated. Some have been all inclusive; others have stressed particular aspects of

cooperation such as the economic, social, or legal phases. According to Dr. Orion Ulrey, a cooperative is a non-profit business association of two or more persons for their mutual benefit as individuals. It is basically an organization of people which is democratically controlled, limits the return on capital, and distributes any savings or benefits to patrons on the basis of the use by each.[1]

There are three main ways in which a cooperative business differs from a commercial business:

1. A cooperative business is set up by a group of individuals to obtain profit by performing services for themselves rather than by rendering services to others.

2. A cooperative distributes any surplus income over the cost of doing business among those who are served by it in proportion to their use of its services--not in proportion to their investment.

3. A cooperative is controlled by its patron members, each of whom ordinarily is allowed a single vote--not by the owners of its capital stock in proportion to the number of shares they hold.

A cooperative is a type or form of business but it is different, as indicated in the previous discussion, from commercial business. It is a form of business designed to fulfill certain specific needs of farmers. The cooperatives can be grouped according to what they are set up to do. Attempting to classify all the types of activities

---

[1]Dr. Orion Ulrey, Associate Professor in Agricultural Economics, Michigan State College, Mimeographed Lecture, 1951.

performed by cooperative organizations is not the purpose of this paper. The cooperative credit associations to be discussed in just one type among many. They have been organized by farmers in the rural areas to obtain loanable funds and to render service at cost for their members at a reasonable rate of interest. It is a bank of a particular kind assisting that class of people who would otherwise be driven to a usurious money-lender. The distinctive features of the cooperative bank are two: (1) the banks are controlled by and profitable to the members who make use of them; (2) individual personalities as well as material security of land or fixed property are used as a basis for extending credit.

Meaning of Credit

Credit has been defined in many different ways depending largely upon the point of view of particular writers and their desire to emphasize certain aspects of credit. To understand how the term credit will fit in with the term cooperative, it is necessary to determine credit from different points of view. According to Dr. Emil Samuel Troelston,[2] there are four ways of looking at credit by different persons: (1) that of the economist, (2) that of a credit institution, (3) that of a creditor, and (4) that of a debtor.

---

[2]E. S. Troelston, The Principles of Farm Finance (Saint Louis: Education Publishers, Inc., 1951), p. 36.

The economist views credit as an instrument which makes possible a flow of goods in the modern world. In another word, credit is the power to secure present money or goods or services on the promise of returning a future equivalent.[3] By this view, credit facilitates the transference of goods from the seller to the purchaser, with agreement of payment at some future date. For example: A farmer may not be able to pay for his farm land and buildings when he receives title to them, but he promises to pay for them on a specified date in the future.

Credit institutions look upon credit as a commodity to be bought and sold.[4] Often, however, it is inconvenient or expensive for both sellers and buyers to wait for a period of time before being paid. In such cases funds to meet these transactions may be obtained from institutions such as commercial banks and investment companies.

A creditor may define credit in terms of confidence. He views credit in this way, because the individuals he usually trusts with his capital are only those in whom he has confidence. The creditor must ordinarily think that those who become indebted to him have both ability and willingness to repay.

To the debtor, credit is something that, to a greater or lesser degree, he possesses whether it be tangible and/or intangible

---

[3]John Ise, Economics, Harper and Brothers Publishers, 1950, p. 334.

[4]E. S. Troelston, op. cit., p. 36.

assets. Credit to him is that something which he has that enables him to obtain, upon his promise to repay in a certain way at a definite future date, the use of capital owned by others to increase his income.

Credit, from different points of view seems to be a privilege secured by an individual to obtain and use needed properties or wealth from other persons and repay it at a specified future date. Therefore, credit may be defined as something intangible that belongs to the individual. People can obtain varying amounts of credit depending upon personal qualities such as integrity, foresight, initiative, and business judgment, and upon the amount and type of tangible assets owned and controlled.

However, farmers can not always use their privilege effectively in comparison with other producers in the city. This is due to uncertainty of production, price, and distance, both geographic and cultural, from the creditor. Such is the reason why they often organize themselves to solve their own problems.

Agricultural Credit Agencies

The agencies which supply agricultural credit in Thailand are as follows:

1. private money-lenders, landlords, village shopkeepers and merchants,
2. commercial banks,

3. the Government,

4. cooperative societies like credit cooperatives, colonization cooperatives, land hire-purchase cooperatives, credit and land improvement cooperatives, and some paddy marketing cooperatives.

The organization of these various agencies and their role in the sphere of agricultural finance are briefly explained below:

(1) Private money-lenders: Private money-lenders represent not only the most important but also the simplest agency supplying agricultural finance in this country. The transactions are between the lender and the borrower on an individual and informal basis. In Thailand, as in most oriental countries, it is difficult to define precisely a private money-lender. In addition to the professional money-lenders for whom money lending is the main source of earning, there are a large number of non-professional money-lenders who lend generally only to such farmers as come into contact with them in the pursuit of their main occupation, e.g., the landlord lending to his tenant or the village shopkeeper to such farmers as promise to buy their requirements and sell their produce through him. Another type of private money-lender is the merchant dealing in agricultural produce who makes advances on standing crops at high rates of discount. The advances are often conditional on the whole crop being sold immediately after harvest to the person

making the advance. The total advanced by the private money-lenders is about 90 percent of the credit obtained by farmers.[5]

The funds employed in the lending activities of private money-lenders are mostly their own. The money-lender can supply both short-term and long-term credit. Small short-term loans may be supplied on personal security or on the security of produce but long-term loans are usually secured by tangible property like land or valuable jewelry.

Although the maximum legal rate of interest is 15 percent per annum, it is commonly known that the interest rates actually charged by the private money-lenders are greatly in excess of this rate. Certainly, the farmers with better security acquire loans for less than those without security, but the usual rates of interest are seldom less than 36 percent per annum.[6] It is difficult for farmers, regardless of the enterprise, to bear financing charges of such magnitude without detriment. It is this problem which the Thai Government, through its cooperative credit program, has endeavored to solve.

(2) Commercial banks: In Thailand, commercial banks only occasionally supply credit direct to prosperous farmers living in urban rather than rural areas. Such credit is extended solely on the basis of tangible security, usually in the form of mortgages on real estate within easy reach of the banking offices. In a majority of cases, loans granted by the banks do not exceed 50 percent of the estimated

---

[5]Summary of Principle Features of Agriculture Credit Facilities in Thailand, Bangkok: Ministry of Cooperatives, 1953, p. 2.

[6]Ibid, p. 2.

market values of the lands mortgaged to the banks. As a rule, the term of the loans is one year with renewal privileges. The rates of interest charged by commercial banks vary between 7-1/2 and 12 percent per annum.[7]

In practice, the activities of commercial banks in the agricultural credit field are limited. Since a small farmer's circumstances cannot be discovered by a commercial bank in a city, except by a long and detailed inquiry which expense neither a bank nor a small farmer can bear, the commercial banks only lend to big farmers whose wealth and status are known. This fact, coupled with the short-term nature of their liabilities which usually limits lending operations of commercial banks to short-term credit, prevents the banks from furnishing effective help to Thai farmers.

(3) The Government: The Ministry of Cooperatives has been extending credit from Government appropriated funds for financing agricultural production and marketing through cooperatives other than credit societies. As of May 31, 1953, the following amounts were outstanding to them.[8]

	(Baht 1 = 7.967¢ U.S.)
Marketing cooperatives	Baht43,068,308.52
Processing cooperatives	6,179,465.10
Colonization cooperatives	1,532,483.86
Land hire-purchase cooperatives	1,372,140.91
Credit and land improvement cooperatives	1,817,081.89
Total	53,468,480.28

---

[7] Ibid, p. 2.

[8] Ibid, p. 4.

Loans are granted to these cooperatives by the appropriate departments of the Ministry. The colonization, land hire-purchase, and credit and land improvement cooperatives extend productive loans to the members. Some paddy marketing cooperatives advance funds to their members to pay harvesting expenses.

(4) Cooperative credit: The most important institutional sources of agricultural credit on which increasing reliance is being placed are the cooperative societies. The cooperative agencies which have been supplying substantial amounts of short and long-term credit for agricultural finance are credit, colonization, land hire-purchase, credit and land improvement, and paddy marketing cooperatives. The rest of this chapter will be devoted to a discussion of the cooperative credit agency.

Agricultural Credit Cooperatives

Origin and Development

The agricultural credit cooperative movement was inaugurated in 1916 when the Department of Commerce and Statistics organized the first credit cooperative society at Wat Chan, a village in the Province of Phitsanulok. The type of agricultural credit cooperative considered best adapted to the local conditions and needs was based on what is known as the Raiffeisen model serving a closely restricted area with a membership usually not in excess of 20. These societies rest on the mutual acquaintance of all members and their joint and unlimited

liability. As the scheme was intended, at the beginning, merely to be in the form of an experiment, no special Cooperative Law was enacted. The legal requirements of the scheme were met for the time by an amendment to the Law on Associations, passed in 1916. By 1920, the number of credit cooperatives reached 60, and a Department (now Ministry) of Cooperatives was constituted to organize, supervise, and develop cooperative societies. By 1928, a separate cooperative Law was promulgated as "The Cooperative Societies Act, B.E. 2471 (1928)", giving wide scope to the activities of cooperatives. It under-went slight modifications in 1934 and is still in force.

Reasons for the Growth

Although agriculture has been the main occupation of Thai people and the great source of the economic strength of Thailand from time immemorial, economic conditions of the farmers were found acute compared with other business enterprises. Following World War I, a boom in rice production and a rise in prices caused the farmers to become prosperous. High rice prices tempted farmers to increase their holdings by acquiring land on borrowed capital from private lenders. The depression which followed caused a great distress to the farmers because they were unable to meet their obligations. Farmers suffered with the burden of heavy debts and high rates of interest on borrowed funds. This resulted sooner or later in their mortgaged lands being foreclosed and their title-deeds passed on to the creditors. About the same time, 1917, one of the floods that occur about every 25 years

caused great distress to rice farmers in the Central Plain which is the main rice-producing area.

To assist these farmers the program of cooperative credit, which was introduced for experimentation, had been conceived. After the preparatory work of organizing a new Department was completed and workers trained for the field, the cooperative credit in the form of Raiffeisen, serving a closely restricted area, was expanded in 1919.

Cooperative Credit in the Period of Experimentation (1916-32)

After the cooperative credit program was conceived, the first task was to convey an understanding of the principles and methods of cooperative credit to the farmers. As a principle of cooperation, the members of a cooperative credit system must be the farmers who take an active part in organizing it. However, Thai farmers in general are illiterate. They had great difficulty in taking the initiative and operating the system successfully. Therefore, the government officials, especially in the area of experimentation, assumed the responsibility of spreading this knowledge among rural farmers. Even among government officials, the cooperative idea was new. In order to gain cooperation from the rulers of the districts and communities, the knowledge of the cooperative principle had to be spread to them.

Fortunately, among the leaders was a man who had developed the ability of public speaking. As a result of his speaking ability, he was very instrumental in spreading, convincing, and helping the

illiterate and conservative farmers comprehend the advantages of employing the principle of cooperation in their agricultural program.

The first cooperative society consisting of 16 members was formed in 1916. It utilized a meager sum of baht 3,000 (baht 1 = 7.967¢ U.S.), from the Thai Commercial Bank, with the Thai government as guarantor. The cooperative credit society loaned this sum to its members for the retirement of old debts and required them to repay the principal amount of baht 1,300 at the end of 1917. By the end of 1917, all members were able to meet this requirement, and their debts had been 50 percent retired within one year. Partly because of World War I, progress during the first fifteen years of its existence was rather slow. At the time there were few government officials engaged in the cooperative program. Some of them, especially the Director-general, was directed to work in another field. Up to the date of the Coup d'Etat of June 24, 1932 which made a change from the Absolute Monarchical form of government to a Constitutional Monarchy in this country, there were only 191 cooperative credit societies with 2,935 members, utilizing a sum of baht 1,307,785.07.

Illiteracy and conservativism of the farmer, as indicated earlier, created difficulty not only in communication but also resulted in widespread misunderstanding and a sense of suspicion toward those who were trying to sell this new idea. This feeling was due to the fact that the government had never before taken the initiative in introducing such a program. Heretofore, procedures of this nature originated with local groups rather than with higher levels of government. However,

those who understood the program could help much in assisting in its organization and operation.

Sources of Credits

As indicated earlier, Thailand launched the first cooperative credit society in 1916. The Department of Commerce and Statistics had been appointed to carry on the cooperative program and supervised the credit societies in their organization. The Director-general of this Department was authorized to obtain loanable funds. An amount of baht 300,000 was obtained through the Thai Commercial Bank (incorporated bank), with the Thai government as guarantor.[9] This sum was later increased, as number of societies increased from 1 to 91 societies, to an amount of baht 2,000,000 in 1928.[10] Between 1933 and 1936, after Thailand changed her form of government, the cooperative societies were granted a loan of baht 3,100,000 directly from the government treasury. This shows the trend of sympathetic feeling of the public. During the following two years, the Saving Bank loaned to cooperative credit societies a sum of baht 5,500,000.

Credit from the above sources were obtained at 6-1/2 percent interest per annum compounded quarterly. The societies in turn loaned

---

[9]Udit Narksawat, The Development of Cooperative Credit in Thailand, Master Thesis, 1953, Bangkok, Moral and Political Science University, p. 34.

[10]Ibid, p. 33.

TABLE I

NUMBER OF CREDIT SOCIETIES, MEMBERSHIPS AND AMOUNT OF LOANS DURING EXPERIMENTATION (1916 to 1932)[a]

Years	Number of Credit Societies	Number of Members	Total Loans (Bahts) (baht 1 = 7.967¢ U.S.)
1916	1	16	3,000.00
1917	13	184	53,780.00
1918	14	203	55,365.00
1919	26	500	[b]
1920	60	1,190	303,668.77
1921	60	1,200	[b]
1922	60	1,250	[b]
1923	64	1,260	[b]
1924	69	1,300	[b]
1925	77	1,440	[b]
1926	77	1,390	325,705.00
1927	81	1,510	[b]
1928	91	1,450	[b]
1930	128	2,120	[b]
1932	191	2,935	1,307,785.07

[a]Udit Narksawat, The Development of Cooperative Credit in Thailand, Master Thesis, 1953, Bangkok, Moral and Political Science University, pp. 48-49.

[b]Figures are not available.

to their members at 9 percent and 12 percent for long and short-term loans respectively. The loans are collectively guaranteed by farm mortgages of individual members. In 1933, the government asked the Thai Commercial Bank to reduce their interests charge down to 4-1/2 percent, which caused the interest charged to members of cooperative society to be reduced to 7-1/2 for long-term loans and 9 percent for short-term loans.

The cooperative credit societies had, therefore, three sources of funds: (1) that from Thai Commercial Bank, (2) that from the government treasury, and (3) that from the government saving bank.

Due to the rapid increase both in the number of societies and their memberships, the credit from the afore-mentioned sources was no longer sufficient to satisfy the large requirement of the farmer members. From 1938 to 1941, the government issued a series of bonds, the Central Bank of Thailand acting as an agent, to finance the cooperative societies to an amount of baht 15,700,000.

In January 1947, the Bank for Cooperatives was sponsored by the government and commenced its operations with a capital of baht 10,000,000, granting loans to cooperative societies at 6 to 7 percent and they in turn loaning at 8 and 10 percent for long and short-term loans. The detailed discussion of this bank will be found in subsequent sections of this study.

However, it has been reported that the credit from these credit agencies, other than the bank for cooperatives, is limited and has

high interest rates. The establishment of the bank for cooperatives led to the reduction in interest rates on loans obtained by societies which in turn resulted in a decrease in interest rates on loans obtained by members from their societies.

Working Capital of Cooperative Societies

In Thailand, the cooperative credit societies have never issued capital stock of any kind to their members or other share-holders. The working capital of a credit society is made up of (1) entrance fees and a reserve; (2) the deposits of members and non-members; and (3) specific loans from individuals or banks, especially from the central cooperative bank.

The cooperative credit system is designed to serve the dual purpose of providing sources for borrowing at reasonable rates and facilities for accumulating savings so that the rural farmer will have accessible credit. It has to do, therefore, with thrift and credit, both of which are equally important.

From the author's experience in the Cooperative Department and a personal interview with a key official of the Ministry of Cooperatives, it was found that the creation of working capital through the fees, reserve, and deposits is relatively small. This is pointed out in the following figures. In 1940, for example, there were 2,263 societies with 32,614 members. The deposits from different sources are as follows:

(1) of members	baht	20,683
(2) of non-members		42,478
(3) of other cooperative societies		37,678
Total		100,837

The average deposit per society is baht 44.55, and the average per member is baht .63. Comparing with total assets (baht 13,092,338) it is only 0.77 percent. (These figures have been estimated from table IL)

The general tendency of the cooperative system in Thailand is to create adequate capital rather than acquiring profits from its operation. Therefore, any amount left after expenses is set aside as reserves. It has been stipulated in the articles of association as follows: 90 percent of the earnings go to the "Cooperative Reserve Fund" for future services to the societies themselves (cooperative credit societies), e.g. to meet losses appearing in the balance sheets or to make loans to members, if large enough. Five percent is allotted to the "Cooperative Public Welfare Fund" to be used for the promotion of public welfare in the community, and the other 5 percent is carried to the "Central Cooperative Fund Account" of the Department of Cooperatives. This last-mentioned item is provided for in case any society should become insolvent when liquidated, so that its failure cannot effect the government.

The small number of members in a society and the low rates of interest are factors causing the reserve to be small. It has been shown in the composite balance sheets for cooperative credit societies

TABLE II

COMPOSITE BALANCE SHEETS FOR COOPERATIVE CREDIT SOCIETIES, 1940[a]

Assets		Liabilities	
Cash on Hand	678,886	Loans (Coop. Bonds)	11,782,749
Deposits:		Cooperative Shares & advancement from other sources	299,170
Dept. of Coop.	207	Deposits:	
Other Coop. Offices	27,634	Members	20,683
Changwat Coop. Offices	33,512	Non-members	42,478
In Banks	1,943	Other Coop. Societies	37,676
Savings Bank	60,050	Coop. Utility Fund	27,979
Loans to members	11,765,819	Reserve Fund	524,584
Loans to other coop.	85,038	Profits awaiting Distribution	202,071
Physical Properties:		Outstanding Bills Payable	154,948
Land	86,218		
Other	341,263		
Profit and Loss	11,768		
Total	13,092,338	Total	13,092,338

[a]Statistical Year Book Thailand, Central Service of Statistics No. 21, 1939-40 to 1944, Bangkok, Thailand Government, pp. 500-501.

CRANESEAT CREST

in 1940, that the total amount of reserves of all societies was baht 552,563.[11] The average accumulation of reserves of an individual society was only baht 244.17.

It is seen, therefore, that the creation of working capital through the fees, reserves and deposits by the credit society is relatively small and insufficient to loan it to members.

Organizing Cooperative Credit Societies

Since the cooperative credit society in Thailand is designed after the Raiffeisen principle, the number of members and the area of operations are usually small. One society usually consists of 10 to 20 members. The credit societies are associations of landowners supervised and controlled by the government. They must be neighbors carefully selected on the basis of their good characters, industrious habits, and friendly dispositions. All have some visible and tangible assets--their farm, livestock, or equipment. Thus, if one of them receives a loan, he will likely be able to repay it because the fellow members or officers who are intimately acquainted with him know beforehand whether he is good for the amount and whether he uses the loan for the specified productive purpose for which it was granted. In the other words, the cooperators are liable jointly and severally for obtaining capital from third persons.

---

[11] Statistical Year Book Thailand, Central Service of Statistics No. 21, 1939-40 to 1944, Bangkok, Thailand Government, pp. 500-501.

It must not be overlooked that unlimited liability is one of the major causes which made most of the farmers refuse to join the cooperative credit society. However, if one makes a careful study of the articles of the credit society, this statement will hardly affect the members. If their judgment should be wrong or if the crop or venture fail, there are many answers to which the society may resort before calling on the members' unlimited liability. For instance, if one of the borrowers fails to fulfill his obligation, the borrower's property is the first defense line. If the property of the borrower brings nothing on an execution, the creditor may sue his indorsers or guarantors (members in the same society). Nevertheless, this situation would hardly affect the indorsers because the society will not allow any member to borrow more than 60 percent of the property pledged as security. Therefore, the adoption of unlimited liability is not a matter of principle but of expediency. By offering as security the full amount of property of its members, a society attracts savings deposits more readily and improves its credit position in the eyes of bankers and others from whom it may wish to borrow.

Members of the credit societies are not allowed to become members of another society having unlimited liability but may belong to or be a member of other types of cooperative societies which do not have this characteristic, such as Cooperative Marketing, Cooperative Purchasing, or Consumers' Cooperatives.

Taken as a whole, the cooperative credit society in Thailand is found to be developing on a sound economic basis and dominates the

cooperative scene. Out of a total of 7,633 societies of all types at the end of 1949, 7,300 were credit societies.[12] In 1951 there were 7,631 credit societies with a membership of 166,225 and in 1952 there were 8,856 societies (number of members are not available), (see table III).

Organs of Administration

The organs of administration of the cooperative credit society are three: (1) the committee of management, (2) the board of supervision, and (3) the general meeting of members.

The essential functions of each of these is stipulated in its by-laws which leaves other matters of procedure and practice for regulation by the society in its articles of association and business rules. The appointments to the committees may only be made by the general meeting of members by a majority vote. In most credit societies the number of individuals composing the committee of management is usually fixed at three (chairman, secretary, cashier) owing to the legal provision requiring all documents, in order to be binding on the society, to be signed by two members of the committee. Election to the committee is generally for a period of one year. Their appointment may be cancelled at any time by the board of supervision, subject to confirmation by a meeting of members.

---

[12] Thailand and Her Agricultural Problems, Bangkok: Ministry of Agriculture, 1950, p. 93.

TABLE III

NUMBER OF CREDIT SOCIETIES, OF MEMBERS, AND AMOUNT OF LOANS SECOND PERIOD, (1932 - 1949)[a]

Years	Number of Credit Societies	Number of Members	Total Loans (Bahts) (baht 1 = 7.967¢ U.S.)
1932	191	2,935	1,807,785.07
1934	440	6,324	2,531,028.83
1936	766	11,057	4,339,185.46
1938	1,214	17,636	5,783,003.03
1940	2,263	32,614	10,993,385.08
1942	3,358	52,340	15,419,668.15
1943	4,021	65,099	22,170,086.78
1944	4,550	74,785	25,488,762.46
1945	4,780	75,126	23,599,232.78
1946	4,780	81,379	27,208,811.08
1947	5,379	93,552	48,192,597.58
1948	6,196	112,521	77,368,748.82
1949	7,300	133,028	110,033,248.36

[a]Thailand and Her Agricultural Problems, Bangkok: Ministry of Agriculture, 1950, p. 93.

The general powers and duties of the committee of management are defined in the cooperative societies by-laws. Thus, it is a common practice for credit societies to fix a limit at which loans may be granted by the committee to individual members. The committee is also responsible for the execution of the obligatory legal audit within the statutory period, and for the fulfillment of all necessary legal formalities as to registration of the articles, notification of new members, etc.

The board of supervision consists of the committee of management and other appointed members. The board of supervision is responsible for the supervision and general control of the activities of the committee. The board of supervision must examine the yearly accounts, balance sheets, and proposals for the assignment of profit and losses and must present the same to the general meeting of members for approval.

In the general meeting of the members individuals exercise their rights in determining the managerial policies of the society. In the general meeting there rests the supreme authority of the association.

Such duties, it must be remembered, are apt to appear abnormally difficult to the farmer, who is consequently unwilling to undertake them. In Thailand, where peasant proprietors constitute the bulk of the farming class, the persons qualified for such responsibility are difficult to find. The government officials have to assume the responsibilities in helping these societies at all times.

The remuneration of the committee for their services consists of a small amount for transportation and meals. Such remuneration may hardly be regarded in the light of regular payment. Current administrative expenditure consists mainly in the cost of transportation, meals, and stationary. The Ministry of Cooperatives provides free service of audits to credit societies throughout the country.

In practice, the success of a society depends mainly upon the capacity and integrity of the secretary and of the chairman of the committee of management. The actual number of meetings held in the course of a year by the board of supervision in a credit society is not great. The committee has to hold frequent meetings for the execution of ordinary business, but only when cases arise needing decisions reserved for the board or when the annual business statement has to be examined is it necessary for that body to meet. Most of the cooperatives' articles require at least two regular meetings in a year.

Methods of Lending

The cooperative credit societies were formed rapidly in the last 10 years to grant loans, both long and short-term. Interest rates are 8 and 10 percent, for long and short-term loans respectively, on mortgages of individual farmer members' rural property. The borrower has the choice to borrow from the cooperative credit society whenever he wishes and as many times as he wishes, provided the total loans never exceed 60 percent of the appraised value of his property.

Eligible members who wish to obtain a loan must apply to the committee of their credit society. After the eligibility of the property is determined by a committee composed of the board of management, board of supervision, and others from the credit society, the property is appraised on normal value by both the committee and a government officer (supervisor). Finally, the credit society decides upon the amount which would be safe to loan in the particular case. In addition to the property pledged as security, two members of the same society must countersign the loan contract.

The application is then sent for inspection to the local government office which acts as supervisor and connecting link between the credit society and the Bank for Cooperatives. After the application is examined by an officer, a written report concerning the qualification of the borrower, the value of the property offered as security for the loan, and the amount that would be safe to loan is forwarded to the Registrar's office in Bangkok. Here again the application is checked and approved. Then, it is sent with the registrar's letter to the cooperative bank. After a loan application is approved by the bank, a check for the amount the farmer is to receive in cash is sent by the bank to the local government officer, who then notifies the credit society to come to the office and pick up the check. The secretary-treasurer, in turn, gives this check to the borrower. The result of these processes, designed to avoid mistakes, causes too much delay to the farmer who needs funds during the productive season.

Unless the Registrar of Cooperatives sanctions loans to other societies, individual societies can make loans only to their own member. The maximum periods for which loans may be granted by credit cooperatives are fixed in relation to the purposes of loans as indicated below:

Purposes of Loans	Periods
Short-term loans	
(1) Current agriculture and domestic expenses.	One year or up to the time the produce forming the basis of the loan is normally marketed.
Intermediate-term loans	
(2) Purchase of agricultural implements and ceremonial expenses.	Two years.
(3) Purchase of cattle, carts, and pumping engines; erection and repair of buildings; construction and major repair to irrigation supplies, and other works of land improvement.	Three years.
Long-term loans	
(4) Liquidation of old debts incurred prior to admission into the society; bringing under cultivation waste, forest or fallow lands; installation or purchase of costly agricultural plant and machinery.	Fifteen years.

All loans are made on an amortized repayment plan. That means they are repayable in regular installments, usually over a period depending on the term of the loan. By making small regular payments annually or semi-annually, the farmer completely repays his loan with

interest by the end of the loan period. He does not have to pay a large lump sum at any one time.

A farmer may repay his loan ahead of time if he is able and wishes to do so. The credit society also will accept payments to be set aside and applied to future installments at the direction of the farmer. The borrower receives interest on these future payments at the same rate as that charged on long-term indebtedness (8 percent).

Size of the Loans

There is a limitation on the amount of money that farmers can obtain. The most that any farmer can borrow at any one time is baht 3,000 (baht 1 = 7.967¢ U.S.), and the farmer's outstanding debt on both long-term and short-term loans cannot exceed baht 5,000.[13]

The limitation completely disregards the value of land and farmers suffer because they cannot obtain the necessary capital to finance their operations. The farmers suffered heavily after World War II because operation costs and the entire cost of living rose to levels previously unknown.

The problem of this limitation was well expressed by Mr. Narksawat who studied the development of cooperative credit in Thailand.[14] He stated that the present size of loans is too small. After World

---

[13]Udit Narksawat, op. cit., p. 58.

[14]Ibid, p. 58.

War II, prices and the cost of living rose to high levels. The amount of baht 5,000 is not sufficient to meet the cost of farm operation.

Bank for Cooperatives

It has been indicated in the early part of this study that cooperative societies obtain their financial aid from the Thai Commercial Bank, Government Saving Bank, and Government Treasury. Over the years the number of credit societies and members steadily increased, and they required more credit funds. The credit funds offered by the above institutions were no longer sufficient.

Thus, in January 1947, the government had sanctioned the formation of a Cooperative bank with a capital of baht 10,000,000 divided into 100,000 shares with a value of baht 100 per share.

Each Cooperative society was required to own at least one share of the Cooperative bank before the bank would lend baht 5,000 to the cooperative society. If the society desired a larger loan, they were required to own additional shares of the bank according to the fractional value of the desired loan. Of course, if it were desirable to obtain a loan less than baht 5,000, only one share was necessary.

The cooperative societies have the option on the purchases of the cooperative bank's stock. However, as has been pointed out previously, the farmers who compose the cooperative societies usually have insufficient finances to purchase all the stock. Therefore, those shares that are not purchased by the cooperatives are bought by the

Ministry of Agriculture in the name of the government. In reality the act of Governmental buying is more in the form of a subsidy than an outright purchase. The government takes no active part in the management of the bank and is not desirous of having the label of "infiltrator". The government acts only in the capacity of a sponsor rather than a participating member.

Aside from the capital stock of baht 10,000,000, the bank for cooperatives obtains funds from the following sources: (1) debenture bonds for cooperatives issued by government, (2) saving bank, and (3) government loans. Table IV shows the financial statement of the Bank for Cooperatives during 1951-52.

It can be seen from table IV that the Cooperative Bank was able to increase its working capital from baht 131,381,028.66 to baht 193,482,688.23 from 1951 to 1952. The credit obtained from the Government Savings Bank is the largest amount; the next is the "Cooperative Bonds" issued by government and Government loans, but this was not the case in 1952. Although the bank has advanced appreciably in acquiring funds and reducing the interest rate, upon comparing the working capital with the loans outstanding as shown in tables IV and V, it becomes evident that the cooperative bank is still unable to provide satisfactory loanable funds to the cooperative associations. From table IV, the total amount of loans made by the bank is about equal to the amount of working capital.

Since the cooperative bank acquires its loanable funds mostly through borrowing, it must be remembered that credit provided by the

TABLE IV

FINANCIAL STATEMENT OF THE BANK OF COOPERATIVES
DURING 1951 - 1952[a]

	1951 Baht (baht 1 = 7.967¢ U.S.)	1952 Baht (baht 1 = 7.967¢ U.S.)
Sources of Working Capital:		
Share Capital	10,000,000.00	10,000,000.00
Total Deposits	10,939,028.66	23,206,088.23
Coop. bond issued by Gov't. (4-1/2%)	19,792,000.00	18,926,600.00
Gov't. Savings Bank loan (5%)	74,650,000.00	93,550,000.00
Gov't. Loans (4%)	14,000,000.00	45,000,000.00
Reserve	2,000,000.00	2,800,000.00
Total	131,381,028.66	193,482,688.23
Loans outstanding with credit societies	126,299,111.82	179,056,811.36
Net profit	2,010,259.41	2,062,814.17

[a]Summary of Principal Features of Agricultural Credit Facilities in Thailand, Bangkok: Ministry of Cooperatives, 1953, p. 8.

TABLE V

WORKING CAPITAL OF BANK OF COOPERATIVES,
1947 - 1952[a]

Year	Share Capital	Reserve	Deposits	Loans (bonds, savings bank, gov't.)	Total Working Capital
1947	9,981,925	100,454.74	760,185.82	27,890,000	38,732,565.56
1948	10,000,000	140,841.38	1,855,241.00	51,667,400	63,663,482.38
1949	10,000,000	524,452.83	7,028,194.27	75,658,800	93,211,467.10
1950	10,000,000	1,167,165.83	15,606,398.57	84,367,400	111,140,964.40
1951	10,000,000	2,000,000.00	10,939,028.66	108,442,000	131,381,028.66
1952	10,000,000	2,800,000.00	23,206,088.23	157,476,600	193,482,688.23

[a]Udit Narksawat, The Development of Cooperative Credit in Thailand, Master Thesis, 1953, Bangkok, Moral and Political Science University, p. 56.

afore-mentioned sources tends to be limited. The particular source of the issuance of debenture bonds to be sold to the investing public is especially limited. This limitation is due to the fact that Thailand does not have a capital market or stock exchange which some other countries have. The interest offered to investors is relatively low (4-1/2 percent) compared with other types of capital investments in the market. The investors are mostly Chinese who engage in mercantile and other activities in Bangkok. These merchants are not attracted by the 4-1/2 percent interest. The period of retirement for bonds is too long, causing hesitancy by investors who have little capital.

In Europe, such as Germany and in Asia (India), the major source of capital is coming from deposits. As in Punjab (India) in 1934, all the Central banks for the cooperatives had a deposit fund as high as 80 percent[15] and in Germany over 90 percent[16] of total working capital. In Thailand, as any one can see from table V, the deposits of the cooperative bank make up only 12 percent of total working capital. The uses to which the loanable funds of the Bank for Cooperatives were put are indicated for selected years in table VI.

The cooperative bank is not authorized by law to receive deposits from non-members or any outsiders. This is one of the reasons for low deposits. This situation is partly attributable to the comparative

---

[15] The Cooperative Movement in Punjab, 1937, Dacca, Pakistan Government, p. 182.

[16] J. R. Cahill, Agricultural Credit and Cooperation in Germany, Report to British Board of Agriculture and Fisheries, 1913, p. 20.

TABLE VI

LOANS MADE BY BANK OF COOPERATIVES, 1947 - 1950[a]

Year	Working Stock	Clearing Land	Repayment of Old Debts	For Redemption of Mortgage	Other Purposes	Total of Loans
1947	8,853,364.17	8,029,167.60	2,352,292.39	1,810,268.00	2,830,870.05	23,875,962.21
1948	12,201,190.00	9,935,667.00	4,758,435.40	2,648,757.00	2,830,870.05	36,280,405.67
1949	12,823,465.00	12,370,777.00	5,112,271.00	3,392,622.00	8,269,710.02	41,868,845.52
1950	7,891,058.08	7,144,865.00	2,886,384.20	2,155,980.00	6,325,583.49	26,403,897.77
1951	10,632,419.00	12,460,633.00	6,415,499.00	3,411,530.00	11,135,098.65	44,055,176.65
1952	17,023,493.00	25,206,287.00	9,433,151.00	5,829,539.00	19,920,876.92	77,413,288.92

[a]Udit Narksawat, The Development of Cooperative Credit in Thailand, Master Thesis, 1953, Bangkok, Moral and Political Science University, p. 51.

lack of capital in the respective provinces and especially to the remoteness of the centrally located bank to the credit societies.

CRANES CREST

CHAPTER III

AGRICULTURAL COOPERATIVE CREDIT IN U.S.A.

Introduction

The recent system of cooperative financing by farmers in the United States has evolved out of considerable study and a great deal of experimentation. Agricultural leaders were beginning to give attention to the problems of farm credit in the early 1890's. Many articles, reports and books were devoted to this subject during the next two decades.[1]

In 1912 the Southern Commercial Congress, meeting at Nashville, Tennessee, decided to send a commission to Europe. This group, known as the American Commission, was to examine the methods employed by progressive agricultural communities in production and marketing and in the financing of both these operations.

The purpose of these groups was to study the European system of rural cooperative credit and consider how it might be adapted to the needs of the American farmers. After the Commission presented a detailed report of its findings and recommendations, the Federal Farm Loan Act was signed by President Wilson in 1916.[2]

---

[1]Ward W. Fetrow and R. H. Elsworth, Agricultural Cooperation in the United States, Farm Credit Administration, United States Department of Agriculture, Bul. 54, p. 156.

[2]Ibid, p. 156.

Farm Credit Administration

The farm credit system, operating under the supervision of the Farm Credit Administration was set up in 1933 to make several types of loans available to farmers from cooperative sources. The most important of these are: long-term mortgage loans to assist farmers in acquiring farm property and for general agricultural purposes, and loans to farmers' cooperatives to assist them in acquiring necessary buildings and equipment, supplement their operating capital, and finance commodities and supplies in storage.

The United States is divided into 12 Farm Credit Districts. In each district the following four credit units are located in one central office: (1) A Federal land bank, which makes loans principally through national farm loan associations. (2) A production credit corporation, which assisted in organizing and capitalizing local productive credit associations and now supervises their operations. (3) A district bank for cooperatives, which makes loans to farmer cooperatives. (4) A Federal intermediate credit bank, which acts as a bank of discount to supply short-term funds required by productive credit associations, farmer cooperatives, banks for cooperatives, commercial banks, and other private financial institutions.

The organization of the Farm Credit Administration, then, consists of two main parts, the Washington head-quarters and the twelve district offices. In addition, there are local loan cooperatives which are indirectly a part of the Administration. The Washington head-quarters will be discussed first.

Central Office

It must be remembered that the Farm Credit Administration in Washington is a supervising, not a lending, organization. It coordinates the activities of numerous credit units which make farm loans, but it does not make loans itself.

The administrator in charge of the Farm Credit Administration is called the Governor. He maintains his office at the Washington head-quarters and is directly responsible to the Secretary of Agriculture. He is appointed by the President of the United States by and with the advice and consent of the Senant and the Secretary of Agriculture for a term of six years at a salary of $10,000 a year.[3] The Governor has one or more assistants who are designated as deputy governors.

There are four credit divisions, namely, (1) the Land Bank Division, (2) the Intermediate Credit Division, (3) the Production Credit Division, and (4) the Cooperative Bank Division. Each of these four divisions is headed by a Commissioner with an annual salary of $10,000 who is appointed for an indefinite term by the president, by and with the advice and consent of the Senate.

The duties of the Governor and the four commissioners are mainly policy making and supervisory. The Washington head-quarters staff concerns itself chiefly with interpretation of legislative

---

[3]William G. Murray, Agricultural Finance, Ames: The Iowa State College Press, 1949, Second Edition, Revised, p. 208.

enactments under which the farm credit unit functions, formation of uniform regulations, examinations, research, and consultation with the officers of the district credit units at which they discuss and arrive at policy decisions.

District Offices

The twelve district offices have organizations similar, in many respects, to that in the Washington head-quarters. The major difference is that each district office is governed by a farm credit board and advisory committee. Upon nomination of the Governor, the board appoints a general agent who acts as coordinator and representative of the Governor.

The district farm credit board is made up of seven members. Two are elected by the members of the local credit associations and one is elected by farmers' cooperative associations borrowing from the district banks for cooperatives. Four are appointed by the Governor, except that one of these must be from a list of three nominated by local farm loan associations.

The administrative head of the district office is the "general agent". The advisory committee of the district office is made up of the general agent and the presidents of the four principal credit units which compose the Administration. The general agent in each district has a staff which corresponds roughly to the service division in the Washington head-quarters. The staff may include the following divisions: legal, information, personnel, research, accounts, and

statistics. The staff is paid by the district credit unit. It must be understood at the beginning that this level is ready to make loans to the individual borrowers through the cooperative association.

Local Organization

Two of the credit units, namely, the Federal Land Bank and the productive credit systems, have local associations. These local associations, called national farm loan associations and production credit associations, are made up of farmer-borrowers who obtain credit through the Federal land banks and the intermediate credit banks. The national farm loan association is composed of farmers who borrow from Federal land banks. The production credit associations obtain most of their loanable funds from the intermediate credit banks. These associations are cooperative; every borrower has stock and membership in the association. Each association elects a local board of directors which, in turn, employs a secretary-treasurer. He conducts the business of the association, taking application, assisting in the making of loans, collecting interest and principal payments, and acting as the chief intermediary between the district banks and the borrowers. Discussion of the individual organization and operation of these local associations will be treated in the latter part of this chapter.

Organization and Operation of the Federal Land Banks

The Federal land banks were chartered and began operation early in 1917. To get the system started, the government provided $750,000

for each bank in the districts.[4] The Federal Farm Loan Act provided a formula whereby borrower capital replaced Government capital, thus providing a means for the banks to become entirely farmer-owned. After almost all the original capital was repaid, additional subscriptions were made by the government in the amount of $125,000,000 in 1932, which was again repaid in full by June 1947.[5] The 12 Federal land banks are now owned entirely by the national farm loan associations. The Federal land banks are authorized to make direct loans in areas where the facilities of national farm loan associations are not available.

It should not be overlooked, however, that the government did not actually receive any return, either in interest or dividends, on the capital which it put into the system in 1932. Moreover, even though the $125,000,000 capital fund is all returned to the Treasury, it still remains available for the repurchase of capital stock in the Federal land banks whenever the need for it arises.[6] The government contributed considerably more than the capital stock. As a result of its furnishing capital, the government was legally entitled to an interest return on its loan of funds. However, the interest was not actually collected, because the charge went through the government's

---

[4]Ward W. Fetrow and R. H. Elsworth, op. cit., p. 159.

[5]Ibid, p. 159.

[6]William G. Murray, op. cit., p. 227.

accounts only by an entry to dispose of that charge. Effectively, the government was leaving the interest charge it was to receive in the hands of the banks to provide additional funds. This action is further exemplified by the government's action in regard to deferments, insurance, advances on taxes, etc.--to the paid-in-surplus account of the Federal land banks.

Indirectly, the government funds have enabled the banks to build up their reserves so they can operate without the need of additional support. Anyone can see that the government's subscription of capital and paid-in surplus was a substantial aid to the system.

A bank was not permitted to loan any of its capital funds. Most of the proceeds from the sale of stock was to be invested in a specified type of security, predominantly government bonds. Those securities could be used to secure federal land bank bonds which the particular bank might issue. The banks were required by law to set aside 25 percent of earnings in the surplus until the surplus amounted to one-fifth of the outstanding capital stock after which only 5 percent of earnings had to be so set aside. This provision allowed the banks to pay 75 percent of their earnings in dividends to the farm loan associations which might either keep the funds in the association or pay them out as dividends to the borrowers.

Funds used in the lending operations of the Federal land banks are obtained from the sales of consolidated Federal farm loan bonds to the investing public. These bonds are not quaranteed by the Federal Government but are the joint and several liability of the 12 Federal

land banks and are collateralized primarily by the farm mortgages held by the banks. However, no bank is permitted to issue bonds in an amount greater than twenty times its capital and surplus. Ten-twenty, or ten-thirty years bonds were most commonly issued. Bonds were usually sold directly to trust funds, saving banks, the United States Treasury, or on the open market.[7] The national farm loan associations and the Federal land banks serve to bridge the gap between farmers needing long-term credit and investors in the cities.

Objectives of Loans

Land bank loans may be made for the following purposes: (1) to provide for the purchase of land for agricultural purposes; (2) to provide for the purchase of equipment, fertilizers, and livestock; (3) to provide buildings and improvements of farm land; (4) to pay any indebtedness secured by a mortgage on a farm indebtedness of the applicant, incurred for agricultural purposes or other debts incurred at least 2 years prior to the date of the application; (5) to provide the owner of the land with funds for general agricultural uses which include living expenses of the applicant while engaged in farming, medical and funeral expenses, education of the applicant's children, etc.

It should be born in mind that land bank loans are made on a sound loan basis that will serve the constructive credit needs of

---

[7]Emil S. Troelston, The Principles of Farm Finance, (Saint Louis: Educational Publishers, Inc., 1951), pp. 71-72.

farmers, assure a dependable supply of low cost loan funds and maintain a permanent, efficient organization for making the loans. However, the loans cannot be made on a poor or hazardous type of property even though the owner and applicant may be well regarded as a credit risk, nor can a safe loan be made to one who is an undesirable credit risk. To this end the Federal land banks have developed and adapted the following definition of sound loans:

> A loan is sound if (1) it serves a useful purpose; (2) the amount and term of repayment are within the debt retirement capacity of the farm and the borrower; (3) the borrower is an acceptable risk and his equity in the normal value of the farm and his equity in his other assets are such that he will be encouraged to protect his investment at all times; and (4) the quality of the farm is such that the bank and association will be afforded reasonable protection against loss should acquisition of the security become necessary.[8]

There are seven basic steps involved in making a loan: (1) The applicant applies for a loan through his local national farm loan association, giving the location of his farm, his financial statement, and certain other information including other information including the purposes for which the loan proceeds will be used. (2) The association investigator, usually the secretary-treasurer or his assistant, investigates the applicant's standing in the community and his managerial ability. This investigation ordinarily includes a visit to the farm so the investigator can make an accurate analysis of the entire situation. He reports on his findings and make his recommend-

---

[8]The Federal Land Bank System, Farm Credit Administration, United States Department of Agriculture, 1951, Circular 35, p. 11.

ation concerning the loan to the association's loan committee. (3) The farm is appraised by a land bank appraiser who submits a report to the association. (4) The association loan committee considers the reports and either approves or rejects the loan. The loan must be approved by all members of the committee, not less than three, to whom the application is presented for consideration. Approval of loan includes election of the applicant to membership. (5) The bank loan committee considers the reports and either approves or rejects a loan. It cannot approve a loan for more than the amount approved by the association loan committee. (6) If a loan is approved by both loan committees, it is offered to the applicant for his acceptance. (7) If the loan is accepted, the title to the farm is examined and, if it is found acceptable, the loan is closed.

The manner in which these steps are performed varies to some extent among land bank districts and associations within a district. All loans are made on an amortized repayment plan.

The term of Federal land bank loans may not be less than 5 years nor more than 40 years on first mortgages on farm land. Under the Federal Farm Loan Act the contract interest rate on loans made through national farm loan associations cannot be more than 1 percent above the interest rate on the last series of bonds issued by the bank making the loans, except with the approval of the Governor of the Farm Credit Administration, and in no case may exceed 6 percent per year.[9]

---

[9]H. T. Hutchinson, Annual Report of the Farm Credit Administration, 1950-51, Department of Agriculture, 1952, p. 77.

However, in most districts the contract rate is 4 percent. It must be remembered that it has been necessary to raise the rate on new loans in several districts in order to cover increased costs in making and servicing loans.[10] The contract rate cannot be raised during the life of a loan.

The interest rate charged borrowers should be high enough to cover the cost of the money obtained from the sale of bonds, the operating expenses of the banks and associations, and appropriate accumulations of reserves in the banks and associations. Any earnings above these requirements are in fact a saving and may be returned to the borrowers and stockholders as dividends.

Dividends

The Federal land banks distribute savings to the nation's farm loan associations, and the associations likewise distribute their savings to the borrowers. These distributions are made in the form of dividends on the stock owned by the associations and the borrowers. Since the stock is owned in proportion to the amount of the original loan, these dividends serve essentially as patronage refunds to association members.

The law states that after providing for legal reserves, a Federal land bank may declare dividends to stockholders of the whole

---

[10] The Federal Land Bank System, Farm Credit Administration, United States Department of Agriculture, 1951, Circular 35, p. 13.

or any part of the balance of its net earnings with the approval of the Farm Credit Administration.[11] The Land Bank Commissioner, on behalf of the Farm Credit Administration, requires that a bank must be able to maintain a satisfactory earning position, including adequate provision for losses, and be able to satisfy all of its financial requirements in an orderly manner before a dividend is approved.[12] Similar requirements are made with respect to dividends by the associations, which also require the approval of the Land Bank Commissioner.

Appraisal Policies

An appraisal of the security by a land bank appraiser is required in connection with each Federal land bank loan and no loan may be made unless the report of the appraiser is favorable. The land bank appraisers are public officials appointed and supervised by the Farm Credit Administration, and assigned for duty within the Federal land bank districts. The Federal Farm Loan Act, as amended, makes it mandatory that all land bank loans be based upon the normal value of the farm offered as security and that a loan may not exceed 65 percent of such value. Normal value is defined as "the amount a typical purchaser would, under usual conditions, be willing to pay and be justified in paying for the property for customary agricultural uses, including farm home advantages, with the expectation of receiv-

---

[11] Ibid, p. 13.

[12] Ibid, p. 6.

ing normal net earnings from the farm."[13] Generally speaking, normal values are long-term values established for the purpose of making long-term loans on a basis that will avoid over-lending in peak periods and under-lending in depression periods.

The responsibility for establishing prices for agricultural products and costs used in computing normal net farm earnings is exercised by the Farm Credit Administration. These prices and costs are based on historical data and a careful analysis of present position, outlook, and trends.

Loan Servicing

Because it is the fundamental aim of this cooperative lending system to treat its borrowers with absolute fairness, the Federal land banks has adapted consistent policies and worked out systematic procedures for servicing their loans. The national farm loan associations have been empowered to perform this work. It is the responsibility of the board of directors of an association to make sure that all loans are serviced with fairness to both members and the association in conformity with the general policies of the land bank. Borrowers able to pay are expected to do so. However, when defaults occur due to circumstances beyond the control of the borrower, payments generally are not required which would impair his ability to earn and meet future payments.

---

[13] Ibid, p. 11.

An important feature of the loan servicing policies is to give every consideration to worthy delinquent borrowers so they can place their loan in good standing and ultimately pay off their indebtedness. A borrower is considered worthy and his loan is not foreclosed if he:

> (1) Is doing his honest best, (2) is applying the proceeds of producing, over and above necessary living and operating expenses, to the payment of primary obligations, (3) is taking proper care of the property, and (4) has the capacity to work his way out of a reasonable burden of debt under normal conditions.[14]

If a borrower desires to sell a part of the mortgaged property, a partial release may be granted to enable him to do so provided the condition of the loan is maintained or improved. Thus, the funds received from sale should ordinarily be applied to the principal of the loan, but where the interests of the borrower, the association, and the bank would be better served, the funds may be used for other purposes. These purposes include paying delinquent taxes, interest, repairing or constructing buildings located on the mortgaged farm, improving the soil, and caring for the personal needs of the borrower.

National Farm Loan Association

The Federal Farm Loan Act required the formation of national farm loan associations as the local cooperative units for the Federal

---

[14] Ibid, pp. 15-16.

land bank system. Ten or more farmers in any community who wished to receive the benefits of the Federal land bank might unite to form an association. They had to own and offer satisfactory security for land bank loans aggregating $20,000 or more.[15] A charter could then be granted by the Federal Farm Loan Board in Washington to the association and the territory designated in which it would operate. Each association is a separately chartered organization of member-borrowers operating under its own by-laws. Each has its own board of directors consisting of not less than five nor more than seven members who are elected by and from the members. The board of directors in turn, elects the officers of the association. A president and vice-president must be chosen who are directors, but the secretary-treasurer need not even be a member of the association and frequently is not.[16] The directors also may appoint a loan committee consisting of three members and three alternatives. The secretary-treasurer does most of the work of the association.

In each national farm loan association, membership is acquired voluntarily. Each member is required to purchase stock in the association equal to 5 percent of the amount borrowed. The association in turn purchases a like amount of stock in the Federal land bank. Subscription to stock in the national farm loan association has enabled their farmer-members to become owners of the Federal land bank in

---

[15] Ibid, p. 3.

[16] Emil S. Troelston, op. cit., p. 74.

each farm credit district. The amount of stock purchases are, also, used as insurance against losses and to insure the payment of his own and his neighbor's mortgage debts.[17] This procedure has had a relaxing effect, in connection with limited liability, upon those farmers who were hesitant to participate in the credit movement prior to 1933.

The stock the member owns in the association is his personal property. When a farmer repays his loan, he may receive from the association the amount which he paid for stock. If he sells his farm, he may and ordinarily should sell his stock to the purchaser of the farm, but the transfer of the ownership of the stock cannot be made on the books of the association unless the purchaser is qualified and elected to membership in the association. It is only through the cooperation, assistance, and recommendation of his neighbors, who are members of an association, that a farmer can obtain a land bank loan.

Each member of a national farm loan association assumes certain liability along with his fellow members, for any losses of the association. If the loss results from a loan granted after June 16, 1933, his maximum liability is the face value of his stock.[18] Most associations now have considerable amounts in accumulated reserves and surplus funds which protect the members' investment. These funds and sound methods of operation make the possibility of any

---

[17] Ibid, p. 77.

[18] The Federal Land Bank System, op. cit., p. 5.

impairment of the member's investment in the stock of his association a remote contingency.

Sources of incomes of the associations are derived from four sources: (1) from various fees charged borrowers; (2) from earnings of assets the associations may have; (3) from services rendered the federal land banks; and (4) from dividends on stock owned in the federal land bank when such are paid.

The principal expenses of the associations have been the cost of making farm appraisals, the salary of the secretary-treasurer, rent, travel, and many other incidental expenses.

It must be remembered that the national farm loan associations do not charge any interest on loans like other cooperative credit groups in other countries. Therefore, an association can exercise little initiative in building up its own surplus fund, but is given a share in the surplus of the bank. Consequently, the incentive to build a strong local association is lacking because control rests largely with the bank.

Each association functions under a set of by-laws adapted by its incorporators. These by-laws regulate both the manner in which directors and officers are elected and how the general business of the association is conducted. They also provide for annual stockholders' meeting and set up other guides for the operation of the association.

Under the general supervision of the Farm Credit Administration, the board has control and direction of association affairs. It

supervises and directs the association business with the limitation of the act under which it is chartered, the regulations of the Farm Credit Administration, applicable policies of its Federal land bank, and the rule of its own by-laws. The major functions of the board of directors are: (1) determine and establish policies of the association, (2) elect officers and authorize the employment of qualified personnel to carry on the business of the association, and (3) determine that the operations are carried on in an efficient manner and in accordance with the board's policies and the laws under which the associations operate.

One of the board's major responsibilities is to choose a loan committee capable of properly considering the qualifications of applicants for loans, determining the value of farms offered as security for loans and electing applicants to membership in the association.

Some of the other responsibilities of the board are to appoint or discharge any office or employee of the association, fix the compensation of the secretary-treasurer and other employees, control all expenditures of the association, maintain adequate minutes of the directors' meetings, and see that all loans to members are impartially and properly serviced.

The secretary-treasurer is the employee of the association, selected by the directors, who does most of the work of the association. He is paid a salary and usually devotes full time to his work. He makes out loan applications for farmers, personally investigates applicants, and inspects farms offered as loan security when requested

by the loan committee to do so. He acts as connecting link between the Federal land bank and National farm loan association. He serves the Federal land bank in the matter of closing loans, making collections from farmer borrowers, and making or selling farms the bank may have acquired through foreclosure.

Each national farm loan association has a loan committee of three or more members appointed by the board of directors. This committee is required to make or to have made an investigation of the applicant and the property. A written report must be made by the committee or its investigator as to the character and solvency of the applicant. The committee in approving a loan also must have a report on the value of the security by a land bank appraiser, who is a public official appointed by the Farm Credit Administration. However, no action of the loan committee is binding unless approved by all members. If an application is approved, the committee must decide upon the amount and terms of the loan that may be offered to the applicant. The amount cannot be more than 65 percent of the normal agricultural value of the farm as determined by the land bank appraiser. After these steps have been taken, the secretary-treasurer may give the applicant a loan commitment subject to final approval or rejection by the bank.

Production Credit System

The Production Credit System is one of the credit units organized within the Farm Credit Administration. It was formed to provide

credit facilities especially adapted to the short-term requirements of agriculture. The administrative organs are quite similar to that of the Federal land bank.

The system consists of the Production Credit Division of the Farm Credit Administration, 12 production credit corporations, and in 1951, 500 production credit associations.[19] It must be understood that both the Production Credit Division in Washington and the Production Credit Corporations in the districts are a supervising, not a lending organization. The difference between the Production Credit Corporation and the Federal land bank on the district level is that the production credit corporations do not make direct loans to the production credit associations like the Federal land banks do.

Production Credit Corporations

A production credit corporation is located in the head-quarters of each of the 12 Farm Credit districts. Each production credit corporation has a board of directors. The members are the same persons as those of the Farm Credit Board of the district. Its principal functions are to organize, to provide supplemental capital, and to supervise the production credit associations.

To assure adequate capitalization for the Production Credit System, Congress provided, through the Farm Credit Act of 1933, a fund of $90,000,000 in 1949.[20] The production credit corporations were

---

[19] K. T. Hutchinson, op. cit., p. 65.

[20] Ibid, p. 68.

capitalized for varying amounts, depending upon estimated requirements of the district. The purpose of this capital is to provide supplemental capital to the association until they have accumulated adequate capital stock of their own, by way of subscription, to pay for class A stock (non-voting) issued by the associations. The class A stock may be retired when the association has accumulated sufficient capital strength to make this possible. The major part of the government's investment in the capital stock of associations has been repaid from the accumulation of member-owned capital and reserves. A large number of associations now are wholly member-owned. Therefore, the corporations had only one reason for existence, i.e., to assist in and supervise the work of the associations.

A major function of the corporations is to guide and assist the associations in their credit, operating, and membership activities. The corporations sponsor plans for the complete farmer-ownership of associations. They have been primarily responsible for training association directors, officers and certain employees having specialized duties.

The supervisory duties of the corporations are carried on largely with the officers and directors of the local association. The corporation holds occasional group meetings or short training courses of directors and officers of neighboring associations, makes periodic surveys of operating procedures, audits and checks cash and other transactions, makes analyses of regular financial and statistical re-

ports rendered by the associations, and assists in reviewing annual operating budgets.

Production Credit Association

Each corporation divided the territory in its farm credit district into prospective production credit association districts and then proceeded to contact farm leaders in order to acquaint them with the new production credit set up and assist in the formation of associations.

At least 10 farmer members eligible to borrow were required before an association could be chartered. Each association has administrative organs set up the same as the national farm loan associations. Each production credit association has two classes of capital stock: Class A (non-voting) and Class B (voting stock).

Each farmer who borrows must be a member and own voting stock of the association equal to approximately $5 for each $100 of his loan. The production credit corporation will make a supplemental subscription to capital stock in the association to an amount equal to 20 percent of the volume of expected loans.[21] This stock was designated as class A stock. Class A stock may be owned by the farmers and other investors and by the government through the production credit corporation. Class A stock is preferred as to assets in case of

---

[21]Emil S. Troelston, op. cit., p. 171.

liquidation, but both class A and class B share proportionately in dividends. Each holder of class B stock has only one vote regardless of the number of shares owned. Any class B stockholder who has not been a borrowing member for 2 years must exchange his stock for non-voting class A stock. By this means the voting right is limited to the borrowing members whose stock is subject to the primary risk of loss, since any loss in excess of accumulated reserves is chargeable first to the class B stockholders before there is an impairment of class A stock. All class A and class B stock is transferred on the books of the association at par value. The amount paid to the association for the purchase of class B stock may be invested in securities from which, of course, the association will receive income.

Methods of Lending

The prospective borrower must go to the offices of the association and fill out loan application forms stating the amount he desires to borrow and the use to be made of the funds, list the security he has to offer and all his other assets and his liabilities, and assist in drawing up a plan which he expects to follow in the repayment of his loan.

The application is then referred to the loan committee which examines it carefully from all credit angles. If the application appears to be satisfactory, an inspector employed by the association is sent to the farm of the prospective borrower to appraise the farm-

ing equipment, livestock, feed and/or other property to be pledged as security of the loan.

If the report of the loan inspector is favorable, the farmer is notified to come to the offices of the association to make final arrangement for his loan. The farmer is required to execute a note and chattel mortgage. This note bears interest at a rate 3 percent higher than the rate the association is required to pay for funds. The rate farmers are paying on production credit loans is 4-1/2 percent at present.[22] The farmer, then, receives the association's check for the amount of the loan less 5 percent which must be invested in stock of the association.

It must be understood that the associations do not loan Government money. Most of the funds for lending purposes are obtained from the Federal intermediate credit banks for discount on the security of the members' notes and the association's own capital and reserves, in the same way that a commercial credit institution might do. The Federal intermediate credit banks obtain their loanable funds principally through the sale of debentures or short-term securities to the investing public. The time required to get a loan usually varies from one day to a week. Most associations have established procedures which permit virtually over-the-counter service for members who have established good credit standing.

---

[22] Ibid, p. 172.

Farmers and ranchers use production credit associations for general agricultural purposes to finance all sound short-term credit needs. Loans are usually secured by a first lien on crops, livestock, and equipment. The associations vary their security requirements in line with sound business practices. Loans are generally made for any amount from $50 and up. They are generally made to become due in one year or less, although the unpaid balances can be renewed if satisfactory progress has been made. Interest is charged only for the time any amount is actually outstanding to the member.

Association Finance

The associations derive their income from the following sources: (1) from interest on loans, (2) from loan service fees, and (3) income from the investment of member-owned capital and accumulated earnings.

The principal expenses of the association have been the cost of making loan services such as drawing up loan papers, searching lien records, recording security instruments, the salary of the secretary-treasurer, rent, and travel.

In order to cover operating expenses, the association's spread in interest rate is used to cover operating cost, absorb loan losses, and to build reserves.

Field Service

A typical production credit association serves six counties comprising one or more established trade areas. The objective has been for each association to serve a territory large enough to afford

an adequate volume of business for its financial support and efficient functioning and provide convenient service, with the intention that it will become entirely owned by the member-stockholders. In order to make their credit services more readily available to the members and other farmers in their areas, the associations, in addition to their 500 head-quarters' offices, maintain over 1,000 branch offices. There are many other points where applications for loans may be made. This broad field service organization makes the credit facilities of the associations readily available to farmers and stockmen throughout the entire country.

Production Credit Associations vs. Federal Land Banks

The local production credit associations are different from the national farm loan associations in several important respects. In the first place the PCA's are assigned exclusive territory. Each state is divided into small production credit districts, each district including one or more counties depending upon the area which is considered necessary for the support of an individual production credit association. Second, the initiative in organizing the associations is provided by the production credit corporations and not left to the farmers as with the national farm loan associations. Third, the PCA's do not own stock in either the credit corporation or the intermediate bank, whereas the NFLA's buy stock in the Federal land bank. This arrangement makes the PCA's independent as far as their own earnings

are concerned. Fourth, the PCA's make their loans on an interest margin to cover their costs, whereas the NFLA's make no loans directly but assist the Federal land banks in negotiating loans. This is a natural difference because short-term loans involve much more local work and supervision than long-term loans.

Despite the dissimilarities, the PCA's have several similarities to the NFLA's. Each PCA borrower has to buy or have stock in the association equal to 5 percent of his loan. The security back of the loans is subject to inspection. The PCA's are subject to examinations by Government examiners. The interest rate charged by the credit associations is uniform over the country and regulated by law and the Farm Credit Administration.

Bank for Cooperatives

The 12 district banks for cooperatives and one Central Bank for Cooperatives in Washington, operating since 1933, provide a permanent system of credit for farmers' cooperatives on a sound business basis. They were chartered by the Governor of the Farm Credit Administration under the provision of the Farm Credit Act of 1933.

The Central bank was to make loans to national cooperatives and to regional cooperatives requiring large loans. The district banks make loans to local and regional cooperatives within their respective districts except in those cases where loans are too large

for these banks to handle. All of the banks for cooperatives are owned by the government.

Each district bank at time of its organization was capitalized at $5,000,000 and $50,000,000 by the Central bank.[23] Changes, therefore, have been made from time to time in the capitalization of the various banks. The banks are allowed to make loans from capital funds. In addition, the Central Bank was given authority to issue debenture bonds if it becomes necessary in order to obtain sufficient loanable funds. The district banks may not issue debenture bonds, but may obtain loans from, or discount notes with, the Central Bank. In addition to the capital supplied by the government each borrower from a bank for cooperatives is required to own capital stock in the bank. If a cooperative is not authorized to purchase stock, it must pay into a guaranty fund an equivalent amount.[24] The detail descriptions in this matter will be discussed under the heading of the eligibility of borrowers.

Types of Loans

Three distinct types of loans may be made to farmers' cooperative associations which meet the eligibility and credit standards of the banks.

Commodity loans are generally of the shortest term, seldom over 9 months, and are made on the security of a first lien on staple

---

[23]Ward W. Fetrow and R. H. Elsworth, op. cit., p. 161.

[24]K. T. Hutchinson, op. cit., p. 73.

farm products or supplies. The amount of the loan may not by law, exceed 70 percent of the market value.

Operating capital loans generally are short or medium-term loans. They are usually used to supplement the cooperative association's own capital funds during times of peak seasonal activity. There are no legal requirements as to the collateral which must be taken to secure such loans, but in many cases the banks require liens on real estate, equipment, or other property.

Facility loans are used to finance or refinance the acquisition of land, buildings and equipment used by the association. The security generally consists of a first lien on the property itself. By law, no loan on physical facilities may be made in excess of 60 percent of the appraised value of the security offered and the purchase or lease price is considered reasonable.[25] The statute limits the term of facility loans to 20 years, but generally they are made to mature within 10 years.

To be eligible to borrow from a bank for cooperatives an association must be a cooperative operated for the mutual benefit of its members in which farmers act together in doing one or more of the following: (1) Processing, preparing for market, handling, or marketing farm products; (2) Purchasing, testing, grading, processing,

---

[25] Loans to Farmers' Cooperatives, Farm Credit Administration, Washington, D. C., 1938, Circular No. 6.

distributing, or purchasing farm supplies; or (3) Furnishing farm business services.

A cooperative is required to purchase stock in the bank to the amount of 5 percent of an operating capital or facility loan and 1 percent of a commodity loan.[26] Under the law, upon final payment of a loan, the borrowing cooperative's stock or interest in the guaranty fund may be, and upon the request of the association shall be, retired at par less pro rata impairment if any. But the banks encourage cooperatives to retain capital stock they may purchase in the banks as a basis for future loans.

The rates of interest charged by the banks for cooperatives are determined by the Governor of the Farm Credit Administration in accordance with statutory provisions. The rate may not exceed 6 percent per year. The interest rates, however, differ depending upon the type of loan. Commodity loans carry the lowest interest rate and conform as nearly as possible to current interest rates. The yearly interest rate is 1-1/2 percent. Operating capital loans carry the next higher rate at 2-1/2 percent; and facility loans, with the highest rate, call for 4 percent.[27]

Repayment plans are adapted to the types and repayments of the enterprises financed. Commodity loans are generally repaid out of the sales proceeds of the collateral. Operating capital loans, as a rule,

---

[26]Emil S. Troelston, op. cit., p. 184.

[27]Ibid, p. 182.

are repaid at the end of the season. In many instances repayment is accomplished by setting aside a certain amount on each unit of product handled by the borrowing association. Facility loans are generally repaid in installments over the life of the loans.

Provision of Earnings

The banks are required by law at the end of each fiscal year to apply their net earnings to making up losses incurred, to the restoration of the amount of impairment, if any, of the capital and guaranty fund, and not less than 25 percent of the remainder must be applied to the creation and maintainence of a surplus equal to at least 25 percent of the capital and guaranty fund. Any sums remaining may be used to pay dividends on capital stock and guaranty-fund payment, but at a rate not exceeding 7 percent per year. Dividends paid on stock held by the Governor of the Farm Credit Administration must be credited to the Agricultural Marketing Act revolving fund. To date none of the banks for cooperatives has declared dividends.[28]

Federal Intermediate Credit Banks

Another agricultural credit unit organized under the structure of the Farm Credit Administration is the system of the 12 Federal intermediate credit banks. These banks are owned by the U. S. govern-

---

[28]K. T. Hutchinson, op. cit., p. 74.

ment. They are not in any sense cooperative credit institutions.[29] These banks are not authorized to accept deposits nor to make direct loans to individuals, but were given the function of discounting, purchasing, or accepting as security loans of farmers and stock-men from local lending institutions, with their endorsement and making loans to farmers' cooperative associations.

The law fixed the capital stock of the federal intermediate credit banks at $5,000,000 each.[30] Such stock was subscribed and paid for by the Secretary of the Treasury, and there was no provision for the eventual retirement of any part of it. In all, the government has provided the 12 banks with upward of $100,000,000 since 1934.[31]

For the most part, the banks have obtained loanable funds by issuing debenture bonds which have been sold to the investing public. These bonds have been secured principally by notes and mortgages which the banks held. The banks were not allowed to issue debenture bonds having a longer term than five years.

In addition to obtaining funds through the sale of debentures, the intermediate credit banks could also rediscount paper with the federal reserve banks, provided the maturity date was not more than 9 months distant at the time of rediscount.

---

[29]Emil S. Troelston, op. cit., p. 106.

[30]Ibid, p. 107.

[31]K. T. Hutchinson, op. cit., p. 71.

The banks are authorized to advance funds especially for agricultural purposes as follows: the production, marketing, and harvesting of crops; the production and marketing of livestock; cooperative marketing through farmers' associations; and cooperative purchasing of farm supplies through farmers' associations.

To be eligible for discount by an intermediate credit bank, the associations or company could send some of its promissory notes to guarantee for the payment to the bank in that district and ask to receive cash. The intermediate credit bank might advance to the borrower any amount up to the face value of the pledged notes and could charge the borrower interest one percent per annum higher than the federal intermediate credit bank had to pay on its bonds. When the individual farmers paid the particular notes, or mortgages in case the loans were secured by chattels, the association or company would send to the federal intermediate credit bank the principal of the notes, plus all interest due the federal intermediate credit bank and keep the remainder of the amount farmers paid for itself. The maturities of such loans are usually for one production or marketing season, usually one year or less, and under the law may not exceed 3 years.[32]

---

[32]Ward W. Fetrow, and R. H. Elsworth, op. cit., p. 162.

CHAPTER IV

PROBLEMS AND RECOMMENDATIONS

Problems Identified in This Study

The foregoing analysis and discussion of the present agricultural capital situation in Thailand indicates that most of Thai farmers need more credit to finance their farm production. The farmers have acquired some of their needed credit through the cooperative credit societies; however, these credit societies have only a limited amount of loanable funds to fulfill the expanding demands of the farmer-members. This results from the fact that the bank for cooperatives which acts as their principal source of loanable funds could not supply enough funds to meet all the needs.

The study has indicated that because of the limited market of bonds issued by the government and relatively small amount of bank deposits, the cooperative bank finds it difficult to supply the credit funds needed by both the previously established and the newly organized credit associations. The maximum size loan available, baht 5,000, including both short and long-term credit, is also affected by this limitation.

It is apparent, also, that with the remoteness of the local credit associations from the central bank for cooperatives the farmer-members could not receive prompt service from this bank. The effects of this remoteness of the cooperative bank may be viewed as:

(1) Low deposits in the bank because it cannot absorb the saving of farmers in distant localities.

(2) A long waiting period before the farmers can actually receive their loans, resulting in the farmers becoming discouraged and even possibly suffering a damage to their farm enterprise or investment.

(3) Additional traveling expenditures incurred by farmers as they seek information about the approval of their loans from the distant government offices, who invariably are unable to fix definite dates for the commitments.

It thus appears that there is a need for improving the present Agricultural credit system in Thailand. This new system must be able to bridge this wide gap, between lender and borrower, and to provide readily available credit funds to the remote agriculture at reasonable interest rates, and at the same time to accumulate capital in the rural areas. It is believed that the existing cooperative credit system can be altered to perform these functions effectively. A proposed program to solve these problems, therefore, will be presented.

A Proposed Cooperative Credit Program For Thailand

To solve these problems, the writer has made an intensive study of the cooperative credit system in the United States as indicated in the previous chapter. The purpose of this study was to find out the alternative credit programs which can possibly be applied in Thailand.

The writer would like to recommend that a program of decentralization of the Bank of Cooperatives should be put into effect by organizing district or provincial banks in the rural areas. This would enable the credit associations and the individual farmer-members to have the available capital as well as a quicker and more direct contact with their credit institution.

Why the Need For District Banks

During the 36 years of their existence the rural credit societies have expanded gradually in the regions where they are most needed. They are the most numerous types of cooperative organizations, numbering 9,249 societies at the end of May 1953 out of a total of 9,699 societies of all types. These credit societies serve 239 counties (Amphur) out of 436 counties, and are spread through 63 of 71 provinces (Changwat). The membership of these societies has gone up by 174,261 and the membership per society stands at 19.[1]

It should be noted that all credit societies have to rely principally upon borrowed capital from one central credit institution, the central bank for cooperatives in Bangkok. It is believed to be quite difficult for the central bank to provide adequate loanable funds and prompt service to the remote local credit societies.

---

[1] Summary of Principle Features of Agriculture Credit Facilities in Thailand, Bangkok: Ministry of Cooperatives, 1953, pp. 3-4.

In the cooperative movement in other countries, namely Europe and India, the sources of loanable funds is largely derived from the deposits.[2] As has been experienced, it is difficult for the cooperative bank in Thailand to absorb surplus money from distant local farmers. The other thing equally clear is that the loan provision is too tedious and lengthy. Such a method would also tend to be more costly to the farmers. Therefore, it is necessary to have channels of the central credit institution out into the rural area to assist in raising local capital and providing efficient loan service to the farmers. The country should be divided into districts, and an independent central credit bank operating over separate districts or provinces should be established. Under such a system of district or provincial autonomy, with coordination in a central federation for general purposes, administration is likely to be more efficient and less costly. Cooperative work of a more intensive character could be facilitated by reliance upon local knowledge and local patriotism. Development would have to be along lines best suited to local circumstances.

Aiming at no profit beyond the moderate charge for expenses, the new institution is to act as the central credit association in the following manner: (1) it should acquire loanable funds for its members; (2) balance supply and demand among the credit societies and

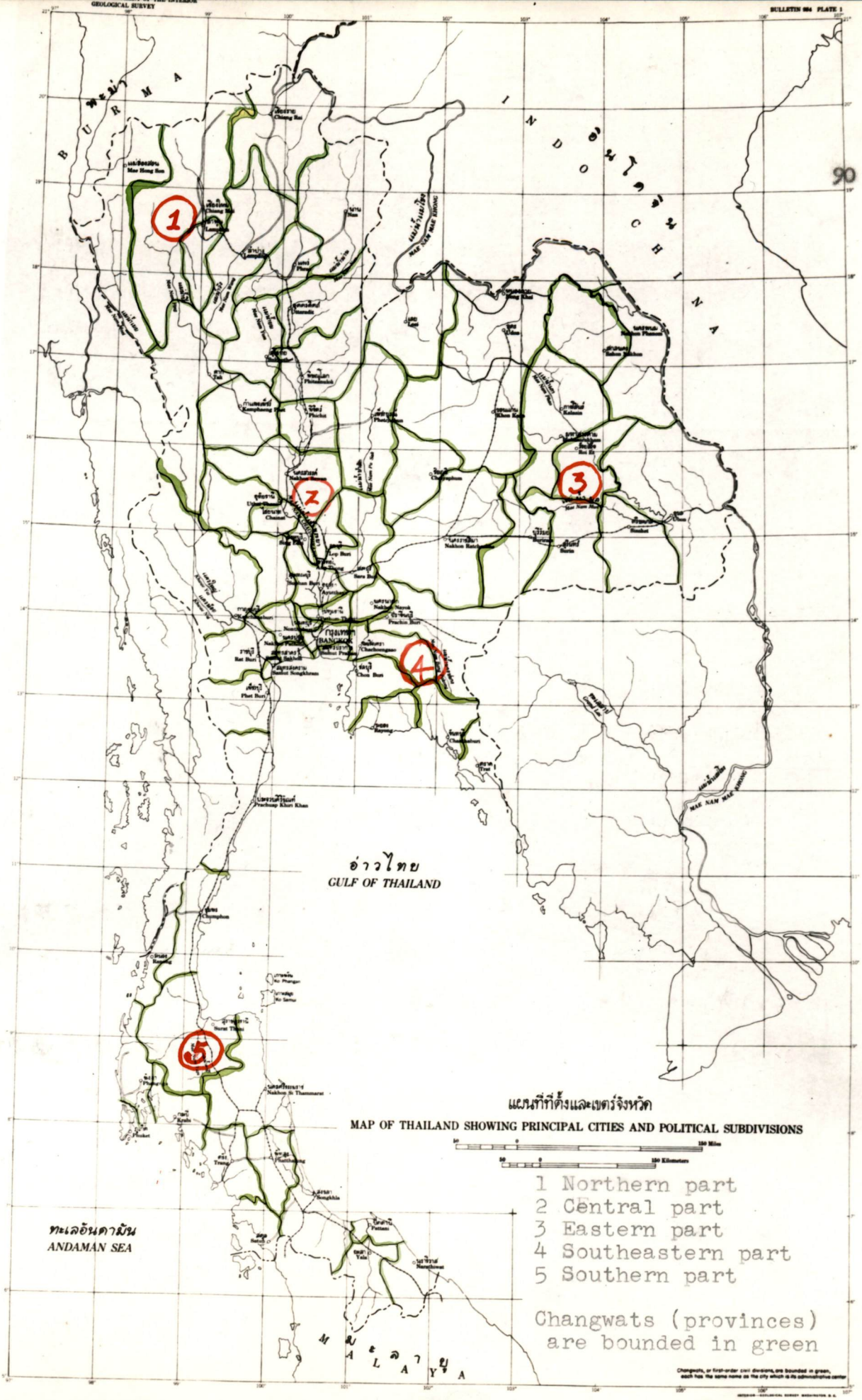
---

[2]Ata Ullak, The Cooperative Movement in the Punjab, 1937, Dacca, Pakistan Government, p. 182.

bring them into touch with the money market through the Central Bank for Cooperatives in Bangkok; (3) utilize local deposits to meet local credit requirements and insure that the former is kept in use. In short, the well-to-do societies are enabled to invest their deposits, and the needy cooperatives (whether merely temporarily or continuously) are able to obtain loans on suitable terms; (4) to perform banking facilities--saving accounts, checking accounts, drafts, notes, etc.--to both members and non-members (for the purpose of educating the farmer regarding the banking system); (5) to assist in and supervise the work of the association such as contacting farm leaders in order to acquaint them with the set up of the new credit system and assist in the formation of associations, etc.; (6) to act as a connecting link between the local associations and the Bank for Cooperatives or between local associations and the Department of Cooperatives in Bangkok.

Location

Thailand is divided into five regions, namely Northern, Eastern, Central, Southeastern, and Southern. The Kingdom is composed of 74 provinces (see figure 1). The writer would like to recommend that each of the five regions should have a district bank. By this way it is believed that each district bank should serve a territory large enough to afford an adequate volume of business for its financial support, efficient functioning, and convenient service. However, the



แผนที่ที่ตั้งและเขตร่จังหวัด

MAP OF THAILAND SHOWING PRINCIPAL CITIES AND POLITICAL SUBDIVISIONS

1 Northern part
2 Central part
3 Eastern part
4 Southeastern part
5 Southern part

Changwats (provinces) are bounded in green

Changwats, or first-order civil divisions, are bounded in green, each has the same name as the city which is its administrative center

factors determining the location should be based on density of the cooperative credit society, location of the business activity and communication facilities. If any single province in the region has a combination of these characteristics, the district bank should be located there. For any province nearby which would not be able to receive adequate service from the district bank, the bank's branch or representative could serve that particular province.

Types of Cooperative Central Banks

The Committee on Cooperation in India has classified the central cooperative banks to be of three distinct types, namely, (1) the capitalist, (2) the pure cooperative, and (3) the mixed.[3]

The capitalist type is organized by private shareholders. However, a cooperative association may be accepted as a shareholder but considered on an equal basis with other shareholders. Provisions regarding the limitation of income to stockholders were not stipulated. This was the first type of central banks in India. They were organized to provide credit to the cooperative associations only, but this was not the case at later periods. In short, this type of central bank is not the cooperative organization.

The pure cooperative type is a cooperative type both in principle and practice. It was formed and administered by the member-

---

[3]Report of the Committee on Cooperatives in India, 1915, Bangkok, Thailand Government, Reprinted 1930, p. 59.

borrowers. The success of this type must depend upon the volume of business and the knowledge of its members. For the purpose of closer supervision the area of operation is strictly limited. The credit institutions of this type have operated effectively in Punjab (Paskistan) and in Bengal (India). This type, however, is difficult to apply in Thailand at present because the farmers are generally deficient in knowledge of principles of cooperation and banking experience required to operative banks efficiently.

The mixed type of central cooperative bank is formed by cooperative credit associations as members. Private individuals in local areas may also be invited to become shareholders so that they may aid in the managing of the bank's business. In this regard the bank's articles may provide a stipulation to limit authority, restrict the return to private shareholders, and reserve the voting right for its borrower-members.

The advantage of accepting private individuals as shareholders of the bank may be summarized as follows: (1) to increase share capital, (2) to gain the advantage of having capable individuals in the administrative positions, (3) to gain volume of operation resulting in reduced cost, and (4) to gain prestige and confidence of the members as well as the public. Of the three mentioned banks, the mixed type is best suited to meet the present requirement of Thailand.

Working Capital

The working capital of the district banks would be composed of paid-up share capital and reserves, the deposits of the members and non-members, and borrowed funds at their banking center (Bank for Cooperatives) or other credit institutions.

Each district bank should have sufficient capital stock, based upon the estimated volume of business, to enable that bank to meet the expansion needs of the new cooperative organizations in the district. Of this amount the bank should also set aside a certain amount of stock to be made available to any private individuals who may have an interest in holding stocks of the banks.

There are two methods by which district banks may require their members to subscribe to their capital stock. First, the stock may be divided into equal shares with each share having a par value, for instance of baht 50 (official rate, baht 1 = 7.967¢ U.S.). Each member of a credit society may be required to purchase at least one share in the credit society to which he belongs. The society in turn purchases a like amount of stock in the district bank. Secondly, each member may be required to purchase stock in the credit society equal to 5 percent of the amount borrowed, with the society in turn purchasing a like amount of stock in the district bank. For example, if the borrower is granted a loan of baht 1,000, he must invest baht 50. In such a case, he most likely would be given a check for baht 950 and baht 50 in stock certificates. These stock purchases are

used to insure the payment of his own and his neighbor's mortgage debts. Issuing stock by this method, the unlimited liability which Thai farmers have been hesitant in assuming may be somewhat retarded.

When a farmer repays his debt, he may receive from the credit society the amount which he paid for stock. This method has been practiced successfully by cooperative credit societies in the United States. For Thailand, it is recommended that the district bank reserve a certain amount of stock, for instance baht 50, that each borrower could retain in the bank for the purpose of ownership and loan applications in the future.

However, the present cooperative credit associations in Thailand have never issued stock of any kind to its members. Therefore, the present articles of organization must be adapted to include this feature. The best method to be applied in Thailand depends upon a favorable adaptation to the situations. Obviously, the procedure to be adapted will result from many discussions and hearings among the farmer-borrowers.

Management of Capital

If after the requirement of capital stock of each district bank has been established some unsold stock remains, this should be subscribed either by the Bank for Cooperatives or by the government with a provision for retirement to enable the district banks to become completely farmer-owned.

A bank should not be allowed to loan any of its capital stock funds. However, these funds should be used as guaranteed funds for investors and creditors or to secure bonds which the particular bank might issue. The banks may invest their funds in the most secure types of investment--government bonds, etc.

A bank may be allowed to issue bonds in an amount not greater than ten or twenty times its capital and surplus with the approval of the general meeting of the representatives of credit societies and the Department of Cooperatives. The bonds may be sold in the investment market through the Bank for Cooperatives or in the local community.

The incomes from capital stock funds should not be distributed as dividends to stockholders but should be used to retire the stock held by the government or the bank for cooperatives. When the district bank becomes a completely farmer-owned institution, the earnings of the capital funds may be accumulated as surplus which may be used as loanable funds to the members at low interest rates. In this way the capital of each bank would be increased over time.

The cooperative credit societies in Europe and some countries in Asia perform both the functions of accepting deposits and making loans. The deposits comprise the greatest portion of the working funds.[4] It has been pointed out earlier that the farming classes make up the bulk of the Thai population, but they have been lacking in

---

[4]Myron T. Herrick and R. Ingalls, Rural Credits (Land and Cooperative, New York and London: D. Appleton and Company, 1916, p. 318.

adequate institutions to provide financial facilities. With this recognition the new district banks should perform the function of accepting deposits from both members and non-members.

The objective of this function is to absorb surplus income and money saved in the rural communities. The savings assembled by these financial intermediaries (district banks) are, therefore, transmitted to borrowers who desire to use such funds for the expansion of productive capacity.

The attractiveness of this savings function consists not only in the security afforded but in the relatively high interest paid. Each district bank should not be obliged to accept a rate fixed by the central authorities, but should fix or vary a rate according to the local circumstances. However, the rate of interest on deposits should be as high as possible in order to attract depositors from the Saving Banks and other moneyed institutions in the neighborhoods. It may be possible to pay higher interest rates because of dividend limitations on stock and small overhead costs as compared to other financial institutions.

There are three types of deposits district banks may accept: (1) fixed deposits, (2) saving deposits, and (3) current deposits. However, it is not easily ascertained as to whether these banks should limit deposits to certain classes of the population, thereby refusing to accept considerable sums and restricting their business to the less well-to-do. Large deposits, of course, may possibly cause sudden or extensive withdrawals by large depositors. Accordingly, the

writer should like to point out that the large deposits, costing less for management and investment, should not be rejected by the bankers because this problem may be guarded against by regulations requiring fixed periods of notice which vary according to the amount to be withdrawn. To perform this function each bank should be required to set up a certain ratio of reserves to meet deposit accounts whether in the form of cash or liquid assets. The reserve ratio of 5:1 is widely recommended in the United States.[5]

Processing of Loans

Sources and Division of Loans

Each district bank may obtain loanable funds from the following sources: (1) sale of consolidated bonds to the investing public. These bonds are secured primarily by the farm mortgages, held as collateral by the bank, and the bank's notes at the Bank for Cooperatives; (2) discounting the member's notes at the Bank for Cooperatives; (3) credit obtained from other lending agencies; (4) deposit accounts.

There is no other credit institution to provide special credit facilities to the farmers. In order to maintain efficiency and economy in operation, each district bank should provide two classes of loans

---

[5]Paul A. Samuelson, Economics, New York: McGraw-Hill Book Company, Inc., 1951, p. 870.

to farmers--farm mortgage loans and production loans. Each type of loan may have distinctive purposes, terms, interest rates, and collaterals or securities.

Eligible Borrowers

Only specified organization should be considered as eligible borrowers. It should be noted that in a district or province more than one type of cooperative organization may be found--credit, paddy marketing, credit and land improvement, land hire-purchase, processing cooperative, etc. All of these cooperative organizations have obtained their needed funds from a distant source either from the Bank for Cooperatives or direct from the government. Therefore, the writer would like to recommend that to be eligible to borrow from a district bank an association must be a cooperative as specified by the law of cooperatives. In other words, cooperatives of all types, organized within the district, may be eligible for membership and borrow funds from the bank. The result of this may come as a two-fold advantage, namely, the local cooperative societies may receive adequate and prompt finances from district banks, and the bank in turn, may gain adequate business volume.

When the farmer wants to borrow funds from the district bank, he first contacts the secretary-treasurer of the cooperative society to which he belongs. The farmer's application is filled out by the secretary-treasurer from information supplied by the farmer. The loan committee, the board of directors and/or the secretary-treasurer

study the application, look over the farm or other properties offered as security, and investigate the character of the borrower if they were not already well-acquainted with him and his securities. Finally, the association decides upon the amount that would be safe to loan in the particular instance.

The application should then be sent to the local government office which acts as supervisor. The local government office, as soon as possible after it receives a loan application, sends a government appraiser to the farm to review the property offered as security for the loan. The appraiser is required to make a written report on a blank form. The form should be designed by the Department of Cooperative. He must, of course, state the amount that he thinks is safe to loan in the particular case.

After being checked and approved a loan application along with a written report of the appraiser, and the letter report of the officer, is sent to the district bank. The authority with respect to size of loans should rest with the bank.

After a loan application is approved by the bank, a check for the amount the farmer is to receive in cash, together with the mortgage contract and a promissory note, is sent by the bank to the secretary-treasurer of the cooperative society, who then notifies the farmer-borrower to come to the office of the association. The secretary-treasurer collects from the farmer any fees he may owe incidental to closing the loan. The farmer executes the mortgage contract and signs the promissory note. The association endorses the

note and sends it to the bank. Thus, the association becomes liable for the payment of the loan. All loans made by district banks must be based upon the normal value of the farm offered as security and may not be in excess of 65 to 70 percent of such value.

Supervision and Inspection

In order to guard against loan failures, the district bank should have certain authority such as inspecting the books of cooperative associations, recalling loans partially or entirely when the value of the property deteriorates as a result of inferior farming, a reduction in farm area, farming operations, stock, decay of buildings, etc. Except for such circumstances, loans should not be recalled.

Is it wise that the bank should perform other functions for the affiliated societies? The answer is in the affirmative. In addition to credit functions the bank should provide supervisory functions. To maintain the system's high standards of loan quality, the bank must encourage the affiliated associations to plan and carry on effective membership and educational activities. These should be designed to keep members informed and active in assisting the association to find a solution to problems related to sound lending policies. The district bank should sponsor programs and policies intended to aid the associations in becoming strong, locally owned, and capably managed institutions with well-informed and active members. The bank may proceed to contact farm leaders in order to acquaint them with the new

cooperative credit set up and assist in the formation of new associations. In short, the bank should assist and supervise the work of the cooperative associations.

Organs of Administration

According to the Thailand Cooperative Act of 1928, the bank may be organized as a central organization to provide the facilities, with limited liability, to its affiliated members. The profits of the district bank which would be distributed in the form of dividends must not exceed 6 percent.

The business of the bank would be conducted under a board of directors and under the control of its general assembly of the representatives of the cooperative association (each society may elect one representative), together with private shareholders. The voting right would be on the basis of "one-man-one-vote" regardless of the amount of stock owned or the extent of his patronage.

The board of directors may be composed of individuals within the cooperative group and private shareholders. In order to gain representatives and a balance of power between the private shareholders and cooperative members, at least one-half of the members of the committee or board must be the stockholder of the cooperative associations. In order to have more effective, efficient, and functional board meetings, it seems that a moderate number of directors related to the size of the organization can more easily reach this objective than a large group. In Germany, the committee of a central bank

usually had a membership of 5 to 6.[7] Therefore, the writer would like to recommend that the committee of the district banks in Thailand should consist of seven to nine persons. However, members of boards of directors of any cooperative organization should not be chosen to serve in an honorary capacity, although some board members appear to take this point of view. Doing the work of a director adequately and satisfactorily requires conscientious thought and effort, and the job carries with it important legal responsibility because the corporate powers of the banks are vested in its directors. Therefore, the merits and qualifications of any nominee should be weighed carefully before he is elected to serve on the board. If it is possible to select otherwise well-qualified individuals having special training in financing, banking, law, or general economics, this will prove desirable. In sizing up the possibilities of a member as a possible director, the Cooperative Research and Service Division of the Farm Credit Administration states as follows:

> There are some question which each member should ask regarding his fitness for the position:
>
> 1. What is his business record? Does he manage his own affairs well? Does he possess sound business judgment?
>
> 2. Is he willing to work at the job of being a director or is he more apt to be inactive? Has he shown a capacity for working with others or is he an "individualist"?
>
> 3. Do his neighbors regard him as a leader? Does he enjoy their confidence for honesty and integrity? What capacity has he shown as a leader?

---

[7] J. R. Cahill, Agricultural Credit and Cooperatives in Germany, Report to the British Board of Agriculture and Fisheries, Washington Government Printing Office, 1913, pp. 163-185.

4. Does he possess a high degree of loyalty to the association and to cooperative principles? At the same time, does he possess a proper understanding of the limitations as well as the possibilities of what can be accomplished through cooperative effort?

5. Is it clear that he will help his fellow members to obtain a more complete understanding of the association and its various activities and problems? Will he do his part conscientiously in making information about the association available to members?[8]

Of course, no one individual may possess all of these traits in high degree, but it can be used as a guide in selecting a director of sound calliber.

The greatest single force determining the success or failure of any business venture is its management. Directors act in formulating policies governing the course of action which the bank should take, enforcing their execution, and appraising the results. All of these actions are broad; they serve as guides or guiding objectives in the conduct of the business. The details of the business operation is left to the discretion of the manager and his assistants.

In actual practice, however, it is found that the boards of directors do not always formulate the policies, but rather that they become in many instances the rubber stamp of approval for policies laid down by the manager. Bakken and Schaars cite the important tasks of the manager as follows:

The manager is the spearhead of management. He is the technical expert, the "brains" of the going concern, the dynamo and driving force of the business. Together with his

---

[8] Managing Farmers' Cooperatives, Farm Credit Administration, Washington, D. C., Circular E - 21, p. 2.

> executive staff he is responsible for carrying out the policies formulated by the board of directors as well as the hundredfold details of the business with which the board does not concern itself. Alertness and business sagacity, ability to deal with people, a reputation for business integrity--these are a manager's forte.[9]

The writer considers that the manager's position is the most important for the new district banks. The qualified manager must possess not only a knowledge of technical operations, but he must be honest and have the cooperative spirit. Selecting a manager, of course, is the duty of the board of directors. The Department of Cooperatives should assist in selecting the manager.

In order to get the district banking system into operation with less effort and expense, especially at the beginning of operation, the Department of Cooperatives may temporarily provide the banks with managers and other personnel from its own staff. In addition, the Department may possibly go one step further by temporarily furnishing office space or other physical facilities to the district banks until the banks prove to be successful.[10]

---

[9]Bakken and Schaars, Economics of Cooperative Marketing, New York and London: McGraw-Hill Book Company, Inc., 1937, p. 343.

[10]In January 1947, the Bank for Cooperatives was sponsored by the government and commenced its operations with a capital of baht 10,000,000. At the time of inauguration, most of the bank's personnel was temporarily provided by the Department of Cooperatives. The office of this bank was also temporarily situated in the Department of Cooperatives. At present the bank has its own office and personnel.

Earning of the Banks

Since the banks are non-profit organizations, gains beyond the amount deemed necessary should be allocated to cover losses incurred and to aid in the restoration of any impaired capital. Not less than 25 percent of the remainder should be applied to the creation and maintenance of a surplus equal to at least 25 percent of the capital and guaranty fund.[11] Any sums remaining may be used to pay dividends on capital stock and guaranty-fund payments at a rate not exceeding 6 percent per year (specified by Thailand Cooperative Law of 1928). However, the dividend rate should not be lower than the rates of interest paid on fixed deposits and should be stable.

Auditing and Report

According to the Thailand Cooperative Act of 1928, Article 17, the district banks must submit their books and documents at least once a year for examination by an expert auditor appointed by the Registrar of Cooperatives. Upon completion of this inquiry, the auditor reports the main points to a joint meeting of the committee of management and the board of supervision for their remark. This report must be presented by the latter body and voted upon at the next general meeting of members. A copy of this report goes to the bank,

---

[11]Such allocations are required by law for the Cooperative Banks in the United States and India.

together with a confidential report. Another copy is sent by the auditor to the Department of Cooperatives.

Aside from auditing, the business of the banks may be subjected to inspection, at any time during a year, by the inspector of the Department of Cooperatives. Furthermore, the banks may be required to report their business conditions and quarterly financial statements to the Department of Cooperatives.

It is understood from the discussion that the methods of procedure are essential in developing sound operation of the banking system. As a result, public confidence may be gained.

The Relationship of District Bank and the Bank for Cooperatives

After district banks have been organized, they should take over all credit transactions which the affiliated cooperative societies have had with the Bank for Cooperatives. In this way, the district banks will be the debtors of the Bank for Cooperatives and the district bank in turn will be a creditor of cooperative societies. The cooperative societies that are not yet affected by this new system will remain temporarily in contact with the Bank for Cooperatives.

The Bank for Cooperatives should make loans to district banks either by discounting farmers' notes, or open accounts. Although these loans may or may not be secured by mortgages, the final responsibility rests with the farmer members of the local societies. The bank may also act as a clearing house and selling agency for the bonds,

if any, of the district banks. Since the Bank for Cooperatives makes direct loans to district banks, theoretically the expenses in making loans may be reduced resulting in a lower rate of interest charged to district banks. However, the district banks may charge the cooperative societies the same rate as that formerly charged them by the Bank for Cooperatives.

By this sytem the Bank for Cooperatives should be considered as an Apex bank. It may, therefore, provide other services such as advisory, market information, etc. to district banks.

General Consideration

It has been the endeavor in this chapter to give a definite picture of the district banking system and its operation. This picture should constitute effective agricultural credit institutions suited to the local environment by means of acquiring capital from both outside and within the locality. The desirabilities of these banks are to maintain financial independence by accumulating capital in the rural areas and to provide adequate and prompt financial service to the affiliated cooperative associations located within the districts. It is useless for the government to think of improving agricultural production and farmers' conditions unless the government or the cooperatives are prepared to provide available loans to farmers to make the changes. However, when large demand and high prices of agricultural products are prevalent, there is a good opportunity to place this plan into immediate action.

CHAPTER V

SUMMARY AND CONCLUSIONS

Thailand is an agricultural country where 80 percent of the population is engaged in agriculture. Rice production has been the main enterprise occupying nearly 90 percent of the total arable land. This has been the primary source of the people's income and of the economic strength from the early period of self-sufficiency to the era of commerce.

However, since World War II there has been an increase in the demand for agricultural products due to the large increase in population and the need for more exports to supply foreign exchange. But it is believed that Thailand now has almost reached the limit of production from her rice lands with existing technology. Under the present method of cultivation, the amount of rice produced will be more or less constant from year to year depending upon climatic variations. From a study it was found that since the war the area of cultivation had increased approximately 20 percent; however, the crop output had increased very little compared to the increase in area under cultivation.

At the present time and probably for many years to come, any approach to increasing farm production will demand a number of favorable conditions--advances in technology, improvement in the skill of farm people, improvement in varieties, better use of irrigation water,

control of diseases and pests, application of fertilizers, etc. Most of these alternatives call for increasing costs and require additional capital investments.

As the previous discussion has pointed out, rice is of the greatest importance and has become commercialized in Thailand. But the commercialization process inevitably created a demand for agricultural credit, followed by farm indebtedness and the usurious rates of interest common to such conditions in the past.

In order to cope with this problem the cooperative movement (cooperative credit societies) was conceived in 1916. During the thirty-six years of its existence the rural credit societies have expanded gradually in the regions where they are most needed. They are the most numerous type of cooperative, numbering 9,249 societies at the end of May 1953 out of a total of 9,699 societies of all types. These credit societies serve 239 counties (Amphur) out of 436 counties, and are spread through 63 of 71 provinces (Changwat). The membership of these societies has grown from 2,935 in 1932 to 174,261 in 1953. This increasing membership requires more capital and more services.

It is revealed in this study that Thai farmers need more credit to finance their production in order to meet a large demand for agricultural products. While the farmers have acquired some of their needed credit through the cooperative credit societies, these societies have only a limited amount of loanable funds to fulfill the large demands of the farmer-members. This results from the fact that the

bank for cooperatives, which acts as their principal source of loanable funds, could not supply enough funds to meet all the needs.

The study has also indicated, because of the limited market of bonds issued by the government, and relatively small amounts of bank deposits, that the bank for cooperatives finds it difficult to supply the credit funds needed by both the previously established and the newly organized credit associations.

Because of the remoteness of the local credit association from the central bank for cooperatives, the farmer-members could not receive prompt service from this bank. The effects of this remoteness of the cooperative bank may be viewed as:

(1) Low deposits in the bank because it cannot absorb the savings of farmers in distant localities.

(2) A long waiting period before the farmers can actually receive their loans, resulting in the farmers becoming discouraged and even possibly suffering a damage to their farm enterprise or investment.

(3) Additional traveling expenditures incurred by farmers as they seek information about the approval of their loans from the distant government offices, who invariably are unable to fix definite dates for the commitments.

It thus appears that there is a need for improving the present agricultural credit system in Thailand. This new system must be able to bridge this wide gap between lender and borrower in providing readily available credit funds to the remote agriculture at reasonable interest

rates. At the same time, it must provide for accumulation of capital in the rural areas. It is believed that the existing cooperative credit system can be altered to perform these functions effectively. To solve these problems, therefore, the cooperative credit system in the United States is intensively studied to support the recommendations of certain improvements and changes developed in this study.

A proposed program of decentralization of the bank for cooperatives by organizing district or provincial banks in the rural areas is recommended to solve these problems.

Under this new system, the country should be divided into districts, and an independent central credit bank, operating over separate districts or provinces, should be established. A system of district or provincial autonomy, with coordination in a central federation for general purposes, is likely to provide more efficient and less costly administration. Cooperative work of a more intensive character could be facilitated by reliance upon local knowledge and local effort. Development would have to be along lines best suited to local circumstances.

The new institution is to act as the central credit association in the following manner: (1) acquire loanable funds for its members; (2) balance supply and demand among the credit societies and bring them into touch with the money market through the Central Bank for Cooperatives in Bangkok; (3) utilize local deposits to meet local credit requirements and insure that the former is kept in use; (in short, the well-to-do societies are enabled to invest their

deposits, and the needy cooperatives, whether merely temporarily or continuously, are able to obtain loans on suitable terms); (4) to provide banking facilities--saving accounts, checking accounts, drafts, notes, etc.--to both members and non-members (for the purpose of educating the farmer regarding the banking system); (5) to assist in and supervise the work of an affiliated association; and (6) to act as a connecting link between the local associations and the Department of Cooperatives in Bangkok.

Each district bank may obtain loanable funds from the following sources: (1) sale of consolidated bonds to the investing public; (2) discounting the member's notes at the bank for cooperatives; (3) borrowing from other lending agencies; (4) deposit accounts.

To be eligible to borrow from a district bank an association must be a cooperative as specified by the law of cooperatives, and the borrowers must own the shares in the local societies. The association in turn must purchase a like amount of stock in the district bank.

The business of the bank would be conducted under the control of its general assembly of the representatives of the cooperative association, together with private shareholders.

By this system the bank for cooperatives which formerly made direct loans to credit societies should be considered as an Apex bank. It may, therefore, make direct loans to district banks, and provide other services such as advisory, market information, etc. to district banks.

It is useless for the government to think of improving agricultural production and farmers' conditions unless the government or the cooperatives are prepared to provide available loans to farmers to make the changes. When demand and prices of agricultural products are high, as they are at present, there is a good opportunity to place this plan into immediate action.

BIBLIOGRAPHY

CRANES CREST

BIBLIOGRAPHY

Bakken and Schaars, Economics of Cooperative Marketing, New York and London: McGraw-Hill Book Company, Inc., 1937.

Cahill, J. R., Agricultural Credit and Cooperation in Germany, New York: McGraw-Hill Book Company, Inc., 1945.

Ely and Wehrwein, Land Economics, New York: The MacMillan Company, 1948.

Fay, C. R., Cooperation at Home and Abroad, London: P. S. King and Son, 1908.

Fetrow, Ward W. and Elsworth, R. H., Agricultural Cooperation in the United States, Washington, D. C., Farm Credit Administration, United States Department of Agriculture, Bul. 54, April 1947.

Harris, Marshall, Compensation as a Means of Improving the Farm Tenancy System, Land Use Planning Publication, Washington, D. C., United States Department of Agriculture, Pub. No. 14, February 1937.

Harris, Marshall and Ackerman, Joseph, Agrarian Reform and Moral Responsibility, New York: Agricultural Missions, Inc., 1949.

Herrick, Myron T. and Ingalls, R., Rural Credits Land and Cooperative, New York and London: D. Appleton and Company, 1916.

Hutchinson, K. T., Annual Report of the Farm Credit Administration, 1950-51, Washington, D. C., United States Department of Agriculture, 1952.

Ise, John, Economics, Harper and Brothers Publishers, 1950.

Kress, Andrew J., Introduction to the Cooperative Movement, New York and London: Harper and Brothers Publishers, 1941.

Murray, William G., Agricultural Finance, Ames: The Iowa State College Press, 1949, Second Edition Revised.

Narksawat, Udit, The Development of Cooperative Credit in Thailand, Master Thesis, 1953, Bangkok: Moral and Political Science University.

Renne, Roland R., Land Economics, New York: Harper and Brothers, 1947.

Rental Arrangements for Progressive Farming, Southern Farm Management Extension, Pub. No. 3.

Report of the Committee on Cooperatives in India, 1915, Bangkok: Thailand Government, (Reprinted 1930).

Report of the FAO Mission for Siam, Washington, D. C., September 1948.

Samuelson, Paul A., Economics, New York: McGraw-Hill Book Company, Inc., 1951.

Saranark, Jamnien, Report of Principals and Methods of Provincial Bank, Bangkok: Ministry of Cooperatives, 1950.

Schultz, Theodore W., Agriculture in An Unstable Economy, New York: McGraw-Hill Book Company, Inc., 1945.

Statistical Year Book Thailand, No. 21, 1939-40 to 1944, Central Service of Statistics, Bangkok, Thailand Government.

Summary of Principal Features of Agricultural Credit Facilities in Thailand, Bangkok: Cooperative Department, Ministry of Cooperatives, 1953.

Survey of Rural Cooperatives in Countries in South East Asia, Report of Technical Meeting on Cooperatives in Asia and Far East, Bangkok: Ministry of Agriculture, 1950.

Thailand and Her Agricultural Problems, Bangkok: Ministry of Agriculture, November 1950.

Troelston, E. S., The Principles of Farm Finance, Saint Louis: Education Publishers, Inc., 1951.

The World Almanac 1954, New York World-Telegram.

Ullak, Ata, The Cooperative Movement in Punjab, 1937, Dacca, Pakistan Government.

United States Department of Agriculture, "1940 Year Book of Agriculture," Farmers in a Changing World.

_____, Loans to Farmers' Cooperatives, Farm Credit Administration, Washington, D. C., 1938, Circular No. 6.

_____, Managing Farmers' Cooperatives, Farm Credit Administration, Washington, D. C., Circular E - 21.

_____, The Federal Land Bank System, Farm Credit Administration, Circular 35.