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I am submitting herewith a dissertation written by John William Mogab entitled "Public Credit Institutions as Development Agencies: The Case of Mexico's Ejido Credit System." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Economics.

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PUBLIC CREDIT INSTITUTIONS AS DEVELOPMENT AGENCIES:

THE CASE OF MEXICO'S EJIDO CREDIT SYSTEM

A Dissertation

Presented for the

Doctor of Philosophy

Degree

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John William Mogab

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ABSTRACT

The basis of this study is a chronology of Mexico's official *ejido* credit institutions and their policies during 1925-1975. Statistical data and other pertinent information are presented by six-year (presidential) administrative periods, concerning: the laws and decrees pertinent to *ejido* credit, the organizational structure of the *ejido* credit system, sources of capital, lending programs, cooperative organization, non-credit services provided by the credit institutions, cost of administering the programs, institutional losses and agricultural production by the *ejidos* receiving credit.

The author collected data for this study during six months of research in Mexico. Important sources include: annual reports and special studies of the National Bank of Ejido Credit (BNCE), publications of the Ministry of Agriculture and Livestock, presentations by the BNCE's officials to the Mexican Government, interviews with former employees of the BNCE and officials in the Ministry of the Treasury, newspaper articles and published work on the *ejido* credit institutions.

The analysis indicates that Mexico's official *ejido* credit policies, during 1925-1975, can be viewed as consisting of four phases. The initial phase covers the period 1925-1935 during which only nine regular banks were established. The role of the credit institution was limited to providing an alternative source of capital to *ejidos* to aid in their production of subsistence crops. The second phase, 1936-1952, began with the sudden conversion to an *ejido* credit system of national scale. The roles of the institution likewise expanded rapidly to encompass the economic, political and social development of the *ejidos*. However,

the latter years of the second phase saw a diminishing emphasis on the social and political goals and a narrowing of the credit institution's economic objectives. During phase three, 1953-1970, the _ejido_ credit institutions intensified their focus on economic development of the _ejidos_ and adopted a role as production enterprise. During the recent phase of the study, 1971-1975, the analysis indicates attempts by the _ejido_ credit institutions to reincorporate social and political development of the _ejidos_ into their policies, to retain their role in _ejido_ economic development, and to continue as a productive enterprise.

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CHAPTER 1

INTRODUCTION

Agricultural credit is almost universally recognized as a key component in the modernization of the developing countries' agricultural sector. The provision of agricultural credit not only removes a financial constraint but may also promote the adoption of new technologies and the commercialization of the rural economy. The introduction of the green revolution technologies, because they normally require capital outlays, has increased the importance of credit in the development of the agricultural sector. The use of such inputs, in turn, necessitates the commercial sale of at least a part of the farmers' output. Hence, the provision of credit not only furthers the commercialization of the rural economy but may also aid the farmer in directly entering the market, and thus bypassing the local monopolistic wholesalers.

Despite its acknowledged importance, there remain large gaps in our understanding of agricultural credit and the impact of agricultural credit programs on the rural sector. Little is known about the sources of agricultural credit in developing countries, the farmers' needs for agricultural credit, the uses to which borrowed funds are put, the impact of agricultural credit on productivity and income, or the types of agricultural credit programs implemented in developing countries.

Mexico's agricultural credit system is an example of a long-existing agricultural credit system about which relatively little is known. While Mexico has had more than 50 years' experience in administering public agricultural credit programs, there are no empirical studies of the programs' impact on productivity and income. My initial intention was to undertake such a study. I realized early, however, that a very broad research effort was needed to provide an adequate background for a more limited empirical study. For example, there is no comprehensive study of Mexico's various agricultural credit programs and no consistent data series for the relevant aspects of those programs. To be sure, important works exist but each is partial. Moreover, when these works are considered together, many gaps in the data appear.[1]

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[1]Among the existing studies on Mexico's agricultural credit system, the following important works are included.

Alvaro de Albornoz, *Trayectoria y Ritmo del Credito Agricola en Mexico* (Mexico, D.F.: Instituto Mexicano de Investigaciones Economicas, 1966). This is a very good source for the legal and institutional aspects of agricultural credit in Mexico for the period 1925–1955. Its major limitation is that the data on the economic aspects of agricultural credit cover only the years 1953–1962.

Ramon Fernandez y Fernandez, "El Credito Ejidal," *El Trimestro Economico*, vol. 25, No. 2 (April-June 1958); "La Clientela Ejidal," *El Trimestro Economico*, vol. 26, No. 101 (Jan.-March, 1959); and *Una Estructura Ideal para el Credito Agricola* (Chapingo, Mexico: Centro de Economia Agricola, 1974). The first two articles include sporadic data (mainly for the 1950s) and the conclusions of unpublished studies carried out under the direction of the author, then head of the National Bank of Ejido Credit's Department of Special Studies. The third work provides a brief history of the agricultural credit laws for the period 1926–1972 but does not provide data on the agricultural credit programs.

Enrique Gonzalez Aparicio, *El Problema Agraria y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937). This is a very short study on the early years of Mexico's agricultural credit programs that has since gone unnoticed in other studies. It mainly summarizes the Ejido Bank's lending and organizational activities for the years 1926–1935.

R. Marte Gomez, *El Credito Agricola en Mexico: Estudio sobre su Establecimiento y Analisis de su Funcionamiento Hasta 1931* (Chapingo, Mexico: Colegio de Postgraduados, 1976). This book was published posthumously and includes many valuable insights into the legal aspects of Mexico's agricultural credit system during the years 1925–1931. It is especially useful because the author was one of the principle writers of the agricultural credit legislation during the formative years of Mexico's agricultural credit system.

Lucio Mendieta y Nuñez, *El Credito Agraria en Mexico* (Mexico, D. F.: Imprenta Mundial, 1933). This book includes information and data on many

In shifting my focus I aimed at providing a comprehensive history of the federal government's agricultural credit programs for the ejido sector over the period 1925–1975. It is at the same time a source for a consistent data series on a great many aspects of the agricultural credit programs for the ejido sector.

To collect the data for the study the author undertook six months of research in Mexico. The research effort included extensive literature searches in the Bank of Mexico's library, the agricultural credit and general library of The National School of Agriculture in Chapingo, and the library of the National Bank of Rural Credit (this also serves as an archives for the National Bank of Ejido Credit) in Mexico City. Interviews were also conducted by the author with ex-employees of the National Bank of Ejido Credit, employees of the National Bank of Rural Credit, and officials in the Ministry of Agriculture and Livestock and the Ministry of the Treasury. In addition, visits were made to the branch banks and the main office of the National Bank of Rural Credit to collect data.

Due to the long history and complexity of Mexico's agricultural credit system it was necessary to limit the scope of the study. Thus, as stated above, the study deals only with the agricultural credit programs that pertain to the ejido sector. This sector was chosen because it consists of a more easily identifiable group than the private,

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aspects of Mexico's agricultural credit system, including legal, institutional, organizational, and lending activities up to 1931.

Elyer Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937). This book is an excellent study of the formation of the modern ejido sector. It includes among other information accounts of the agricultural credit institutions at both the micro and macro levels for the years 1926–1934.

small- or large-scale farmers[2] and because, for most of the period, a separate instituion was responsible for the administration of this part of the public agricultural credit programs.

Mexico's Ejido and the Public Agricultural Credit Programs

The modern ejido[3] is a village in which the land ownership is held in common by the villages. The land is legally imprescriptible and inalienable. The *ejidatarios*[4] have usufructuary rights on the land which can be cultivated collectively, semi-collectively or individually. These villages were formed after the Mexican Revolution of 1910. However, the name ejido and the modern laws pertaining to it can be traced to the colonial institution of the indian village common lands.

During the colonial period the indian villages were legally assured of having (1) a *fondo legal*, a plot of land for houses and public buildings; and (2) an ejido, made up of crop land, pasture and woodland. These lands were owned and used on a communal basis and were legally inalienable. Contrary to the law, however, the Spanish haciendas came to own almost all of the rural lands, including ejido land. This, it is often claimed, contributed to Mexico's War of Independence in 1810. During the next 60 years several attempts were made at reforming the

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[2]While this terminology (small- or large-scale farmers) is not grammatically correct, it is commonly employed in the economic development and agricultural credit literature and refers to the size of the farm rather than the girth of the landowner.

[3]The information in this section on the ejido was largely taken from Elyer Simpson's *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937).

[4]Ejidatarios are heads of families in villages holding ejido lands. Hereafter in this work the term will appear unitalicized.

land tenure laws. Nevertheless, the ejido lands continued to remain largely alienated from the villages. The capstone of the era was the Porfirio Diaz regime (1876–1911). Through presidential edicts the ejido lands were divided and individual titles issued to the ejidatarios. Soon thereafter the remaining village ejido lands were added to the hacienda's landholdings. Through this and other legal means (e.g., the Colonization Law of 1894), the concentration of landholdings reached unprecedented heights by the turn of the century.

It was under these circumstances that the Mexican Revolution of 1910-1917 occurred. One of the immediate legal changes enacted dealt with the dispossessed ejido lands. A 1915 decree stated that one of the causes of the national discontent was the confiscation of the village communal lands and that these lands were to be returned to the villages. Article 27 of the 1917 Constitution, which is generally cited as the beginning of the modern ejido, went further in stating that not only could the villages apply to receive dispossessed land but they could also apply for outright grants of ejido village lands.

During this period the National Agrarian Commission and State Agrarian Commissions were given the responsibility of administering the agrarian reform program. However, the only specific powers delegated to these agencies were in relation to the distribution of land. Authority for regulating the organization and functioning of the ejidos was gradually assumed by the National Agrarian Commission as circumstances dictated. In this manner it was established that all villages receiving land were to democratically elect a governing board (Ejido Administrative Committee) of three members. This Committee was to administer all aspects of the ejido villages and the head of the Committee (*Comisariado Ejidal*) was to represent the ejido before all outside authorities. The lands received by the villages were divided into four classes: (1) an urban zone or *fondo legal*; (2) agricultural (arable) land; (3) forest, pasture and brush lands; and (4) plots (minimum of five hectares) for a school in each village. The appropriate economic organization for the exploitation of the ejido land resources was a question often tackled during this period but never adequately solved.

Land redistribution stumbled along at a very slow pace during the 1920s as the Mexican government moved on to other vital issues, including bank legislation. The Bank of Mexico was established as a central bank (1925) and a number of specialized public banks were also created. During this period the Ejido Banks were created (1926) to provide credit to the ejidos and to take over the regulation and direction of the ejidos located in the banks' operating zones. During this period, the Calles administration was also under pressure to enforce the agrarian reform laws. It responded by redistributing more land than all the previous post-revolutionary administrations. Yet, the ejido lands could be considered no more than a supplementary means of subsistence for the 1,576 villages that had received land.

The Ejido Banks operated only in select regions of the country until 1935, when they were replaced by the *Banco Nacional de Credito Ejidal* (National Bank of Ejido Credit--hereafter referred to as the BNCE). During this year President Cardenas came to power and thereafter the course of the ejido villages changed. The redistribution of land began in earnest, as entire plantations and other commercially productive lands were transferred to the ejidos. Concurrently the BNCE was created and it assumed responsibility for the development and regulation of the ejidos. The BNCE retained this responsibility throughout the next 40 years during which it pursued a wide variety of programs in carrying out this responsibility. In 1975, the BNCE was eliminated as the government moved to unify all the agricultural credit programs within one institution.

Organization and Methodology of the Study

The history of Mexico's ejido credit system is divided into four periods: (1) Pre-National Banking, The Ejido Banks, 1925–1935; (2) National Banking, the National Bank of Ejido Credit Part I, 1935–1952; (3) National Banking, the National Bank of Ejido Credit Part II, 1953–1970; and (4) National Banking, the National Bank of Ejido Credit Part III, 1971–1974. This division was arrived at after consideration of the ejido credit institutions' policies and programs over the 50-year history. During the first period, 1925–1935, the Ejido Banks were organized on a regional basis, subordinate to the *Banco Nacional de Credito Agricola* (National Bank of Agricultural Credit). The banks did not play a developmental role but rather simply provided credit for subsistence crop production. The second period, 1935–1952, marks the beginning of a nationwide ejido credit system. During this period the BNCE sought to define its role in the development of the ejido sector. In doing so the BNCE rapidly expanded and then contracted the number and types of services provided to the ejido sector. The developmental role initially encompassed a rather broad conception of development for the ejidos, including economic, political, and social aspects. The policies and programs of the subsequent administrations changed during this period as emphasis was shifted toward the economic aspect. The third period, 1953–1970, was a period of relative consistency in the BNCE's programs and policies. The role of the BNCE was bifurcated between that of the more narrow conception of an economic development agency and that of a public enterprise. During the final period, 1971–1974, the ejido credit system was in a state of confusion due to its financial position and uncertainty imposed by an ongoing attempt to merge all the agricultural credit institutions. During this period the BNCE's role was expanded in an attempt to include economic, social, and political aspects in the development of the ejidos, in addition to continuing its role of public enterprise.

Within these periods the framework of the analysis is based on the six-year presidential period. This framework of analysis was chosen because (1) policies of the agricultural credit institutions are largely dictated from the executive branch; (2) within the agricultural credit institutions, each six years, there is a complete turnover in administrative personnel (down to the submanager level and below); and (3) it is consistent with other scholarly works analyzing the policies and institutions of the Mexican government. The framework also enhances the study's usefulness as a resource for future studies. It enables the researcher of a particular topic (e.g., loan distribution) to easily trace through the programs and policies for the entire 50-year period. It would also allow the researcher of a particular subperiod to easily obtain the data on all aspects of the ejido credit system for particular administrative periods.

For each six-year administrative period between 1925 and 1975, the laws and decrees pertaining to the ejido credit system are summarized. Statistical and other pertinent information is presented concerning the institutions' sources of capital, lending programs, loan repayments, organizational activities, services provided to the ejidos, costs of administering the institutions' programs, institutional losses, and the agricultural production of ejidatarios receiving credit. Because the Ejido Banks published no reports and the BNCE published annual reports only for the years 1937–1961, the data presented are from varying sources. Data for the period 1926–1935 were collected from the published works of various authors, most notably R. Marte Gomez, Eyler Simpson, and Enrique Gonzalez Aparicio. For the period 1936–1961, the data were largely obtained from the above-mentioned BNCE annual reports (*Informes*). Data for the period 1962–1974 were collected from publications of Mexico's Ministry of Agriculture and Livestock, a study of Mexico's agricultural sector by Gontran Noble (an ex-member of the BNCE Administrative Council), a presentation before President Echeverria by the Director General of the BNCE, the BNCE's *Ano Estadistico* (1964–1965) and *Resumen Ano Agricola* (1971–1973), data collected by the author at the BNCE archives (library of the National Bank of Rural Credit), and data obtained by the author in interviews with former and current employees of the above banks.

PART I

THE EJIDO BANKS

1925–1935

CHAPTER 2

THE PRE-NATIONAL BANKING PERIOD

Law of the Ejido Agricultural Banks

The first agricultural credit law in Mexico that had as its primary purpose providing credit and related services to the ejido sector was instituted on March 16, 1926. The administration of Plutarco Elias Calles promulgated the Law of Ejido Agricultural Banks authorizing a system of credit institutions, called Ejido Agricultural Banks, that were to be separate from the previously established *Banco Nacional de Credito Agricola* (National Bank of Agricultural Credit -- hereafter referred to as the BNCA). The Ejido Agricultural Banks were placed under the jurisdiction of the Ministry of Agriculture, while other credit institutions customarily had been under the jurisdiction of the Ministry of the Treasury. The Ejido Banks were allowed to operate only with Cooperative Societies formed by ejidatarios and, in some cases, small farmers who had social and economic ties with the ejidos. The Ejido Banks were intended to serve both social and economic purposes. Both purposes, although insufficiently specified in the legislation, were evident in the objectives laid out for the Ejido Banks. The Ejido Banks were directed:

1. to take over the organization of the Ejido Cooperative Societies from the National Agrarian Commission;

2. to make loans for working capital, semi-fixed and fixed capital to the Ejido Cooperatives; and

3. to introduce some form of management into the use of the social funds.[1]

Nine Ejido Banks were authorized which were to be located in various regions of the country. It was expected that the system would be rapidly expanded to cover all regions of the country. The locations of the original nine banks were to be determined by the federal executive branch within the overall agricultural development plans. The initial authorized capital for each bank was set at 200,000 pesos--20,000 shares of stock at 10 pesos each. At the outset the shares were to be subscribed primarily by the federal government.

The Ejido Banks were authorized to grant short- and medium-term loans. The limit established for short-term crop loans was 25% of the expected value of the crop; for medium-term credits the limit was set at 5,000 pesos, except in special cases which required the approval and authorization of the Secretary of Agriculture.[2] The loans were to be guaranteed by the expected harvest(s) and the unlimited responsibility of each member for all the members' unpaid debts.

To be eligible to operate with the Ejido Banks, ejido villages were requied to organize Ejido Cooperative Societies. The Societies were to be composed of ejidatarios from the immediate locality who had at least preliminary certification of land use. Law required that they were to be organized only after a democratic vote had achieved a simple

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[1]Simpson, *The Ejido: Mexico's Way Out*, pp. 385-86. Circular 51 of the National Agrarian Commission directed the ejidos to put aside 15% of the earnings from the communal lands to establish a social fund.

[2]Alvarez Albornoz, *Trayectoria y Ritmo del Credito Agricola en Mexico* (Mexico, D.F.: Instituto Mexicano de Investigaciones Economicas, 1966), p. 109.

majority in favor of forming a Cooperative. Cooperatives could be organized without capital so long as they were based on unlimited responsibility and the principle of solidarity.[3]

The philosophical roots for the organization of the Ejido Cooperative Societies were based on the Raiffenssen Savings and Credit Cooperatives of Europe. Its adoption by Mexico was rationalized by R. Marte Gomez, one of the principal writers of the agricultural credit legislation of 1926.

> Savings and Credit Associations, inspired in the type created by Raiffenssen, prosper in Germany, Austria, Belgium, Danzig-Spann, Spain, Finland, Hungary, Lithonia (*sic*), Holland, Romania, Switzerland, Czechoslovakia, and France; the happy experience of all these countries justified its adoption in Mexico.[4]

This statement was modified by Gomez who added that, although the Cooperative Societies were based on the European Raiffenssen model, "without a doubt . . . each nation would have to organize [the societies] in accordance with their own peculiarities and in view of the state of the economic and social development they find themselves."[5] The Mexican legislators thought it necessary to insist upon the principles of solidarity and unlimited responsibility in Ejido Cooperative Societies. This was due to Mexico's land tenure system in which the ejido land remained "imprescriptible and inalienable," and to the ejidatarios' lack of capital (ejidatarios could own no more than 2500 pesos of capital, or land equal to the minimum size of an ejido plot, in order

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[3]R. Marte Gomez, *El Credito Agricola en Mexico: Estudio sobre su Establecimiento y Analisis de su Funcionamiento Hasta 1931* (Chapingo, Mexico: Colegio de Postgraduados, 1976), p. 32.

[4]Ibid., p. 33.

[5]Ibid.

to be eligible for ejidatario status). Unlimited responsibility and solidarity were proposed as a solution to the ejidatarios' problem of how to acquire credit without the customary collateral for agricultural loans.

The functions of the Ejido Cooperative Societies specified in the 1926 law were as follows.

1. To grant short- and medium-term credit to its members.

2. To organize the ejido economy and acquire for sale or rent to its members, or for common use by them, seeds, animals, fertilizers, tools, and agricultural machinery.

3. To construct and administer storehouses, graneries, irrigation reservoirs, canals, and other permanent improvements, and to establish industrial enterprises of agricultural production or for the common sale of products.

4. In general, to care for the better economic organization of its membership and for its moral and social progress.[6]

The direction of the Ejido Cooperative Societies was charged to the General Assembly of Ejidatarios. The General Assembly was required to hold at least two meetings per year. At their initial meeting they were required to elect a three-member Administrative Committee to represent the Cooperative Societies before outside interests, especially the government. In addition, each General Assembly was to elect a Vigilance Committee, also of three members, to oversee the operations

[6]Ibid., p. 31.

of the Cooperative Societies and the actions of the Administrative Committee. Both groups were to serve a two-year term, without the possibility of re-election. To be eligible for a position on either committee one had to be a member of the ejido in good standing, and be able to read and write Spanish. The accounting and care of each Ejido Cooperative Society's funds was to be handled by an ejidatario designated by the Ejido Bank from a trio proposed by the Vigilance Committee.[7]

The law also required that part of a Cooperative Society's "profits" be used to accumulate a capital fund. Previously, under Circular 51 of the National Agrarian Commission, the ejidatarios had turned over 15% of their harvest to the ejido authorities. The new legislation stipulated that:

> . . . funds for cooperative development which had been, or would be in the future, collected under the 15% provision of Circular 51 . . . should be used to form part of the capital of the local Cooperative Societies to be established under the new Law of Ejido Banks.[8]

A social fund was to collect 3% of the value of the members' crops. When an Ejido Cooperative Society's social fund equaled 50% of its annual operating expenses, the Society was to be transformed into a Local Society of Agricultural Credit. Thereafter, it would operate with the BNCA in accordance with the Law of Agricultural Credit of February 10, 1926.

The Ejido Cooperative Society was not to be the only link between the ejidatarios and the agricultural credit institutions. The BNCA was

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[7]Albornoz, pp. 106-07.

[8]Simpson, p. 386.

authorized to organize Regional Agricultural Credit Societies constituted of large- and medium-scale farmers. They were to be organized under limited liability and were to be financed through capital shares subscribed by the members. The writers of the legislation envisioned that the Regional Societies would, among other things, provide credit to small farmers and ejidatarios. In this manner, the local Societies of Agricultural Credit and Ejido Cooperative Societies would indirectly benefit from the institution's operations with medium- and large-scale farmers.

Organization and Operations of the Ejido Banks, 1926–1930

Ejido Bank Capital

In 1926, four of the nine authorized Ejido Banks were established in Durango, Durango; Celaya, Guanajuato; Tula, Hidalgo; and Morelia, Michoacan. Each bank was financed through federal government subscriptions to Series "A" stock worth 115,000 pesos. The Bank of Durango also received from the federal government 75,000 pesos worth of machinery and equipment, and the Banks in Celaya and Tula each received 50,000 pesos worth of machinery and equipment. In 1927, only one Ejido Bank was created, in Guadalajara, Jalisco. The capitalization of this Bank during its first year is unknown. It is a unique case, as it was the only Ejido Bank to be financed by the ejidatarios themselves, without financial assistance from the federal government. Three Ejido Banks were created in 1928, in Chihuahua, Chihuahua; Tlalnepantla, Mexico; and Puebla, Puebla. Their initial capital stock subscribed by the federal government was only 50,000 pesos each, with no additional sum for machinery or equipment. The ninth Ejido Bank was established in

1929, in Cuernavaca, Morelos. Although the amount of its initial capital stock is unknown, it was characterized as "scarce" and the institution's existence as "precarious."[9]

The total capital supplied to the Ejido Banks by the federal government during this period (1926–1930) has been estimated by Simpson and is given in Table 1. Simpson notes that the figures "give an approximately accurate picture of the status of the Banks at the time reorganization theoretically began,"[10] January 1, 1931.

TABLE 1

ESTIMATED TOTAL CAPITAL SUPPLIED TO EJIDO BANKS, 1926–1930

Ejido Bank	Value of Series "A" Stock (pesos)
Chihuahua	50,000
Durango	168,000
Guanajuato	177,000
Hidalgo	170,000
Jalisco	35,000
Mexico	50,000
Michoacan	166,000
Morelos	0
Puebla	50,000
TOTAL	866,000

Source: Elyer Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937), p. 667.

[9]Enrique Gonzalez Aparicio, *El Problema Agraria y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 34.

[10]Simpson, p. 667.

The legislation also made provisions for Series "B" stock to be subscribed by the local and state governments, and Series "C" stock to be subscribed by the Ejido Cooperative Societies. During this period, however, the local and state governments were not well financed and were thus unable, or unwilling, to purchase stock in the Ejido Banks. The Ejido Cooperative Societies were equally poor but, willing or not, were required to purchase stock in the Banks. As stated earlier, the ejidatarios were subject to a 15% "tax" which, previously, had to be turned over to the National or State Agrarian Commissions. The new law directed that part of this money be used to purchase Series "C" stock. According to data in the *Informes Oficiales* (1931), and published in *El Problema Agraria y el Credito Rural* by E. Gonzalez,[11] the value of Series "C" stock acquired by Ejido Cooperative Societies during the period was that shown in Table 2.

On an average annual basis, the Ejido Cooperative Societies in the Jalisco Bank region purchased the largest amount of Series "C" stocks at 24,878 pesos since 1927. This is as may have been expected, as it will be recalled that this was the only bank established without financial assistance from the federal government. The contributions of the remaining Societies to their respective banks, on an average annual basis, ranked in the following order: the Chihuahua Bank, 18,643 pesos; the Hidalgo Bank, 16,430 pesos; the Guanajuato Bank, 16,163 pesos; the Durango Bank, 15,512 pesos; the Mexico Bank, 11,177 pesos; the Michoacan Bank, 6,858 pesos; and the Puebla Bank, 2,033 pesos. (The Morelos Bank

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[11]Gonzalez, p. 34.

TABLE 2

SERIES "C" STOCK ACQUIRED BY
EJIDO BANKS, 1926–1930

Ejido Bank	Value of Series "C" Stock (pesos)
Chihuahua	55,930
Durango	77,560
Guanajuato	80,010
Hidalgo	82,150
Jalisco	99,510
Mexico	33,530
Michoacan	34,290
Morelos	unknown
Puebla	6,100
TOTAL	469,080

Source: E. Gonzalez, *El Problema Agrario y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 34.

is reported to have issued approximately 25,000 pesos worth of Series "C" stock in January 1931). On the basis of value of Series "C" stock purchased per member of Ejido Cooperative Society, the ranking is almost identical. The ejidatarios of Jalisco purchased, on the average, more stock than the ejidatarios of all the other regions, at 47.43 pesos per member. At the other extreme, the ejidatarios of the Puebla Bank region purchased, on the average, only 1.62 pesos per member.

The BNCA's insufficient operating capital has received considerable attention in the literature. According to data cited previously, the federal government provided only 610,000 pesos in total capital (through the purchase of Series "A" stocks) and 175,000 pesos in machinery and equipment, as compared with the promised 200,000 pesos during the first year. Actual funds received equaled only 33.8% of authorized funds. For a complete accounting of the bank's available capital, we should add that provided by the Ejido Cooperative Societies. Table 2 indicates that the total value of Series "C" stock acquired by the Ejido Cooperative Societies was 470,000 pesos during the five-year period. Thus, the total funds available to cover operating expenses of the Ejido Banks were a little over one million pesos. This is hardly a sufficient capital base when it is remembered that, at the end of 1930, there were over 37,000 members of Ejido Cooperative Societies in the eight states with operating Ejido Banks, and over 600,000 ejidatarios in the whole republic.

Cooperative Organization

Following a period of organization and staffing, the Ejido Banks began their efforts at organizing Cooperative Societies and supervising the general economic and social development of the ejidos. Table 3 shows their quantitative progress during this period.

During the initial years, 1926 and 1927, the Ejido Banks showed the greatest success in terms of the number of societies founded and their membership. These years were followed by a drastic decline (61% decrease during 1928), and a recovery in 1929 (more than 100% over 1928, yet 20% below the first two years); only to fall again in 1930, almost to the level of 1928. By the end of 1930, the Ejido Banks were able to organize less than 20% of the ejido villages legally constituted, and barely 5% of all ejidatarios in the republic.[12]

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[12] Simpson, pp. 609, 668-69.

TABLE 3

EJIDO BANK ACTIVITIES, 1926–1930

Year	Number of Societies Founded	Membership	Societies Receiving Loans	
			Number	Members
1926	60	2,562	18	977
1927	65	3,173	34	1,811
1928	25	1,311	56	2,200
1929	51	2,259	50	2,387
1930	29	1,644	42	2,120
TOTALS	230	10,949	200	9,495

Source: E. Gonzalez, *El Problema Agrario y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 34.

The distribution of Cooperative Societies organized by the Ejido Banks, according to official statistics published in August 1931 (and presumably including all Cooperatives organized by the National Agrarian Commission and the Ejido Banks until December 31, 1930), is shown in Table 4.

There is a considerable range in the number of societies and members organized by the various Ejido Banks. The year of a bank's creation seems to be the most influential factor. In other words, those Banks that were created in the earliest year, 1926 (Guanajuato, Hidalgo, and Michoacan), had the highest average number of organized Societies and membership per year. At the other extreme, those Banks created in 1927 and 1928 (Jalisco, Chihuahua, Mexico, and Puebla) had

TABLE 4

ORGANIZATION OF COOPERATIVE SOCIETIES
BY EJIDO BANKS

Ejido Bank	Number of Cooperative Societies	Number of Members
Guanajuato	133	7,997
Hidalgo	103	5,640
Michoacan	97	6,850
Puebla	93	3,765
Durango	85	5,361
Mexico	76	3,914
Jalisco	55	2,098
Chihuahua	39	2,215

Source: E. Gonzalez, *El Problema Agrario y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 34.

organized the lowest average annual number of Ejido Cooperative Societies and members. What is equally obvious, yet not captured in the statistics, is that given the locations of the Ejido Banks, all ejidos in the south, northeast, and northwest regions of the country were outside the operating zones of the Banks. This meant that more than 50% of the total ejidos had no possibility of receiving help from the Ejido Banks.

Ejido Banks' Finances

The Ejido Banks' efforts in providing financial assistance to the organized Cooperative Societies are shown in Table 3. The number of Societies receiving loans throughout the period fluctuated widely, increasing over the first three years and decreasing thereafter. If the number of Societies receiving loans is considered as a percentage of the new Societies organized during a given year, we find a continuously increasing trend throughout the period. In 1926, the Ejido Banks served only 30% of the newly organized Cooperative Societies. Thereafter the percentage rose steadily until it reached 86.9% in 1930. However, the percentage of the total number of existing ejidos and ejidatarios receiving credit shows a much more dismal record. In 1926, the Ejido Banks served only 4.4% and 1.2% of the existing ejidos and ejidatarios respectively. The percentage of existing ejidos receiving loans reached a peak of 9.2 in 1928 and gradually decreased to 8.6 in 1930. The percentage of the total number of existing ejidatarios receiving loans shows a very slow, but steady, upward climb until it reached 2.35 in 1930.

The amounts of credit received annually by the Ejido Cooperative Societies are shown in Table 5.

The record established in this early period was mixed. While the absolute amount of credits provided was rather small, the direction of change was generally positive until the final year, 1930, when the amount of loans actually decreased by 10%. The nominal amount of credit provided by each of the nine Ejido Banks increased throughout

TABLE 5

EJIDO BANKS' LOANS, 1926–1930

Year	Total Amount of Loans (pesos)	Percent Annual Change	Average Loan per Society (pesos)	Average Loan per Member (pesos)
1926	162,000		9,000	165.81
		+79.6		
1927	290,000		8,529	160.13
		+105.0		
1928	597,000		10,661	271.36
		+93.1		
1929	1,153,000		23,060	483.03
		–10.0		
1930	1,038,000		24,714	489.62

Source: E. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937), p. 668.

the period until 1929. In the first year, 1926, it was only 40,500 pesos per Bank; it increased in 1927 to 58,500 pesos per Bank, and increased again in 1928 to 85,210 pesos per Bank, reaching a peak of 128,118 pesos per Bank in 1929. In 1930, when the absolute amount decreased, so did the amount per Ejido Bank, to 115,330 pesos.

The overall lending pattern of the Ejido Banks varied considerably from year to year. This can be shown by considering three variables: the average annual amount of loans per Ejido Cooperative receiving loans, the average annual amount of loans per ejidatario receiving loans, and the change in the nominal amount of loans provided.

The first two variables show a continuous increase throughout the period, 1926–1930. The first increased more than threefold over the five-year period and the second increased more than two and one-half times. This information by itself indicates a good performance. However, when the change in the nominal level of loans is taken into account, a slightly different picture emerges. The nominal level of loans increased slightly during the first three years as did the number of Ejido Cooperative Societies and ejidatarios receiving loans, thus resulting in a small increase in the average amount received by the Cooperative Societies and ejidatarios. The fourth year shows a surprise; while there was a decrease in the number of Societies receiving loans, the nominal level of loans increased considerably, resulting in a large increase in the average loan per Cooperative Society and ejidatario receiving loans. A similar result followed in the fifth year; the number of Ejido Cooperative Societies and ejidatarios receiving loans decreased while the nominal amount of loans decreased less, so that the average loan per Cooperative Society and ejidatario increased. This trend implies that Societies and ejidatarios who had previously received loans were unable to obtain such loans from the Ejido Banks during 1929 and 1930. Presumably they were either forced to borrow from the more traditional sources (at higher interest rates, etc.) or to go without credit and have a smaller or nonexistent crop. An indirect effect would be to cause at least a short-term impact on the institutions' ability to recover loans, especially medium- and long-term loans, made to ejidatarios during the period 1926 to 1928.

Table 6 gives the distribution of the Ejido Banks' lending operations from their founding dates until December 31, 1930.

TABLE 6

EJIDO BANKS' LOAN DISTRIBUTION, 1926–1930
(Figures in Pesos)

Ejido Bank	Amount of Loans	Average Annual Loans	Average Loan per Cooperative	Average Loan per Member
Chihuahua	227,686.21	75,895.40	5,838.11	102.79
Durango	763,926.29	152,671.97	8,980.70	145.10
Guanajuato	850,427.71	170,085.54	6,394.19	106.34
Hidalgo	522,048.96	104,429.79	5,069.41	92.58
Jalisco	419,739.71	104,934.93	7,631.63	200.07
Mexico	102,562.28	34,187.43	1,349.50	26.20
Michoacan	392,297.48	78,459.50	4,044.30	57.27
Puebla	176,384.12	58,794.71	1,896.60	46.85

Source: E. Gonzalez, *El Problema Agrario y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 36.

The oldest Ejido Banks show the largest total loans. Accounting for differences in years of operation, calculating the average annual loans, the older Banks also tended to provide the largest volume. There is a wide range in the average loan per Ejido Cooperative Society and per member of Cooperative Society. It should be noted that the Jalisco Bank--the only Bank that was originally self-funded--provided the second highest average loan per Cooperative Society and highest per member. Other than this one difference, there seems to be no apparent correlation between length of the Banks' existence, geographic location, number of Societies organized, or level of initial capital and the average loan per Ejido Cooperative Society or per member.

The distribution of the Ejido Banks' agricultural loans by type is indicated in Table 7.

TABLE 7

EJIDO BANKS' AGRICULTURAL LOANS BY TYPE, 1929

Class of Loan	Amount (pesos)
Short-term (crop advances)	724,595.76
Individual medium-term	483,215.54
Collective medium-term	215,914.87
Other	8,694.91

Source: Lucio Mendieta y Nuñez, *El Credito Agraria en Mexico* (Mexico, D.F.: Imprenta Mundial, 1933), p. 79.

We can see that during 1929 the loans were split nearly 50-50 between short- and medium-term loans. This is somewhat surprising, since most government agricultural credit institutions lend primarily short-term credits to keep the available capital in circulation. On the other hand, it could be taken as an indication of the need for semi-fixed and fixed capital in the Ejido Cooperative Societies. However, less than one-third of the medium-term loans were for investments made collectively by the Societies. The majority were made by individual ejidatarios. Agricultural production loans represented approximately 93.9% of the total loans granted for production purposes. The remaining 6.1% were for livestock purchases (207.58 pesos), land purchases (20,067 pesos), machinery (35,147 pesos), furnitures and appliances (27,882 pesos), and vehicles (8,486 pesos).[13]

It is generally acknowledged that most of the short-term agricultural loans were to finance production of the basic food crops, corn and beans. As mentioned above, it is unknown to what extent these, or other crops, were financed. Yet, with the information available we can make very general observations regarding loans to the Ejido Cooperative Societies during this period. As stated above, the average loan per ejido and per member of Ejido Cooperative Society was greatly different for each Ejido Bank. The Jalisco Bank's average loan per member for the years 1929—1930 was 200.07 pesos. At the same time, the Ejido Bank in the state of Mexico averaged only 26.30 pesos per member. This is a difference of over 700%. Furthermore, the other Ejido Banks' average loans per member fall within this range but show no convergence towards a common level. These differences may be attributable to differences in crops financed, or to different qualities of land and/or technology; information which, as stated above, is unavailable. Yet, for the following reasons, it is believed this is not the case.

1. Six of the eight Banks are located in the same region, the central mesa, and have similar terrain and quality of land.

2. The Mexican peasant diet was very simple, almost completely reliant upon corn and frijoles.

3. The traditional, non-mechanized technology was used widely by the ejidatarios during this time (although it is entirely possible

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[13]Lucio Mendieta y Nuñez, *El Credito Agraria en Mexico* (Mexico, D.F.: Imprenta Mundial, 1933), p. 79.

that, through the efforts of the Bank, some ejidatarios began introducing steel plows and other simple machinery to the production process).[14]

For these reasons, it is highly unlikely that the vast differences in the amounts of loans granted per ejido and per member of Cooperative Society by the different Ejido Banks were due to differences in the cost of production, productivity, or expected returns from investments. Therefore, we can hypothesize that the amounts of loans granted per ejido and per ejidatario were based more upon some exogenous factors (e.g., political influence, degree of poverty or stagnation, ability to create problems for the government, etc.) than upon the factors of production possibilities.

Results of the Banks' efforts to collect the payments due on loans granted from 1926 to 1930 are shown in Table 8.

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[14]According to census data reprinted in the *Manual de Estadisticas Basicas Sector Agropecuario y Forestal*, Secretaria de Programacion y Presupuesto, Mexico, March 1979, during the year 1930 costs of production per hectare of cultivable ejido land in the eight states where the Ejido Banks were located show variations of only 100% (versus the 700% variations in loans per Ejido Cooperative Society and per member). Also, there appears to be little correlation between the relative costs of production and the ranking of the Ejido Banks by levels of loans per Ejido Cooperative Society or per member. In the state of Jalisco, the costs per hectare of cultivable land shows the second lowest level (9.23 pesos per hectare) for the eight states. Yet as shown above, its Bank had the highest level of average loans per Ejido Cooperative Society and per member. A similar situation existed in the state of Guanajuato, with the lowest cost per hectare of cultivable land (8.09 pesos per hectare) and the third highest level of loans per member of Ejido Cooperative Society. At the other extreme is the situation of the Bank of Tlalnepantla, Mexico. It had the fourth highest cost per hectare of cultivable land (13.47 pesos per hectare), and the lowest amount of loans per member of Cooperative Society.

TABLE 8

LOAN REPAYMENTS TO EJIDO BANKS, 1926–1930
(Figures in Pesos)

Ejido Bank	Amount of Repayments	Percent of Total Loans Repaid	Average Annual Repayments	Average Repayment per Cooperative	Average Repayment per Member of Cooperative
Chihuahua	127,936.32	56.2	42,645.44	3,280.41	57.76
Durango	510,926.29	70.0	102,185.26	6,010.90	97.12
Guanajuato	349,139.32	41.1	69,927.86	2,625.11	43.65
Hidalgo	334,250.26	64.0	66,850.05	3,245.15	59.26
Jalisco	230,608.11	54.9	57,652.03	4,192.87	109.91
Mexico	16,386.07	15.9	5,462.02	215.61	4.19
Michoacan	179,397.55	45.7	35,879.51	1,849.46	26.19
Puebla	54,428.89	30.9	18,142.96	585.26	14.46

Source: E. Gonzalez, *El Problema Agrario y El Credito Rural* (Mexico, D.F.: Imprenta Mundial, 1937), p. 36.

Again, those Banks with the largest amounts of repayments are the oldest Banks. However, this does not strictly hold when we estimate the percentage of total loans repaid and the average annual repayments. The Michoacan and Guanajuato Banks (both created in 1926) have lower repayment percentages than the Chihuahua and Jalisco Banks, created later. The oldest Banks did not all have the highest average annual repayments. The Michoacan Bank again was behind in this category.

If the information in Tables 6 and 8 is combined, one can see that those Banks with the highest average loan per Ejido Cooperative Society and per member (Durango and Jalisco) also had the highest average repayment per Ejido Cooperative Society and per member. What may be more important is that these two Banks also had the highest percentage of total loans repaid over the whole period. At the other extreme, the Bank of Tlalnepantla, Mexico, had the lowest levels of loans per Ejido Cooperative Society and per ejidatario, the lowest average loans, the lowest average repayment per ejido and per ejidatario, the lowest levels of average annual repayments, and the lowest levels of total loans repaid. Thus, during this period, the level of repayments collected by the various Banks largely reflects the levels of loans provided. The large variations among the Banks in both average and total loans repaid reflect to some extent the wide variation in the average loan granted per ejido and per ejidatario.

From Tables 6 and 8 we find that the Ejido Bank system collected only 42.5% of the total loans granted. Some of the loans provided during the previous years were not yet due on December 31, 1930, and should not be considered overdue. Therefore, the actual collections of loans due would have been somewhat better than 42.5%. However, this difference is likely to be rather small as compared to the 57.5% difference between loans made and repayments collected.

Since we do not have sufficient information on the functioning of the Ejido Banks to give an indication of the local effects of the Banks on the ejido villages, it may be helpful to summarize a case study conducted by Simpson in the village of Remedios (located in the region of the Bank of Tlalnepantla, Mexico). Such a microanalysis based on a single observation may be viewed as, at best, a poor basis for deriving conclusions about the Ejido Banks' impact on ejido villages. Nevertheless, this bias is somewhat buffered by the fact that Simpson's choice of Remedios, among the many villages he visited all over Mexico, was made with "malice and forethought," in an effort to ". . . single out villages which would exhibit phenomenon [in this case, Ejido Bank credit operations] . . . in their acute aspects."[15] Table 9 shows the Remedios Ejido Cooperative's transactions with the Ejido Bank.

TABLE 9

REMEDIOS EJIDO COOPERATIVE'S OPERATIONS
WITH THE EJIDO BANK, 1926–1930
(Figures in Thousands of Pesos)

	Crop Advances			Individual Loans			Warehouse Loans		
Year	Loaned	Repaid	Owed	Loaned	Repaid	Owed	Loaned	Repaid	Owed
1926	0	0	0	0	0	0	0	0	0
1927	10.6	0	10.6	2.5	0	2.5	2.0	0	2.0
1928	13.6	10.8	13.4	10.4	4.0	8.9	9.4	4.9	6.5
1929	20.1	10.1	23.4	0.6	3.1	6.4	0.3	4.3	2.5
1930	1.0	3.5	20.9	0.3	0.4	6.3	0.1	0	2.6

Source: E. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: The University of North Carolina Press, 1937), p. 432.

We can observe a trend in the lending and repayment record of the Remedios Cooperative Society that is remarkably similar to that of the Ejido Bank system. The Remedios Cooperative Society was begun in 1926 but, as Simpson stated, ". . . somehow or other the cooperative couldn't seem to get together with the Ejido Bank."[16] The Ejido Cooperative went without credit and, furthermore, the ejidatarios were convinced

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[15]Simpson, p. vii.

[16]Ibid., p. 429.

that the Ejido Bank did not have money to lend. The president of the Administrative Committee was quoted as saying, ". . . they have tried to make us believe that the Bank has got 200,000 pesos, and it has not even got 200,000 centavos . . . ."[17] After this initial year, Table 9 indicates that there were continuous improvements in the amounts of loans received until 1929. The vast majority of the loans were short-term, except in 1928 when approximately 40% of the loans were individual loans for unspecified purposes.

Repayments fell behind payments due at a rapid rate during the period. As noted by Simpson, this, in mid-1928, led the then-new manager of the Ejido Bank, Abelardo Caldas, to try to change the Bank's policy toward the Remedios Cooperative Society.[18] However, his efforts failed as a result of intervention on the part of the governor of the state. The Minister of Agriculture then ordered the continued, and expanded, lending operations of the Ejido Bank with the Remedios Cooperative Society. The loans granted in late 1928 were made under the auspices of supporting the Remedios Society (and other ejido villages of the state) against an effort by private grain buyers to "break them." Efforts to collect payments due on these and previous debts continued throughout 1929, but showed little success. Finally, in 1930 (and after the transfer of the Bank manager, Caldas) the Bank began a long-term attempt to straighten out the Remedios Cooperative Society's records and to take actions to recover its overdue loans. During this

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[17] Ibid., p. 430.

[18] Ibid.

time, as shown in Table 9, the level of loans and repayments was almost zero. In summary, throughout this initial period the operations of the Remedios Cooperative with the Ejido Bank were up and down. From the standpoint of an agricultural enterprise (as the Cooperative Society was), the sudden and drastic changes in the level of loans for operating capital (crop advances) were disastrous. On the other hand, from the standpoint of the Ejido Bank system, the Bank's inability to collect the loans due was also potentially disastrous.

Simpson's case study can also provide us with some qualitative insights into the Ejido Banks' organization of Ejido Cooperative Societies. In his reconstruction of the events that led to the organization of the Remedios Cooperative Society, Simpson recounts that the Ejido Bank acted only after many unfulfilled promises and an effort by the elected President of the Administrative Committee to dissolve the Cooperative. This erratic, crisis-oriented policy of the Ejido Bank is also evidenced in the attempts to regulate the ejido village economy. Numerous problems existed in Remedios in this area, including an inability of the Administrative Committee or the Ejido Bank to collect the 15% "tax" to pay for the Series "C" stocks, a number of ejidatarios in possession of land or wealth in excess of the maximum stipulated in the law, and non-ejidatarios cultivating ejido lands or benefiting from the use of common ejido lands. These irregularities existed in spite of attempts to enforce the rules in these areas. In fact, two managers of this Ejido Bank were transferred within a year of their attempts to "clean house."[19]

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[19]Ibid., pp. 419-33.

The removal of A. Caldas and his successor as Ejido Bank manager shortly after their attempts to organize the Bank's records and collect overdue loans indicates a high probability that problems existed in the Bank's management. First, transferring the bank employees directly after their trying to enforce difficult regulations is not conducive to efficient management. The result of such action is that they, and their successors, would be less likely to try to enforce such rules in the future. Secondly, the continuous shuffling of employees, whether or not they are involved in "cleaning house," has an adverse effect on the success of the institution and the Ejido Cooperative Societies. Simpson concurs in this, stating,

> When so much depends upon an intimate acquaintance with the personalities and problems in each of the ejidos served by the bank, it is obvious that these constant shifts in the banks' personnel greatly prejudice the chances for success.[20]

In order to give a macro view of the Ejido Banks' operations, it may be instructive to investigate the relationship between the amounts of loans granted by the Ejido Banks and the total amounts of loans granted by the BNCA. This will give an indication of the overall agricultural credit policy of the Mexican government during the administration of President Calles. The two systems, as intended in the legislation, were to be separate systems of agricultural credit. Yet, in reality there was a great deal of interdependence between the two. This is evidenced in the following statement by R. Marte Gomez:

> Each loan application by one of these [ejido] societies revived the arguments of the pessimists that argued all the funds would be lost because of loans to the

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[20]Ibid., p. 434.

> modest ejidatarios, and it gave an opportunity to repeat the vehement defense of agricultural credit in favor of those that don't have greater guarantee than their labor.[21]

According to data from the BNCA, which is cited by Simpson, the Ejido Banks were practically ignored during their first two years, 1926 and 1927. During 1926, the Ejido Cooperative Societies, through the Ejido Banks, received only 1% of the total BNCA and Ejido Bank loans. In 1927 this percentage increased to only 3.4%. The following two years, the quantitative importance of the Ejido Banks improved considerably. Ejido Cooperative Society loans represented 11.8% of total loans in 1928 and increased to 37.1% in 1929. In the last year of the period, 1930, the favorable trend did not continue as Ejido Bank loans fell to 33.3% of total loans.[22]

The 1926–1929 trend in the lending operations of the Ejido Banks, from the perspective of the institution's development and the development of the ejido system, must be considered favorable. While the earliest years indicate a minimal importance of the Ejido Banks and the ejido system, the increasing quantitative importance during the period should not be overlooked. This position came mostly at the expense of the private, medium- and large-scale agricultural sector and the BNCA. A rather curious detail on this aspect is provided by Simpson; during 1930, for the first time in their rather short history, the total amount of agricultural loans was divided evenly among three groups: small farmer local credit societies, Ejido Cooperative Societies, and individual medium- and large-scale farmers.

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[21]Gomez, p. 53.

[22]Simpson, p. 667.

A consideration about which little can be said is the administrative and technical costs of providing credit services to the ejidos. Cost data on all the Ejido Banks during this period are not available. However, there is a case study by Simpson on the question of costs in the Ejido Banks. He notes that the Ejido Bank of Guanajuato, in 1926 and 1927, spent over 93,000 pesos on salaries alone while the total loans granted during the same period equaled only 316,000 pesos.[23]

Law of Agricultural Credit for Ejidatarios and Small Farmers, 1931

The progress of the Ejido Banks, during the first five years, was considered poor even (ultimately) by the Mexican government policymakers. Simpson quotes ex-President Calles in summarizing the credit situation in June 1930: "The system of agricultural credit, unfortunately, has not produced the results we hoped for--neither in the Bank of Mexico, the National Bank of Agricultural Credit, nor in the Ejido Banks . . . ."[24]

A concise statement by Simpson on Mexico's agricultural credit situation and the law of 1931 provides a background of the circumstances under which the Law of Agricultural Credit for Ejidatarios and Small Farmers was instituted.

> It is rather curious and an interesting commentary on the lack of coordination and unified direction in the agrarian reform that the Ortiz Rubio administration which, with reference to all other aspects of the

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[23]Ibid., pp. 390-91.

[24]Ibid., p. 391.

> reform, was clearly reactionary, should have been responsible for an attempt to rescue the government banks from confusion and futility and to reorganize them on definitely cooperative principles for the exclusive benefit of the ejidatario and small farmer.[25]

The reform law of January 12, 1931, which repealed the Law of Agricultural Credit of February 10, 1926, restructured the agricultural credit system.[26] The new law created a single agricultural credit system under a refurbished BNCA[27] as a central bank,[28] combining the functions previously delegated to the old BNCA and the Ejido Banks. The change to a single-institution credit system was a reaction to the perception that a major cause of the old system's failure was the continual infighting between the BNCA and the Ejido Banks over jurisdiction, funds, and their respective roles in Mexico's agricultural development plans.[29]

A second, and possibly more important, change in the agricultural credit system was the exclusion of medium- and large-scale farmers as credit subjects of the BNCA. R. Marte Gomez, then Minister of Public

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[25]Ibid., p. 392.

[26]The new law did not formally repeal the Law of Ejido Banks, although it did declare null and void the Decree of August 30, 1928, which created the Department of Agrarian Organization and Ejido Credit, responsible for the administration of the Law of Ejido Banks. On February 26, 1932, a decree was signed providing for the liquidation of the Ejido Banks.

[27]To conveniently differentiate between the original BNCA and the BNCA as defined in the law of 1931, they will be referred to in this study as the BNCA and the BNCA2 respectively.

[28]This does not refer to the nation's central bank but rather is used to indicate that this bank was the central institution of the agricultural credit system.

[29]Simpson, p. 392.

Finance, expressed the following conclusion of the Council of Ministers. "The agricultural credit that can be developed with the resources of the state ought to be exclusively for the ejidatarios and small farmers of the Republic."[30] The legislators further stipulated that:

> . . . the system will engage in credit operations with ejidatarios and small agriculturalists only when they are organized in cooperative societies . . . . Credit operations of whatever sort with separate individuals are prohibited.[31]

It can be hypothesized from this that the legislators thought that political loans to influential individuals and owners of large-scale agricultural enterprises were an additional cause of the failure of the old agricultural credit system.

President Ortiz Rubio and his cabinet issued the following statement on the direction of the agricultural credit reforms.

> The government-controlled system of agricultural credit should not be simply "a bureaucratic dependence, nor, on the other hand, should it be a commercial institution dedicated to profit making. . . it must fulfill both social and economic functions. The system of credit must be devoted above all to the development and progress of the ejido economy, and should be so organized as to bring about a close and effective coordination between the economic and social activities of the system and of the authorities in charge of the distribution and administration of the ejidos. As a corollary to the foregoing the . . . system should not restrict its activities simply to carrying out the traditional functions of credit institutions; . . . it should be so organized as to be able to intervene advantageously in the control of the production, distribution, transformation and marketing of the farm products of the entities with which it is related in particular and of the national industry of agriculture in general."[32]

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[30]Gomez, p. 79.

[31]Simpson, p. 393.

[32]Ibid., pp. 392-93.

In these comments the president and his cabinet were addressing the unresolved problem of defining the relationship between the agricultural credit institution and the ejidos. For reasons of time, lack of knowledge about how to proceed, or political indecision-making, the role of the Ejido Banks as an educational/financial/social institution had not been well defined. This may be another reason for the failure and confusion of the old agricultural credit system in general, and the Ejido Banks in particular.

BNCA2 Organization and Functions, 1931–1933

The institutional structure under the new law included a central bank--that is, the BNCA2; Regional Banks, organized by the BNCA2 and affiliated with it; Agricultural Cooperative Societies, formed by ejidatarios and other small farmers and associated with the Regional Banks; Unions of Agricultural Credit Societies, formed by Agricultural Cooperative Societies; and a network of warehouses, affiliated with any one of the aforementioned institutions.[33]

The BNCA2, as a stock company, was to continue to be financed through stocks: Series "A", to be subscribed by the federal government; Series "B", to be subscribed by the local and state governments; and Series "C", to be subscribed by the Regional Banks and the Cooperative Societies. The federal government's control over the institution continued to be ensured as all decisions of the stockholders had to be ratified by the representatives of the Series "A" stockholder (i.e., the federal government).

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[33]Ibid., p. 393.

It was envisioned by the legislators that the amount of capital for the new institution would show a considerable improvement over that of the old banks. The law stipulated that the government purchase the properties of the *Caja de Prestamos* (the pre-1925 agricultural credit institution), which had been transferred to the BNCA when it was established and now passed to the BNCA2. It was expected that good accounts from the Ejido Banks and the BNCA would provide approximately 14 million pesos for future use. In addition, the government planned to augment the capital of the BNCA2 by 500,000 pesos each year out of revenues expected from federal government irrigation projects.

> In these various ways, it was hoped that the bank could be opened with the actual effective funds of around 15 million pesos and that in the course of five years this amount could be raised to the full authorized capital sum of 50 million pesos.[34]

The law further provided that,

> In view of the fact that the new system will have to carry on an intensive and costly work of social education and ejido organization . . . arrangements will be made between the various banking institutions and the Ministry of Agriculture, whereby the cost of this work will be covered by funds to be supplied by the Federal Government.[35]

The objectives of the BNCA2, as outlined in the law, were to:

1. promote, regulate, and oversee the constitution and functioning of the Agricultural Cooperative Societies;

2. organize, regulate, and oversee the Regional Banks of Agricultural Credit;

3. make short-term, medium-term, commercial, long-term, and mortgage loans to the Agricultural Cooperative Societies;

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[34]Ibid.

[35]Ibid., p. 394.

4. subscribe to the stocks of the Regional Banks and operate with them within the terms of the law;

5. issue agricultural bonds and mortgage bonds and authorize the issuance of agricultural and mortgage bonds by the Regional Banks;

6. organize and administer the service of the warehouses;

7. organize and direct the industrial enterprises necessary for the agricultural, livestock, and forestry products of the Cooperative Societies and Regional Banks;

8. organize and administer the Savings Department of Campesinos;

9. colonize and distribute land owned by the Federal Government, to whichever persons or individuals such that their operation will be in the public interest and can be operated with funds of the interested owner;

10. proceed, with federal government funds and authorization, in the economic organization of the ejido and the education of the ejidatario within the terms of the law;

11. oversee and guarantee payment for surveys made by the Public Registrar of Agricultural Credit; and

12. practice the banking and commercial operations and concede those contracts that are necessary to the institution.[36]

Loans permitted by the BNCA2, the Regional Banks, and Cooperative Societies and the conditions of these loans were as follows.

1. Short-term crop advances for the purchase of seed, fertilizer, tools, and so forth; not to exceed 75% of the value of the crop, with a maximum term of 18 months.

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[36]Mendieta y Nuñez, pp. 83-84.

2. Medium-term loans for the purchase of more permanent types of equipment, livestock, and for investment in the planting of orchards and other slow-maturing crops; not to exceed 85% of the value of the articles purchased or of the ultimate value of the products and with a maximum term of five years.

3. Commercial loans made to facilitate agricultural marketing operations; not more than 80% of the value of the product involved, and with a maximum term of 180 days.

4. Long-term loans for the acquisition and construction of works (irrigation, etc.) of a permanent character; to be amortized by annual payments, and with a maximum term of 25 years.

5. Mortgage loans for the purchase of land; in amounts not greater than the value of the land acquired, and with a maximum term of 25 years.[37]

The legislation included the stipulation that the total amount of mortgage loans for the purchase of land (including discounts for such purchases) should not exceed 10% of the Banks' capital. R. Marte Gomez deduces from this article that the legislators had, correctly, emphasized their preference for short- and medium-term lending operations by the institutions.[38]

Loan guarantees were to remain unchanged from those stipulated in the 1926 law. The new law stated,

> these various loans were to be guaranteed by the usual type of liens or mortgages, either on the crops or other products involved or on land, except

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[37]Simpson, p. 397.

[38]Gomez, p. 102.

> in the case of the ejidos where only crops were allowable as security.[39]

However, since mortgage loans always had to be secured by land, the ejidos were effectively prevented from receiving such loans.

The Regional Banks, like the BNCA2, were to be financed through the sale of stocks. The minimum authorized capital of 300,000 pesos was to be issued in Series "Y" shares to be subscribed by the federal government. Series "Z" shares were to be subscribed by the ejido and small farmer cooperative societies, the amount to be determined by their level of operations: 1% of working loans and semi-fixed capital loans or discounts, and 2% of fixed capital loans, mortgage loans for land, and commercial loans.[40] The BNCA2 was required to provide at least 60% of the Regional Banks' initial capital, the remainder to be provided by the federal government directly. However, 5% of the Regional Banks' capital was to be used in turn to purchase Series "C" shares of the BNCA2.[41]

The functions of the Regional Banks were:

> To encourage the organization of and extend credits to the cooperative societies in their respective zones; to create commercial and industrial companies, warehouses and so forth, for the transformation and marketing of the agricultural products of the member societies; and, in general, to cooperate with the National Bank in the program of the economic organization and education of the ejidatarios and small farmers. The Regional Banks were also permitted to carry on ordinary commercial banking operations in accordance with the restrictions of the General Laws of Credit Institutions, but with the restriction that a seventy-day limit was placed on time deposits.[42]

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[39]Simpson, p. 396.

[40]Gomez, p. 113.

[41]Simpson, p. 395.

[42]Ibid., pp. 394-95.

The legislators, in authorizing the BNCA2 and the Regional Banks to act as agents for the Cooperative Societies in the common sale of their products, opened the way toward further intervention in the future. Article 78 of the law provided that the Regional Banks enter into the purchase of agricultural, livestock, and forestry products "when the operation is aimed at regularizing the market of said products, or redounds to the benefit of the cooperative societies"[43] (purchases for reasons other than to regularize the market were illegal). But R. Marte Gomez saw this as an "open door" for the Bank to convert itself into a competitor of the large warehouses that had been purchasing the majority of the agricultural products.[44]

It was also in the area of marketing that the agricultural credit institutions' powers of supervision and control were greatest. The law stipulated that the Regional Banks should decide when a Cooperative had sufficiently advanced to participate in the common sale of products. If, after approval by the Regional Bank and a majority vote of the ejido assembly approving such operations, any cooperative member refused to join in the common sale he was subject to a fine equal to 10% of his total production.[45]

The base of the agricultural credit institutions' hierarchy and the "heart and core" of the system were the Agricultural Cooperative Societies. As stated above, the law allowed only ejidatarios and small farmers, separately or together, to form such organizations. It was

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[43]Gomez, p. 104.

[44]Ibid.

[45]Simpson, pp. 396-97.

commonly believed that the legislators implicitly meant that ejidatarios and small farmers should remain separate, each with their own Societies. Since this study is concerned with the ejido communities and since, in fact, the ejidatarios and small farmers did form separate Societies, the following discussion will pertain only to the sections of the law concerning the Ejido Cooperative Societies.

These are summarized in the following articles.

> 1. No ejido cooperatives could be formed unless: (a) a majority of the ejidatarios in the community agreed to become members; and (b) the community had already actually received at least provisional possession of its lands.
>
> 2. The principal functions of the ejido cooperatives were to obtain credits from the Regional Banks; to make loans to the members of the societies; to organize the production and marketing of crops, including under this heading the purchase and resale to the members of the cooperatives seed, fertilizer, agricultural implements, the establishing of warehouses, and so forth; to act as agents for the members in all administrative and fiscal dealings related to agricultural matters with the local and federal governments; and to carry out the development and exploitation of the properties (forests, pastures, and so forth) held in common by the ejido communities.
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> 3. Every society was to be organized on the basis of unlimited joint responsibility.
>
> 4. Each society was required to establish a fund, known as the *fondo social*, to be constituted by setting aside 2% of the value of the loans made to its members, 25% of the net profits derived from all operations, 2% of the harvests, and all of the cash profits (*productos liquidos*) derived from the exploitation of the common lands. This fund, generally speaking, could be put to any use of benefit to the whole community.
>
> 5. The officers of the ejido cooperatives were to be identical with those (that is, the Administrative Committees or Ejido Commissariats) designated under the Law of Ejido Patrimony for the general governance of the ejido communities.
>
> 6. Ejido cooperatives were to be closely regulated by the National Bank of Agricultural Credit. The law empowered the bank, operating through the officers and inspectors of the Regional

> Banks with which the respective cooperatives were associates, to approve or disapprove the loans and other credit operations of societies, to inspect their books, to recommend to the National Agrarian Commission changes in the officers when for any reason this seemed desirable.[46]

In his analysis of the 1931 law, R. Marte Gomez recounts the legislators' decision to limit the participation of ejidatarios to a voluntary, yet majority, basis. The original legislation demanded the forced participation of all the members of ejido villages when Cooperative Societies were formed. Later, in their deliberations, the Senate and House of Deputies modified the precept leaving a simple majority as the requirement for the formation of a Cooperative Society. This would continue to ensure that only one Cooperative Society could exist in an ejido village. Gomez leaves no doubt, however, that total participation was preferred, with the majority ruling on all village economic policy matters.[47]

The regulations concerning the social fund (item 4 above) represent one more in a long series of changes in the 15% "tax" originally legislated by the National Agrarian Commission. The new regulations required that the August 1927 law, which had previously governed ejido taxes, be abolished. A decree dated December 27, 1932, accomplished this, replacing the articles of the law pertaining to the 15% tax by Article 23 which stated,

> . . . the economic obligations of ejidatarios in definitive possession of the ejidos, derived from obligations contracted for the execution of improvements of common benefit . . . [and] for the constitution

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[46]Ibid., pp. 395-96.

[47]Gomez, p. 92.

> of the funds for collective improvements of cooperative organization referred to in the Law of Agricultural Credit . . . .[48]

The 1931 agricultural credit law provided for the creation of Unions of Agricultural Cooperative Societies. Unions were to be organized when, "within a determined zone, there existed at least ten societies, with similar crops, interests, and customs."[49] They were to be stock companies, with shares purchased in proportion to the Societies' operations with the Union. They were also to be organized on the basis of unlimited responsibility, similar to the Ejido Cooperative Societies. Gomez notes that the role of the Unions within the agricultural credit institution's hierarchy was not very precise, other than to operate as cooperatives of cooperatives and as a second-floor credit institution. Specific regulations were not spelled out in the legislation, but were to be determined later by the Ministry of Agriculture.[50]

The 1931 law also authorized the BNCA2 to create two independent, yet auxiliary agencies: the Inspectorate of Agricultural Credit, and a network of warehouses. The Inspectorate of Agricultural Credit was to provide information necessary for carrying out the credit operations, such as estimates of the costs of production, potential harvests, expected rate of return, etc. On the basis of this information, credit guidelines were to be established by the various agricultural credit institutions.[51] The network of warehouses was thought to be necessary

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[48]Simpson, p. 396.

[49]Gomez, p. 114.

[50]Ibid., p. 115.

[51]Ibid., pp. 113-14.

to execute various functions of the agricultural credit institutions. The warehouses were to be constituted as stock companies which could be formed by the BNCA2, Regional Banks, or Cooperative Societies for use at the national, regional, and local levels. They were to facilitate the storage of inputs and harvests for the Cooperative Societies that would buy inputs, and sell products, in common.[52]

Operations of the Agricultural Credit Institutions, 1931–1934

Sources of Capital

From its beginning, the BNCA2 experienced a problem of insufficient capital. Despite the high hopes and good intentions of the legislators, capital funds were not forthcoming from the federal government:

> . . . the federal government was unable or unwilling to convert into liquid funds the 8.8 million pesos of property and other assets [primarily property and assets of the old *Caja de Prestamos*], which, according to the plan of reorganization, were to be exchanged for cash. Similarly the government's promise to increase the bank's capital by a regular budgetary appropriation of 6 million pesos per year, the offer to turn over to the bank a half million pesos a year from the profits derived from irrigation projects, and the agreement whereby the Ministry of Agriculture was to provide the Bank with funds for education and organization work--all were quietly forgotten.[53]

Gomez cites the BNCA2 Annual Report of 1932, indicating that no more than 1.9 million pesos of the 8.8 million pesos promised from the *Caja de Prestamos* were ever received.[54] The BNCA2 Series "A" capital stock purchased was probably less than one-sixth of the promised 6 million pesos.

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[52]Mendieta y Nunez, pp. 111-14.

[53]Simpson, p. 398.

[54]Gomez, p. 120.

An additional source had been planned to provide capital for the BNCA2, the accounts of the BNCA and the Ejido Banks. There are no statistics available on the amount of loans outstanding from the BNCA, but the following information indicates that it was an unlikely source of large capital sums for the BNCA2. A liquidation Committee was formed (in 1931) to work with the Ministry of Agriculture, Treasury Department, and the BNCA2. In December 1933, this Committee was still in the process of liquidating the Banks' accounts when a new decree was issued placing the liquidation process under the sole direction of the BNCA2.[55] Therefore, it is unlikely that the liquidation process provided a significant amount of capital to the BNCA2 during the years 1931–1933. The federal government also provided subsidies for the education and organization of the ejidatarios, through the Ministry of Agriculture, but only in the amount of 37,259 pesos. Lastly, little, if any, capital was provided to the BNCA2 from the new federal irrigation projects.

Organization and Finance of the BNCA2

The organization of the new agricultural credit system began in 1931 with the creation of the following institutions: the BNCA2 main office, located in Mexico City; and seven Regional Banks, located in Colima, Colima; Cuernavaca, Morelos; Cordoba, Veracruz; Puebla, Puebla; Aguascalientes, Aguascalientes; Ciudad Victoria, Tamaulipas; and Toluca, Mexico. By the end of 1933, the system had grown to consist of the BNCA2; the seven Regional Banks; 14 agencies functioning in those seven states, with a field staff of 55 *jefes de zona* (area managers) and 102

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[55]Gonzalez, p. 36.

assistant jefes de zona (inspectors and auditors); and a system of Agricultural Credit Warehouses, with a central office in Mexico City operating through ten agencies in various parts of the country.[56]

The organization of ejidatarios into Cooperative Societies during the period 1931–1933 is shown in Table 10.

TABLE 10

BNCA2 AND REGIONAL BANKS' OPERATIONS, 1931–1933

Year	Societies Organized	Members	Societies Receiving Loans Number	Members	Amount (pesos)
1931	9	1,107	5	853	516,000
1932	98	8,922	91	7,118	1,159,000
1933	241	17,517	136	10,033	1,154,000
TOTAL	348	27,546	232	18,004	2,829,000

Source: E. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: University of North Carolina Press, 1937), p. 668.

The number of Societies and ejidatarios organized in 1931 represents a continuing and considerable decline (a 69% decrease from 1930 in the number of Societies, and a 33% drop in the number of ejidatarios). This was probably due to the reorganization, which prevented the institutions from operating throughout the year. During the following two years, the trend reversed, reaching annual increases in the number of Societies organized of almost 100% in 1932 and 250% in 1933. An average of 116 Societies per year were organized during the period.

[56]Simpson, p. 399.

This indicates an increased emphasis on organizing Cooperatives as compared with the previous period (1926 to 1930), when only 46 Ejido Cooperative Societies per year were organized on the average. The average number of ejidatarios organized per year from 1931 to 1933 was 9,182, compared with 2,190 per year from 1926 to 1930.

A total of 578 Ejido Cooperative Societies had been organized (though not necessarily functioning) by the end of 1933. In the whole of Mexico, by the end of 1933, 4,260 ejido villages had been legally established. Thus, at best, the Ejido Banks and BNCA2 had managed to organize 13.6% of the ejido villages in the country. The number of ejidatarios organized as members of Societies equaled 27,546 during the period 1931–1933 in addition to 10,949 during the previous period. This represented approximately 5.1% of the total number of ejidatarios in Mexico at the end of 1933.

Table 10 also shows the number of Ejido Cooperative Societies receiving loans from the BNCA2 and its Regional Banks and the amounts of those loans.[57] During 1931 the lending operations of the BNCA2 reflected the organizational operations, totaling only 516,000 pesos during the year. This is less than the amount loaned to Ejido Cooperative Societies during 1928 and as compared with 1930 represents a 50.3% decline. This, like the 1931 decline in organizational efforts, is probably due to the changes taking place in the agricultural credit institutions that year.

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[57]The data available on the BNCA2's financial accounts of the Ejido Cooperative Societies for the period 1931–1933 are sparse. The statistics include only total amounts of loans to Ejido Cooperative Societies on an annual basis; there is no information available on the geographic distribution of these loans, the class of loans, or the types of crops financed; nor is there information available on repayments of loans.

The following year, 1932 (one of full-time operations), loans increased to 1,159,000 pesos, an increase in nominal loans of 126.5% over the 1931 level. Concurrently, however, the number of Ejido Cooperatives receiving loans grew by 17.2 times and their membership by 7.3 times. This implies that the average loan per Ejido Cooperative Society and per ejidatario decreased during the year. During the last year of the period, 1933, lending operations remained nearly unchanged at 1,154,000 pesos. Yet, the number of Ejido Cooperative Societies and ejidatarios receiving loans increased, therefore again reducing the level of loans received per Society and per member (see Table 11). During 1933, 15% of the organized Ejido Cooperative Societies and 26% of the organized ejidatarios received loans. However, only 3.2% of Mexico's legally established ejido villages and 1.3% of the ejidatarios received loans during 1933.

TABLE 11

BNCA2 LOANS TO COOPERATIVE SOCIETIES, 1931–1933

Year	Average Loan per Society[a] (pesos)	Average Loan per Member[a] (pesos)
1931	103,200	604.9
1932	12,736	162.8
1933	8,485	115.0

[a]Computed from Table 10.

There is no information on loan repayments collected by the BNCA2 (other than those collected from the Remedios Society). However, an indication of the financial solvency of the BNCA2 and the Regional Banks can be seen in the following statistics for 1931.[58] General spending for the fiscal year was 822,097 pesos, of which 37,259 pesos were paid by the federal government (to cover the cost of education and organization of the ejidatarios), leaving a net expenditure of 784,838 pesos. This included 208,904 pesos for maintenance of the seven Regional Banks and their agencies as follows: Colima, 2,171 pesos; Cuernavaca, 72,998 pesos; Cordoba, 47,213 pesos; Puebla, 31,739 pesos; Aguascalientes, 8,149 pesos; Ciudad Victoria, 24,827 pesos; and Toluca, 21,807 pesos. Also included were expenditures made by the BNCA2 to provide a staff of inspectors to evaluate the profitability of agricultural investments and appraise capital offered as loan collateral. This resulted in a 28,661 peso loss; provision of 29,913 pesos in services and only 1,252 pesos paid for such services. Lastly, general expenditures included those of the Commercial Department. This evidently encompassed those operations associated with the buying and selling of inputs and crops. The amount of such expenses is unknown, but Gomez notes that the losses suffered in the BNCA2's handling of salt and sugar exceeded the earnings generated from the buying and selling of rice.[59] No indication is given as to the net effect of purchases of agricultural implements and machinery.

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[58]Gomez, pp. 124-25. These statistics include costs incurred in serving all clients.

[59]Ibid., p. 124.

Total revenue equaled 217,299 pesos; 37,259 pesos from the federal government subsidy, 178,788 pesos in interest received by the Banks, and 1,252 pesos received for technical services. The net balance was a loss of 604,798 pesos. If we consider only Regional Banks, revenue from interest received equaled 178,788 pesos while total spending equaled 207,904 pesos. Therefore, they suffered a net loss of 29,116 pesos for the year. The data indicate the BNCA2 main office suffered the greatest losses of the agricultural credit institutions. It appears that this is a direct result of transactions made by the BNCA2's Commercial Department.[60] Unfortunately, it is from this department that we have the least amount of accounting information. Thus, we could only speculate about the causes of their losses.

Returning briefly to the Ejido Cooperative Society of Remedios, and a microview, we refer to Table 12. Their lending operations with the BNCA2 during 1931–1933 were at a minimal level. It will be recalled that during 1930 the BNCA was trying to clear up their records and recover overdue loans. During 1931, this policy was continued, extending no loans and recovering 2,200 pesos. In 1932, lending operations resumed on a scale similar to that of 1928 and 1929, equaling 2,800 pesos (mostly for working capital). However, recuperations of loans (including those made during 1932) fell to 200 pesos. In 1933, the BNCA2 again suspended its lending operations with the Remedios Ejido Cooperative Society, but continued its efforts, mostly fruitless, to recoup overdue loans. Total operations of the Remedios Ejido Cooperative

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[60]Ibid.

TABLE 12

REMEDIOS COOPERATIVE SOCIETY'S LOANS AND REPAYMENTS
WITH THE BNCA2

	One-year Crop Advances (pesos)			Three-year Individual Loans (pesos)			Three-month Warehouse Loans (pesos)		
Year	Loaned	Repaid	Owed	Loaned	Repaid	Owed	Loaned	Repaid	Owed
1931		2,100	18,800		100	6,200			2,600
1932	1,900	200	20,400	600		6,800	300		2,900
1933		600	19,800			6,800			2,900

Source: E. Simpson, *The Ejido: Mexico's Way Out* (Chapel Hill: University of North Carolina Press, 1937), p. 132.

Society with the BNCA2 during this period were only 2,800 pesos loaned and 3,000 pesos repaid, for a net decrease in their balance of 200 pesos.

The agricultural credit policy of the Ortiz Rubio and Rodriguez administrations repeated the operational trend of the 1926–1930 period. The ejido sector was of relatively minor importance during the early years and then increased in importance as the period progressed. In 1931, loans to Ejido Cooperative Societies represented 26.3% of the BNCA2's total loans, a decrease in the absolute and relative amounts of loans provided to ejidatarios over the previous year. In 1932, they increased to 34.9% above the 1930 level, but were still below the 1929 level. During the last year, 1933, loans to Societies climbed to

52.2% of the BNCA2's loans, primarily due to a 33% decline in the amount of loans to individual private farmers.[61]

The Law of Agricultural Credit of January 24, 1934

The Law of Agricultural Credit of January 24, 1934, the second agricultural credit reform law, was thought necessary in light of the Banks' experiences during the 1926–1933 period. In the 1926 agricultural credit law, the institutions were authorized to operate with Local Societies of Agricultural Credit, Ejido Cooperative Societies, and with individual farmers. The result was that a large majority of the funds were channeled to the individual, medium- and large-scale farmers. The first agricultural credit reform law, of 1931, went to the extreme, eliminating individual farmers as credit subjects of the national agricultural credit institutions. The resulting high costs of services and depletion of capital were no more acceptable to the legislature than the previous circumstances. The reform law of 1934 attempted to find a middle ground for the agricultural credit system, that would take into account agrarian reform and economic realities.

The law, according to its sponsors, was basically and primarily ". . . dedicated to the interests and well-being of the ejidatarios and 'the humble peasant who is not qualified for credit, but who is nevertheless worthy of credit.'"[62] However, the new law again opened the door to individual agriculturalists as credit subjects of the national agricultural credit institutions.

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[61]Simpson, p. 668. Although lending operations with individuals were specifically denied in the law, they were never completely eliminated. In fact, they equaled nearly 30% of total loans during this period.

[62]Ibid., p. 403.

To ensure that the agricultural credit institutions remained dedicated to the ejidatarios and peasants in fact as well as in law, the following stipulations were specified:

> a) at all times preference must be given to operations with organizations of ejidatarios over those of non-ejidatarios and private individuals; and b) that operations with private individuals may only be entered into with those classified as small- or medium-sized farmers and must always be guaranteed by mortgages or liens; c) that no private individual may receive a crop advance in an amount greater than 60% of the estimated value of his crop; d) that in no case may the total of all types of loans to a private individual exceed 33% of the value of his property, or 25,000 pesos whatever may be the value of his property; and e) that loans to private individuals must always be made at a rate of interest not less than 2% higher than that prevailing for the least favored institution.[63]

The structure of the agricultural credit system, slightly reorganized under the new law, was to include the following institutions: the BNCA2, which was to remain essentially the same as a central bank; Unions of Local Societies of Agricultural Credit, which were to replace the Regional Banks as rapidly as possible; Societies of Collective Agricultural Interests, a new cooperative-type organization authorized in the law; Local Societies of Agricultural Credit, which were to supplant the Local Cooperatives of Agricultural Credit; Ejido Cooperative Societies; and auxiliary institutions; i.e., the network of warehouses and the Inspectorate of Agricultural Credit.[64]

The BNCA2 was to have responsibilities and objectives similar to those under the previous law. Its formal capital was also to remain

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[63]Ibid., pp. 403-04.

[64]Ibid., p. 404.

essentially unchanged, though the new law did not stipulate any limit (or minimum) to the level of nominal capital. Once again the government promised to purchase the non-liquid assets transferred from the *Caja de Prestamos* and promised to provide an additional 2,000,000 pesos to pay for the education and organization of the ejidatarios.[65]

The Unions of Local Societies of Agricultural Credit were to be constituted of a minimum of seven Local Societies of Agricultural Credit or Ejido Cooperative Societies. They were to be based upon limited responsibility with an indefinite charter period. The initial amount of capital (to be established in the constitution) was to be divided into two series of stock: Series "W", to be subscribed by the Regional Banks, or later by the BNCA2; and Series "X", to be subscribed by the member Local Societies of Agricultural Credit or Ejido Cooperative Societies. The intention was that the ejidatarios would have more control over the Unions than they had achieved in the Regional Banks. The principal objectives of the Unions were as follows.

1. To obtain, from the Regional Banks or the BNCA2, the credit needed by its member Societies and distribute it to them.

2. To sell bonds.

3. To found and direct schools for the education of ejidatarios, peasants and their families.

Profits of the Unions were to be distributed in the following manner: 20% to form a Reserve Fund for the Union, until it had equaled

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[65]Ibid., p. 405.

its subscribed capital, after which only 10% was to go to the Reserve Fund; 6% to pay dividends to the shareholders of Series "X" stocks and 6% to the holders of Series "W" stocks; 10% to pay "gratuities" to the administrators and employees of the Union; and 5% to pay its Advisors. Any remaining amount was to be used to establish an Agricultural Insurance Fund.[66]

The Societies of Collective Agricultural Interests were to be organized by individuals or ejidatarios or their Societies, to obtain credit for special projects, such as constructing irrigation works or building schools. They were to be based upon limited responsibility with their charter limited to the time required to complete the project. They could be organized with or without capital and were to be able to borrow, from the BNCA2, up to 50% of the value of their physical capital to finance projects. A Society was to be administered by a manager, elected from the members by the General Assembly; an accountant designated by the BNCA2; and a Vigilance Committee of three members, one selected by the BNCA2 and two selected by the General Assembly. Revenues were to be used to amortize the loan, with deductions allowable for general operating expenses.[67]

Ejido Cooperative Societies remained much the same as under the previous law, with the following exceptions cited by Simpson.

> 1. Only ejidatarios may belong to ejido cooperatives.
> 2. No ejido cooperative may be organized unless at least three-fourths of the ejidatarios in any

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[66]Albornoz, p. 115.

[67]Ibid., p. 116.

> given community are members, and in any case the minimum number for the formation of a society shall be 20.
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> 3. For the constitution of the ejido social fund each member of the cooperative must contribute 5% of the gross product of his harvests or other products until such time as the social fund is equal to twice the amount of the annual operations of the society; also from the net profits of the society there shall be set aside 25% for the social fund until this fund is equal to the average annual value of the operations realized during the preceding five years.
>
> 4. Although under the new law provision is made for close supervision of the operations of the ejido cooperatives, there is noticeable tendency to relinquish some of the rights as well as the responsibilities of the bank as compared with the law of 1931.[68]

The relinquishing of rights and responsibilities is particularly noticeable in the area of marketing operations. The provisions requiring the Ejido Cooperative Societies to market their products "in common" are omitted altogether from the law.

Operations of Agricultural Credit Institutions, 1934

The legal reorganization of the agricultural credit system in 1934 did not provide the desired framework to resolve the agrarian crisis. In effect, no agricultural credit was provided during this year. This caused James Wilkie to remark that the failure to extend aid to the small and collective farmers during this year was due to the government's lack of commitment to the poor peasant because he was not a good risk.[69] There is also the fact that the interim President Rodriguez

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[68]Simpson, pp. 404-05.

[69]James W. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), p. 137.

was faced with a political crisis and a world depression. Each of these factors by itself was probably sufficient to prevent any meaningful reorganization or operation of the agricultural credit system.

PART 2

NATIONAL BANK OF EJIDO CREDIT – PART I

1935–1952

CHAPTER 3

THE CARDENAS ADMINISTRATION, 1935–1940

The Agricultural Credit Law of 1935

The Agricultural Credit Law of December 2, 1935, was the third major piece of agricultural credit legislation during the post-revolutionary period. It substantially modified Mexico's agricultural credit system but did not alter the basic cooperative nature of the ejido credit society. The creation of the National Bank of Ejido Credit (*Banco Nacional de Credito Ejidal* - BNCE) resulted in two "central banks" providing credit and complementary services to the agricultural sector, the BNCE and the BNCA2. The BNCE was to operate only with ejidatarios, or with groups in which ejidatarios' "interests" were involved, while the BNCA2 was to operate only with private landholders.

Moore, in his history of Mexico's banking institutions, attributed the creation of the BNCE at this time to two basic causes:

> First, the problem of ejido credit has special aspects which differed sufficiently from those of financing the private agriculturalists, such as the ejido lands being inalienable, the ejidatarios being generally poorer and less educated than the private agriculturalists and, their productivity was inferior to that of the private sector; and second, in the *Plan Sexenal* of 1934–40, the Cardenas Administration planned that the creation of ejidos and the redistribution of lands would rapidly increase, such that the demand for credit by the ejido sector would become an urgent necessity.[1]

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[1] O. Ernest Moore, *Evolucion de las Instituciones Financieras en Mexico* (Mexico, D.F.: Centro de Estudios Monetarios Latinamericanos, 1963), p. 147.

The BNCE was to be a decentralized, autonomous institution and was to be organized as a corporation (*sociedad anonima*, in the terminology of Mexico's General Law of Mercantile Societies). Participation in the stock was to be by the federal government (Series "A"), the state and local governments (Series "B"), and the Local Societies of Ejido Credit (Series "C"). The BNCE was allowed to seek capital in the money markets, through the issuance of bonds (*bonos agricolas de caja*), rural mortgage bonds, and rural mortgage certificates. An additional source of capital was made available by the BNCE's authorization to receive demand and time deposits.

The BNCE was to be governed by an Administrative Council of nine members. The Minister of Agriculture was to serve as president of the Council, and the Head of the Department of Agrarian Affairs and Colonization was to act as vice-president. The remaining members were to be representatives of the Bank of Mexico, Ministry of Treasury, and the *Confederacion Nacional Campesino* (the national organization of peasants).[2]

As stated above, the organizational structure of the BNCE was to be decentralized; nevertheless, the main office was to be located in Mexico City. Agencies and subagencies (*jefaturas de zona*) of the BNCE were to be established in various regions of the country to serve as intermediaries between the BNCE main office and the ejido credit societies. At the local level, Local Societies of Ejido Credit and Societies of Collective Agricultural Interests were to be created.[3]

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[2]Albornoz, p. 144.

[3]The Regional Banks were not included in the 1935 law and, thus, were eliminated as had been directed in the 1934 law (see Chapter 2).

The principal functions of the BNCE were to organize Local Societies of Ejido Credit; to provide credit to those Societies; to organize the production and sale of their crops; to provide, buy, and resell feeds, fertilizers, agricultural implements, and equipment to the local ejido credit societies; to develop and help exploit the communal wealth of the ejidos; and to represent the members of the societies in all negotiations, administrative or fiscal, with the federal or local authorities in agricultural matters.[4] Thus, in structure and function, the BNCE was very similar to the BNCA2 with the exception that the BNCE was restricted to operating with those societies in which the interests of the ejidatarios were involved.

The Local Societies of Ejido Credit were to remain much as they had been under the 1934 agricultural credit law. They were to be auxiliary institutions of credit that would obtain loans from the BNCE or its agencies and, in turn, lend to their members. The Local Societies were to be organized by means of a democratic vote, requiring that a three-fourths majority (at least 20 members) agree to join. Participation in the Local Societies was to continue on the basis of solidarity or unlimited (joint) responsibility. The administration of the societies was to remain in the control of the Administrative Committee under the watchful eye of a Vigilance Committee. The formation of a social fund, to which each member was to contribute 5% of his gross product and the Society 25% of its net profits, was also retained under the new law.

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[4]Moore, p. 148.

The most significant change as it affected the Local Societies of Ejido Credit was the introduction of the possibility of the Local Society operating in a collective manner. From its inception in 1926, the Local Society of Ejido Credit was organized to obtain credit collectively and then, in turn, to dispense it to the ejidatarios for their individual use. Beginning in 1935 it is explicitly recognized that the Society could, when it was economically feasible, obtain and employ credit resources on a collective basis.

The BNCE during the Cardenas Administration

The inauguration of President Cardenas in December 1934 meant a new emphasis toward the collective organization of the means of production. President Cardenas announced in May 1934 that:

> The six-year plan of our political party - which establishes in several of its postulates the supremacy of the cooperative system, socially organizing the rural and urban laborers as producers and consumers - will eventually transform the economic system of production and distribute the wealth among those who directly produce it.[5]

It was implicit that the BNCE would become an important agency in the rural development plans of the Cardenas administration.

The BNCE Administrative Council, in accordance with the Agricultural Credit Law of 1935, was at the apex of the organizational heirarchy in the ejido credit system. The remainder of the organizational hierarchy, in descending order of authority, included the BNCE main office, the

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[5]Wilkie, p. 73.

Regional agency banks, the local zone branches, the Local Societies of Ejido Credit, and the Societies of Collective Agricultural Interests.

During the Cardenas administration, the Administrative Council was headed by the Minister of Agriculture, Lic. Eduardo Suarez. The vice-president was Dr. Jose G. Parres, Minister of the Department of Agrarian Affairs.[6] The remaining seven members were appointees of the stockholders including two ejidatarios (CNC representatives). The Administrative Council appointed Ing. Julian Rodriguez Adame as the first Director General of the BNCE main office.

The departmental organization of the BNCE main office during the first two years could not be ascertained with any degree of confidence. It is implied in the BNCE *Informe 1937* that there had existed one major functional department in the main office, the Financial Department.[7] At the end of 1937, following recommendations resulting from a number of regional conventions on the subject of ejido credit, the Administrative Council ordered the reorganization of the main office. In view of the expanding operations of the BNCE, the reorganization of the main office created the following six departments: Technical, Credit, Commercial, Treasury and Accounting, Organization, and Legal. Each department was to be headed by a subdirector, responsible to the Director General.

During the first year of the BNCE's existence, only a limited number of agencies were organized. The most important were the agencies in Torreon, Coahuila; Mexicali, Baja California; and Merida, Yucatan.

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[6] *Informes Annuales 1937-1940* (Mexico, D.F.: Banco Nacional de Credito Ejidal, 1937-1940).

[7] BNCE *Informe 1937*.

By the end of 1937, the BNCE had organized 37 agencies (see listing in the Appendix). During 1938 the total number of agencies was reduced by one. This was achieved when agencies in Campeche, Campeche and San Carlos, Coahuila were closed and a new agency was opened in Gabriel Zamora and Nueva Italia y Lombardi, Michoacan. During 1939 and 1940, there was a net change of minus three agencies, with nine closed and six new agencies opened (see Table A-3, Appendix, on loan operations). The number of *jefaturas de zona* organized to channel the services to ejidos averaged 207 during the 1937–1940 period. It reached a high of 218 in 1937, and decreased to near 200 (199 in 1939 and 200 in 1940)[8] in the latter years of the administrative period.

The geographic distribution of the agencies and *jefaturas de zona* reflect the intent of the agricultural credit law and President Cardenas' agrarian policy. More than 33% of the total agencies, and nearly half of the *jefaturas de zona*, were located in the central region where there was a high density of newly formed ejidos.[9] Other areas of high concentration of *jefaturas de zona* were around the Torreon and Merida Agencies. The concentration of agencies and *jefaturas de zona* was intended to be coordinated with Cardenas' land redistribution and collectivization policies. Some major components of these programs included the confiscation and redistribution, in 1936, of land in the La Laguna region in the states of Coahuila and Durango, surrounding the Torreon Agency; the 1938 purchase of the ex-hacienda Nueva Italia y Lombardi in the state of

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[8]All data from BNCE *Informes 1937-1940*.

[9]See listing in the Appendix.

Michoacan; and the 1937 collectivization of the henequen ejidos in the Yucatan, within the operation zone of the agency in Merida.

Organization of Ejido Credit Societies

The organization of Local Societies of Ejido Credit was to proceed after a democratic vote of the ejidatarios, and the completion of socioeconomic studies by BNCE staff. However, during the early years of rapid redistribution of land, the ejido societies were often organized without the appropriate studies. S. Lira Lopez, Assistant Manager (*Subjefe*) of the Department of Organization, indicates that during the redistribution of the La Laguna lands, he was personally instructed by President Cardenas to organize societies in three ejidos that the President had visited. However, he recounts that his decision denying their applications was passed on to the President only after much disbelief and disapproval was expressed by the Director General of the BNCE.[10] The implication here is that the BNCE administrators were more interested in fulfilling the wishes of President Cardenas than in properly organizing the ejido credit societies.

This perception of the BNCE's organizational efforts during the Cardenas administration is supported by the following data on societies organized. The organization of Local Societies of Ejido Credit by the BNCE during the early years of the Cardenas administration expanded along with the redistribution of land, and then leveled off during the last three years. In 1936, 3,679 societies were organized incorporating

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[10]Salvadore Lira Lopez, *El Credito Agricola en el Desarrollo Economica de Mexico* (Chapingo, Mexico: Escuela Nacional de Agricultura, 1970), pp. 55-60.

308,729 ejidatarios (2,086 societies with 180,714 members were organized prior to 1936 and were transferred from the BNCA2).[11] In 1937 the number of credit societies increased to 4,475, comprised of 398,761 ejidatarios. During each of the last three years, approximately 300 additional societies were organized, and in 1940, there were 5,399 credit societies with 429,100 ejidatarios.

It was during the early years of this period that President Cardenas made his much-publicized trip to the La Laguna region, to oversee the operations of redistributing land and organizing the ejidatarios in collective cooperatives. Early in 1936, an acute labor conflict arose in the La Laguna region. Faced with the possibility of a general strike and the loss of much of the year's harvest, President Cardenas agreed to apply the agrarian legislation and carry out land redistribution in that area. "Within a few weeks, two-thirds of the agricultural land of the area, almost 150,000 hectares, had been expropriated and handed over to 35,000 peasants in 300 new ejidos."[12] The 35,000 peasants included 15,000 to 16,000 permanent workers of the ex-haciendas, 10,000 strike breakers brought into the area by the hacendados during the strike, and 5,000 migrant workers who came during the harvest season.[13]

During 1938, 690 of the organized societies functioned as collective societies. This number increased to 807 in 1939, but decreased to 714 in

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[11]Pablo Padillo, "Censo de Sociedades Locales de Credito Ejidal," *Boletin de Estudios Especiales*, Vol. 12, July 23, 1958, p. 2.

[12]Rodolfo Stavenhagen, "Collective Agriculture and Capitalism in Mexico: A Way Out or a Dead End," *Latin American Perspectives*, 2, No. 2 (1975), 151.

[13]Soloman Eckstein, *El Ejido Colectivo en Mexico* (Mexico, D.F.: Fondo de Cultura Economica, 1966), p. 137.

1940 (only 606 collective societies received credit that year). The majcrity of the collective ejido societies were located in the operation zones of the following agencies: Torreon, Coahuila; Merida, Yucatan; Mexicali, Baja California; Villahermosa, Tabasco; and Los Mochis, Sinaloa. Other agencies with a smaller number of collective ejido societies included Culiacan, Sinaloa, Cuidad Obregon, Sonora; Tapachula, Chiapas; and Nueva Italia, Michoacan.[14] Eckstein states that:

> the collective ejido was considered [by President Cardenas and the BNCE] the natural synthesis of economic efficiency, intimately connected with economies of scale, and the social objectives of rural equality pursued in the influential *Liga de Agronomos Socialistas*, "Neither ejido nor private property; haciendas without haciendados."[15]

The BNCE's organizational efforts resulted in a rather skewed distribution, with a bias toward the central region. Between 1937 and 1940, the percentage of total ejidos organized which were located in the central region was between 39 and 41. They were comprised of approximately 41% to 44% of the total organized ejidatarios. Two other regions had a fairly even share of societies organized. The north region represented approximately 25% to 27% of the total societies organized and 21% to 25% of the ejidatarios, and the gulf region 18% to 20% of the societies and 20% to 21% of the ejidatarios. The least represented regions were tne south pacific, with 5% to 6% of the societies and 6% to 7% of the ejidatarios; and the north pacific, with only 7% to 8% of the ejido credit societies and 6% to 7% of the ejidatarios organized in the country.

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[14]BNCE *Informes 1937-1940*.

[15]Eckstein, p. 139.

If we compare the results of BNCE organization during the Cardenas administrative period with the distribution of ejidatario population as a whole,[16] we find little justification for the skewness. The north pacific, gulf and south pacific regions had very low rates of organization relative to their percentage of the total ejido population. The central region, on the other hand, had far too great a percentage of the organized ejido credit societies and members relative to their ejido population. Only the north region's share of the organized ejidatarios and societies reflected the percentage of the overall ejido population living in that region.

The BNCE also organized Societies of Collective Interests and, after 1939, Unions of Ejido Credit Societies. In 1938 the Societies of Collective Interests numbered only 38, comprised of 390 Local Societies of Ejido Credit. Their number increased to 51 in 1939 (number of ejido credit societies unknown) and then decreased to 40 by the end of 1940. They were primarily organized in the operation zones of the agencies in Torreon, Coahuila (14 in 1940); Mexicali, Baja California; La Llave, Queretaro; and Veracruz, Veracruz. By Presidential Decree on December 29, 1939, the Agricultural Credit Law of 1935 was amended to establish Unions of Societies of Ejido Credit within the ejido credit system. In 1940, 26 Unions were organized, primarily in regions with collective ejido societies. They were to serve a coordinating function, essentially the same as the Societies of Collective Interests, but they were to be of a more permanent nature.

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[16]Nathan L. Whetton, *Rural Mexico* (Chicago: University of Chicago Press, 1948), Table 21, p. 596.

Loan Operations with Ejido Credit Societies

The process of administering loans[17] in the ejido credit system was centered around the operation plans. The *jefaturas de zona's* field agents compiled detailed operation plans for each local society in their area, which included the number of hectares to be planted in each crop, and the amount that would equal 70% of the cost of production (the legal limit for short-term crop loans) for each crop. These plans were assimilated at the agency level and sent to the central office to be evaluated in terms of funds available and government policy on agricultural production. If a plan was approved, the agency was authorized to provide certain types of credit, with quotas for each type of crop and the number of hectares to be financed.[18]

The detailed operation plans compiled by the *jefaturas de zona* were laid out by agricultural calendar. It was in accordance with this plan that the actual credits were distributed to the local societies. Through this means the BNCE and its dependencies could control the production process (completion of tasks, technically, was to be inspected by the field agents) and the type of inputs used. The majority of short-term loans were provided in kind (i.e., fertilizer, pesticide, seeds, etc.) with only that portion of the loans to cover labor costs provided in pesos. There were a number of different experiments on methods of administering weekly payments (*anticipos*) to the ejidatarios. The method most often used during the early years of the

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[17]The process for administering loans is outlined in detail in Chapter 9. All indications are that the process did not change significantly during the history of the BNCE.

[18]Eckstein, p. 111.

BNCE was to establish payments for each task per day of work performed. This led to accusations of work being performed sloppily or not at all. Within four years, the system was changed to fix rates for specific jobs regardless of the time required to complete them. Eckstein notes that this process of administering credit had evolved not out of the work of the legislature, but rather out of the Mexican experience.[19]

Total Loans

The BNCE began granting loans to ejido credit societies during its first year of existence, providing loans of 23,275,000 pesos. In 1937, this amount nearly quadrupled to 82,878,000 pesos. This following year the lending decreased to 63,450,000 pesos and remained near that level for the following two years of the Cardenas administrative period.[20] The total amount of loans granted to the ejido credit societies during the Cardenas administrative period equaled 292,872,000 pesos. An interest rate of approximately 8% per annum (including all types of loans) was charged to the ejido credit societies.[21]

Table 13 gives an index of total loans along with an index of wholesale prices in Mexico. From 1936 to 1937, the real increase in loans granted by the BNCE (loan index increase minus the increase in the wholesale price index) was over 200%. From 1937–1940 the loan index

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[19]Ibid., p. 112.

[20]BNCE *Informes 1937-1940*. The total loans do not equal the total of loans granted by the agencies (see Tables A-1 and A-3) due to loans granted directly by the main office and to statistical discrepancies.

[21]BNCE *Informe 1939*, p. 15.

TABLE 13

BNCE LOAN AND PRICE INDICES,[a] 1936–1940

Year	Loan Index	Wholesale Price Index
1936	4.28	18.7
1937	15.25	22.2
1938	11.67	23.6
1939	11.80	23.3
1940	10.88	23.9

[a]Base year 1954.

Source: Wholesale price index from J. W. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change* (Los Angeles: University of California Press, 1970), pp. 218-19.

decreased by approximately 28% and the price index increased by 7%, for a real decrease of 35%.

The number of Local Societies of Ejido Credit receiving loans in 1936 equaled 3,002, comprised of 257,363 ejidatarios.[22] By 1940, 3,473 Local Societies of Ejido Credit comprised of 239,407 ejidatarios received credit from the BNCE.[23] Of the 1,866 societies not receiving credit from the BNCE, 248 henequen-producing ejidos were transferred to the Henequeneros de Yucatan, S. A. de C. V. (a state-run agency); 1,011 were

[22]All of the ejidatarios comprising the Local Societies of Ejido Credit receiving loans did not necessarily receive credit; however, this number is the closest approximation available to the number of ejidatarios that received credit.

[23]BNCE *Informes 1937-1940*.

suspended from operations due to poor economic conditions or because they had unpaid debts with the BNCE, and the remainder were without sufficient factors of production to receive credit.[24]

On an annual average, approximately 3,574 ejido societies comprised of an average 281,062 ejidatarios received loans during the Cardenas administrative period. The number of Local Societies of Ejido Credit organized equaled 4,615 (annual average) comprised of 378,712 ejidatarios. Thus, on average, approximately 77% of the ejido societies organized, comprised of approximately 74% of the ejidatarios, were benefited by the agricultural credit programs during the Cardenas administration. However, if we consider that approximately 1,702,532 ejidatarios had benefited from the agrarian reform program by the end of 1940, then the BNCE was providing, on the average, credit services to a maximum of 16.5% of the country's ejidatarios.[25]

Loan Distribution by Geographic Region

The geographic distribution of loans granted by the BNCE in 1936 is shown in the Appendix (Table A-3). The distribution for 1936 was more equal than any other year in the period and roughly matched the distribution of local ejido credit societies organized. The central region, the most heavily organized, received the largest percentage of total loans (39.9%); the north region received 21.7%, which approximated its percentage of organized ejidatarios; and the north pacific region's 9.6% was only slightly above its 7% to 8% of the organized ejidatarios. The

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[24]BNCE *Informe 1940*, p. 10.

[25]The number of ejidatarios benefiting from agrarian reform taken from *Statistics on the Mexican Economy* (Mexico, D.F.: Nacional Financiera S. A., 1977), pp. 46-48.

region with the largest difference in loan percentage over organized ejidatarios percentage was the gulf (25.2% versus 21% to 20%), while the south pacific was the region most slighted (only 3.5% of loans, and 6% to 7% of the organized ejidatarios).

Within the regions during 1936, there appears to have been a tendency toward the dominance of lending activities by one agency (two in the case of the central region). The north pacific region was dominated by the Tepic, Nayarit agency, with 50% of the region's loans. In the north, the Torreon agency also had approximately 50% of that region's loans; in the central region, Guadalajara and La Barca, Jalisco agencies represented 18.7% and 21.5%; in the south pacific region the agency in Iguala, Guerrero had 77.1% of the loans; and the Merida, Yucatan agency provided 72.2% of the gulf region's total loans. As a percent of total loans granted by the BNCE, the Merida and Torreon agencies led with 18.2% and 10.7% respectively.

During the following four years (except 1939, for which there are no agency data) there is a consistent shift of loans away from the central and gulf regions and toward the north and north pacific regions. In the Appendix, Table A-3, it can be seen that, in 1937 and 1938, the north region's share of total loans increased to over 50%, and the north pacific region's share increased to 12.5% in 1937 and 23.1% in 1938. At the same time the central region's share decreased to 17.6% in 1937 and 16.4% in 1938; in the gulf region the share decreased to 13.8% in 1937 and 8.9% in 1938. The south pacific region's share also decreased slightly to 1.3% and 1.4% in 1937 and 1938, respectively. During the final year of the Cardenas administration the shift toward the north pacific was accentuated. The north's share fell to 45.2%, while the north pacific's percentage increased to 33.5%. The central region's share fell again to 15.6% and the gulf region's portion plummeted to only 2.6%. The south pacific increased its share to near its 1936 level of 3%.

The unequal distribution of loans among the various agencies and regions is matched by an unequal distribution of loans among the ejido credit societies and their members. On a regional average basis the bias is again heavily in favor of the north and north pacific regions. In 1937, the north region averaged 37,151 pesos per society and 458 pesos per member, and the north pacific region averaged 30,751 pesos per society and 387 pesos per member.[26] Within these two regions there were also significant differences. In the north, the range extended from 1,000 pesos per society in Zacatecas, Zacatecas to 122,416 pesos per society in Torreon, Coahuila. In the north pacific the range was nearly as great, with an average of 6,489 pesos per society in Culiacan, Sinaloa to 104,667 pesos per society in Mexicali, Baja California.

The averages for the central, south pacific, and gulf regions were much lower than those for the northern regions. In 1937, the gulf region averaged 14,177 pesos per society and 142 pesos per member. The central region's averages were 7,909 pesos per society and 92 pesos per member; the south pacific averaged only 4,088 pesos per society and 44 pesos per member. Surprisingly, the range of averages is quite wide in the central region, while they are much less pronounced in the south pacific

[26]Loans per society and per ejidatario calculated from data on loans, and on societies and ejidatarios organized.

and gulf regions. The relatively high average loans per society and per member in the central region agencies of La Llave, Queretaro and Huaracha, Michoacan are mainly due to the extremely small number of societies and ejidatarios rather than to a large amount of total loans. The range of averages in the gulf region was from 1,520 pesos per society in Campeche, Campeche to 27,964 pesos per society in Merida, Yucatan. The south pacific, with a few relatively small agencies, had the smallest range, from 1,636 pesos per society in Oaxaca, Oaxaca to 5,092 pesos per society in Tuxtla Gutierrez, Chiapas.

The northern bias in the distribution of average loans per ejido credit society and per ejidatario became more exaggerated in 1938; however, there was a slight twist with the north pacific region showing higher averages than the north region. The very high averages for the Mexicali, Baja California agency and the increasing levels in the Navajoa, Sonora and La Paz, Baja California agencies set the north pacific region apart from all the other regions. The north region's averages decreased to 24,446 pesos per society and 355 pesos per member. This was due to a lower average in the Torreon, Coahuila agency (122,416 pesos per society in 1937 versus 102,229 pesos per society in 1938) and very low averages for the remainder of the agencies in the region. The central, south pacific and gulf regions continued to show relatively low and decreasing averages in 1938. The central region averaged 5,352 pesos per society and 65 pesos per ejidatario; the south pacific, 3,127 pesos per society and 36 pesos per member; the gulf region, 6,561 pesos per society and 72 pesos per ejidatario. In large part, the declining status of the gulf region within the BNCE system was due to the creation of Henequeneros de Yucatan under the control of the state of Yucatan. Thus, the BNCE was, after 1938, no longer responsible for lending to the henequen-producing ejidos.[27]

By 1940 the north pacific region's average loans per society and per ejidatario more than doubled that of the north and was tens of times greater than that of the other three regions. The average society in the north pacific region received 49,285 pesos and the average ejidatario received 648 pesos. Three agencies had become dominant in the region (and relative to all other agencies in the BNCE system, except the Torreon agency): Mexicali, Baja California (99,875 pesos per society); Las Mochis, Sinaloa (82,052 pesos per society); and Ciudad Obregon, Sonora (78,833 pesos per society). The north region's average loan per society decreased to 21,176 pesos and the average loan per ejidatario decreased to 310 pesos. The region was still dominated by the Torreon agency (even though the average loan per society decreased to 81,109 pesos), while other agencies in the region remained relatively small. The central and gulf regions continued to experience low and declining averages: 4,768 and 1,613 pesos per society respectively. The south pacific region still experienced relatively low averages (5,966 pesos per society) but they had increased over the past year (3,127 pesos per society), and had even exceeded the average of 1937.

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[27]Jeff Brannon, "The Government as Entrepreneur: An Analysis of the Mexican Federal Government's Involvement in Henequen Fiber Production," presented at the Eighth Annual Meeting of the South-Western Federation of Administrative Disciplines, New Orleans, Louisiana, March 5-8, 1981.

Distribution of Loans by Type

The majority of the BNCE's loans, during 1936–1940, were for crop advances with short-term maturities, yet during the early years of 1936 and 1937 a relatively high percentage of medium- and long-term loans were granted.[28] This was due primarily to the urgent need to purchase large quantities of agricultural machinery and implements.[29] The same is true of the relatively high percentage of direct, commercial, and real estate loans; there was an urgent need to outfit many of the ejidos with equipment for both agricultural purposes and for purposes of organizing credit societies. In 1937, the relatively high percentage of other loans (primarily mortgage loans) was partially due to the BNCE's financing the purchase of ex-hacienda land, buildings, and equipment by the Nueva Italia y Lombardia ejido, in the state of Michoacan. This was one of the few instances in which land, buildings, and equipment were transferred to the ejido in total;[30] thus requiring that a mortgage loan be granted to purchase the land, buildings, and equipment exempt under the agrarian laws. Other mortgage loans granted during this year were for the purchase of sugar mills, located in the operation zones of the agencies in La Barca, Jalisco and Los Tuxtlas, Veracruz.[31]

Social Fund by Local Societies of Ejido Credit

As required in the agricultural credit law, the Local Societies of Ejido Credit accumulated reserves as a percentage of their loan operations

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[28]BNCE *Informes 1937-1940.*

[29]BNCE *Informe 1938*, p. 22.

[30]Susanna Glantz, *El Ejido Colectivo de Nueva Italia* (Tlalpan, Mexico: Instituto Nacional de Antropologia y Historia, 1974), p. 104.

[31]BNCE *Informe 1939*, p. 11.

with the BNCE, which were held in a social fund. During the Cardenas administration (1936–1940), the reserve funds increased significantly. At the end of 1936, the total collected by all the societies, and held in a BNCE account, equaled 581,609 pesos. By 1939, the fund increased to 5,103,156 pesos, and in 1940 there was a slight decrease in the social fund to 4,482,913 pesos.[32]

Loan Repayments by Ejido Credit Societies

The BNCE attempted to ensure the collection of loans made to ejido credit societies through various means, depending on the crop or type of loan. Fernandez y Fernandez described the most common methods used in the different zones.[33]

> 1. The BNCE "controls" some crops, including those of highest value. Control is exercised over the movement of the crops as they are processed in facilities under the guidance of the BNCE. For example, cotton is stored in BNCE warehouses, coffee beans are processed in plants administered by the BNCE, wheat is frequently placed in BNCE storage facilities as a "guarantee of debt".
> 2. The BNCE buys crops. In some cases the BNCE acts in conjunction with a government agency (which buys basic food crops at fixed prices) and in other cases the BNCE buys crops directly for resale.
> 3. The BNCE places pressure on private buyers to advise them when the ejidatarios sell their crops.
> 4. At times, barricades are set up on the highways or inspections of the trains are made.
> 5. At other times, more violent methods have been used, such as sending the army to collect the crops of remissant debtors.
> 6. Often the BNCE will suspend loans until the debtor has repaid; then they may again apply for loans.
> 7. At times the BNCE initiates judicial procedures to repossess the capital goods of the society or its members.

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[32]BNCE *Informe 1941*, p. 20.

[33]Ramon Fernandez y Fernandez, "El Credito Ejidal," *El Trimestro Economica* 25, No. 2 (April-June 1958), 180-81.

The first six measures applied to the collection of all types of loans, but the seventh would have applied only in the case of medium- and long-term loans, in which the purchased capital was held in lien.

Total Repayments

Total repayments collected by the BNCE on loans to ejido credit societies during the Cardenas administrative period equaled 164,883,300 pesos. The majority of repayments during the period, 83.1%, were for short-term debt (137,018,500 pesos). Medium-term debt repayments equaled 17,273,300 pesos, representing 10.5% of the total. Other loan repayments including direct, commercial, and real estate loans equaled 10,591,500 pesos, or 6.4% of the total for the period 1936–1940.[34]

Distribution of Loan Repayments

Information on the distribution of loan repayments during the Cardenas administration is limited to the years 1936 and 1937. The amount of repayments made in these two years was, in both absolute and relative terms, small. There is a good possibility that the distribution in these two years was considerably different from that of the following three years.

During 1936, over 52% of the total repayments made to the BNCE came from the gulf region, with over 95% of these coming from the agency in Merida, Yucatan. This means that one-half of all repayments during the years 1936 and 1937 came from a single agency in the BNCE system. The contributions of the other four regions were as follows: the

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[34]BNCE *Informes 1937-1940.*

central region, 26.9%; the north region, 14.1%; the north pacific region, 6.1%; and the south pacific region, 0.5%.[35]

In 1937, the distribution of repayments was more equally shared by the gulf and central regions, each representing approximately 34% to 35% of the total repayments. The north region again represented approximately 14%: the north pacific region, 13.9%; and the south pacific region, only 2.1% of the total repayments.[36]

Repayment Ratios

Comparing total repayments made during the period 1936–1940 with total loans granted during the same period yields a rough estimate of the effectiveness of the BNCE's collection efforts. The ratio of total repayments to total loans equaled 52.3% for the period 1936–1940. This ratio is, in all likelihood, lower than the actual repayment ratio, since some of the medium- and long-term loans probably were not due by the end of 1940.

An alternative estimate is given by comparing total repayments with total loans mature during the period.[37] The average annual ratio of repayments collected to loans mature during the quinquennium equaled 67.5%. However, this also does not give a completely accurate picture for the entire period, because the data on loans mature include only the loans mature in a given year, and do not include loans matured in previous years. A third method of calculating the repayment ratio is possible, dividing total repayments by the cumulative amount of mature

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[35]BNCE *Informe 1937*. [36]Ibid.

[37]Data on loans mature from BNCE *Informes 1937-1940*.

loans for the period. The total repayments for the period (157,549,100 pesos) as a ratio of the cumulative loans due (241,853,100 pesos) gives a coefficient of 65.14 for the period 1936–1940.[38]

Outstanding Debts

A corollary to the estimate of repayments is the estimation of outstanding debts at the end of the period. Subtracting total repayments from the total loans granted during the period 1936–1940 would give an estimate of outstanding debts. At the end of 1940, this amounted to 84,303,900 pesos; it is estimated that approximately 78,303,152 pesos were debts due on or before December 31, 1940.[39]

Agricultural Production Financed by the BNCE

During the Cardenas administration the ejidos received the greatest amount of land ever, equaling 30,735,420 hectares by the end of 1940.[40] Of this amount, the ejido credit societies organized by the BNCE controlled 7,498,588 hectares, divided as follows: 2,635,284 hectares of crop land (765,918 irrigated hectares), 3,340,882 hectares of pasture land, 1,121,541 hectares of forest land, and 400,881 hectares of other land.[41]

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[38]There is also a fourth method of calculating repayment coefficients, in which total repayments are weighted against total loans due during the period plus loans due prior to the period. Juan Cuspinera has calculated such a coefficient (*Boletin de Estudios Especiales*, Vol. V, p. 135) for the period 1936–1940. He estimated that the coefficient was approximately 39.2.

[39]BNCE *Informe 1940*, p. 8.

[40]*Statistics on the Mexican Economy*, Table 3.1, pp. 46-48.

[41]BNCE *Informe 1940*, p. 14.

Total Production

It is obvious from the above data that not all, or even most, of the ejidos' land was financed by the BNCE. The total number of hectares harvested by the ejido credit societies and financed through the BNCE during the Cardenas administrative period is shown in Table 14.

TABLE 14

BNCE-FINANCED PRODUCTION, 1936—1940

Year	Hectares Harvested	Current Value (pesos)
1936	468,478	34,713,393
1937	747,194	90,926,669
1938	773,752	94,820,296
1939	727,124	114,105,000
1940	774,771	112,375,000

Source: BNCE *Informes 1939-1940*. The 1936 figure for hectares harvested and value includes 17 crops; for 1937 and after only the 12 most important crops are included in the calculations.

The number of hectares harvested does not represent the total number of hectares financed by the BNCE, due to losses that resulted from bad weather, pesticides, poor farming techniques, etc. The relatively low level of hectares harvested in 1936 indicates that the BNCE probably did not operate at full capacity, that being the first year of operations. Thereafter, the number of hectares harvested reached a plateau as the BNCE expanded its operations to full capacity. In 1940, the BNCA-financed ejido credit societies harvested approximately 11.5% of the 6,729,905 hectares harvested in the entire country.[42]

The value of the crops produced by the ejido credit societies financed by the BNCE is also presented in Table 14. As can be seen, the value of the output, in current pesos, increased dramatically from 1936 to 1937 and then increased at a slower rate over the next three years. Table 15, below, converts the absolute value of the output to an index and includes an index of food prices to account for inflation.

TABLE 15

INDICES OF BNCE-FINANCED AGRICULTURAL PRODUCTION AND FOOD PRICES,[a] 1936–1940

Year	Current Value of Production Index	Food Price Index	Value Index of Constant 1954 Pesos
1936	3.6	12.7	28.3
1937	9.5	16.3	58.3
1938	9.9	18.3	54.1
1939	11.7	19.5	60.0
1940	11.5	20.8	55.3

[a]Base year 1954 for all indices.

Source: Food price index from *Statistics on the Mexican Economy* (Mexico, D.F.: Nacional Financiera S. A., 1977), Table 6.3, pp. 218-19.

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[42]Total hectares harvested from the *Censos Agropecuarios Totales Comparativos 1930, 1940, y 1950* (Mexico, D. F.: Secretaria de Industria y Comercio, 1959), Table 7, p. 10.

From 1936 to 1937 the real value of the output produced by ejido credit societies increased by 30%. This large increase in real output produced by the ejido credit societies would be expected with the large increase in hectares harvested. However, during the following years the increase in food prices generally exceeded the increase in the value of output. For the entire period, 1936–1940, the increase in the real value of the ejido credit societies' output equaled approximately 27%. During the same period, the number of hectares harvested increased by about 65%. Thus, it can be concluded that, during 1936–1940, the productivity per hectare had decreased by nearly 23%.

Ejido Credit Society Production by Type of Crop

The most striking feature in the ejido credit societies' crop production is the relatively large percentage of the total land harvested that was dedicated to the production of corn. This represented from 47% to 62% of the total land harvested during the period 1936–1940. This is not unexpected, as it is well known that corn is the traditional staple food crop of the peasant population. If we add to this other basic food crops, such as rice, chile, beans, wheat, and potatoes, we find that they represent from 71% to 85% of the total land harvested by the ejido credit societies. Yet they represent only 61% to 69% of the total value of the crops produced by the ejido credit societies.[43]

The crops produced for export--cotton, coffee, garbanzo beans, henequen, and bananas--comprised the next most important group. They represented between 9% and 24% of the land harvested, and from 9% to 33%

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[43]Data on the value of crops for the years 1939 and 1940 only.

of the total value of the crops produced by ejido credit societies. Relatively small amounts of land were dedicated to the production of crops for agricultural industry (i.e., sesame, peanuts, sugar cane, tobacco, and zacaton), representing approximately 0.25% to 2.9% of the total land harvested and 0.6% to 1.8% of the total crop value. Other crops such as barley, haba, and alfalfa were produced in small quantity, representing 2% to 4% of the land harvested and 1% to 4% of the total value.

We can observe from this information that, during the Cardenas administrative period, the majority of the ejido credit societies' resources were engaged in the production of basic food crops with a relatively low market value. The early policy of serving the ejidos producing corn was adjusted somewhat during the latter years. Partly as a result of the BNCE policy of giving preference to those societies with the best prior "results," the number of hectares of corn harvested decreased in both absolute and relative terms in 1939. It was believed that this policy would provide a "natural form of selection" of the best land to be financed by the BNCE.[44] However, this meant that the majority of societies no longer operating with the BNCE were those that had been producing corn. Those ejidos were forced to seek financing elsewhere or give up the cultivation of, and right to cultivate, their land. At the same time, the wheat- and cotton-producing ejidos with irrigated land in the north and north pacific regions were given preference over the other ejidos in obtaining credit from the BNCE. This shows up in the latter years of the period, when the production of wheat and cotton increased faster than that of all other crops.

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[44]BNCE *Informe 1939*, p. 21.

Livestock Breeding

The use of the resources of the ejido credit societies for livestock breeding was not highly exploited during the first year of operations, due primarily to a lack of funds, and secondarily to the perceived need to study the situation. In 1937, the BNCE began organizing Ejido Livestock Collectives in ejidos within the operating zones of agencies in San Luis Potosi, San Luis Potosi (2); Cuernavaca, Morelos (5); Navajoa, Sonora; and Torreon, Coahuila. Credits were granted to the ejidos in San Luis Potosi and Sonora to purchase livestock, prepare pastures, and for operating capital. In the La Laguna region of the Torreon agency, due to heavy losses of animals, credits were provided by the BNCE for veterinary services.[45]

During 1938–1940, the BNCE provided loans to the above ejido credit societies to purchase the following livestock: 14,188 oxen, 12,717 mules, 889 burros, 111 pigs, 3520 horses, 1,571 goats, 1,364 sheep, and 3,730 breeding cows.[46] Also, a new collective livestock ejido credit society was organized in Pueblo Nuevo, Durango.

By the end of the Cardenas administrative period, the ejido credit societies owned 583,324 work animals, worth an estimated 35,176,000 pesos (in 1940 pesos). The total number of breeding animals owned by the ejido credit societies was 899,839, worth an estimated 21,135,000 pesos.[47]

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[45]BNCE *Informe 1937*, pp. 26-27.

[46]BNCE *Informes 1937-1940*.

[47]BNCE *Informe 1946*, pp. 32-34.

Forest Production

The exploitation of the ejido credit societies' forest lands (1,121,541 hectares) received very little of the BNCE's attention during the Cardenas administrative period. The limited resources were devoted to promoting the exploitation of raiz de zacaton, ixtle, lechuguilla, and guayule. These are mainly wild plants that the ejidatarios harvested and sold to local processors. During 1937, credit provided for the exploitation of such forest resources equaled only 65,000 pesos.[48] Further data are not available on the BNCE's loans for this purpose during the Cardenas administration. However, it is pointed out in the *Informes* that, while the BNCE has not overlooked this aspect of the ejido credit societies' resources, the limited amount of resources prevented them from expanding beyond marginal exploitation of the forest lands.[49]

Complementary Services Provided by the BNCE

Commercial Services

In 1937, the BNCE began studying the possibility of purchasing inputs for the ejido credit societies and acting as agents in selling the ejido credit societies' produce. This was believed necessary because of the ejidatarios' inability to deal on equal grounds with local monopolistic sellers and buyers, and because the ejidatarios lacked information on national and international market conditions. In 1937, the BNCE

[48]BNCE *Informe 1937*, p. 28.

[49]BNCE *Informe 1939*, p. 28.

published a directory of the principal merchants for various crops produced by the ejidatarios. It also began a number of studies into the availability of trucks and other forms of transportation, principal markets for the ejidatarios' crops, availability of warehouses, and studies of foreign markets, in particular the potential for exporting wheat, rice, bananas, henequen, and coffee.[50]

In 1938, the BNCE main office was reorganized with the creation of the Commercial Department. The main activities of this department were to:

1. facilitate the sale of the ejido credit societies' crops;

2. purchase needed resources to be sold (transferred as credit in kind) to the ejido credit societies;

3. provide warehouse facilities for the ejido credit societies;

4. provide transportation for the ejido credit societies' crops, as needed;

5. provide insurance for the ejido credit societies' activities; and

6. maintain commercial relationships with private and public institutions.

One of the department's first tasks was to organize the collection of data on the status of crops, prices, warehouses, etc., by the *jefeturas de zona* on a permanent basis. The department also formulated a list of the most convenient and economical movements of merchandise and calculated costs of transportation via trucks and/or trains.[51]

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[50]BNCE *Informe 1939*, pp. 35-36.

[51]BNCE *Informe 1938*, p. 36.

In the area of purchasing resources, the BNCE instituted a policy restricting the number of such purchases "on credit." Only in the case of large quantity purchases would the BNCE give long-term credit, and then only with the holding of a lien on the merchandise purchased. In the sale of ejido credit societies' crops, the BNCE maintained commercial relationships with the following institutions: National Warehouses S. A.; Regulator Committee for the Subsistence Markets; BNCA2; Export/Import Company, S. A.; Distributor of Mexican Petroleum; Committee of Chemical Fertilizers; and the National Bank of Workers and Industrial Development.

The BNCE purchased inputs worth 12,851,200 pesos and acted as agent in the sale of crops worth 82,843,870 pesos during 1938–1940.[52] The principal inputs purchased by the BNCE were agricultural machinery and implements, fuel, and chemical fertilizers. The principal crops sold by the BNCE were cotton, wheat, rice, bananas, sugar cane, raiz de zacaton, and sugar. The majority of crop sales through the BNCE were made by ejido credit societies located within the operation zones of the agencies in Torreon, Coahuila; Mexicali, Baja California; Nueva Italia, Michocan; Navajoa, Sonora; Los Tuxtlas, Veracruz; and Cuernavaca, Morelos.[53]

The Commercial Department also took over the issuance of the insurance for the ejido credit societies' productive activities. In 1939 this account equaled 22,607,358 pesos, which the *Informe* indicates is an increase in this service.[54]

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[52]BNCE *Informes 1937-1940.*

[53]BNCE *Informe 1939*, p. 34.

[54]Ibid.

Agricultural Industry

The BNCE's direct involvement in the ownership and management of agricultural processing plants began in 1937. During that year the BNCE established two coffee processing plants in Veracruz. It made further plans for expanding the system of plants, installing them in at least 13 more locations throughout the country. The BNCE also purchased, for the societies, 20 cotton processing plants, 19 located in the La Laguna region of the Torreon agency and one in the Juarez Valley, Chihuahua. The greatest efforts in rural industrialization were in the state of Yucatan, in the henequen industry. The BNCE and the henequeneros ejido credit societies operated 83 henequen processing plants during 1937. This represented approximately 25% of the plants that processed crops from the ejido credit societies. Industrialization investments were also made in the sugar industry. In December 1936, two ejido credit societies joined to form a collective society which acquired the sugar mill "Plan Sexenal" located on the property of the ex-hacienda Huaracha, in Jiquilipan, Michoacan. Also during 1937, the BNCE, in conjunction with the National Worker Industrial Development Bank, began building the first ejido-owned sugar mill in Emiliano Zapata, Morelos. The tobacco industry was also included in the early industrialization plans. However, the only involvement of the BNCE was the loan of "technicians" to help study potential industrialization projects and to install equipment in some instances.[55]

Beginning in 1938, with the reorganization of the BNCE main office, activities relating to agricultural industrialization were

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[55]BNCE *Informe 1937*, pp. 30-34.

transferred to the Technical Department. The industrialization progress, as measured in terms of numbers of plants, slowed appreciably thereafter. The BNCE *Informe 1938* mentions several instances in which BNCE technicians were made available to help install cottonseed mills, coffee plant machinery, sugar mills, defibering plants, etc., but there is no mention of additional plants. The *Informes* report that a great number of studies were begun on almost every type of processing plant, with specific locations selected for the plants.[56] In 1940, the BNCE *Informe* cites the following statistics on plants "utilized" in the processing of ejido agricultural production: 19 packing plants, 201 deseeding plants, 268 processing mills of various types, and 6 electric plants. It is not clearly specified whether these are owned and managed by ejido credit societies or by the BNCE, yet it is implicit that they are related to the BNCE's industrialization program.[57]

Technical Services

The Technical Department began operations in 1938. During that year the department's activities were limited to studying various aspects related to agricultural production problems of the ejido credit societies. Some of these studies are mentioned above in relation to commercial services provided and agricultural industrialization programs. Additional studies were carried out in the areas of livestock breeding, agronomy, and the use of agricultural machinery for cultivation and harvesting of the ejido crops.

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[56]BNCE *Informe 1938*, p. 35.

[57]BNCE *Informe 1940*, p. 16.

In 1939, the Technical Department expanded its activities to the dissemination of technical information in the use of pesticides, fertilizers, hybrid seeds, and livestock breeding. Sixty-seven experimental stations were organized to conduct research on ten of the best varieties of wheat cultivated in the states of Puebla, Sonora, and Baja California. The Technical Department also established the first center for the production of hybrid wheat seeds in the Collective Society of Ejido Credit located in Atlico, Puebla.

As mentioned above, in coordination with the establishment of collective societies of ejido credit in Gabriel Zamora and Nueva Italia, Michoacan, and Los Mochis, Sinaloa, the Technical Department established centers for the vaccination and examination of livestock. Some 1,800 head of cattle, 900 sheep and 2,000 mules were inspected and vaccinated at these centers.[58]

Yet, despite the formal organization of the main office and apparent efforts at providing technical support, one of the BNCE's shortcomings was its lack of technical expertise. Jesus Uribe Ruiz states,

> During the euphoria of the first years of application of the Agrarian Reform, they conceded or pretended to concede everything to the peasants, without taking into account the technical information. The negative results were the demoralization of the technical assistants and, worse, served as an excuse for professional irresponsibility.[59]

<u>Other Services</u>

The main activity under this heading during the Cardenas administration was the establishment of medical services for the ejido credit

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[58]BNCE *Informe 1939*, p. 32.

[59]Jesus Uribe Ruiz, *Problemas y Soluciones en al Desarrollo Agricola de Mexico* (Mexico, D. F.: Casa Ramirez Editores, S. A., 1964), p. 94.

societies. This actually began in 1935 under the BNCA2 and was transferred to the BNCE in 1936. During 1937 the BNCE, in conjunction with the Department of Health, staffed 26 medical centers in diverse regions of the country to provide services to the ejido population. In 1938 this number decreased to 20 "Rural Hygiene Centers" primarily located in the northern states of Coahuila, Durango, Nuevo Leon, Sonora, and Sinaloa.[60] In the BNCE *Informes 1939* and *1940*, the precise number of centers is not given; it is only stated that numerous centers existed in the La Laguna region and other regions of the country.

An educational campaign is mentioned in the *Informes* that could be included within the context of complementary services. Beginning in 1937, the BNCE made an effort to educate the ejidatarios in agricultural techniques, use of agricultural machinery, introduction of new crops, combatting of plagues, etc. In conjunction with these efforts the BNCE took part in the formation of a National Exposition of Agriculture and Livestock, and similar regional expositions during 1937–1940.[61]

The BNCE also provided legal services for the ejido credit societies. These services pertained to all types of activities, including legal advising for the ejidos' business interests, counseling in the organization of cooperative societies, and drawing up contracts. During 1937, such legal actions by the BNCE, for the ejido credit societies, resulted in 2,717 cases of diverse nature.[62] Following the 1938 reorganization of the BNCE main office, these activities were turned over to

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[60]BNCE *Informe 1938*, p. 30.

[61]BNCE *Informe 1939*, p. 37.

[62]BNCE *Informe 1937*, p. 40.

the newly created Legal Department. Information on the extent of these activities is not provided in the *Informes*. In the BNCE *Informe 1939* it is stated that diverse legal actions were taken by the BNCE, in particular numerous actions of an "administrative character," before various ministries of the federal government.[63]

Financial Accounts of the BNCE

Sources of Capital

Providing capital for the BNCE, during the Cardenas administration, was a small part in the federal government's scheme of financing investments through the monetization of debts. The period beginning in the mid-1930s and lasting until the mid-1950s has been characterized as one of inflationary development in Mexico.[64] This characterization stems from the method of financing development projects, in which the Bank of Mexico became the primary source of capital. It financed the federal government deficits through increasing the money supply, which, it is believed, contributed heavily to the high rate of inflation.[65]

Federal government financial support to the BNCE was in the form of subsidies, purchases of Series "A" stocks, and special credits. Other sources of capital came from the purchase of Series "B" and "C" stocks by the state and local governments and ejido credit societies, respectively; funds transferred from the BNCA2 to the BNCE; and loans by private financial institutions.

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[63]BNCE *Informe 1939*, p. 40.

[64]John K. Thompson, *Inflation, Financial Markets and Economic Development* (Greenwich, Connecticut: JAI Press, Inc., 1979), p. 2.

[65]Dwight S. Brothers and Leopoldo Solis, *Mexican Financial Development* (Austin: University of Texas Press, 1966), p. 12.

Total Capital

The total of capital from all four sources for the BNCE during the Cardenas administration was 290,288,181 pesos. Of this amount approximately 54% was provided by the federal government, 39% by the private banks, and 7% by the ejido cooperatives, state and local governments, and transfers from the BNCA2. James W. Wilkie's study shows that the federal government's commitments to agricultural credit equaled 9.5% of the budget in 1936.[66] Although this high level was not maintained during the remainder of his term, Cardenas did set a standard thereafter of 3% to 4% of actual dispersements for this category of national affairs.[67] Wilkie also indicates that over 90% of this amount was allocated to the BNCE.[68] From this we can estimate that, during the Cardenas administration, approximately 4.5% of the total budget was dedicated to the problem of financing the ejidos' production.

BNCE stock. The BNCE's own resources were derived primarily from shares of stock, the federal government, the state and local governments, and the ejido credit societies. The federal government's purchases of Series "A" stocks equaled 39,984,000 pesos during 1936 and 1937, increasing to 60 million in 1938, 80 million in 1939, and reaching 99,379,810 pesos by the end of the quinquennium.[69] This was only slightly below the 20 million pesos per year that were authorized in the Agricultural Credit Law of 1935.

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[66]Wilkie, Table 6-4, p. 139.

[67]Ibid., p. 138.

[68]Ibid., Table 6-5, p. 146.

[69]BNCE *Informes 1937-1940.*

Series "B" stock, to be purchased by the state and local governments, did not materialize as a strong source of capital for the BNCE. During 1936 and 1937 there were no purchases of Series "B" stocks. In 1938, the purchases summed only 2.5 million pesos[70] and did not increase above that level for the remainder of the period. The lack of interest in Series "B" stocks was due, primarily, to the state and local governments' dependence upon the federal government for revenues which were relatively scarce.

Series "C" stocks purchased by the ejido credit societies during the BNCE's incipient year were worth 392,900 pesos. The following year the ejido credit societies' purchases increased to 1,649,140 pesos; at the end of 1940, purchases of Series "C" stock totaled 3,961,320 pesos for the quinquennium.[71]

Subsidies. The federal government provided capital in the form of subsidies. They were earmarked for BNCE personnel salaries, reserve funds for covering unpaid/unguaranteed loans, and reserve funds for depreciation of buildings, equipment, and real estate. Government subsidies granted by the Cardenas administration totaled 20,970,000 pesos for the period 1936–1940, the average annual subsidy equaling 4,194,000 pesos.[72]

In addition to the federal government's purchase of capital stock and the provision of subsidies, the BNCE received capital, in the form of loans, to help establish infrastructure. By the end of 1937, the

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[70]BNCE *Informe 1938*, p. 27.

[71]BNCE *Informes 1937-1940*.

[72]Ibid.

BNCE had drawn 44,066,433 pesos on this account. In 1938 this was reduced to 19,388,206 pesos as a result of the federal government canceling 24,678,227 pesos of the debt. During the following two years the BNCE paid off this account out of its asset holdings; 13,331,512 pesos in 1939 and 11,346,715 pesos in 1940.[73]

A third source of funds for the BNCE was credits and other assets transferred, in accordance with the 1935 Agricultural Credit Law, from the BNCA2. In 1937, collections from transferred accounts equaled 2,755,007 pesos. In the following year an additional 513,119 pesos were collected from these accounts, and during 1938, 9,209,249 pesos were collected. The total transfer of funds recorded during the period 1936—1940 was 12,477,374 pesos.[74]

Loans from private institutions. Private financial institutions were also a source of funds for the BNCE during the Cardenas administration. Beginning in 1938 with the organization of a consortium of private banks, funds were loaned by private sources and were administered and supervised by the BNCE. Short-term working capital loans made to ejidatarios from this source equaled 24,162,735 pesos in 1938. In 1939 this increased to 50,928,065 pesos, but decreased to 45,238,164 pesos in 1940.[75] The total for the period 1938—1940 was 120,328,963 pesos. The average interest rate paid by the BNCE was approximately 8% to 8.25% during this period. This was considered an undesirable interest rate by

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[73]Ibid.

[74]Ibid.

[75]BNCE *Informe 1941*, p. 16.

the BNCE Administrative Council; nevertheless, it was hoped that the expansion of borrowing in the private sector would inspire confidence in the BNCE. It was believed that this would result in lower interest rates in future borrowing.[76]

BNCE Revenues and Costs

The BNCE's main sources of revenues during the Cardenas administrative period were the payment of interest on loans by the ejido credit societies, revenues generated from commercial activities, and government subsidies. The major operating costs were general expenses (including personnel salaries, transportation expenses, rent, paperwork, telephones, cables, judicial proceedings, and other expenses); interest paid to lending institutions; and reserves for unguaranteed loans and depreciation.

Revenues. Information on the BNCE's revenues during 1936 is not available. In 1937, the BNCE's revenues from interest paid by ejido credit societies equaled 642,962 pesos. Commercial services netted the BNCE 66,794 pesos. Thus, during this year the BNCE's total revenues, from what might be termed internal activities, equaled 709,756 pesos. Adding to this revenues from federal government subsidies of 3,902,849 pesos, gives total internal and external revenues of 4,612,605 pesos.[77] (Similar figures are not available for 1938 and 1939.) In 1940, the BNCE's revenues from interest paid increased to 6,476,660 pesos and

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[76]BNCE *Informe 1940*, p. 7.

[77]BNCE *Informe 1937*, profit/loss statement.

those from commercial activities equaled 1,062,631 pesos. Total internal revenues equaled 8,092,400 pesos (there were revenues from other sources, such as recuperation of overdue debts previously written off).

Costs. Total costs of operating the BNCE during its first year equaled 4,494,958 pesos (there is no breakdown by categories available).[78] In 1937, total costs increased to 8,232,732 pesos. The major spending category was general administration, equaling 7,670,885 pesos or 93.2%. Of this amount, approximately 66% (5,064,887 pesos) was spent for salaries of the BNCE's personnel. This was followed in importance by costs for transportation and travel, representing 22% (1,725,191 pesos).[79] By the final year of the Cardenas administration the costs of operation had increased to 12,476,290 pesos. The costs of administering the programs was still dominated by salaries and travel expenses. Together these represented 54% of total costs, a decrease from the earlier years of operation.[80]

The increasing costs of administration reflect, to a large extent, the expansion in the number and types of services provided by the BNCE. If we estimate the costs of administration as a percentage of the total lending and collection operations of the BNCE we would have a rough approximation of the "per unit" costs of operating the BNCE. During the first year of operation the cost per peso loaned and recuperated equaled 15.26%, i.e., for every peso loaned and recovered the BNCE spent 15.26 centavos. By 1940, the per unit cost fell to 9.2%. The annual average

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[78]Ibid., p. 20.

[79]BNCE *Informe 1938*, p. 24.

[80]BNCE *Informe 1940*, p. 18.

cost of administration during the quinquennium was 11.2% of total loan and repayment operations.

Comparing these per unit costs of administration with the interest rate charged to the ejido credit societies, we find that in every year of the Cardenas administration the per unit costs exceeded the per unit revenues. Thus, one can conclude that no matter how effective the BNCE was at collecting the interest, it was destined to lose money.

There were also expenses for establishing reserves to cover the depreciation of buildings, equipment, and merchandise; and against write-offs for unguaranteed loans. By December 31, 1937, the reserve fund equaled 2,037,341 pesos; 1,489,716 pesos represented reserve payments for unguaranteed loans.[81] At the end of 1939, the unguaranteed loan reserve fund had increased to 13,875,516 pesos. However, during 1939 there were 905 societies "en recuperacion," with unpaid debts of 10,102,227 pesos that were paid out of the reserve. This left only 3,773,388 pesos in the nonguaranteed loan reserve.[82] By the end of 1940 the reserves increased to 10,192,594 pesos. The majority of this reserve, 8,754,448 pesos, was again used to cover loans. The remainder of the reserve was used to cover depreciation of merchandise and equipment in the Torreon agency, liquidation of the 1938 cotton crop, and depreciation of equipment transferred from the BNCA2.[83]

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[81]BNCE *Informe 1937*, profit/loss statement.

[82]BNCE *Informe 1939*, p. 14.

[83]BNCE *Informe 1940*, pp. 19-20.

Earnings and Losses

The BNCE's first year of operation resulted in a liquidity loss (expenditures over revenues, including government subsidies) of approximately 23,902 pesos. During the next two years the BNCE's net liquidity loss equaled 9,560,049 pesos. In the final two years of the period, losses increased substantially, leaving a net liquidity loss of 18,672,955 pesos. The BNCE's gross loss for the period 1936–1940 was approximately 49,226,982 pesos. Their net liquidity loss for the same period was 28,256,906 pesos. This reduced the BNCE's capital by almost 10%, to 262,031,275 pesos at the end of 1940.

Summary

By 1937 the BNCE had expanded to serve all regions of the country, with agencies in every federal entity. The most important organization activity was the formation of collective ejido credit societies in the La Laguna area, the state of Michoacan, and the Yucatan. Much of the BNCE's lending was oriented toward aiding these societies in the purchase of fixed and semi-fixed capital, and in the provision of working capital for the production of commercial crops. However, the majority of the BNCE's lending was for the production of basic food crops (corn, beans, and rice) which was distributed throughout the country.

Financially, the BNCE was almost totally dependent upon the federal government. The federal government's stock purchases provided the BNCE's lending capital and its subsidies covered much of the expense of administration and education. Despite the subsidies, the BNCE still lost almost 10% of its capital funds during the first four years of operation. This can be largely attributed to the high cost of organizing the BNCE and the ejido credit societies and to the poor repayment record of the ejido credit societies.

CHAPTER 4

THE AVILA CAMACHO ADMINISTRATION, 1941–1946

Agricultural Credit Reform Laws of 1942

In 1942, the Mexican legislature instituted a number of reforms in the official agricultural credit systems. Central to the reform was the Agricultural Credit Law of December 31, 1942, which altered the structure of the ejido credit system somewhat to include Central Unions, which were to be composed of Unions of Local Societies of Ejido Credit.[1]

Another important change affecting the BNCE system was the elimination of the mandatory purchase of Series "C" stock, which had been required of the Local Societies of Ejido Credit receiving loans from the BNCE. Thereafter, the ejido credit societies were to use the funds that had been devoted to the purchase of stocks to form a social fund to be held by the BNCE. The intention was for the social fund to become an operating fund which would allow the societies to lend their own capital (i.e., function as a true cooperative financial institution).[2]

The law also changed the number of votes required to establish a Local Society of Ejido Credit in an ejido. Three-fourths of an ejido membership were previously required; this was reduced to a simple majority after 1942. The minimum of 20 members needed to constitute a local society was retained in the law.

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[1]Albornoz, p. 122.

[2]BNCE *Informe 1942*, p. 14.

The Camacho Administration

The administration of Avila Camacho initiated an agricultural credit policy, as exemplified in their support of the agricultural credit institutions, that was comparable to that of President Cardenas. However, beginning in 1943, the Camacho administration's support of the agricultural credit institutions subsided considerably. There was also a slight shift of federal government funds away from the ejido sector in favor of the private small- and medium-scale farmer.[3]

Organization of the Ejido Agricultural Credit System

The hierarchical structure of the BNCE system was not significantly altered by the new agricultural credit reform laws. The Administrative Council remained the top authority followed by the BNCE main office; the agency banks; the *jefaturas de zona*; and the Local Societies of Ejido Credit, the Societies of Collective Agricultural (Ejido) Interests, the Unions of Local Societies of Ejido Credit, and the Central Unions forming the base of the hierarchy. Ing. R. Marte Gomez, Minister of Agriculture, served as president of the Administrative Council, and Fernando Foglio Miramontes, Head of the Department of Agrarian Affairs, acted as vice president. The remaining seven members of the Administrative Council included two ejidatarios, representatives of the CNC, appointed by the Series "C" stockholders. The Administrative Council appointed Ing. Ruben F. Morales as Director General of the BNCE during the Camacho administration.[4]

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[3]Wilkie, pp. 140-42.

[4]BNCE *Informes 1941-1946*.

The functional organization of the BNCE main office was somewhat modified during the Camacho administration. The Fiduciary Department, created in 1941, was responsible for the administration of the many agricultural industry plants and the newly created agricultural machine centers. During 1944, the Department of Organization was eliminated, and its responsibilities turned over to the Department of Credit. During the same year, the Department of Agricultural Services was created to receive, distribute, and operate agricultural machinery and equipment that was being purchased from the United States. The BNCE *Informe 1941* also points out a modification in the functioning of the Credit Department. The previously employed operation plans were abandoned and agency (station) plans were introduced. The former had attempted to plan the agencies' operations based upon current information, often unavailable until the time of planting. The latter were to be based on theoretical studies and previous experience. The agencies were also authorized to develop, in consultation with the main office, short-term credit programs for those ejido credit societies operating without debts to the BNCE.[5]

The total number of agencies providing services to the ejido sector during the Camacho administrative period ranged from a low of 29 in 1942 to a high of 35, in 1945. The range for the number of *jefaturas de zona* was from 162 in 1943 to 193 in 1946. During 1941, the number of agencies decreased by one (versus 1940) to 34, and the number of *jefaturas de zona* decreased by 13, to 187. During that year, agencies were closed in Nueva Italia y Lombardi, Michoacan; El Rodeo, Nayarit; and

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[5]BNCE *Informe 1941*, p. 11.

Queretaro, Queretaro. To offset the decrease of three agencies, new agencies were opened in Cuernavaca, Morelos and Uruapan, Michoacan.[6] The move from Nueva Italia y Lombardi to Uruapan, Michoacan was probably just that, a move (of approximately 50 miles). The agency maintained the old *jefaturas de zona* and served basically the same areas. The others were more like the closing of services to an area and opening of services to other areas.

During the following year, four agencies were closed (see Table A-3, Appendix). There was a concomitant net decrease of *jefaturas de zona* in 19 areas. The majority of the agency closings, 75%, were in the state of Veracruz in the gulf region. During 1943, three more agencies were closed, two in the gulf region (one in the state of Veracruz) and one in the north pacific region. The Cordoba, Veracruz agency, closed in 1942, was reopened in 1943. During the next year three additional agencies were opened; two in Veracruz, and one in Queretaro, Queretaro (the agency that was closed in 1941). In 1945, the agency in Campeche, Campeche was reopened (it also had been closed since 1941) and an agency was opened in San Andres Tuxtla, Veracruz. No agencies were closed during this year. Most of the changes in agencies made from 1942 to 1945 amounted to the closing of agencies in one area of the state of Veracruz, and the opening (or reopening) of agencies in other areas of the same state. During the final year of the Camacho administration, two agencies were closed, in Pinotepec Nacional, Oaxaca and Merida, Yucatan. The closing of the Merida agency completed the process of

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[6]Ibid.

transferring the supervising and assistance of the henequen-producing ejidos to a Yucatan state-controlled organization, Henequeneros de Yucatan.[7]

Organization of the Ejido Credit Societies

The BNCE *Informe 1941* reports that the total number of Local Societies of Ejido Credit and ejidatarios organized by December 31, 1941, equaled 5,540 and 435,402 respectively.[8] There is some suspicion of these figures due to the failure to remove the henequen-producing ejido societies from the BNCE rolls. In the 1942 *Informe*, the BNCE published a new list of Local Societies of Ejido Credit with corrections for the years 1939, 1940, and 1941. The corrected table, comprised of *datos depurados*, showed that 5,275 Local Societies of Ejido Credit and 404,017 ejidatarios were affiliated with the BNCE at the end of 1941.[9] The corrections removed approximately 247 ejidos with 31,000 ejidatarios that had been transferred to the Henequeneros de Yucatan. The corrected data indicate an increase of approximately 123 Local Societies of Ejido Credit and 5,917 ejidatarios organized during 1941.

Throughout the remainder of the Camacho administrative period the number of Local Societies of Ejido Credit organized continued to increase. At mid-term, 5,447 societies and 415,830 ejidatarios were organized, and by the end of the administrative period 6,135 Local Societies of Ejido Credit and 465,815 ejidatarios had been organized by the BNCE.[10]

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[7]Brannon, p. 7.

[8]BNCE *Informe 1941.*

[9]BNCE *Informe 1942*, p. 5.

[10]BNCE *Informes 1942-1946.*

The new societies organized during the latter half of the Camacho administrative period were generally located in the zones of the newly opened (or reopened) agencies, or in those already established agencies where it was possible to bring irrigated land into cultivation. During 1943, the BNCE expanded its organization and lending operations in the following zones: Estacion Ramirez, within the jurisdiction of the Matamoros, Tamaulipas agency; Galeana, of the Monterrey, Nuevo Leon agency; Villa Flores y Cintalapa, of the Tapachula, Chiapas agency; Tuxpan, Veracruz agency; and the subzone of Cihuatlan, of the agency in Colima, Colima.[11] During 1944, the BNCE increased the number of societies in preparation for the opening of operations in the zones of the Pinotepec Nacional y Ixtepec, Oaxaca agency; in Jonacatepec, Morelos of the Cuernavaca, Morelos agency; Loma Bonita, Veracruz of the Veracruz, Veracruz agency; subagency of Tuxpan, Veracruz; and the Queretaro, Queretaro agency.[12] The 1945 *Informe* mentions the following zones in which new societies of ejido credit were organized (or existing societies reorganized): Tepic, Nayarit; the area surrounding the reservoir "El Azucar" in the agency of Matamoros, Tamaulipas; near the Salamanca Canal and irrigation works built by the National Commission for Irrigation, of the Queretaro, Queretaro agency; and in San Andres Tuxtla and Atoya, Guerrero, both within the jurisdiction of the agency in Iguala, Guerrero.[13]

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[11]BNCE *Informe 1943*, p. 6.

[12]BNCE *Informe 1944*, p. 5.

[13]BNCE *Informe 1945*, p. 6.

The number of Local Societies of Ejido Credit that operated as collective societies in obtaining and using credit during the Camacho administrative period varied drastically during the early years, but later stabilized. During 1941, it was reported that the number of collective societies had increased to 976 (versus 714 in 1940). The following year the number of collective societies was recorded at 495, only to increase again in 1943 to 786. The following three years, 1944–1946, the number of collectives organized was just below 700 (696 in 1944, and 699 in 1945 and 1946).[14] The average of the last three years, 698 collective societies, represented approximately 11% of the total Local Societies of Ejido Credit organized at the end of the Camacho administration.

The number of Unions of Local Societies of Ejido Credit also fluctuated during the early years of turmoil. During 1941, 30 Unions of Local Societies of Ejido Credit were in existence. In 1942, this number decreased to only 22 Unions, rebounding to 36 during 1943. This number increased to 41 in 1944, 42 in 1945, and 54 in 1946.[15] The rather large increases in the number of Unions is somewhat suspicious. The data probably include both Unions and Central Unions, as the latter were not separately accounted for in the *Informes*.

The number of Societies of Collective (Ejido) Agricultural Interests (SECAS) organized remained relatively constant throughout the Camacho administrative period. By the end of 1941, there were 43 SECAS

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[14]BNCE *Informes 1941-1946*.

[15]Ibid.

(versus 40 in 1940). By the end of the Camacho administrative period there were 45 SECAS organized.[16]

During the period 1942–1946 the BNCE began creating Central Unions, as authorized in the 1942 law, in which the regional collective organizations were to be unified. Silvia Gomez Tagle indicates that the newly created Central Unions in the La Laguna region were given favored status because they were controlled by the *Confederacion Nacional Campesina* (CNC). The CNC-controlled societies were more in conformity with the government's policies than were the "leftist" Unions of Local Societies.[17] Eckstein, Glantz, and Stavenhagen, in their respective studies of the collective ejidos in La Laguna, Nueva Italia, and the Yucatan, concur on the tendency toward favoring the CNC-dominated societies during the Camacho administration.[18]

In summary, the central region, in all likelihood, maintained a disproportionately large share of the total number of Local Societies of Ejido Credit organized. The region with the second largest share of the local ejido societies organized was probably the north region. The gulf region, however, probably decreased its share of the total number of ejidos organized by the BNCE, given the activities in the Merida, Yucatan agency. The north pacific and south pacific regions probably remained underrepresented in the number of organized Local Societies of Ejido Credit, relative to their overall ejido population. Comparing the BNCE's

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[16]Ibid.

[17]Silvia Gomez Tagle, *Organizacion de las Sociedades de Credito Ejidal de La Laguna* (Mexico, D. F.: El Colegio de Mexico, 1974), p. 96.

[18]See Eckstein, p. 145; Glantz, p. 124; and Stavenhagen, p. 155.

organizational results to the number of ejidatarios possessing land right certificates by the end of the Camacho administration indicates that the BNCE was able to organize approximately 26.6% of the country's ejidatarios.[19]

However, the apparent effort to subvert the expansion of the collective societies is only partially indicated in the statistics. The local societies operating as collectives decreased early in the period but then returned to near the 1940 level by the end of the period. The number of SECAS organized remained unchanged yet the number of Unions (and Central Unions) increased by over 100%. While the increase in the number of Unions was sufficient to include the newly organized (and CNC-dominated) Central Unions, there is no indication of a decrease in the number of organized societies operating as collectives. However, with the closing of the Department of Organization in 1944, the organizational responsibilities were transferred to the Credit Department. Such a change may indicate that there was an implicit subordination of organizational activities to credit services in the BNCE during this period.

Loan Operations with Ejido Credit Societies

The process of administering loans to the ejido credit societies was altered during this administration. Short-term loans were to be administered directly from the agencies, after drawing up an agency plan (substituted for operation plans) with the aid of the main office. The

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[19]This percentage was calculated by dividing the number of ejidatarios organized (465,948) at the end of 1946 by the cumulative number of recipients of land certificates (1,752,023) at the end of the Camacho administration, as recorded in Wilkie, Table 8-7, p. 194.

agency was, in principle, to retain its repayments collected each year from which it would make the next year's crop advances. The administration of medium- and long-term loans, however, remained essentially completely controlled by the main office.[20]

Total Loans

The BNCE's lending operations during the Camacho administration started off slightly above the level achieved during the last year of the Cardenas administration, and thereafter the nominal amounts of loans increased continuously. During 1941, the BNCE granted loans equaling 63,419,000 pesos, approximately 4,271,000 pesos above the 1940 level. In 1943, loans by the BNCE surpassed the 100 million peso mark (103,256,000 pesos), and for the first time exceeded the level achieved during 1937. In each of the next two years the BNCE granted approximately 108,500,000 pesos, and in the final year of the Camacho administrative period the amount of loans granted increased to 131,160,000 pesos. The total amount of loans granted during the Camacho administration equaled 583,098,000 pesos and the average interest rate charged was approximately 8% (as it had been during the previous period).[21]

In Table 16, the total amount of loans are indexed and the wholesale price index is also included to adjust the nominal amounts of loans for inflation. While the nominal amounts of credit increased over most of the period, the real value of loans remained essentially unchanged. During 1941 to 1946, the increase in the price of inputs was nearly 109%.

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[20]BNCE *Informe 1941*, p. 11.

[21]BNCE *Informe 1945*, p. 21.

TABLE 16

BNCE LOAN AND WHOLESALE PRICE INDICES,[a] 1941–1946

Year	Loan Index	Wholesale Price Index
1941	11.7	25.5
1942	12.5	28.1
1943	19.0	33.9
1944	20.0	41.6
1945	20.0	46.3
1946	24.1	53.3

[a]Base year 1954.

Source: Wholesale price index from J. W. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

At the same time nominal loans increased by approximately 105%, indicating a slight decrease in the real value of loans for the period 1941–1946.

The number of Local Societies of Ejido Credit receiving loans from the BNCE during the first year was 3,115, comprised of 220,075 ejidatarios. This represented 54.3% of the Local Societies of Ejido Credit organized. During the mid-period years of 1943 and 1944, there was a small increase in the numbers receiving loans, averaging 3,604 societies and 259,853 ejidatarios, representing approximately 64.2% and 61.5% of the totals organized. During the final year of the Camacho administrative period, only 3,361 ejido credit societies with 250,065 ejidatarios received loans from the BNCE. This represented 59.7% of the organized societies and 53.8% of the organized ejidatarios.[22] Considering that some 1,813,653 ejidatarios had benefited from the agrarian reform by the end of 1946, the BNCE provided a maximum of 13.8% of the ejidatarios with credit during that year.[23] In comparison to these percentages, the BNCE completed a study in 1940 in which it was estimated that approximately 14% of the Local Societies of Ejido Credit had the capacity to repay loans. An additional 55% had a potential capacity for repaying loans, and 31% were without the capacity to repay loans.[24]

Social Fund by Local Societies of Ejido Credit

During 1941, the ejido credit societies receiving loans continued to place a percentage in a social fund. The total amount of the societies' social fund at the end of 1941 equaled 5,552,534 pesos. During 1942 the Administrative Council altered the rules pertaining to the social fund. In societies with overdue loans, reserves in the social fund were to be automatically applied to pay off those loans. Those societies without debts were to first apply the social fund to meet their working capital needs before receiving loans from the BNCE. As a result, the total amount of reserves in social funds decreased to 3,807,503 pesos in 1942.[25] During the remainder of the Camacho administration there are no reports on reserves in the social fund.

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[22]BNCE *Informe 1946*, p. 8.

[23]Total beneficiaries from Wilkie, Table 3.1, pp. 46-48.

[24]Fernandez y Fernandez, *El Credito Ejidal*, p. 158.

[25]BNCE *Informe 1942*, pp. 15-16.

Loan Distribution by Geographic Region

In the Appendix, Table A-3, the distribution of the total loans granted by the BNCE during the Camacho administration (except 1945) is shown by agency. From 1941 until 1944, there is a shift in loans away from the central region in favor of the north and north pacific regions. During the last year, 1946, there is an indication of a reversal in this trend, as the central region's share of total loans increased at the expense of the north region.

During the first two years of the Camacho administration the distribution of loans was very similar to that of the last year of the Cardenas administration. The north region continued to receive most of the loans, over 45% of the total. The north pacific still received the second largest share at 33.5%. The densely populated central region received 15.7%, and the gulf and south pacific regions continued to receive the smallest shares (3% and 2.6%, respectively). In 1943, there was a more pronounced bias in lending toward the north region. It captured more than 58.7% of the total loans (with almost 53% going to the agency in Torreon, Coahuila). During that year the north pacific region's share fell to 21.3%, the central region's to 14.5%, the south pacific region received only 3.5%, and the gulf region 1.9%. After this rather extreme imbalance in distribution, the most equal distribution in the history of the BNCE was achieved in 1946. The north region received approximately 32%; the north pacific region, 31.1%, the central region, 23.1%; the south pacific region, 7.1%; and the gulf region, 6.7%.[26]

[26]Percentages calculated from the Appendix, Table A-3.

Making a rough comparison of the distribution of loans with the distribution of ejidatarios organized, we can say that the central and gulf regions were probably underfinanced, and the north and north pacific regions were probably overfinanced. The south pacific was the only region which received a share of the total loans that roughly reflected their percentage share of the total number of ejidatarios organized in Local Societies of Ejido Credit.

Within the regions there continued to be an unequal distribution of loans. During the first four years, 1941–1944, the north pacific region's loans were fairly equally shared by three agencies, Mexicali, Baja California; Los Mochis, Sinaloa; and Ciudad Obregon, Sonora; while the other three agencies in the region were largely ignored. In the north region, the agency in Torreon, Coahuila (serving the La Laguna region) completely dominated, receiving from 80% to 90% of the region's total loans. The central region was not heavily dominated by any agencies, but there were a few agencies that had captured approximately 20% each of the region's loans. This group included the agencies in Toluca, Mexico; Brisenas, Jalisco; Uruapan, Michoacan; and Cuernavaca, Morelos. In the south pacific region the majority of loans were channeled through the agency in Tapachula, Chiapas, which represented approximately 70% to 80% of the regional total. In the gulf region, the agencies in the state of Veracruz were dominant. During the final year, 1946, the distribution within the regions was also more equal than in the previous years. However, for the most part the same agencies received the largest shares of their respective region's loans.[27]

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[27]Percentages calculated from the Appendix, Table A-3.

Due to the lack of data on the distribution of Local Societies of Ejido Credit organized for the years 1942–1946, we can only estimate the regions' average loans per society and per member organized during the first year of the Camacho administration. During 1941, the region with the largest average loan per ejidatario and per society was the north pacific with 44,218 pesos per society and 628.5 pesos per ejidatario. Second was the north region, with 20,349 pesos per society and 296 pesos per ejidatario. The south pacific region followed with 6,195 pesos per society and 68 pesos per ejidatario. The central region received 4,997 pesos per society and 60 pesos per ejidatario. The gulf region received, on average, the lowest amounts of loans per society organized (1,701 pesos) and per ejidatario (20.7 pesos).[28]

It is not likely that the rankings of the regions, by average amount of loan received per society and per ejidatario, would have changed much during the first four years of the Camacho administration. However, it is possible that during the last year, 1946, the north pacific had no longer received the largest amount of average loans, possibly being replaced by the north region. It is also probable that the range of average loans per society and per ejidatario diminished somewhat due to the more equal distribution of total loans among the regions.

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[28]Loans per ejidatario and per society organized were calculated by dividing the total value of loans per agency (or per region) by the total number of societies organized and ejidatario members.

Distribution of Loans by Type

The distribution of loans by type was highly biased toward short-term loans during the Camacho administration, as had been the case during the previous administration. During 1941, the percentage of total loans dedicated to working capital was approximately 88%; medium-term loans represented approximately 11%, and other loans represented only about 1%. This distribution did not change significantly throughout the period, except during 1943. During that year, short-term loans decreased to approximately 75% of the total while other loans (direct, commercial, and real estate) increased to 16.4%.[29] It is likely that this relatively large increase in other loans was primarily in the category of direct loans. During this year the BNCE began purchasing agricultural machinery and equipment from the United States and thus required the extension of larger than average medium- and long-term loans.

Loan Repayments Collected by the BNCE

Total Repayments

The amount of loan repayments collected by the BNCE during the Camacho administrative period was 490,132,000 pesos. During the first year collections equaled approximately 46,656,000 pesos. The following three years they increased by considerable amounts to 60,883,000 pesos, 86,778,000 pesos, and 111,573,000 pesos, respectively. During the last

[29]BNCE *Informes 1941-1946*.

two years of the period the collections fell off, repayments decreasing to 98,367,000 pesos and 85,875,000 pesos.[30]

The distribution of the repayments by type of loan was dominated, for obvious reasons, by repayments of short-term loans. For the period 1941–1946, the average percentage of total repayments collected on short-term loans represented approximately 84%. Repayments for medium-term loans represented approximately 8% and those for other loans approximately 8%.

Geographic Distribution of Loan Repayments

During the period 1941–1944 over half of the total loan repayments were from the north region. Also, the vast majority of repayments within that region were made by the ejido credit societies in the Torreon agency. In two of the four years over 50% of the total loan repayments collected by the BNCE were from societies in the Torreon agency. The contributions of the other regions during the period were as follows: north pacific, 25.4%; central, 16.3%; south pacific, 4.5%; and the gulf region, 1.5%.[31]

During 1946 the distribution of loan repayments was much more equal (as was the distribution of loans, see the previous section). The north pacific had the largest percentage of total repayments, representing 33.5%. The north region was second, with 31.6%; the central region represented 22.4%; the south pacific 8.3%; and the gulf region 4.2% of the total repayments collected in 1946. The distribution among the

[30]Ibid.

[31]BNCE *Informes 1941-1944*.

various agencies was also much more equal, as no agency contributed more than 20% of the total repayments (including the Torreon, Coahuila agency).[32]

Loan Repayment Coefficients

We can again estimate the effectiveness of BNCE collection efforts by comparing the total repayments collected with total loans granted, total loans mature in each year, and total loans mature during the period.

Employing the first method, comparing total repayments collected with total loans granted, gives a coefficient for the entire period of 84.5. With the second technique, the average annual rate of repayments collected to loans mature during a given year equaled 87.7%. The third technique, total loan repayments divided by total loans mature during the period, indicates a repayment coefficient of 89.4%.

Outstanding Debts

A rough estimate of the outstanding debts held by the ejido credit societies at the end of the Camacho administration can be calculated by subtracting total repayments made from total loans payable at the end of the BNCE's 11 years of operations (1936–1946), and adding loans not mature. The total amount of payments due by December 31, 1946 was 748,225,225 pesos. The BNCE had collected 653,580,900 pesos during the same period.[33] Therefore, we can estimate that the total amount of

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[32]BNCE *Informes 1941-1944.*

[33]BNCE *Informe 1946*, pp. 12-16. Differences in totals are due to rounding.

unpaid debts held by the ejido credit societies at the end of the Camacho administrative period was 94,544,325 pesos. The total amount of loans granted but not payable at the end of 1946 equaled 97,659,753 pesos. Thus, the BNCE's total outstanding debt at the end of 1946 was 192,204,078 pesos.[34]

Agricultural Production Financed by the BNCE

During the Camacho administration the redistribution of land to the ejido sector diminished considerably from the level achieved during the Cardenas administration. Approximately 5,289,382 hectares were received by the ejido sector during the period 1941–1946, benefiting 111,121 ejidatarios. This increased the total amount of land received by the ejidos to 36,024,802 hectares. The number of ejidatarios receiving certificates of land use rights, from 1916 to 1946, increased to 1,813,653.[35]

Total Production

Table 17 shows the ejido credit societies' hectares harvested and the value of output produced with financing of the BNCE during the Camacho administrative period.

The increase in hectares harvested during the first year of the Camacho administrative period over 1940 equaled 122,000 hectares. During the next two years the number of hectares harvested decreased to

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[34]This figure does not include debts that would have been outstanding had they not been paid by the federal government out of the reserve for unguaranteed loans.

[35]*Statistics on the Mexican Economy*, pp. 46-48.

TABLE 17

BNCE-FINANCED EJIDO PRODUCTION, 1941—1946

Year	Hectares Harvested	Value of Production (pesos)
1941	892,536	128,716,000
1942	843,975	125,820,000
1943	733,047	190,817,000
1944	1,196,979	303,602,000
1945	1,179,618	347,080,000
1946	986,060	424,345,000

Source: BNCE *Informes 1941-1946.*

below the level achieved during 1940, even though the amount of loans increased. The following two years the harvesting results improved, by over 50%, without a proportionate increase in lending activity. During the final year of the period, the number of hectares harvested decreased again, even though the amount of loans had increased. During the entire period, except for 1942, the nominal value of the crops produced by the ejido credit societies increased regardless of the changes in the number of hectares harvested.

The value of the ejido credit societies' production is indexed along with an index of food prices, for the period 1941—1946, in Table 18.

TABLE 18

INDEX OF PRODUCTION AND FOOD PRICES,[a] 1941–1946

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1941	13.2	21.8	60.6
1942	12.9	23.7	54.4
1943	19.6	31.6	62.0
1944	31.3	45.4	68.9
1945	35.7	50.8	70.3
1946	43.6	60.2	72.4

[a]Base year 1954 for all indices.

Source: *Statistics on the Mexican Economy* (Mexico, D. F.: Nacional Financiera S. A., 1977), Table 6.3, pp. 218-19.

As can be seen in Table 18, the real value of the crops produced by ejido credit societies increased by approximately 11.8% during the period. This was barely larger than the 10.4% increase in hectares harvested. This indicates an increase of approximately 1% in productivity per hectare harvested.

Ejido Credit Society Production by Type of Crop

The production of corn continued to require the greatest concentration of the ejido societies' land harvested. During the first half of the Camacho administration, 40% to 47% of the land harvested was planted with corn. During the second half of the administrative period the concentration of land in corn production increased, representing 50%

to 55% of the total number of hectares harvested. However, the value of corn production represented a much smaller proportion of the total. During the first half of the period the value of corn production represented approximately 16% to 19%, while during the latter half it increased to 25% to 34% of the total value of crops produced by the ejido credit societies.

Adding the number of hectares devoted to the production of other basic food crops (wheat, rice, chiles, beans, etc.) to that in corn production indicates that the total land harvested in basic crops represented from 70% to 80% of the total hectares harvested by the ejido credit societies during the period 1941–1946. The value of all basic food crops represented approximately 59% of the total output produced by the BNCE-financed ejido credit societies. It is probable that the number of hectares planted, and thus financed by the BNCE, in basic crops was a much larger absolute, and relative, amount than is indicated in the data. This is due to the higher losses associated with the production of basic food crops because of a lack of water, adverse weather, plagues, etc. This is especially true for 1943, which was a particularly poor agricultural year.[36]

Cotton continued to be the major export crop financed by the BNCE during the Camacho administrative period, with a smaller production of coffee, bananas, and garbanzo beans. During the 1941–1946 period, export crops represented 12% to 19% of the land harvested by the ejido credit societies. The value of output associated with the production of export crops was again a higher proportion of the total value of crops produced

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[36]BNCE *Informe 1943*, p. 22.

by the ejido credit societies, representing approximately 22.5% of the total value.

The production of crops for agricultural industry, such as sugar cane, peanuts, tobacco, and safflower continued for most of the period (through 1945) to represent 1% to 2% of the total. In 1946, there was a slight shift as production of agricultural industry crops increased to 3.4% of the land harvested, and their value increased to 3% of the total. The production pattern of diverse crops was similar, representing 4% to 6% during 1941–1945 and increasing to over 9% in 1946. The corresponding value of production represented 6% to 10% during 1941–1945, and 11.8% in 1946.

In summary, during the majority of the Camacho administration the BNCE's policy was to finance the basic food crops following the trend established during the Cardenas administrative period. This policy was coordinated with a campaign by the Ministry of Agriculture and Development to promote the production of subsistence foods that the rural poor were dependent upon.[37] However, during the last year there was a noticeable tendency toward diversification in crop production. As stated above, the production of both agricultural industry crops and other diverse crops increased during that year. This was partially at the expense of the production of export crops, but mainly supplanted the production of the basic food crops.

[37]Ibid., p. 15.

Livestock Purchases and Breeding Financed by the BNCE

The amount of financing provided to the ejido credit societies by the BNCE for the purchase of breeding and work animals is not available. The only information available on livestock is data on the number of work animals and breeding animals owned by the ejido credit societies. Work animals included oxen, mules, horses, and burros. In 1941 the ejido credit societies owned 240,402 oxen, 104,863 mules, 118,874 horses, and 116,499 burros. Ownership of oxen and mules increased fairly consistently throughout the period, equaling 212,853 oxen and 153,087 mules at the end of 1946. But, the number of horses and burros owned decreased to 94,321 and 84,094 in 1943. During the second half of the period their numbers began increasing again, until in 1946 the ejido credit societies owned 146,027 horses and 129,816 burros.[38]

The ejido credit societies' ownership of breeding animals also increased during the Camacho administration. These included cattle, horses, donkeys, goats, sheep, and pigs. In 1941 the ejido credit societies owned 315,736 head of cattle, 24,871 horses, 32,386 donkeys, 468,374 goats, 97,943 sheep, and 151,711 pigs. During the remainder of the Camacho administrative period the ownership of most breeding animals increased continuously. At the end of 1946 the ejido credit societies owned 527,885 head of cattle, 135,903 horses, 74,066 donkeys, 603,028 goats, 266,428 sheep, and 412,065 pigs.[39]

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[38]BNCE *Informe 1946*, p. 31.

[39]Ibid., p. 32.

There were, however, temporary decreases recorded in the societies' ownership of some work and breeding animals, during 1942 and 1943, attributed partly to the fact that the number of ejidos operating with the BNCE decreased and partly to the sale of animals by ejidatarios in response to higher prices, especially in the international market.[40]

Complementary Services Provided by the BNCE

Commercial Services

During the Camacho administrative period the BNCE continued to purchase inputs such as agricultural machinery, fertilizers, insecticides, fuel, construction materials, and vehicles,[41] which were then transferred to the ejido credit societies in the form of credit "in kind." The BNCE's Commercial Department also acted as an agent for the ejido credit societies in the sale of their products. The BNCE assisted primarily in the sale of rice, cotton, sugar cane, corn, coffee, wheat, and bananas. In providing this service the BNCE mainly operated in conjunction with the Compañia Nacional Distribuidora, S. A. (the federal government agency in charge of regulating the prices of basic foods), and the Compañia Exportadora e Importadora Mexicana, S. A..

Table 19 shows the total purchase of inputs and sale of products by the BNCE during the Camacho administrative period.

The majority of the purchases were agricultural machinery and equipment, especially during 1943 and 1944. The excessively high values

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[40]BNCE *Informe 1942*, p. 32.

[41]For a more complete listing of the purchases by the BNCE, see the BNCE *Informe 1945*, p. 41.

TABLE 19

BNCE COMMERCIAL PURCHASES AND SALES, 1941–1946

Year	Purchases (pesos)	Sales (pesos)
1941	3,254,638	34,653,305
1942	7,722,041	57,694,324
1943	18,596,751	46,342,711
1944	21,315,702	78,071,456
1945	3,151,729	67,324,271
1946	1,436,896	90,834,732

Source: BNCE *Informes 1941-1946.*

during those years were a result of the purchase of agricultural achinery and implements by the BNCE, in conjunction with the Ministry of Agriculture, from the United States.[42] It should also be kept in mind that World War II was in progress during the early years of the Camacho administration, causing the prices of such equipment to be higher than normal (and higher than prices during the previous administration).

The BNCE's actions in the sale of the ejido credit societies' crops were primarily

> . . . oriented toward obtaining remunerative prices for the ejidatarios organized in societies of ejido credit, taking into account the constant and high increase in the prices of articles of consumption

[42]BNCE *Informe 1944*, pp. 25-26.

> and production. This work is subject to the dispositions dictated by the agencies charged with the control of prices (Compañia Nacional Distribuidora, S. A.), to evade abuses by the monopolists.[43]

As stated above, sales tended to be concentrated in those crops sold in the international markets and those which were used in agricultural industry. There was one major exception, the purchase of corn, a basic staple crop.

The largest sales consistently tended to be made by those ejido credit societies located in the zone of the Torreon, Coahuila agency. Their sales ranged from 15,858,685 pesos (of a total of 46,342,711 pesos) in 1943, to 40,261,799 pesos (of 67,324,271 pesos) in 1945. Other agencies that had relatively high sales (more than one million each year) for their ejido credit societies included Mexicali, Baja California; Ciudad Obregon, Sonora; Matamoros, Tamaulipas; Uruapan, Michoacan; Tepic, Nayarit; and Cordoba, Veracruz. Other agencies which had at least one million pesos in sales during any one year included Culiacan, Sinaloa; Cuernavaca, Morelos; Tuxpan, Veracruz; Chihuahua, Chihuahua; and Monterrey, Nuevo Leon.[44]

The Commercial Department remained responsible for providing agricultural insurance to the ejido credit societies during the Camacho administration. However, while mention is made of this in reference to the BNCE's high expectations for the future,[45] there is no indication of insurance premiums paid or payments made for losses of crops during the period 1941–1946.

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[43]BNCE *Informe 1943*, p. 18.

[44]BNCE *Informes 1943-1946*.

[45]BNCE *Informe 1941*, pp. 17-18.

<u>Agricultural Industry</u>

The management of agricultural processing plants by the BNCE increased to such a level that, during 1941, the main office was reorganized to include the Fiduciary Department which coordinated these activities. The department included sections for the management of cotton deseeding plants, agricultural machinery, and mills for processing rice, wheat, corn, and sugar. In 1944, with the creation of the Agricultural Services Department, the agricultural machinery section was transferred from the Fiduciary Department.

During 1941, the BNCE, through the Fiduciary Department, was managing 16 cotton deseeding plants, 3 railway lines, an irrigation works, a sugar mill, and an electric generating plant.[46] The railway lines were the Decauville Railway, located in the La Laguna region of the Torreon, Coahuila agency and operated by the BNCE mainly to transport the ejidatarios' crops to the markets.

In 1942, the BNCE conducted studies of the efficiency and need for each of the deseeding plants[47] and continued operating only 11 plants. Studies were also conducted on the need for operating the Decauville Railway, which resulted in the continued operation of only two of the railway lines. During that year the BNCE also continued managing the electric generation plant. In addition, the BNCE began managing a rice processing mill, a number of transport trucks, and production on reclaimed ejido lands.[48] There is no reference to the

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[46]Ibid., p. 13.

[47]The BNCE *Informe 1942*, p. 20, refers to 13 deseeding plants and 4 railway lines in the Decauville Railway.

[48]BNCE *Informe 1942*, p. 20.

operation of the irrigation works or sugar mill during 1941. It can be presumed that these plants were still controlled by the BNCE but were not in operation for various reasons.

The following year the BNCE continued to operate deseeding plants in the La Laguna region, but the exact number is not given. They also managed the Decauville Railway but again do not indicate the number of lines operated. It is possible that only two lines continued to operate, as mention is made of the reorganization which led to their profitable operation.[49] Other agricultural processing plants the BNCE operated during 1943 included an electric generating plant located in Matamoros, Coahuila; one of three sugar mills located in the state of Veracruz, and the sugar mill "La Palma," in Cuautlixco, Morelos. The sugar mills were actually owned by the BNCE, which makes them somwhat distinct from the other holdings, which were owned by the federal government and only managed by the BNCE. A fifth sugar mill in Ameca, Jalisco was rented to the ejido credit society "El Cabezon" which managed the mill and reportedly was to purchase it at a later date (this was never mentioned again in later reports).[50]

Through the Fiduciary Department the BNCE expanded its ownership and management responsibilities during 1943. Three new processing plants were added to the BNCE's agricultural industry interests: a resin processing plant located in Rio Frio, Mexico; a cottonseed processing plant in Distrito Bravos, Chiapas; and a rice mill located in

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[49]BNCE *Informe 1943*, p. 15.

[50]Ibid.

Jojutla, Morelos.[51] The Fiduciary Department also continued managing the land holdings "El Mohovano" in the state of Coahuila.

During 1944, the BNCE began operating three more agricultural processing plants, a number of rural schools, and the irrigation works idle since 1941. The new plants included a cotton deseeding plant in Jimenez, Chihuahua; a textile plant located in Toluca, Mexico; and a plant called "Explotaciones Forestales" located in Uruapan, Michoacan. This last plant was actually an installation for packing, crating, and otherwise preparing agricultural products for marketing. The operation of the rural schools was in compliance with a Presidential Decree of February 21, 1944, which provided 45,000 pesos for the maintenance of 30 schools located within ejidos in various parts of the country. The schools were to be jointly operated by the BNCE and the Ministry of Public Education. The irrigation works located in Balcones, Coahuila was not operated during 1942 and 1943 due to its poor condition. During this time the BNCE spent approximately 29,299 pesos for repairs so that it could be operated. During 1944 it operated at a relatively low level, irrigating only 318 hectares as compared with the estimated capacity of 1,500 hectares.[52]

The BNCE also continued during 1944 to manage the following installations: an unspecified number of cotton gins in the La Laguna region; the electric generating plant in Matamoros, Coahuila; the resin processing plant in Rio Frio, Mexico; landholdings in El Mohovano, Coahuila; the Decauville Railway in La Laguna; the sugar mills located

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[51]Ibid.

[52]BNCE *Informe 1944*, p. 20.

in Cuautlixco, Morelos, and Villa Lerdo de Tejada, Veracruz; a cottonseed processing plant in Distrito Bravos, Chihuahua; and a rice processing plant in Jojutla, Morelos. The sugar mill located in Ameca, Jalisco was again rented to the ejido credit society El Cabezon.[53]

During 1945 the BNCE operated the majority of their holdings and managed those of the ejido credit societies. However, noted exceptions were the cotton gins located in the La Laguna region. There was apparently an insufficient supply of raw materials to allow the BNCE to operate the cotton gins, due to the poor cotton harvest of 1945 and to the fact that the ejidatarios were newly authorized to sell their cotton to privately owned processing plants. Another exception was the cotton-oil mill in Distrito Bravos, Chihuahua, which did not operate during 1945.

The BNCE did expand its management operations in other areas, including a lumber mill located in La Nortena, Chihuahua; coffee processing plants in Tapachuala, Chiapas purchased by the Society of Collective Agricultural (Ejido) Interests and its member ejido credit societies of the area; an oil mill located in Manzanillo, Colima; and a citrus processing plant located in Villa de Llera, Tampaulipas. The oil mill, while it was operated during the year, was never on a solid financial basis and practically ceased to operate by the end of 1945. The coffee processing plants were purchased by the ejido credit societies in conjunction with the BNCE under the stipulation that the Fiduciary Department would manage them for five years.[54]

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[53]Ibid., pp. 20-22.

[54]BNCE *Informe 1945*, pp. 43-45.

During the final year of the Camacho administration there were no additions to the installations either owned or managed by the BNCE. The only plant no longer managed by the BNCE in 1946 was the packing plant located in Toluca, Mexico. Thus, at the end of 1946, the BNCE owned and managed a cottonseed processing plant in Distrito Bravo, Chihuahua; sugar mills in San Pedro, Veracruz, and Cuautlixco, Morelos; a citrus plant in Llera, Tampaulipas; a rice processing plant in Jojutla, Morelos; and a vegetable oil processing plant in Manzanillo, Colima. In addition, the BNCE managed the following installations owned by the federal government: a deseeding plant in the La Laguna region of the Torreon, Coahuila agency; the Decauville Railway located in the same region; an electric generating plant in Matamoros, Coahuila; the landholding of El Mohovano in the state of Coahuila; irrigation works in Balcones, Coahuila; a cotton deseeding plant in Jimenez, Chihuahua; and a resin processing plant in Rio Frio, Mexico. The BNCE also continued to manage the rural schools, in conjunction with the Ministry of Public Education, and administered the coffee processing plants being purchased by the ejido credit societies in Tapachula, Chiapas.[55]

Agricultural Machinery Centers

In 1941 the BNCE began studying the possibility of obtaining agricultural machinery for the ejido credit societies. This was supposedly due to difficulties the societies had experienced in trying to purchase machinery for themselves. Light agricultural machinery was to be purchased by the BNCE and then to be transferred to the ejido

[55]BNCE *Informe 1946*, pp. 35-37.

credit societies via loans in kind. Heavy agricultural machinery was to be purchased by the BNCE to establish "machine centers" in various parts of the country. This was to benefit the ejido credit societies through services provided, either paid for directly by the societies or through loans from the BNCE. During 1941, the Technical Department of the BNCE main office made studies in the following zones as possible sites for machine centers: Brisenas, Michoacan; Guasave, Sinaloa; Jiquilpan, Michoacan; Tepeaca, Puebla; Apatzingan, Michoacan; and Llera, Tamaulipas.[56]

In 1942 the BNCE began establishing its first machine centers under the direction of the Fiduciary Department. The BNCE *Informe* indicates that agricultural machine centers were to be organized in Mexicali, Baja California; Celaya, Guanajuato; Ciudad Obregon, Sonora; Torreon, Coahuila; Toluca, Mexico; Texcoco, Mexico; Chalco, Mexico; Brisenas, Michoacan; Guasave, Sinaloa; Jiquilpan, Michoacan; Tepeaca, Puebla; and Llera, Tamaulipas.[57] The agricultural machine centers were to be equipped with machinery purchased in the United States. However, it appears that few or none of the centers actually began functioning during 1942.

The agricultural machinery acquired from the United States began arriving during 1943. During that year 801 tractors were received, with 9 implements for clearing land, 516 plows, and 571 disks. Nevertheless, only 407 of the tractors were employed, partly due to the lack of an adequate number of implements. They were distributed to machine centers in the following locations: Ciudad Obregon,

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[56]BNCE *Informe 1941*, p. 12.

[57]BNCE *Informe 1942*, p. 19.

Sonora; Los Mochis, Sinaloa; Culiacan, Sinaloa; Tepic, Nayarit; Ciudad Victoria, Tamaulipas; Monterrey, Nuevo Leon; Oaxaca, Oaxaca; and Martinez de la Torre, Veracruz.[58]

With the expansion to 27 agricultural machine centers in 1944, the Department of Agricultural Services was created. In addition to the eight centers equipped during 1943, the following agricultural machine centers were established during 1944: Celaya, Guanajuato; Colima, Colima; Cordoba, Veracruz; Cuernavaca, Morelos; Chihuahua, Chihuahua; Durango, Durango; Guadalajara, Guadalajara; Iguala, Guanajuato; Matamoros, Tamaulipas; Mexicali, Baja California; Morelia, Michoacan; Pachuca, Hidalgo; Puebla, Puebla; Queretaro, Queretaro; San Luis Potosi, San Luis Potosi; Toluca, Mexico; Torreon, Coahuila; Uruapan, Michoacan; and Villahermosa, Tabasco.[59]

The number of agricultural machinery and implements owned by the BNCE in 1944 was 6,085, including 1,635 tractors, 1,495 plows, 2,930 disks, 375 planters, and 370 harvesters. Due to a lack of sufficient implements, some of the equipment still remained unused. Only 1,326 tractors were sent to the machine centers along with 1,212 plows, 2,267 discs, 190 planters, and 198 harvesters. This equipment was employed during 1944 to perform diverse tasks which, the BNCE estimated, involved 130,436 hectares, or the equivalent of 95,875 hectares cultivated. The unused machinery and implements were stored in warehouses, hopefully to be used later.[60]

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[58]BNCE *Informe 1943*, p. 13.

[59]BNCE *Informe 1944*, pp. 30-31.

[60]Ibid.

By the end of 1945, the 27 agricultural machine centers had increased the number of machines and implements in use to 4,553. This included 1,340 tractors, 1,234 plows, 1,026 discs, 478 planters, and 475 harvesters. There were an additional 391 tractors, 478 plows, 382 discs, 337 planters, and 724 harvesters that were either stored in warehouses or being prepared for transfer to machine centers. The tasks performed with this machinery during 1945 included clearing 580 hectares, plowing 77,670 hectares, cultivating 53,300 hectares, and diverse labors on 11,680 hectares.[61]

During the final year of the Camacho administration the BNCE operated only 26 agricultural machine centers. The machine center in Iguala, Guerrero was eliminated due to the inefficient use of its machinery. The machinery and implements were sold by the BNCE. In the Tepic, Nayarit agency, the machinery was sold (transferred) to the state as it had suffered heavy losses in the previous years. A new agricultural machine center was established in the operating zone of the Aguascalientes, Aguascalientes agency. The agricultural machine centers slightly increased (to 1,390) the number of tractors in use. (The number of agricultural implements is not recorded.) During 1946, the machine centers cleared 365 hectares; prepared and plowed 48,664 hectares; dragged and bordered 38,594 hectares; planted and cultivated 6,000 hectares; and completed other tasks on 5,934 hectares of ejido land.

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[61]BNCE *Informe 1945*, pp. 49-51.

It was decided, by the Administrative Council, that some of the machinery and implements held in the warehouses, and as yet unused, were to be sold. It was believed that this would not only be helpful to the BNCE, but also to the individual farmers as the BNCE could sell at a smaller "profit" than the commercial sellers. In accordance with this decision the BNCE sold 603 pieces of equipment in 1946.[62]

Technical Services

During the Camacho administration the Technical Department became very active in the BNCE. Many of the technical works were related to constructing, equipping, and repairing the various agricultural processing plants, offices, warehouses, and schools. In addition, the Technical Department conducted assessments of loan applicants' agricultural production plans.

Some of the many works carried out by the Technical Department during 1941 included construction of a sugar mill in the state of Michoacan, equipping the sugar mills in Michoacan and Veracruz, and reconstruction of a rice processing plant in Apatzingan, Michoacan. During 1942, the Technical Department reconstructed and adapted office buildings in the Torreon agency; installed fabrication machinery for extracting oils in Manzanilla, Colima; constructed office buildings in Ciudad Victoria, Tampaulipas; constructed an agricultural machine center and garage in Llera, Tamaulipas; and concluded the construction of the San Pedro mill in Veracruz. In 1943, they finished the construction of the main office in Mexico City, construction of a storehouse for

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[62]BNCE *Informe 1946*, p. 43.

the La Palma mill in Morelos, and installed petroleum tanks for the sugar mills "San Pedro" and "Moral y Mosquitero" in Veracruz. During 1944, a center for agricultural machinery and a garage were constructed in Torreon, Coahuila; a study on dismantling the sugar mill "Plan Sexenal" in Taretan, Michoacan was made; the sugar mill "San Lorenzo" in Sinaloa was repaired; and office buildings in Ciudad Comargo, Tamaulipas were constructed. In 1945, they completed the construction of office buildings in Torreon, Coahuila, and an alcohol processing plant in Paso de la Boca, Veracruz; and studied the potential for irrigation works in the area near the San Lorenzo sugar mill in Sinaloa. During the last yeat of the period, plans were formulated for the construction of grain silos in the Torreon, Coahuila zone; construction of an irrigation system near the sugar mill San Lorenzo in Sinaloa was begun; construction of the agricultural machine center in Llera, Tamaulipas was completed; and construction of a citrus fruit processing plant in the state of Tampaulipas, and employee housing and office buildings in Ciudad Mante, Tamaulipas, was begun.[63]

Legal Services

The Legal Department pursued a variety of actions required to complete the many activities of the BNCE. Among the many activities mentioned in the *Informes* were the following: defense of the BNCE before judicial and administrative tribunals; investigations into internal corruption; revision and formulation of civil, mercantile, and administrative contracts for the BNCE and the ejido credit societies

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[63]BNCE *Informes 1941-1946*.

(primarily related to the sale and purchase of crops and inputs); and resolving personnel problems. Examples of specific actions cited in the 1943 *Informe* are the approval for exemption from state and federal government taxation on the importation of agricultural machinery acquired by the BNCE, and resolving the worker conflicts at the sugar mills "La Union" in Jojutla, Morelos and "23 de Mayo" in Ameca, Jalisco.[64]

Financial Accounts of the BNCE during the Camacho Administration

Sources of Capital

The BNCE's total capital for the period 1941 to 1946 equaled approximately 571,179,622 pesos. The largest source of capital was private financial institutions, totaling 431,704,992 pesos and representing approximately 75.6% of the total capital. The remainder of the BNCE's capital was provided by the federal government (in the form of stocks and subsidies), 141,983,770 pesos, representing approximately 24.9% of the total capital.[65] The federal government's support of the ejido credit system during the Camacho administration equaled approximately 1.9% of the six-year budget. It also represented 82.4% of the federal government's support for agricultural credit.[66]

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[64]BNCE *Informe 1943*, p. 19. For a more informative reading on the problems in the sugar mills owned by the BNCE, see R. M. Jaramillo and F. C. Manjarrez, *Ruben Jaramillo: Autobrografia y Asesinato* Mexico, D. F.: Nuestro Tiempo, 1967).

[65]The total exceeds 100% due to the negative account for Series "C" stocks during 1941–1946.

[66]Calculated from Wilkie, Tables 6-4 and 6-5, pp. 139, 141.

BNCE stock. The federal government continued to purchase the vast majority (approximately 95%) of the BNCE stock issues. At the end of 1941, the federal government had purchased Series "A" stock worth 114,407,320 pesos, an increase of 15,027,510 pesos over the previous year. Stock purchases by the federal government reached a maximum, for the period, of 200,453,580 pesos worth of Series "A" stock at the end of 1946.[67] The total of Series "A" stocks purchased by the federal government during the Camacho administration equaled 101,073,770 pesos, or an annual average of 16,845,628 pesos.

During the Camacho administration, as during most of the Cardenas administration, purchases of Series "B" stock were not made by the state and local governments. However, during 1945, the federal government provided 16,000 pesos for the purchase of Series "B" stocks.[68] The purchase of Series "C" stocks, by the Local Societies of Ejido Credit, increased by 771,800 pesos, to 4,733,120 pesos at the end of 1941.[69] During 1942, the purchase of Series "C" stock increased again, to 5,690,050 pesos.

In 1943, in accordance with the Agricultural Credit Reform Law of December 31, 1942, the mandatory purchase of Series "C" stock by the Local Societies of Ejido Credit was suspended. During that year the value of Series "C" stock outstanding decreased to 4,076,300 pesos.

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[67]BNCE *Informes 1941-1946*.

[68]BNCE *Informe 1945*, p. 60.

[69]BNCE *Informe 1941*, pp. 19-20. An additional 135,280 pesos worth of Series "C" stock was purchased by non-ejidatarios, for a total of 4,868,400 pesos at the end of 1941.

During 1944, this amount decreased to 1,990,280 pesos, and decreased again to 840,680 pesos in 1945, recovering somewhat during the final year of the period to 1,452,180 pesos.[70] The net decrease in Series "C" stocks during the Camacho administrative period equaled 2,509,140 pesos.

Subsidies. The federal government continued, during most of the Camacho administration (except 1944), to provide subsidies to the BNCE for cost of administration and reserves for depreciation of equipment and buildings. In 1941, the total of all subsidies equaled 5,262,000 pesos. During the next year, subsidies were decreased to 5,027,000 pesos, and then were increased to 5,261,000 pesos in 1943. During 1944, the BNCE was without the benefit of subsidies for the first time in its eight-year history. This was not a long-lived situation for in 1945, the subsidies skyrocketed to a record high of 13,578,000 pesos. During the last year of the Camacho administration subsidies remained at a high level, equaling 11,766,000 pesos.[71] The total amount of the subsidies granted to the BNCE during the Camacho administration equaled approximately 40,900,000 pesos. The average annual subsidy, for the sexennial, was 6,615,666 pesos.

Loans from private institutions. During the Camacho administration, the private financial institutions began to provide ever-increasing amounts of the BNCE's capital, in both absolute and relative terms. During 1941, borrowing of private capital increased to approximately 49,200,000 pesos, but was slightly reduced, in 1942, to

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[70]BNCE *Informes 1941-1946*, balance sheets. [71]Ibid.

40,732,087 pesos. During the last four years of the period, 1943 to 1946, borrowing from private institutions increased dramatically. In 1943 private sources provided 61,818,206 pesos, and increased this amount in 1944 and 1945 to 84,206,376 and 83,475,866 pesos respectively. During 1946, this source increased again to approximately 112,300,663 pesos.[72] The total amount of capital provided by the private credit institutions through loans to the BNCE during the Camacho administration equaled 431,704,992 pesos. The interest rates paid to the private financial institutions ranged from a low of 3% to a high of 7%, averaging approximately 4% to 5% over the period.[73]

Revenues and Costs

The BNCE's major categories for internal revenues were interest received and revenues generated from commercial activities. Other less important sources of revenue included dividends, recuperations from overdue loans, commissions, and property sales. The main external source of revenue was the federal government's various subsidies. Major categories of expenditures included general administrative expenses (salaries, travel, transport, building rental, office and equipment maintenance, telephone and telegraph, and paperwork); interest paid to lending institutions; and reserves for depreciation and unguaranteed loans. Less important categories were commissions paid, public relations expenses and other expenses.

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[72]BNCE *Informes 1941-1946.*

[73]BNCE *Informe 1946*, p. 24.

Internal revenues. The primary source of internal revenues during the Camacho administration was the interest received from the ejido credit societies. From January 1, 1941, to December 31, 1946, this category produced revenues of 51,080,227 pesos.[74]

The second most important source of revenue for the BNCE during this period was commercial activities. This category is reported separately for the years 1941–1944, showing a net positive account of 6,691,530 pesos for those years.[75] In 1945 and 1946, this account is reported with the accounts from the management and ownership of agricultural industry plants, the agricultural machine centers, government subsidies, and diverse accounts. Therefore, it is impossible to separate results of commercial activities from the remaining categories. This account for 1945 reached 34,351,791 pesos. From this we can deduct the amount of federal government subsidies (13,578,000 pesos) to give a rough estimate of the internal revenues (20,773,791 pesos) generated from the agricultural machine centers, agricultural processing plants and other holdings of the BNCE. During 1946, this category decreased to 14,185,476 pesos.[76] The total internal revenues generated from these activities equaled 34,959,267 pesos during 1945 and 1946.

Dividends were earned by the BNCE during the Camacho administrative period from investments in stocks, bonds, and other financial

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[74]Ibid.

[75]Ibid.

[76]Ibid.

assets (e.g., stock in the Bank of Mexico, S. A., and stocks and bonds issued by auxiliary institutions). There were no dividends reported in the first year of the period. Total dividends earned by the BNCE during the period 1942–1946 equaled 595,694 pesos.[77] Revenues collected by the BNCE for overdue debts from the ejido credit societies were an additional minor source of income. The total amount recovered from overdue accounts by the BNCE during the period 1941–1946 equaled 7,559,024 pesos.[78] Diverse accounts also provided a small portion of the BNCE revenues during the Camacho administration. The diverse accounts, for the period 1941–1946, equaled 1,280,678 pesos.[79]

External revenues. Amounts of annual federal government subsidies are given in the section on Sources of Capital, Subsidies (refer to this section for more detailed information). The BNCE received approximately 40,894,000 pesos during the period 1941–1946, or an average annual amount of 6,615,666 pesos.

Costs. General administrative costs continued to be the major expenditure category, with the majority of costs consisting of salaries. During the first two years of the administration, general administrative costs averaged 8,332,089 pesos. The account for personnel salaries averaged 5,041,261 pesos or approximately 60.5% of the administrative costs. Throughout the remainder of the administration, general administrative costs increased consistently, equaling 15,039,833

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[77]Ibid.

[78]Ibid.

[79]Ibid.

pesos in 1946. During that year, personnel salaries equaled 7,723,612 pesos, or 51.4% of administrative costs.[80]

The total costs for general administration of the BNCE during the period 1941–1946 equaled 62,738,170 pesos. The sum for salaries for BNCE personnel equaled 35,862,064 pesos, or 57.2% of the costs of general administration. Taking the total administrative costs for operating the BNCE as a percentage of the total sum of lending and collection operations (1,073,230,000 pesos), as an indicator of per unit costs, gives us a ratio of 5.8 centavos per peso loaned and collected. Comparing this figure with that of the Cardenas period indicates that the BNCE had become more efficient in the provision of credit services. Comparing it with the average rate of interest charged (8%) to the ejido credit societies indicates that it could have been possible (in principle) for the BNCE to cover its administrative expenses out of the interest payments collected.

Reserves for depreciation and unguaranteed loans, etc., represented the second largest expenditure for the BNCE during the Camacho administrative period. This was largely a result of the very high levels of reserves necessary during the last two years of the period. During 1941, costs for reserves were only 1,065,871 pesos, and in 1944, 1,613,153 pesos. However, in 1945, 17,309,339 pesos had to be placed in reserves, and in 1946, an additional 9,304,824 pesos.[81] The total cost of reserves for depreciation of machinery, equipment, merchandise and unguaranteed loans for the period 1941–1946 equaled 32,679,244 pesos.

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[80]Ibid.

[81]Ibid.

The third-ranking cost category for the BNCE was interest payments to the private financial institutions that had loaned capital to the BNCE. During 1941, interest payments to private financial institutions equaled 1,443,607 pesos, increasing continuously with the BNCE borrowing until 1946, when the BNCE paid 3,981,641 pesos in interest charges. The total interest payments to private financial institutions for the period 1941–1946 were 14,785,919 pesos.[82]

Additional costs were incurred by the BNCE during the Camacho administration as a result of classifying considerable sums of overdue loans as "uncollectable." This was done in each of the first three years of the administration, equaling 25,583,981 pesos.[83] Other diverse expenditures during the period 1941–1946 equaled 27,037,699 pesos.[84]

Earnings and Losses

The BNCE suffered gross losses in every year and managed a net liquidity gain (by adding government subsidy as revenue) in only one year. The largest net liquidity losses were suffered during the first two years of the period. Yet, the largest gross losses were suffered during the last two years of the period. This was due to the nearly three-fold increase in federal government subsidies over the period.

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[82] Ibid.

[83] BNCE *Informes 1941-1943.*

[84] BNCE *Informes 1941-1946.*

The gross loss compiled by the BNCE during the Camacho administrative period equaled 74,723,497 pesos. Subtracting the total federal government subsidy for the period (40,894,000 pesos) from the gross loss for the period gives a net liquidity loss for the BNCE of 19,850,061 pesos.

Summary

The BNCE's lending during the Camacho administration did not increase, on an annual average, over the level achieved during the Cardenas administration. The number of ejido credit societies receiving credit decreased somewhat, thus indicating a slight increase in the amount of loans received per society. The majority of credit continued to be granted for the production of basic food crops, yet cotton production became the most-financed crop. Along with the bias toward cotton production, there was a tendency toward favoring the northern regions in distributing credit. The ratio of repayments to loans granted increased considerably (from approximately 68% to 87%) which may also have been at least partially due to the shift toward the more profitable cotton crop.

Some authorities on ejido organization argue that the Camacho administration played an integral part in the demise of the collective ejido societies. However, the disintegration of the collective ejidos is neither verified nor disproven by the data. The number of organized local societies operating as collectives reportedly remained unchanged during this period, as did the number of SECAS. On the other hand, the number of Unions organized increased substantially during the latter half of the period, probably representing the Central Unions being formed by the Camacho administration. Whether these societies were operating as individual or collective ejidos and whether or not they were receiving credit cannot be determined from the data.

The BNCE's major source of capital became the private financial institutions. However, the federal government continued to contribute to the BNCE's capital fund and operating costs. The federal government's de facto role of covering the BNCE's losses became evident during the last two years of the administration, when gross losses increased dramatically, as did subsidies. Despite the increased government subsidies, and the above-mentioned improvement in loan repayments, the BNCE continued to lose capital. The losses may be largely attributed to the BNCE's expanded role in complementary services (which resulted in high costs related to the formation of depreciation reserves) and to the cost of borrowing capital from the private financial institutions.

CHAPTER 5

THE ALEMAN ADMINISTRATION, 1947–1952

Reforms to the Agricultural Credit Law during 1947

During the first year of the Aleman administration the Agricultural Credit Law of 1935 was again altered. Most importantly, the formation of a social fund, and reserves covering unguaranteed loans, were eliminated. This represents another of the innumerable adjustments to the original 15% provision in Circular 51 of the National Agrarian Commission.

In the 1947 *Informe*, it is explained that the ejido credit societies' formation of social funds and collective guarantee funds ". . . produced no advantages for the organized ejidatarios and thus was eliminated for their benefit."[1] While the funds had technically remained a part of the societies' assets, the ejidatarios did not consider them among their own resources and felt the formation of such funds represented a loss of income, or a cost of borrowing. There was also a problem of ejido and BNCE officials' use of the funds for personal and political purposes.[2] Therefore, the BNCE Administrative Council decided the social fund was too onerous for the ejido credit societies and recommended the removal of this requirement. These changes were made in apparent recognition of the ejido credit societies' seeming inability to accumulate capital resources or finance their agricultural production, even in the long run.

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[1]BNCE *Informe 1947*, p. 35.

[2]Personal communication between J. M. Bracho and the author, February 29, 1980.

An additional, minor change in the agricultural credit law permitted the BNCE to "rehabilitate" ejido credit societies. Societies that had been "in recuperation" for causes that the members were not directly responsible for, and where there was a possibility of economic rehabilitation, could again operate with the BNCE. There were no special stipulations on operations of rehabilitated societies. It was stated only that the ejido credit societies should invest their resources in such a manner as to ensure future success and the repayment of its debts, within reasonable conditions.[3]

The BNCE during the Aleman Administration

The strong pro-industrialization policies of the Aleman administration are well documented in the literature on Mexican development. In this period import substitution, which had begun during World War II, was brought to the forefront of the government's policies. The results for the agrarian reform movement and the BNCE were fewer government resources, a reduction in services, more emphasis on increased productivity, tighter selection of clientele, and increased efforts in the collection of ejido credit societies' debts.

Organization of the Ejido Credit System

During the Aleman administration there were no changes in the hierarchical structure of the ejido credit system. The Administrative Council was headed by Nazario S. Ortiz Garza, of the Ministry of Agriculture; Maria Sousa, Head of the Department of Agrarian Affairs,

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[3]BNCE *Informe 1947*, pp. 35-36.

served as vice president. Ing. Mariano Parra Hernandez was appointed, by the Administrative Council, as Director General of the BNCE.[4]

The functional organization of the BNCE main office during the early years of the Aleman administration (1947–1949) also remained unchanged. However, in 1950, the number of departments was expanded. The Departments of Irrigation and Forestry were created, primarily to handle specialized lines of credit managed by the main office. As the BNCE's investments in irrigation works increased (beginning in 1949), the newly created Irrigation Department was given the responsibility of managing these investments. The Forestry Department was created for a similar reason, but the level of investments was not nearly as extensive as in irrigation works.

The number of agencies and *jefaturas de zona* changed little during the Aleman administrative period, but there were a number of new agencies opened and others closed. The BNCE began the Aleman administration with 37 agencies and 193 *jefaturas de zona*. The numbers increased to 39 and 203 by 1949, and during the latter years of the administration the number of agencies decreased to 36 while the number of *jefaturas de zona* continued to increase to 212. New agencies were opened during the first year, in Saltillo, Coahuila; Puente de Jula, Veracruz; and Raiz de Zacaton, Durango. The agency in Nueva Italia y Lombardi, Michoacan also began operation again during 1947. During the second year, only one new agency began operating, in Gabriel Zamora, Michoacan. This agency began operating with some of the ejido credit

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[4]BNCE *Informes 1946-1951.*

societies that had previously been served by the agency in Nueva Italia, Michoacan. In 1949 there was a considerable amount of agency shifting, with four agencies ceasing operations, three reopening, and two new agencies put into operation. The agencies removed were located in Puente de Jula, Veracruz; Mexicali, Baja California; Campeche, Campeche; and Los Tuxtlas, Veracruz. The reopened agencies were in Zacatecas, Zacatecas; Merida, Yucatan; and Veracruz, Veracruz. The new agencies were located in Apatzingan and Taretan, Michoacan. During 1950, the Mexicali, Baja California agency was reactivated while agencies in Merida, Yucatan; Uruapan, Gabriel Zamora, and Taretan in the state of Michoacan; and Raiz de Zacaton, Durango were closed. The Merida, Yucatan agency resumed operations in 1951, at a very low level, as did the Taretan, Michoacan agency. In Tlaxcala, Tlaxcala a new agency also began operations during 1951. During the last year of the Aleman administration there is no agency listing for operations. The 1948 *Informe* only indicates that the number of agencies increased by one over 1951, and the number of *jefaturas de zona* decreased by 17.[5]

The agency changes represent a number of possibilities with respect to the BNCE agricultural credit policy. The opening of the Saltillo, Coahuila agency was in an area which had become cultivable due to new irrigation works. The agencies in Puente de Jula, Veracruz and Raiz de Zacaton, Durango were opened only temporarily to channel specialized credit lines to those areas. The changes in the state of Michoacan most likely represent a reorganization of the area's agencies.

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[5]BNCE *Informes 1947-1952.*

Organization of Ejido Credit Societies

There is a general concensus that the BNCE, during the Aleman administrative period, continued to pursue the disintegration of the collective societies. This view is explained by Eckstein.

> The internal organization of the ejido did not experience notorious legal changes. In reality, nevertheless, there was a serious official tendency against the collectives, that sometimes went beyond the existing laws. The division of ejido lands took precedence, including forced parcelation, sometimes against the express wishes of the affected ejidatarios. In the Ejido Bank . . . employees of opinions openly opposing the collectives were substituted for those that had been sympathetic [to the collectives] during the previous periods.[6]

The organization of Local Societies of Ejido Credit, Unions of Local Societies, and Collective Societies of Agricultural (Ejido) Interests continued during the Aleman administration at a diminished rate. The organization of new societies took place primarily in the regions of newly opened agencies and *jefaturas de zona*, and in those regions being opened up to cultivation through the expansion of the national system of irrigation.[7]

The organization of societies increased at a relatively slow pace from 1947 to 1950, declined in 1951, and remained unchanged in 1952. A similar pattern existed in the number of ejidatarios organized in Local Societies of Ejido Credit, increasing at a slow rate from 1947 to 1950, and decreasing in 1951; but during 1952 the number of member ejidatarios decreased by almost 35,000 (or approximately 7%).

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[6]Eckstein, p. 72.

[7]BNCE *Informe 1948*, p. 40.

The number of Local Societies of Ejido Credit reportedly operating in a collective manner did not change appreciably during the Aleman administration. During the first three years of the period, the number of collective societies remained at 699. During 1950, 710 societies functioned as collectives, but only 675 societies collectively cultivated their land during the final year.[8]

The number of Central Unions and Unions of Local Societies of Ejido Credit organized followed a pattern similar to that of the Local Societies. There were 54 Unions organized during 1947 and 1948. In each of the following two years this number increased by one, remained at 56 during 1951, and then decreased to 48 in 1952.[9] The organization of Collective Societies of Agricultural (Ejido) Interests remained unchanged from that achieved during the last year of the Camacho administration. There were 45 Collective Societies of Agricultural (Ejido) Interests organized during the years 1947–1952.[10]

Loan Operations with Ejido Credit Societies

The control and management of specialized lines of credit for medium- and long-term loans was still concentrated in the BNCE main office. The agencies retained the authorization to administer short-term credits, in accordance with the operations plans, to

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[8]BNCE *Informes 1947-1950* and *1952*. No information is available on the number of collective societies during 1951.

[9]BNCE *Informes 1947-1952*.

[10]Ibid.

those societies that had no outstanding debts with the BNCE.[11] The operations plans once again replaced the agency plans and were to direct the agencies' lending operations. The operations plans were to be drawn up by the agencies, in consultation with the main office, after a series of socioeconomic studies were conducted to evaluate each investment proposed by the ejido credit societies.

Total Loans

The BNCE's total lending operations for the period 1947–1952 equaled 1,335,837,000 pesos. There was a rather large increase in loans granted during the first year of the period, to 179,315,000 pesos (versus 131,160,000 pesos in 1946), and a small increase in 1948, to 187,156,000 pesos. During the third year loans granted jumped again to 214,724,000 pesos, only to decrease the following year to 202,350,000 pesos. During 1951, and for the third time in the period, loans increased by a large amount, 281,852,000 pesos, and again decreased in the last year to 270,440,000 pesos.[12]

Table 20 shows an index of loans granted and a similar index for wholesale prices during the Aleman administration. It is obvious from the table that the increase in the price of inputs that the ejidatarios had to purchase with their loans exceeded the increase in the amount of loans received. While the amount of loans granted by the BNCE increased by almost 51%, wholesale prices increased by almost 65%. Thus, one would conclude that the amount of real loans granted by the BNCE declined, during the Aleman administrative period, by approximately 14%.

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[11]BNCE *Informe 1948*, p. 42.

[12]BNCE *Informes 1947-1952.*

TABLE 20

BNCE LOAN AND WHOLESALE PRICE INDICES,[a] 1947–1952

Year	Loan Index	Wholesale Price Index
1947	33.0	56.4
1948	34.4	60.5
1949	39.5	66.3
1950	37.2	72.5
1951	51.9	89.9
1952	49.8	93.2

[a]Base year 1954.

Source: Wholesale price index from J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

The number of Local Societies of Ejido Credit operating (i.e., receiving credit) with the BNCE increased during the first half of the period and then decreased to a level below that of 1946 during the latter half of the period. In 1947, 3,912 societies received credit, versus 3,661 in 1946. Three years later, in 1950, the high for the period was reached serving 4,208 societies. During the final two years of the period the number of societies receiving loans decreased, to 3,759 in 1951, and 3,506 in 1952. On an average annual basis, during the period 1947–1952, 3,879 Local Societies of Ejido Credit comprised of 249,552 ejidatario members operated with the BNCE.

Comparing these numbers with the annual average number of Local Societies of Ejido Credit organized indicates that the BNCE operated with approximately 59% of the ejidos organized, comprised of 51% of the ejidatarios organized. However, the BNCE was serving ejidos comprised of approximately 25% of the country's ejidatario population.

Loan Distribution by Geographic Region

The distributional bias in the BNCE's lending operations once again strongly favored the north region, increasing the bias throughout the first four years of the period. During 1947, the north region distributed almost 38% of the total loans, while the north pacific's share decreased to 26.6%, and the central region's share decreased to 19.3%. The share of loans distributed in the south pacific and gulf regions increased slightly during 1947, to 8.3% and 7.9% respectively. The north region's share continued to increase, representing 45.1% in 1948, 46.2% in 1949, and 54.3% in 1950. During 1951 the north region had distributed a slightly smaller portion of the total, 50.5%. The north pacific region fared relatively poorly during the early and middle years of the Aleman administration. Their percentage of the total loans fell from 26.6% in 1947 to 20.2% in 1948, and to 16.3% in 1949. It increased slightly to 17.9% in 1950, and again in 1951 to 23.3%. The central region, to the contrary, fared relatively well during the early years and less well as the period ended. In 1948, their share increased to 20.2% (from 19.3% in 1947) and increased again the following year to 21.5%. Thereafter it began to slide, representing 18.6% in 1950, and only 16.4% in 1951. The south pacific region maintained the most stable share during the period. In 1948, its share changed little, declining to 8.1%. During the next three years it represented 5.8%, 6.5% and 7.0%. The gulf region's share reached a high early in the period and then fell to its traditional low level. By 1949 the region's share had increased to 10.1% only to plummet the next year to 2.6%, and 2.7% in 1951.[13]

The unequal distribution of loans within the regions also continued to exist. In the north pacific region the agency in Ciudad Obregon received the largest share of that region's loans, followed by the agency in Mexicali, Baja California (except during 1949) and the agency in Culiacan, Sinaloa. The agency in Los Mochis, Sinaloa, which had received a relatively large percentage during the previous administrative period, received very little (0.8–5.3%) during the Aleman administration. The north region continued to be dominated by the lending operations of the agency in Torreon, Coahuila, although to a lesser degree than during the previous administrative period. The central region was not dominated by any agency's lending operations, but two agencies (Cuernavaca, Morelos and Guadalajara, Jalisco) received a consistent 17–20% of that region's loans. Three other agencies that had received similar shares during the previous administrative period showed decreases to near the 5% level (Toluca, Mexico; Brisenas, Jalisco; and Uruapan, Michoacan). In the gulf region, agencies in the state of Veracruz dominated except during 1949 when the agency in Merida, Yucatan was reactivated and contracted approximately

[13]Percentages calculated from the Appendix, Table A-3.

73% of the region's loans. The south pacific region's loans were primarily distributed in the zone of the Iguala, Guerrero agency during the early years but gradually shifted towards the agency in Tapachula, Chiapas in 1950 and 1951.[14]

Loan Distribution by Type

Short-term loans continued to represent the largest percentage of total loans granted, ranging from 78.6% to 91.4% during the period. This was slightly above the level of the previous administrative period and considerably higher than that of the Cardenas administration. Medium-term loans ranged from 6% to 18.2%. This was a wider range than had been experienced during the previous administrative period, but the annual average remained essentially unchanged. The percentage of loans for other purposes (commercial, mortgage, direct, etc.) decreased throughout the period. They represented 4.8% in 1947, and decreased to 2.2% in 1952.[15] Thus, there appears to have been a shift in favor of short-term loans at the expense of commercial, mortgage, and direct loans; while medium-term loans continued at a steady pace.

In some years (1949 and 1951) of this period, there were rather large amounts of medium-term credits granted. One of the major reasons was the BNCE's policy of encouraging investments for irrigation works and land clearing. As Fernandez y Fernandez states, "the change from financing purchases of agricultural machinery to financing irrigation works was not a result of the changing

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[14]Percentages calculated from the Appendix, Table A-3.

[15]BNCE *Informes 1947-1952.*

[ejidatarios'] demand, but was rather a change in the credit policy."[16] The policy of the new government was to increase agricultural production by opening new land to cultivation through irrigating semi-arid regions of the country. During 1951, the BNCE granted loans for the purchase of 1,357 irrigation units, an investment of approximately 76,286,000 pesos. These units were estimated to be capable of providing irrigation for 174,726 hectares.[17] Approximately 35% of loans for irrigation were made by the Torreon, Coahuila agency and an additional 40% were made by the agencies in Ciudad Obregon, Sonora; Chihuahua, Chihuahua; Saltillo, Coahuila; Mexicali, Baja California; and Celaya, Guanajuato.[18]

As a preparatory measure to the opening of new land through irrigation works, the BNCE granted medium-term credits to the ejido societies for clearing of the land. These investments were carried out by enterprises contracted by the BNCE and charged to the ejido credit societies' accounts. The heaviest investments for land clearing were made during 1951. The total investment in this activity, for the years 1948–1951, was approximately 20 million pesos.[19]

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[16] Fernandez y Fernandez, *El Credito Ejidal*, p. 175.

[17] BNCE *Informe 1951*, p. 24.

[18] Hugo Herrera Gomez, *La Politica re Riegos del Banco Nacional de Credito Ejidal* (Mexico, D. F.: Banco Nacional de Credito Ejidal, S. A. de C. V., 1958), p. 34.

[19] BNCE *Informe 1951*, p. 27.

Loan Repayments Collected from the Ejido Credit Societies

Total Repayments

The major crops produced which, in general, had the highest percentage of repayments were cotton, coffee, and tobacco. Those crops associated with the poorest repayment records were corn, beans, and wheat. Rice producers were between these extremes. During the first year of the administrative period, loan repayments increased by approximately 50% over the previous year. Repayments continued at increase (at a decreasing rate) until the last two years of the period. The total amount of loan repayments collected by the BNCE was approximately 993,096,000 pesos. The largest percentage of the repayments was for short-term loans, equaling 929,589,700 pesos, or 91.7% of the total repayments. Repayments on medium-term loans equaled 51,531,800 pesos (5.1%) and repayments on other loans equaled 32,165,700 pesos (3.2% of the total repayments).[20] The overwhelming percentage of the total repayments represented by short-term loans is due not only to the fact that short-term loans equaled approximately 80 to 90% of the total loans, but also to the BNCE's policy of giving preference in applying repayments to cover outstanding short-term debts over medium- and long-term debts.[21]

Geographic Distribution of Loan Repayments

The north region's contribution to the total repayments continued to dominate, approaching 50% of the total repayments during the first two

[20]BNCE *Informes 1947-1952.* [21]BNCE *Informe 1950*, pp. 38-39.

years. In 1949, it decreased to barely over 45% but increased during 1950 and 1951 to more than 53% of the total repayments collected by the BNCE. Within the region, the Torreon, Coahuila agency's repayments were dominant, representing 30% to 40% throughout the period. The remaining regions represented the following percentage ranges of the total repayments: the north pacific region, from 14% to 24.7%; the central region, 16.3% to 21.5%; the south pacific region, 5.8% to 9.1%; and the gulf region, 1.6% to 12.1% of the total repayments.[22]

Loan Repayment Coefficients

Comparing the total loan repayments to the total loans granted during the Aleman administrative period we get a coefficient of 79.3. With the second method of measuring the repayment coefficient, comparing total repayments with total loans mature in a given year, the average annual coefficient equals 78.5. The third method, comparing total repayments for the period with the total amount of loans due during the same period, gives a coefficient of 77.4.

Outstanding Debt

The BNCE *Informe 1952/1953* reports that approximately 406,650,000 pesos in outstanding debts existed at the end of 1952. Approximately 195,509,000 pesos were debts overdue and 211,141,000 pesos were for loans not yet mature. Nearly 73% of the total portfolio was held in short-term debt, 26% in medium-term debt instruments, and the remainder fairly evenly divided among commercial, short-term debt, real estate mortgages, and diverse debt instruments.

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[22]BNCE *Informes 1947-1951*.

Agricultural Production Financed by the BNCE

Land grants to ejidos continued to decrease during the Aleman administration. Ejido grants, restitutions, and enlargements from 1947 to 1952 equaled 4,167,253 hectares, benefiting 87,686 ejidatarios. This increased the total amount of land held by the ejidos to 40,192,055 hectares, and the total number of ejidatarios receiving land use certificates increased to 1,901,339.[23] The total number of hectares dedicated to agricultural production by all types of agriculturalists equaled 145,516,943 hectares in 1950.[24] Thus, ejido lands represented approximately 28% of the total agricultural land.

Total Production

Table 21 shows the production statistics for the Aleman administrative period. It can be seen that during the first five years of the period the number of hectares harvested increased slowly but consistently, as did the value of output of the ejido credit societies. The table also appears to indicate a decrease of over 70% in the number of hectares harvested from 1951 to 1952. However, these figures are not comparable as the BNCE began, in 1952, to calculate the production data on the basis of an agricultural year rather than a calendar year. An agricultural year consists of two agricultural cycles, summer and winter. The summer cycle begins in March and ends in September of the same year, while the winter cycle begins in October and ends in February

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[23] *Statistics on the Mexican Economy*, pp. 38-39.

[24] *Censos Agropecuarios* (Mexico, D. F.: Secretaria de Industria y Comercio, 1959), Table 1, p. 7.

TABLE 21

BNCE-FINANCED EJIDO PRODUCTION, 1947–1952

Year	Hectares Harvested	Value of Production (pesos)
1947	1,097,757	436,364,000
1948	1,220,415	525,320,000
1949	1,238,018	525,860,000
1950	1,284,532	656,000,000
1951	1,347,202	797,782,000
1952	389,012	306,509,000

Source: BNCE *Informes 1947-1952.*

of the following year (the agricultural year is denoted as two calendar years, for example, 1952/53). The statistics available make it impossible to ascertain how much the ejido credit societies' output decreased during the year 1952, but it is known that national agricultural production was very poor. In the 1952 *Informe* it is reported that the country's agricultural production decreased by 3.4% during 1952 and that the production financed by the BNCE was worse. It is further noted that during the agricultural year 1952/53 the total number of hectares harvested was approximately 390,000, which can be compared to that of the previous agricultural year in which 490,000 hectares were harvested.[25] Based on this information we can estimate

[25]BNCE *Informe 1952*, pp. 16-17.

that the number of hectares harvested by the ejido credit societies decreased by at least 20% during 1952.

In Table 22 the value of the ejido credit societies' production is indexed as are the food prices for the period 1947 to 1952. Because the 1952 value is based on a different time period (agricultural year versus calendar year), it is excluded from the analysis of changes in real output. From Table 22 it can be seen that there was an increase in the real value of output produced by the ejido credit societies during the years 1947 to 1951 of approximately 17%. During the same period the number of hectares harvested increased by nearly 23%, indicating a decrease of approximately 5% in the productivity per hectare harvested.

TABLE 22

PRODUCTION AND FOOD PRICE INDICES,[a] 1947–1952

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1947	44.9	61.3	73.2
1948	54.1	61.7	87.7
1949	54.1	64.6	83.7
1950	67.5	70.5	95.7
1951	82.1	90.9	90.3
1952	31.5	99.5	31.7

[a]Base year 1954 for all indices.

Source: Food price index from J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

Ejido Credit Society Production by Type of Crop

During the Aleman adminstration, the BNCE's stated policy was to increase productivity on ejido land yet give credit preference for production of basic staple crops, followed by production of raw materials for national industry and then production for exportation.[26] Table 6 of the 1951 *Informe* indicates that production for national consumption received over two-thirds of all crop financing from 1947 to 1951. The rate of increase in financing for products of national consumption was greater than that for export production. The major crops for domestic consumption were corn, wheat, and rice. Corn and wheat received the largest amount of the financing for domestic crops. Yet cotton production, for exportation, continued to receive the largest share of total financing. Early in the period, sugar cane, an agricultural industry crop, had received the third largest amount of financing but was replaced by rice in the latter years of the period.

The value of the ejido credit societies' corn production, from 1947 to 1951, represented a fairly constant 25% to 26% of the total value. The value of wheat production increased over the period from 11% to 18% of the total value. Sugar cane production increased early in the period from 11.4% to 15.9%, but then fell during the latter half of the period to only 6.2% in 1951 and 0.4% in 1952. Cotton production increased slowly from 1947 to 1951, but due to increasing prices in the international market its percentage of the total value of ejido production increased from approximately 20% to over 33%. During 1952, as stated above, there was a large increase in the

[26]BNCE *Informe 1949*, p. 12.

relative amount of land harvested in cotton, but the percentage of the total value attributable to cotton only increased to 35.8% of the total.[27]

Looking at the amount of land resources the ejido credit societies dedicated to different crops, we find that of the total land harvested over 50% was cultivated with corn. There is some indication that wheat produced for commercial markets was increasing in importance to the ejidos. The percentage of land harvested that was cultivated with wheat increased steadily from 13% to 19% during the period 1947–1951, decreasing slightly to 18% in 1952. Cotton remained a relatively constant 8% to 10% of the total land harvested from 1947 to 1951. In the last year the percentage of land harvested with cotton more than doubled, to over 21%. This was more a result of the areas planted with cotton being unaffected by droughts, plagues, and flooding.[28]

Ownership of Livestock by Ejido Credit Societies

Data on the ejido credit societies' purchases of breeding and work animals through credits provided by the BNCE are again unavailable. The information on ownership of animals[29] provided by the BNCE is presented as a crude estimate of the BNCE's effects on the ejido credit societies' purchase of animals. The number of cattle owned by

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[27]BNCE *Informes 1947-1951.*

[28]Ibid.

[29]BNCE *Informe 1951*, pp. 61-62. Information is not available for 1952.

the ejido credit societies decreased slightly from the previous administrative period. In 1946, the societies owned 527,885 head of cattle and in 1951 they owned 527,630; a decrease of 255. The ejido societies' ownership of cattle had reached a high of 554,339 in 1948, but evidently due to sales exceeding breeding and purchases the number declined over the next three years. A similar pattern existed in the case of horses and goats. In 1946, the ejidos owned 135,903 horses and in 1951 they owned only 118,512 horses. Again, during 1948 a maximum for the period was reached, only to decrease during 1949–1951. The number of goats owned in 1946 equaled 603,028, increased to a maximum of 1,098,618 in 1948, and decreased over the next three years to 622,182. The ownership of donkeys also decreased from the end of the previous administrative period. In 1946, the ejido credit societies owned 74,066 donkeys. In 1949 they owned 86,834, only to fall to 71,632 in 1951. The only two types of breeding animals to increase in number over that owned at the end of the previous administrative period were sheep and pigs. The number of sheep owned in 1946 was 266,428, increasing to 336,950 in 1951. The number of pigs increased from 412,065 in 1946 to 417,162 in 1951. Thus one might conclude that the ejido credit societies found it profitable (or had other incentives) to reduce the number of large breeding animals owned, and shift to ownership of smaller breeding animals.

The primary work animals owned by the ejido credit societies included horses, mules, oxen, and burros. The number of oxen owned by the ejido credit societies decreased during the first year of the administrative period and then began a slow, but steady, increase throughout the remainder of the period (until 1951). In 1946, the societies owned 212,853 oxen, which decreased to 177,707 in 1947. During the next four years they increased in number to 196,116. The ownership of mules, horses and burros increased through 1951 over those owned at the end of the Camacho administrative period. In 1946, the ejido credit societies owned 153,087 mules, 124,515 horses, and 129,816 burros. In 1951, they owned 195,596 mules, 195,258 horses, and 160,320 burros. Thus one may conclude that the ejido credit societies were more interested in increasing the number of animals for strictly working purposes as opposed to the number of breeding animals, during the period 1947–1951.

Complementary Services Provided by the BNCE

The BNCE's rapid expansion into the ownership and management of agricultural machine centers and agricultural processing plants was reversed during the Aleman administration. By the end of 1946, the BNCE had established 26 agricultural machine centers, owned or managed approximately 30 installations, operated 2 rail lines, and contributed to the administration of an unknown number of rural schools. The operation of most of these installations was discontinued ostensibly because they had suffered heavy losses and did not provide efficient service. The BNCE *Informe 1948* claimed this was a result of the lack of sufficient personnel in the agencies with the capacity to use and maintain the machinery properly, which caused a rapid rate of deterioration in the equipment.[30]

In 1947, the agricultural machine centers were liquidated through the transfer of machinery to those ejidos with irrigated land, profitable crops, and a knowledge of maintenance and care of machinery. During the same year, the BNCE made a study of the various agricultural processing plants and other installations. The decision was made to operate only two of the sugar mills, one located in San Pedro, Veracruz; and another in Taretan, Michoacan. Also, an unknown number of coffee processing plants, cotton deseeding plants, and rice processing mills were continued during 1947.[31] During 1948 and 1949 the BNCE continued to dispose of the installations and machinery, selling the last sugar mill in San Pedro, Veracruz, at the end of 1949.[32] There were no further reports on the operation of industrial or infrastructure facilities during the remainder of the administrative period. However, a later *Informe* indicates that the BNCE began managing a packing plant, Empacadora Ejidal, S. A. de C. V., located in Loma Bonita, Oaxaca. In all probability this was "owned" by a Local or Regional Society of Ejido Credit and the management was taken over by the BNCE, possibly for reasons of loan delinquency.

A non-credit service that the BNCE continued was the purchase of inputs and the sale of ejido crops. However, it is not known to

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[30]BNCE *Informe 1948*, p. 42.

[31]BNCE *Informe 1947*, pp. 34-35.

[32]BNCE *Informe 1949*, pp. 15-16.

what extent these services were carried out. In the 1947–1952 *Informes* it is only noted that the commercial activities netted an income to the BNCE of approximately 2,830,500 pesos.[33] Legal activities, if only for the main office, were also most likely to have been continued although there is no explicit reference in the BNCE *Informes* to the extent of this service.

Financial Accounts of the BNCE

Sources of Capital

Capital provided to the BNCE during the Aleman administration equaled 1,148,202,446 pesos. The majority was supplied from loans by the semi-official and private financial institutions, equaling 999,613,026 pesos or 87% of the total. The remainder was provided by the federal government, approximately 99,043,000 pesos (8.6%) in the form of subsidies and 49,546,420 pesos (4.3%) through the purchase of Series "A" stocks.

BNCE stock. The federal government continued to purchase Series "A" stock, but on a more erratic basis during the years of the Aleman administration. In 1947, the net increase in the purchase of Series "A" stock equaled 8,122,470 pesos. The following year there was an actual decrease of 1,058,710 pesos in the total amount of Series "A" stocks outstanding. This was a result of the federal government retiring more stocks that it purchased during 1948. During 1949, the federal government purchased the largest volume of

[33]BNCE *Informes 1947-1948, 1951-1952.*

stocks for the period, worth 42,482,660 pesos. This increased the total worth of Series "A" stock of the BNCE to 250,000,000 pesos. During 1951 and 1952 there were no net changes in the value of Series "A" stock.[34] The total value of Series "A" stock purchased by the federal government during 1947–1952 was 49,546,420 pesos. The average annual rate of increase in stock equaled approximately 5,257,736 pesos.

There were no purchases of Series "B" or "C" stocks during the period 1947–1952. In principle, Series "B" stock could still be purchased by the state and local governments, but in reality no purchases by these entities had taken place since 1938. Series "C" stock remained unissued during the Aleman administration.

Subsidies. The federal government's annual subsidies continued during the Aleman administration, equaling approximately 99 million pesos for the period. During the first two years the subsidies averaged approximately 10.8 million pesos, increasing to 19.5 million pesos over the last four years. On an average annual basis this is approximately 15.6 million pesos per year. Support of the ejido credit system represented a much-decreased percentage of the total budget in comparison with the previous two administrations. The federal government's support for all types of agricultural credit represented, on an average annual basis, 0.7% of the budget. Approximately 68% of this government support was channeled through

[34]BNCE *Informes 1947-1952.*

the BNCE.[35] This implies that, during 1947–1952, only 0.5% of the federal budget was devoted to the BNCE.

Loans from private and semi-public financial institutions. During the Aleman administrative period loans from private financial institutions were received directly and channeled through the Banco Nacional de Comercio Exterior. Loans from public and semi-public agencies included: rediscounting bills with the Bank of Mexico, S. A., until July 1948; beginning in 1949, special lines of credit were provided through the Bank of Mexico; and credits were provided by Financiera, S. A., and CIEMSA.

During the first two years of the period, private and semi-official institutions loaned the BNCE 321,869,551 pesos. In 1949, this source provided only 71,892,000 pesos. During the last half of the period, BNCE borrowing rose dramatically to 606,851,475 pesos. It is difficult to separate these two financial sources due to problems of missing data and categorization. For three of the years during the period, the borrowings are only reported in totals. For the years 1949–1951, it is reported in the *Informes* that 172.7 million pesos and 403.4 million pesos were borrowed from private and semi-public institutions. However, the special lines of credit funneled through the Bank of Mexico, or the Banco Nacional de Comercio Exterior, were often loans from foreign, private financial institutions.

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[35]Wilkie, Tables 6-4 and 6-5, pp. 139, 141.

Revenues and Costs

The BNCE's only significant source of internal revenues continued to come from interest received from the ejido credit societies. Commercial activities continued to generate approximately 3% to 5% of total revenues, providing the second largest source of internal income to the BNCE. Other minor sources of internal income included dividends, recuperations of overdue loans, commissions, and sales of property. The only other significant source of income to the BNCE was an external source, federal government subsidies. The major costs of operation continued to be for general administration (salaries, travel, transport, rental of buildings and equipment, paperwork, etc.). The second highest cost was the formation of reserves for depreciation of equipment and unguaranteed loans. Diverse costs (unspecified) and cost for interest charges composed most of the remainder.

Internal revenues. Interest payments received by the BNCE continued to increase as the lending operations of the BNCE expanded. Interest collected from the ejido credit societies during 1947 to 1952 equaled 92,314,719 pesos.[36] This represented 54% of the BNCE's internal revenues during the administrative period. These categories, including commercial activities, each represented a relatively small (5% to 10%) percentage of the annual revenues but together equaled 46% of total revenues.

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[36]BNCE *Informes 1947-1952.*

External revenues. The total amount of revenues provided to the BNCE from external sources, i.e., federal government subsidies, equaled approximately 99 million pesos for the period 1947–1952. In addition to the yearly subsidies from the federal government, in 1949 the BNCE received 185,991,901 pesos, primarily to pay off debts that had accumulated during past years (63,224,522 pesos), and to remove unpaid and uncollectable loans from the BNCE books (115,613,731 pesos).

Costs. As stated above, the main source of expenditures by the BNCE was for general administration of the main office, agencies, *jefaturas de zona*, and other BNCE dependencies. During 1947 this category amounted to 14,228,756 pesos, increasing only slightly in the next two years to 14,554,596 pesos in 1948 and 14,647,472 pesos in 1949. During the last three years there were constant increases in administrative costs. In 1950, they increased to 16,155,092 pesos; in 1951, to 18,802,764 pesos; and in 1952, to 22,157,160 pesos.[37] The total for the period 1947 to 1952 was 100,545,840 pesos.

The second most important cost to the BNCE was reserves for depreciation of equipment and unguaranteed loans, equaling 95,534,923 pesos for the period 1947 to 1952.[38] The third most important cost category, diverse (unspecified) costs, was primarily associated with losses suffered in selling agricultural machinery, vehicles, processing

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[37]Ibid.

[38]Ibid.

plants, etc. This category totaled 63,259,344 pesos for the period.[39] The fourth cost category, interest payments by the BNCE to the various lending institutions, equaled 26,157,172 pesos for the period 1947–1952.[40] During 1949 and 1950, relatively low interest payments were made. This was immediately following the cancellation, by the federal government, of several millions of pesos in outstanding BNCE debts, thus reducing the costs of operations for those years. There were two additional categories of expenditures listed in the BNCE earnings and loss statements: commissions paid, and cost of real estate. These together equaled 1,137,889 pesos for the period 1947 to 1952.[41]

Additional expenditures made during the Aleman administrative period, but not listed in the BNCE earnings and loss statement, were for losses accumulated during its first 12 years of operation and paying off uncollectable loans from the same period. These categories equaled 63,224,522 pesos and 115,613,731 pesos respectively.[42]

Earnings and Losses

The BNCE's internal revenues and costs for the period 1947 to 1952 indicate that gross losses equaled 116,640,141 pesos for the period. One could add to this the 115,613,731-peso loss by the BNCE for unrecuperable loans, for a total gross loss of 232,253,872 pesos.

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[39]Ibid.

[40]Ibid.

[41]Ibid.

[42]Ibid.

If we subtract from the gross loss the amount of the federal government's general subsidies plus the special subsidy, a net liquidity loss for the BNCE of approximately 17,597,141 pesos is indicated during the period 1947 to 1952.

Summary

During the Aleman administration the real value of loans granted actually decreased, while the average number of societies receiving credit per year increased, thus indicating an increase in the average loan per society. Lending for the production of basic food crops decreased (from 70% to 80% during the Camacho administration, to 60% during the current period). Cotton continued to be the single most-financed crop, but there were also indications of increased production of raw materials for agricultural industry. Despite the continued shift toward commercial crops, the BNCE's ratio of repayments to loans granted decreased (from 87% to 78%).

The organizational activities of the BNCE slowed appreciably as the number of newly organized Local Societies of Ejido Credit decreased. Also, the number of organized societies operating as collectives had not changed significantly since the end of the Cardenas administration. There was also a legal change in relation to the Local Societies of Ejido Credit. The social fund and purchases of BNCE stock were no longer required. This, in effect, was official recognition of the fact that the ejido credit societies had, in general, been unable to accumulate any capital funds.

In an apparent effort to decrease the BNCE's costs of operation, the Administrative Council ordered the disposal of most of the complementary services infrastructure. Commercial services were still maintained, but the irrigation works and machine centers were dismantled and many of the processing plants were sold (although a few were evidently operated below capacity during a transitional period).

However, once again the losses of the BNCE increased despite the cutbacks in services. This can be partly attributed to the decrease in repayments collected by the BNCE. An additional factor was the increased costs of borrowing funds, as the percentage of funds provided by the government decreased from 100% during the Cardenas administration to 13% during the current administration. The BNCE continued to borrow from the private and semi-official financial institutions (87% of the total capital received) to finance lending and other activities. The federal government's stock purchases and subsidies were continued to cover the costs of administration and losses. However, the federal government's support of the ejido credit system decreased to only 0.5% of the federal government budget (a decrease of approximately 70% from the previous administration).

PART 3

NATIONAL BANK OF EJIDO CREDIT - PART II

1953–1970

CHAPTER 6

THE RUIZ CORTINES ADMINISTRATION, 1953–1958

The Agricultural Credit Law of 1955

On December 31, 1955, a new agricultural credit law was published in the *Diario Oficial*, replacing the agricultural credit law of 1942. The new law did not significantly alter the structure of the official agricultural credit system. It did, however, somewhat alter the financing of the institutions and changed some of the BNCE's functions. The areas of major change were in relation to the organization of the Local Societies of Ejido Credit and their relationship to the ejido village.

The changes in the structure of the ejido credit system were in the elimination of the Unions of Local Societies of Ejido Credit and the Societies of Collective Agricultural (Ejido) Interests (Article 2). Nevertheless, the door was left open for the organization of regional associations or societies for the purposes of realizing communal works or joint exploitation of resources (Article 53). In the new law the Local Societies of Ejido Credit are referred to as "auxiliary organizations of agricultural credit," similar to the classification of other credit institutions (e.g., the agency banks). It is contended in the BNCE 1955 *Informe* that this was meant to indicate a greater degree of importance and autonomy for the Local Societies of Ejido Credit.[1]

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[1]BNCE *Informe 1955*, pp. 193-94.

The BNCE's financing was changed by removing the restriction that Series "B" stock could be purchased only by local and state governments. Instead they were issued for open subscription by any individual or institution. The financing of the BNCE's losses was also modified in the new law. The 1942 law had stated that losses suffered by the BNCE were to be covered by an appropriate reduction in the Series "A" capital. This was removed from the new law, thereby adapting the law to reality in which losses had been largely covered by government subsidies rather than through reduction in the capital stock. In reference to channeling credit to the ejido sector, the new law placed less emphasis on the function of the BNCE as an instrument of agrarian reform while directing it to channel its resources so that it would be in accordance with the directives of the Ministry of Agriculture and Livestock (Article 5, part VII).

The changes in the law that applied to the organization of the Local Societies of Ejido Credit and their functions were more far reaching. The law stated only that ten ejidatarios, with definitive possession of land use rights, were required to organize a Local Society of Ejido Credit (Articles 45 and 46). Thus, no longer was the number of Local Societies limited to one per ejido village; any number of Societies could exist in a given ejido. In addition, there was no requirement that all ejidatarios in a given Local Society be from the same ejido village. Therefore, a Local Society could feasibly be made up of ejidatarios from adjacent or nearby ejidos.

The new law also provided changes in the type of liability that applied to the membership of Local Societies of Ejido Credit. For the first time, the possibility of limited, or partially limited, responsibility was open to the ejido societies. However, to organize on the basis of limited, or partially limited, responsibility required the formation of share capital. The new law also reinstituted the formation of reserve funds in the ejido credit societies, equal to 3% of the society's loan operations with the BNCE (Article 43, part IV).

The 1955 law also slightly altered the priorities of the Local Societies of Ejido Credit and their dependence on the BNCE staff. In Article 38 the objectives of the Local Societies of Ejido Credit are given. In this article, the function of obtaining credit and providing it to the membership was moved from the number one position and relegated to the fourth position in the list. This is interpreted, in the 1955 BNCE *Informe*, to mean that the Local Societies of Ejido Credit were now envisioned as multiple service cooperatives.[2] The law also weakened the societies' dependence upon the BNCE in the area of accounting and financial responsibility. The 1942 law had instructed the BNCE to name an accountant to be responsible for the custody of funds, stocks, and crops of a local society. The individual was to be paid by the society only in the event that a profit was earned by the society; otherwise, he would be paid by the BNCE. The 1955 law clearly states (Article 47, part VI) that the accounting and custody of the societies' wealth should be the responsibility of individuals designated, and paid by, the Local Society of Ejido Credit. The BNCE's role was to be limited to overseeing the accounting process.

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[2]Ibid., p. 200.

Other minor changes were made in reference to the types of loans the BNCE was authorized to grant: commercial loans could be extended up to 80% (versus the previous 20%) of the annual value of the crop (Article 54); recipients of medium-term loans for semi-fixed and fixed capital, that were to be amortized over a number of years beginning some years hence, were to begin interest payments in the first year (Article 56); the term of real estate loans was reduced from 30 years to 20 years (Article 59); and the BNCE was given the authority to confiscate land and cultivate it when the debtor had failed to repay loans on time (Article 63).

The BNCE during the Ruiz Cortines Administration

The policies of the BNCE, during the Ruiz Cortines administrative period, were similar to those instituted during the Aleman administration. There was a continued emphasis on the selection of clientele, with further efforts to reduce the size of the societies to aid in enforcing unlimited responsibility on the part of the members. In this same vein there was a continued emphasis on improving the collection of repayments and putting those societies with delinquencies *en recuperacion* or *en liquidacion*. Individual account booklets were issued to each ejidatario, so that each would know at any point in time the amount borrowed and owed to the BNCE.

The most important divergence from the previous BNCE administrative policy was in the provision of complementary services. During the previous administration, strong efforts were made to curtail the operations of the various facilities and to reduce the services provided to the ejido credit societies. The new administration reversed that policy, expanding the operation of plants, irrigation works, and agricultural machine centers; and the buying and selling of crops and inputs.

Organization of the Ejido Credit System

The organizational structure of the ejido credit system was changed somewhat by the agricultural credit law of 1955. The new law officially removed the Unions of Local Societies of Ejido Credit and the Collective Societies of Agricultural (Ejido) Interests from the system. Thus, from the top down, the hierarchical structure was as follows: the Administrative Council, the BNCE main office, the BNCE agencies, the *jefaturas de zona*, and the Local Societies of Ejido Credit. During the period 1953–1958 the Administrative Council was presided over by Gilberto Flores Munoz, Minister of Agriculture, with Castulo Villasenor as vice president and Minister of Agrarian Affairs. The General Director of the BNCE main office, appointed by the Administrative Council for the period, was Agustin Luna Olmeda.[3]

The functional organization of the BNCE main office was streamlined during the first year of the administration. During the last year of the Aleman administration 11 departments had existed. In 1953 the main office operated with only seven departments. The Departments of Statistics and Commercial Activities, Irrigation, Agricultural Services, Forestry, and Technical Services were eliminated while the

[3]BNCE *Informes 1953-1958*.

Department of Special Studies was created. The following year the main office again was slightly reorganized with the resurgence of the Commercial Department and the elimination of the Department of Special Studies. In 1956 the Department of Credit was elevated to a higher position of Division (*Direccion*) with separate subdivisions for short- and long-term credit. At the same time the Trust Department was eliminated and its responsibilities transferred to the newly created Division of Credit. During the last three years of the administrative period the main office remained organized as such, with a Division of Credit and five departments: Legal, Treasury, Accounting, Commercial, and Administrative. The specialized departments of agricultural services (machine centers), agricultural industry, irrigation (districts of irrigation), and warehouse facilities that had existed during the previous administration were relegated to sub-agency departments. They were no longer under the sole control of the BNCE main office but were jointly administered by the main office and the agencies in the regions that they served.[4]

The number of agencies of the BNCE did not change during the first year of the administrative period, remaining at 36. However, the number of *jefaturas de zona* increased by over 25% to 257. The number of agencies decreased by one in the following year with the conversion of the Los Mochis, Sinaloa agency to a *jefatura de zona* under the control of the agency in Culiacan, Sinaloa. The number of *jefaturas de zona* also decreased, to 234. In 1955, agency status was again given to the

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[4]Ibid.

Los Mochis branch, and the agency in Tuxpan, Veracruz was closed. There were a number of shifts in the *jefaturas de zona*, most prominently in the Merida, Yucatan, zone, but the total number only increased by one, to 235, during 1955. The changes in this area were necessitated by the dissolution of the organization Henequeneros de Yucatan and the reincorporation of the henequen-producing ejidos into the BNCE.[5] In 1956 there were no agency changes but the number of *jefaturas de zona* decreased to 209. During the last year of the period for which we have information on agencies and *jefaturas de zona*, 1957, the agency in Colima, Colima was closed, reducing the total number of agencies to 34. The number of *jefaturas de zona* also decreased by one, to 208, with noted closings in the Nueva Italia y Gabriel Zamora zones and openings in Jaral de Berrio, Guanajuato, and Chetumal, Quintana Roo.[6] The last two *jefaturas de zona* represent an attempt on the part of the BNCE to reach regions that previously had not been served.

Organization of Ejido Credit Societies

The organization of Local Societies of Ejido Credit increased at an accelerated pace during the period 1953 to 1958, as compared with the previous administration. During the same time the number of ejidatario members increased at a faster rate. This trend seems to be in direct contradiction to the BNCE policy that smaller societies would be more solvent, both financially and morally.

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[5]Brannon, p. 8.

[6]BNCE *Informe 1957*, p. 60.

During the first year of the Cortines administration the number of societies increased to 7,434 with 564,735 ejidatarios. The number of societies and ejidatarios organized continued to increase, more or less throughout the period. At the end of 1958, 8,599 societies with 609,719 ejidatarios were organized. This represented average annual increases of 4.8% and 5.8% in the number of ejido societies and ejidatarios organized. The average number of ejidatarios per society also increased during the period. In 1952 the average size per Local Society of Ejido Credit was 67.9 members, increasing to 70.9 members in 1958.

The geographic distribution of the societies organized changed significantly over the course of the period. In 1953 the north region had the greatest concentration of societies organized with 36% of the total. Following, in order, was the densely populated central region with 35%, the gulf region with 12%, the north pacific region with 9%, and the south pacific region with 8%. During the next five years the distribution of societies organized shifted so that the central region had the largest percentage, 39%, of the total number of societies organized. The gulf region's share increased to 19%, while the north region's share fell to 24%. The north pacific region contained 10% and the south pacific region only 8% of the total number of societies organized. The increased percentage of societies in the central region is apparently related to the division of existing societies, as the number of societies increased from 1,950 (1953) to 3,232 (1957). The shift toward the gulf region is largely attributable to the transferrance of the henequen-producing societies in the Yucatan back to the BNCE after a number of years under the direction of Henequeneros de Yucatan, S. A.

A further contributing factor was the increased number of societies organized in the state of Veracruz.

The regional organization of Unions of Local Societies of Ejido Credit and Collective Societies of Agricultural (Ejido) Interests continued during the years 1953 to 1955. There were no separate data on the organization of Central Unions, but they can be presumed to be included in the following data. In 1953 there were 33 Unions of Local Societies and 28 Collective Societies. The following year the number of Unions decreased to 27 and the Collective Societies plummeted to only 8. In 1955, the number of Unions increased to 32 and the Collective Societies rose to 30.[7] During the remainder of the period there were no references in the *Informes* to the regional societies or collective organizations, as they were largely ruled out in the 1955 law. Eckstein's studies indicate that, during this period, the majority of the collective ejido societies were breaking up. That is, ejidos were subdivided into multiple societies or solidarity groups and began cultivating land semi-collectively or individually. The only ejidos where the collective cultivation of land was extensive were in the Yucatan region's henequen-producing ejido societies.[8]

Loan Operations with Ejido Credit Societies

Total Loans

The total amount of loans granted by the BNCE (see Table A-1, Appendix) increased consistently during the period 1953 to 1957, but

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[7]BNCE *Informes 1953-1955*.

[8]Eckstein, pp. 131-65.

decreased during the final year of the administrative period. During the first year of the administrative period loans increased to 419,824,000 pesos, an increase of over 55% from the previous year. During the next four years lending increased to 843,725,000 pesos and then decreased to 822,097,000 pesos during 1958. The total loans granted by the BNCE during the Cortines administrative period equaled 4,067,467,000 pesos.

Table 23 shows an index of the total loans granted by the BNCE and an index of wholesale prices in Mexico. The table indicates that

TABLE 23

LOAN AND WHOLESALE PRICE INDICES,[a] 1952–1958

Year	Loan Index	Wholesale Price Index
1952	49.8	93.2
1953	73.6	91.4
1954	100.0	100.0
1955	111.0	113.6
1956	153.3	118.9
1957	155.2	124.0
1958	151.2	129.5

[a]Base year 1954.

Source: Price index from J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19. Loan index calculated from Table A-1 in the Appendix.

total loans increased by approximately 203% (more than tripled) over the term of the administrative period. During the same time the wholesale price index increased by approximately 39%. It is obvious that not only did the nominal amount of loans increase during the period, but there was also a substantial increase (155%) in real loans.

During the years 1953–1955 the number of societies receiving loans from the BNCE increased from 4,757 (which included an additional 105,948 ejidatarios) to 5,005 (with 336,283 ejidatarios). Each year thereafter the number of societies decreased; to 4,513 (comprised of 279,225 ejidatarios) in 1956; 4,367 (273,238 ejidatarios) in 1957; and 4,353 societies (271,046 ejidatarios) during the final year of the period.[9] Fernandez y Fernandez estimated that only 49% of the societies receiving loans in 1957 had received loans in each of the previous four years.[10] It is in these data that the effect of the BNCE's client selection process and the policy of reducing the size of the ejido credit societies can be seen. During the first year of the period the average number of members per society receiving credit was 65.7. By 1955 the average membership had risen to 67.2. Through selection and the 1955 policy of organizing smaller credit societies the average number of ejidatarios per society receiving loans decreased to 62.3 in 1958. However, Fernandez y Fernandez did not see this as a "progressive" selection (i.e., progressive elimination of bad clientele). He notes that during the quinquennium the BNCE operated with 7,512 distinct societies, nearly

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[9]BNCE *Informes 1953-1957*.

[10]Ramon Fernandez y Fernandez, "La Clientela Ejidal," *El Trimestro Economico*, 26, No. 101 (January-March 1959), p. 47.

equal to the number of societies organized. Thus, it was not so much a selection process as a revolving loan process.[11] In addition to lending to ejido credit socieites, beginning in 1955 the BNCE began lending operations with non-associated ejidatarios and solidarity groups. From 1955 to 1958 the BNCE provided loans to 46,047 non-associated ejidatarios.

The BNCE was serving approximately 63% of the organized local societies, comprised of 55% of the total membership, during the beginning of the administrative period. By the end of the period the BNCE was serving approximately 50% of the organized societies, comprised of 44% of the membership. Comparing the number of ejidatarios (including non-associated) receiving credit with the number of ejidatarios that had received land use certificates indicates that the BNCE was serving ejido credit societies comprised of approximately 15% of the beneficiaries of agrarian reform.[12] This is a reduction of 40% since the previous administrative period. Both these comparisons again indicate the efforts on the part of the BNCE to reduce the size of the ejido credit societies and select clientele on a stricter basis.

Loan Distribution by Geographic Region

The distribution of loans granted by the BNCE, during the period 1953 to 1957, is shown in Table A-3 of the Appendix. The north region began the period with approximately 45% of the total loans, a decrease from the 50% received during the final year of the previous administrative period. Its percentage share continued to decrease

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[11]Ibid.

[12]Beneficiaries of agrarian reform from Wilkie, Table 3.1, pp. 46-48.

throughout the period until in 1957 it represented only 31.8% of the total loans. The south pacific region also experienced a similar trend in its share of the total loans. At the end of the previous period its share was approximately 7%, which decreased to barely over 2% by 1957. The central region held its own during most of the period, maintaining approximately 21% to 23% of the total during 1953–1956. However, during 1957 its share decreased substantially to 13.8%. The north pacific region also maintained its share as it increased minimally from 22% to 23% of the total. The region which gained the most over the period was the gulf region. During 1951 its share of the total was 2.6%, increasing steadily to 12.1% in 1956 and jumping to 27.4% in 1957. This can largely be attributed to the resurgence of the Merida, Yucatan agency and the reintroduction of the henequen-producing ejido societies, and also to the expansion of the Veracruz agency's operations.[13]

The distribution of loans within the regions continued to show a high degree of concentration within a limited number of agencies. As had always been the case, the agency in Torreon, Coahuila dominated the north region and the entire ejido credit system, receiving 25% to 30% of the total loans through 1956. However, in 1957, for the first time, the Torreon agency did not grant the largest percentage of total loans. This position was accorded to the Merida, Yucatan agency. The south pacific region continued to be dominated by the agency in Tapachula, Chiapas, and the gulf region became more dominated by the agency in Merida, Yucatan. The central region again had the most

[13]Percentages calculated from the Appendix, Table A-3.

equal distribution of loans granted among its agencies. Nevertheless, the Guadalajara, Jalisco agency averaged approximately 20% of that region's total loans. The north pacific region, while its distribution did not approach the degree of equality achieved in the central region, showed some movement towards a more equal distribution. Early in the period the agency in Ciudad Obregon, Sonora loaned approximately 50% of the region's total. By 1957 this was decreased to 32%, with agencies in Navajoa, Sonora and Los Mochis, Sinaloa distributing 25% each, and the agency in Mexicali, Baja California distributing 12%.

Distribution of Loans by Type

Loans for cultivation of crops with maturities of 18 months or less continued to represent the majority of loans granted, but showed a decrease from previous periods. Short-term loans equaled 3,158,988,000 pesos for the period 1953–1958, or approximately 77.7% of the total loans granted during the same period.[14] Medium-term loans equaled 401,880,000 pesos during the period, representing 9.9% of total loans. This is similar to the trend over the past two administrations. Loans for diverse purposes (direct, commercial, real estate, etc.) showed a marked increase during the period, equaling 506,599,000 pesos for the years 1953 to 1958. This represented an average of approximately 12.5% of the total loans, with higher percentages in the latter years of the period, an increase of about 8% over the average for the previous administrative period. This was not unusual as the general

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[14]Percentages calculated from Table A-1 in the Appendix.

trend indicates that the amount of these types of loans varied greatly from year to year and from administration to administration, as different needs arose.

The most-financed crop was cotton, receiving 40% to 50% of the total short-term loans in each year. The BNCE charged the societies a 9% annual interest rate for this, the most profitable crop. The societies would, in turn, lend to the ejidatarios at a 1% higher annual interest rate.[15] Cotton was followed in importance by wheat (14% to 16%); corn and beans represented 21% to 23% in the early years of the period, but decreased to 10% or less during the last three years. Loans for wheat production were granted to the societies at 8%, and loans for corn and beans at a 7% annual interest rate. Fernandez y Fernandez notes that, during the years 1953 and 1954, the BNCE's lending policy was subordinated to the dictates of the Ministry of Agriculture and Livestock. During these years the Ministry instituted an Emergency Plan to increase the production of basic food crops for domestic consumption. After 1955 the pressure to provide credits for production of the basic crops was reduced and the BNCE began financing the more profitable export crops.[16] Henequen again became an important crop to the BNCE after 1955, representing 8% to 9% of short-term loans during the last three years. These five crops equaled approximately 90% of the short-term loans for agricultural production. The remaining 10% were loaned for production of 30 other crops of relatively minor importance.

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[15]Fernandez y Fernandez, *El Credito Ejidal*, p. 166.

[16]Ibid., p. 167.

Medium-term loans were distributed for financing irrigation works (approximately 32% to 36%), establishment of perennial (henequen) crops (approximately 23% to 28%), purchase of machinery (12% to 16%), and the clearing of land (varying from 2% to 3% in the early years, to 16% to 20% in the last two years of the administrative period).[17]

Loan Repayments Collected by the BNCE

Throughout the history of the BNCE, collection of repayments had fallen considerably below the level of lending, thus indicating a degree of indebtedness of the ejido credit societies to the BNCE. As indicated in Chapter 3, there were a number of measures taken by the BNCE staff in an attempt to avert this situation. In the final analysis, only limited options existed: the BNCE could place the indebted society *en recuperacion* (that is, refuse further loans), or could take under administration the ejido credit society's capital (either cultivate the land directly, or operate other productive facilities of the society). At the end of 1957 (the last year of the period for which information is available), the BNCE had placed in recuperation 2,816 societies comprised of 219,857 ejidatarios.[18] This represented approximately 33% of the organized societies and 38% of the organized ejidatarios that were ineligible to receive loans from the BNCE. It is apparent that the BNCE seldom took the delinquent societies' land under direct management, but at times was willing to take other capital (especially

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[17]BNCE *Informe 1959*, Table V-19, p. 166.

[18]BNCE *Informe 1957*, Anexo I-10.

agricultural processing plants) under administration. In this manner, during 1953–1958, the BNCE acquired some of the facilities previously managed by the regional and local ejido credit societies (see "Complementary Services," this chapter, reference to Empacadora Ejidal, S. A. de C. V., etc.).

Total Repayments

Repayments collected by the BNCE in each year of the period are shown in Table A-2, in the Appendix. The total for the period 1953–1958 equaled 3,048,430,000 pesos. During the first year of the period repayments increased to 198,940,000 pesos (versus 164,429,000 pesos in 1952) and continuously increased until 1957 (673,366,000 pesos). During the last year of the administrative period total repayments collected by the BNCE declined (as did total loans granted) to 659,167,000 pesos.

The largest percentage of total repayments were for short-term loans, representing an average of 83.8% of total repayments for the period. Medium-term loan repayments represented only 3.6% of the total, and repayments on other loans (commercial, direct, real estate) represented approximately 12.6% of the total repayments collected by the BNCE.[19] The most obvious reason for the high percentage of repayments on short-term loans is that short-term loans represented the majority of loans granted. Yet this does not fully explain it, because short-term loans represented only 77.7% of loans granted during the same period. Contributing factors were the BNCE policy of applying

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[19]BNCE *Informes 1953-1959*.

payments to short-term debt over other types of debt, and the poor repayment records for medium-term loans which necessarily increased the proportion of other types of loans represented in repayments.

Geographic Distribution of Loan Repayments[20]

During the first half of the administrative period the agency with the largest percentage of loan repayments was Torreon, Coahuila. This agency's repayments represented approximately one-third of the total repayments collected by the BNCE from 1953 to 1955 (slightly higher than its percentage of total loans granted). However, this changed during the latter years of the administrative period when the Merida, Yucatan agency claimed the largest share of total loans. Its share of total repayments then increased to approximately 24%, while that of the Torreon agency decreased to 19%. It is interesting to note that, while the Torreon agency's percentage of loans decreased, their repayment percentage fell to an amount below that represented by their share of total loans (19% versus 20%). However, for the Merida, Yucatan agency, their share of total loans increased but their share of total repayments remained below their percentage of total loans (24% versus 25%).

The regional distribution of repayments collected by the BNCE indicates a continuation, in 1954 and 1955, of the trend established early in the history of the BNCE. The north region's repayments represented 45% to 50% of total repayments, followed by the north pacific

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[20]Detailed information on the repayments collected by the BNCE is available only for the years 1954, 1955, and 1957. Therefore, this section's analysis is drawn from data based on those years only.

region with 23% to 24%, the central region with 19% to 20%, the gulf region with 3% to 7%, and the south pacific region with 3% to 4%. In the latter years this trend was broken with the north region's share of total repayments falling to only 31% while the gulf region's share increased to over 25%. The north pacific region's share also increased to over 25% and the central region's share decreased to 14%, while the south pacific region's share remained the lowest with approximately 3% of the total repayments collected by the BNCE.[21]

Loan Repayment Coefficients

Comparing the total amount of repayments collected by the BNCE with the total amount of loans granted during the administrative period, we can obtain a first approximation of a repayment coefficient.[22] The average annual repayment per peso loaned, for the period 1953–1958, was 0.74 (or 74 centavos collected for every peso loaned during the period). The second method of calculating a repayment coefficient (comparing total repayments with total loans mature in a given year) produced an annual average coefficient of 0.78 centavos per peso.[23] The third method of calculating the repayment coefficient, comparing total repayments collected during the administrative period with the

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[21]BNCE *Informes 1954-1955, 1957*.

[22]Coefficients calculated from Tables A-1 and A-2 in the Appendix. The loan repayment coefficients from this period may not be strictly comparable to those of previous periods. This is because, in 1953, the BNCE claimed to have eliminated refinancing of loans as had become customary. Thus, the extremely low percentages for 1953 are at least partially attributable to this new policy.

[23]Total loans mature in each year and for the period from BNCE *Informe 1955*, Table V-25, p. 171.

total amount of loans due for the same period, gives a coefficient of approximately 0.80.

Outstanding Debt

According to the BNCE's records published in the 1959 *Informe*, the total outstanding debt owed to the BNCE at the end of 1958 was 796,484,000 pesos. Approximately 430,991,000 pesos were debts due at that time and 365,493,000 pesos were for loans not yet mature. Thus, the BNCE's portfolio consisted of approximately 54% overdue debt and 46% debt not mature. The majority (approximately 54%) of the debt not mature was in short-term debt instruments with medium-term debt representing approximately 37% of the debt not due. Of the overdue debt, short-term debt instruments represented an even higher proportion, approximately 71%. Medium-term debt instruments represented approximately 27%.[24]

Agricultural Production Financed by the BNCE

The amount of land distributed to the ejidos during the Ruiz Cortines administration was less than that of the previous administration, continuing a trend that began during the Camacho administration. The ejidos received approximately 3,469,960 hectares during the period 1953 to 1958 in land grants, restitutions, and ejido enlargements. This increased the total amount of land received by the ejidos since 1916 to 43,662,015 hectares. The total number of ejidatarios (beneficiaries), since 1916, increased to 2,092,454 by the end of 1958.[25]

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[24]BNCE *Informe 1959*, pp. 171-72.

[25]*Statistics on the Mexican Economy*, Table 3.1, pp. 46-48.

Total Production

Table 24 indicates the number of hectares harvested and the value of agricultural production financed by the BNCE. During the first year of the administrative period, the number of hectares harvested by the ejido credit societies and financed by the BNCE increased by 443,211 hectares, or 113%. As can be seen, the number of hectares harvested continued to increase thereafter reaching a maximum during the 1955 agricultural year. In 1956, the number of hectares harvested decreased by 22.6% over the previous year. In the 1957 *Informe* this is attributed to heavy losses incurred in the production of corn (110,000 hectares planted but not harvested), beans (42,000 hectares

TABLE 24

PRODUCTION FINANCED BY THE BNCE, 1953–1957

Year	Hectares Harvested	Value of Production (pesos)
1953	832,223	703,021,000
1954	912,222	971,663,000
1955	990,670	1,026,969,000
1956	766,963	928,530,000
1957	655,820	818,489,000

Source: BNCE *Informes 1953-1957*. The data for production are based upon the agricultural year, and thus are comparable only to the 1952 statistics of the previous data cited.

lost), wheat (27,000 hectares lost), and cotton (9,000 hectares lost).[26] During the last year of the period for which there are data, 1957, the number of hectares harvested decreased by approximately 6.9% over the previous year. Again, crop losses were suffered in many areas of the country, which the BNCE attributed to a lack of rainfall.[27]

The value of output financed by the BNCE followed a similar pattern. During the first year of the administrative period the value of the ejido credit societies' production increased by 396,512,000 pesos, or approximately 129%, over the previous year. The value of output increased during the next two years by an annual average of 23%, reaching a maximum for the period in 1955. Over the next two years the value of output decreased by 9.5% and 11.9%.

Indexing the value of ejido credit societies' production (Table 25), and the price of food provides an estimation of the real increases or decreases in output. As can be seen, the real value of output increased by approximately 22% over the year 1953 to 1954. However, during the next three years, the real value of production decreased by approximately 35%. Therefore, the decrease in real output was almost 13% over the period 1953–1957. However, because the number of hectares harvested had decreased by approximately 21%, there was an increase of 10% in the productivity per hectare harvested.

Ejido Credit Society Production by Type of Crop

The BNCE's stated production policy was to distribute financing in accordance with the profitability of crops. Some crops such as

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[26]BNCE *Informe 1956*, p. 44.

[27]BNCE *Informe 1957*, p. 13.

TABLE 25

INDICES OF PRODUCTION AND FOOD PRICES,[a] 1953–1957

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1953	72.4	93.2	77.7
1954	100.0	100.0	100.0
1955	105.7	118.0	89.6
1956	95.6	122.9	77.8
1957	84.2	129.3	65.1

[a]Base year 1954 for all indices.

Source: J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

alfalfa, cocoa, onions, beans, vegetables, corn, oranges, papaya, and sorghum were "not capable of sane financing."[28] On the other hand, crops such as cotton, rice, coffee, linseed oil, melon, watermelon, and tobacco were financially profitable.[29] The administration also recognized that the institutions' control over the sale of the crop influenced the level of repayments. Therefore, there was a bias in favor of those crops that were transferred directly to the BNCE's (or other government agencies') processing plants.[30] Crops such as cotton,

[28]BNCE *Informe 1954*, p. 74.

[29]Ibid.

[30]Ibid.

wheat, and coffee were usually sold to government agencies for processing, with the ejidatarios' debt deducted from the value of the production. The value of the various types of crops produced during the period also indicates a trend away from the production of domestic consumption crops. The value of corn, beans, wheat, rice, and other basic foods represented 54% of the total value of all crops produced in 1953 by the ejido credit societies. By 1957, the value of the same crops represented only 39.5% of the total. Export crops' value increased from 37.8% of the total in 1953 to 50% in 1956, but decreased to 46% in 1957. The value of agricultural industry crops increased from 4.5% to 6.7% of the total. Significant increases in this category were made in the production of cottonseed, and a lesser increase was made in the production of tobacco.

Annex 45 of the BNCE *Informe 1957* indicates that the BNCE continued to finance cotton more than any other single crop.[31] Cotton production accounted for approximately 42% of the total financing for the period 1953 to 1957. Including the other export crops of coffee and henequen, the total financing for the major export crops represented 51% of all crop financing. Stavenhagen's study of the ejidos in the state of Michoacan provides a case study on the expansion of cotton production in this state. He states,

> In 1954, cotton farmers from the North who were looking for new areas to expand their operations seized upon the favorable conditions in the valley, particularly due to expanding irrigation, and for the first time introduced the cultivation of cotton.

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[31]BNCE *Informe 1957*, p. 133.

> The ejidos of Nueva Italia were ill equipped to adopt the technological, financial, and organizational innovations related to the cotton "complex." This new crop, for which there existed much demand and a high price in the market, was not the result of planned change by the ejido bank or other government agency, but was brought in by financially well-backed investors who began to rent private land in the area for cotton planting. They were soon able to establish two cotton gins and naturally turned to the fertile ejido lands to expand the area under cultivation.[32]

Instead of a scenario in which the BNCE, through orderly and well-planned policies, altered the crop mix of the ejido societies, Stavenhagen indicates that the BNCE, like the ejidatarios, was adjusted production to the activities of the private producers in the region. The change that resulted was neither orderly nor well administered, and thus led to disorganization and corruption.

The production of all basic crops for domestic consumption represented approximately 44% of crop production during the period. Financing of wheat production was slightly higher than that of corn and bean production, followed by rice production. While the production of all basic food crops was diminishing in importance, as indicated, the importance of wheat was increasing, especially in the north pacific region. In the Yaqui Valley of Sonora, the BNCE introduced high-yielding wheat seeds to the ejido credit societies in 1953. From one agricultural cycle to the next the area planted with wheat in the ejido sector nearly tripled. However, all was not well because, at first, the new hybrid seeds came without any of the necessary complementary inputs (e.g., fertilizer, pesticides, etc.). Later, the BNCE began to supply

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[32]Stavenhagen, p. 159.

the societies with the complementary inputs but did not provide technical assistance. The new inputs, meanwhile, caused the costs of production to the ejido credit societies to skyrocket. A field report on the situation concluded that:

> . . . inadequate technical assistance, disorganization, increasing debts, the sale of inputs and of the products of harvests in the black market--worked inexorably to lessen the competitiveness of the ejido sector as a whole in relation to the private sector of Sonoran agriculture.[33]

Judging from the amount of land harvested in the different crops during 1953–1957, the trend of dedicating most of the land resources to corn and bean production was broken. During the first two years these two crops represented well over 50% of all land harvested by the ejido credit societies. Over the next three years they decreased to less than 50%, then below 40% and finally to less than 30% of the total land harvested.[34] This may be partly a result of higher-than-usual losses in these crops, but certainly is also a result of BNCE policies. Land cultivated in basic crops for domestic consumption also decreased throughout the period, from 72.4% in 1953 to 51.7% in 1957.

During the same period, land harvested in export crops increased from 15.3% to 36.4%. This increase was almost completely attributable to the return of the henequen-producing ejido credit societies to the direction of the BNCE after 1955. Land harvested in agricultural industry crops also increased during the period. In 1953 they represented

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[33]Cited in Stavenhagen, p. 157.

[34]BNCE *Informes 1953-1957*.

less than 5% of the total land harvested; by 1957 they represented 7% of the total land harvested.

Promotion of Livestock Breeding and Ownership

During the first two years of the administrative period, the BNCE provided few loans for the purchase of breeding or work animals. This had always been the case, openly recognized by the various administrations, but was always explained with reference to a lack of resources. In 1953 and 1955, the BNCE provided loans of only 900,000 pesos, and in 1954 of 1.4 million pesos. The majority of these loans were granted through the agency in Apatzingan, Michoacan for the purchase of cattle. In 1956, the federal government created a trust, through the Bank of Mexico, S. A., of 11 million pesos to provide loans to the ejido credit societies to purchase sheep (36,750 Rambouillet sheep from the United States). They were distributed through the agencies in Pachuca, Hidalgo; Tlaxcala, Tlaxcala; Toluca, Mexico; Zacatecas, Zacatecas; Durango, Durango; San Luis Potosi, San Luis Potosi; Martinez de la Torre, Veracruz; and Apatzingan, Michoacan.[35] A relatively small percentage (approximately 8%) of the trust was used to finance poultry production. These were generally small-scale, family operations, intended as a complement to the main livestock activities of the ejido societies. These loans were distributed through the agencies in Matamoros, Tamaulipas and Torreon, Coahuila.[36]

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[35]BNCE *Informe 1957*, p. 32.

[36]Ibid., p. 33.

During the period 1953–1957 (information is not available for 1958), the BNCE distributed 14.2 million pesos for the purchase and maintenance of breeding livestock. Purchases of livestock equaled 11.2 million pesos. Of this amount, 2.5 million pesos were loaned for maintenance of breeding animals and 500,000 pesos were loans for cultivating forage. An additional 38.3 million pesos were loaned or invested by the BNCE to develop a program to promote the cultivation of animal feeds and insemination centers. The BNCE also made loans, during the quinquennium, for the purchase of 6,308 work animals worth 3.7 million pesos.

BNCE's Complementary Services

The current administration's policy on the provision of non-credit services differed from that of the previous administration more so than in any other area. There was a reversal in the trend, established during the previous administration, of liquidating holdings and minimizing the services provided. During the period 1953–1958 the BNCE reestablished its processing facilities, irrigation works, and agricultural machine centers, and expanded its affiliated agencies.

The number of processing plants, irrigation works, and other machinery inherited from the previous administration is difficult to estimate. It appears that some of the holdings the previous administration had made available for sale, or had authorized to be sold, were not actually sold by the end of the term. Some of these holdings also, evidently, had remained idle while others were operated below capacity during the transition period.

The BNCE began reorganizing operations in 1953. It had inherited an affiliated agency, Empacadora Ejidal, S. A. de C. V., that managed a packing plant in Loma Bonita, Oaxaca. It also created three other affiliate agencies: Servicios Ejidales, S. A., and Zacatonera Mexicana, S. A. de C. V., in 1953; and Ingenios Ejidales in 1954. In 1954, the BNCE owned and/or managed 17 cotton gins, 5 coffee processing plants, a resin distilling plant, an irrigation works, and mills for processing sugar (4), rice (3), and vegetables (2).[37] The only service that the BNCE attempted to reduce was that of buying crops. In 1953, the BNCE established a policy that the ejidatarios could buy and sell crops and inputs in the open market (i.e., it was not mandatory to sell crops or buy inputs through government agencies).[38] However, this policy did not last the year before the administration returned to the previous policy in which the BNCE provided inputs and, coordinating with CEIMSA, bought the ejido credit societies' crops at guaranteed prices.

Empacadora Ejidal, S. A. de C. V., had managed the processing plant in Loma Bonita, Veracruz since its creation in 1951. During 1954, it also took over the administration of a pineapple and vegetable processing plant, Empacadora de Isla. Servicios Ejidales operated cotton deseeding plants and other cottonseed processing plants in the La Laguna region. They also operated facilities for the selection of hybrid wheat and cotton seeds. The agency Ingenios Ejidales, S. A. de C. V., managed the Bellavista, Jalisco sugar mill for processing the societies' sugar cane produced in the region. The agency

[37]BNCE *Informe 1954*, p. 249.

[38]BNCE *Informe 1957*, p. 125.

Zacatonera Mexicana, S. A., was established in the state of Mexico to help the ejidatarios in the harvest and sale of the zacaton plant.[39] Each of these agencies was organized as a subsidiary of the BNCE, with the BNCE holding the majority of shares of stock issued by the agencies. Thus, they also were directed by the Administrative Council of the BNCE.

The BNCE ownership and/or management of processing plants continued to grow through most of the period. By the end of 1956, the BNCE owned and/or managed approximately 56 processing plants of various types located within the operation zones of 20 agencies.[40]

The BNCE, during the period 1953–1958, also reestablished extensive irrigation systems, forming irrigation districts in many regions, financing individual irrigation wells, and financing the reconstruction of small-scale dams (*bordos*) to collect rainfall runoff in the mountainous regions. The BNCE established irrigation districts in 13 agencies by 1957, with an estimated investment (1953–1957) of 143.5 million pesos. The districts were located mainly in the north and north pacific regions, with two districts located in the central region. They constructed a total of 682 wells and irrigation works worth an estimated 74.6 million pesos (current pesos) in 1957. However, only 481 operated in that year, irrigating approximately 24,000 hectares.[41]

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[39]BNCE *Informe 1955*, pp. 243-44.

[40]BNCE *Informe 1956*, Anexo 35.

[41]BNCE *Informe 1957*, pp. 50, 69.

Irrigation works financed by the BNCE through loans to the ejido credit societies had increased to 1,481 units by the end of 1957. The BNCE provided loans of approximately 113.5 million pesos (1953–1957) for the ejido credit societies to drill wells, purchase pumps and other irrigation equipment, and for capital for maintenance and operating. The estimated potential increase in land under irrigation from these works was 93,000 hectares.[42]

The third type of irrigation system financed by the BNCE was called *bordos*. In the central region's mountainous areas there had evolved a traditional type of irrigation that involved constructing small earthen dams, *bordos*, to collect rainfall as it ran off the mountainside. During the hacienda period much of the agricultural production was irrigated in this manner. However, since the dismantling of the hacienda, this type of irrigation was not extensively used and the bordos had been destroyed or were in complete disrepair. In 1953 the BNCE conducted studies on the effectiveness of such irrigation facilities and determined that it was a cost-effective means of providing irrigation in the mountainous regions. By the end of 1957 the BNCE had financed the construction of 33 bordos with a capacity to irrigate approximately 10,248 hectares, at a cost of approximately 27.6 million pesos.[43]

The resurgence of the agricultural machine centers came about at a slower pace than their establishment in the 1940s. By 1956 there

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[42]Ibid., p. 69.

[43]Ibid.

were 11 centers located in Apatzingan and Brisenas, in the state of Michoacan; Celaya, Guanajuato; Ciudad Obregon, Sonora; Cuernavaca, Morelos; Culiacan and Los Mochis, Sinaloa; Chihuahua, Chihuahua; Queretaro, Queretaro; and Tepic, Nayarit.[44] At the end of 1957, the machine centers employed 334 tractors, 175 combines, 76 vehicles, 139 bordeaderas, 278 cultivators, 173 fertilizer applicators, 253 harrows, and 2,084 plows. Their estimated value was 25.2 million pesos.[45]

During 1957, the BNCE further expanded its facilities, opening six hatcheries to promote small-scale fish production. Centers were opened in Acatepec, Morelos; Antunez, Michoacan; Aldama, Chihuahua; El Mante, Tamaulipas; Jaral de Berrio, Guanajuato; Tlacolula, Oaxaca; and Acambay, Mexico. The centers were stocked primarily with selected breeds of carp purchased in Israel. They were financed through a special trust provided by the federal government in coordination with a National Campaign for Fish Production to promote construction of small-scale fish ponds. In 1957 the BNCE had contributed approximately 300,000 pesos to this campaign.[46]

After 1953, and the BNCE's unsuccessful attempt to encourage the ejidatarios to sell their crops in the open market, the BNCE continued the purchase of crops at guaranteed (support) prices established by CEIMSA. The total amount purchased by the BNCE during 1953–1957 was 836.6 million pesos. The largest purchases were wheat (347.2 million

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[44]BNCE *Informe 1956*, Anexo 35.

[45]BNCE *Informe 1957*, p. 32.

[46]Ibid., p. 40.

pesos), corn (345 million pesos), beans (134.1 million pesos), and rice (10.3 million pesos).[47] Associated with this program, the BNCE cooperated with the Ministry of Agriculture in the construction of warehouses to store the crops. By the end of 1955 the BNCE had constructed 461 warehouses at a cost of approximately 15.9 million pesos.[48]

The BNCE's purchases of inputs, to be transferred to the ejidatarios and ejido societies as loans in kind, are not recorded for this period. However, it is known that these purchases continued and were of considerable quantities. Stavenhagen, again referring to the ejidos of the Yaqui Valley, Sonora, cites an "authoritative report" which stated,

> The fact is that the ejido credit system made its clients the captives of the banking bureaucracy; they could not determine freely the amount of any input they would receive nor from whom it would be bought, nor at what price . . . the bank began to supply clients with tons of fertilizers and insecticides . . . . Goods were simply delivered to the ejidatarios' fields, charges made on the books of the bank, and each client left to decide what use he would make of his purchases.[49]

This report, which referred to the situation in the Yaqui Valley during 1953–1960, indicates that the BNCE's direct purchase of inputs was a common practice but one that was not always most beneficial for the ejidatarios.

The BNCE also cooperated in the financing of the ejidatarios' purchase of agricultural insurance. After 1955, BNCE policy was to deny credit to any borrower who did not have agricultural insurance

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[47]Ibid., p. 71.

[48]Ibid.

[49]Stavenhagen, p. 156.

for crops in those regions where it was available. Between 1955 and 1957, the ejidatarios operating with the BNCE paid 40.5 million pesos in insurance premiums and indemnizations of 78.8 million pesos were paid.[50]

Financial Accounts of the BNCE

Sources of Capital

The total amount of capital received by the BNCE during the period 1953–1957 equaled approximately 3,203,775,000 pesos.[51] The majority of the funds (69.6%) were provided through special lines of credit provided by the Bank of Mexico, S. A.; Nacional Financiera, S. A.; Compania Exportadora/Importadora Mexicano, S. A. (CEIMSA); and other semiofficial agencies. The newest source of capital, provided by the federal government, was trust funds (9.0%). Additional resources provided by the federal government were in the form of subsidies (15.7%), primarily to help pay administrative costs. Direct lending by private financial institutions (5.5%) also continued during the new administration.[52] A source conspicuous by its absence during this period was the purchase of Series "A" stock by the federal government.

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[50]BNCE *Informes 1955-1957*.

[51]The total amount of capital received by the BNCE during 1958 was not available, and thus made it necessary to estimate this amount in order to obtain an estimate for the period. The amount for 1958 was arrived at in the following manner: financing obtained for agricultural loans in 1958 (553,105,000 pesos) (BNCE *Informe 1959*, Table 21, p. 170) multiplied by 1.33 (determined by taking 1956 and 1957 total capital received as a percent of capital received for agricultural loans--the 1959 ratio was approximately 1.85/1).

[52]Because the breakdown of total capital was not available for 1958, the percentages pertain to the period 1953–1957 only.

The Bank of Mexico, S. A., purchased 4,448,000 pesos worth of Series "B" stock (0.2% of the total capital) in 1957 but there were no other purchases of any series of stock during the years 1953 to 1957.

According to data provided by Wilkie[53] on the federal government's financial support of the agricultural credit programs, the ejido sector did not fare well under the Ruiz Cortines administration. While the absolute amount of subsidies and other support increased considerably, the percentage of the total budget dedicated to the ejido credit program decreased. During 1953, support to all types of agricultural credit was 1.3% of the federal government's budget, of which the ejido credit system received 29.8%. Thus, the BNCE received only 0.4% of the total budget. In the following years the ejido sector received 62.5% of the federal government's agricultural credit support. However, since the total support for agricultural credit represented less than 1% of the budget, the ejido credit system still received only 0.42% of the total budget.

Federal government subsidies. Federal government subsidies to the BNCE for administrative expenses continued, during 1953 and 1954, near the previously established level of 20 million pesos per year. During each of the next four years the Ruiz Cortines administration increased this to 50 million pesos.[54] Therefore the total subsidy received by the BNCE from the federal government equaled 240 million pesos for the period 1953 to 1958.

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[53]Wilkie, compiled from Tables 6-4 and 6-5, pp. 139, 141.

[54]BNCE *Informes 1953-1958.*

Additional government financing was provided to the BNCE in the form of debt liquidation. In 1955, the federal government liquidated 102,725,000 pesos in BNCE liabilities, owed to institutions such as the National Bank of Foreign Commerce; Nacional Financiera, S. A.; the Bank of Mexico, S. A.; etc. In 1956, 3,636,000 pesos were paid, and 68,542,000 pesos in 1957.[55] The total amount of debt liquidated during the Ruiz Cortines administration equaled 174,903,000 pesos.

The federal government also provided 11,376,000 pesos to the BNCE for unspecified purposes. The total amount of federal government support provided to the BNCE during the period 1953 to 1958 equaled 426,279,000 pesos.

Government trusts. Government trusts, begun in 1947, were a relatively new form of capital for the BNCE but were provided in substantial amounts only after 1949. In 1953, the federal government provided 22,713,000 pesos in trusts primarily dedicated to the problem of developing the henequen plantations in the Yucatan. The following year, the trusts increased to 79,152,000 pesos. Slightly more than one-third was applied to henequen production, while the remainder was used to construct irrigation works, warehouses, schools, etc. In 1955, trusts decreased to 47,317,000 pesos, with approximately 28,100,000 pesos distributed as loans and the remainder invested by the BNCE. The following year the amounts of trusts decreased again, by a smaller amount, to 43,958,000 pesos. Approximately 11,000 pesos were used to dissolve the Henequeneros de Yucatan, 15,000 pesos were distributed as

[55]BNCE *Informes 1955-1957*.

loans, and 14,000 pesos in investments. During 1957, this account decreased again to 51,850,000 pesos: 33,250,000 pesos granted as loans, 10,500,000 pesos in investments, and the remainder as emergency relief to ejidatarios affected by drought conditions.[56] The total for the quinquennium equaled 244,990,000 pesos.

Direct loans from private financial institutions. During the first year of the Ruiz Cortines administration the BNCE received no direct loans from the private financial sector. The loans were resumed in 1954, with the BNCE receiving 9,905,000 pesos. During the next three years they continued to receive such loans; 4,275,000 pesos, 40,570,000 pesos, and 92,445,000 pesos respectively.[57] The total for the period 1953–1957 equaled 147,195,000 pesos.

Special lines of credit. Special lines of credit had become a very important source of income to the BNCE during the latter half of the previous administration and continued to gain importance throughout the Ruiz Cortines administration. Some of these were special credits granted by the Bank of Mexico and the National Bank of Foreign Commerce from their own resources, and some were from private sources channeled through both these institutions and other semiofficial institutions. During the first two years of the administrative period, only the Bank of Mexico provided special lines of credit, worth 373,300,000 pesos and 329,883,000 pesos respectively. In 1955, the special lines of credit equaled 219,170,000 pesos. Some of this amount was provided by the Bank

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[56]BNCE *Informes 1953-1957.*

[57]BNCE *Informes 1954-1957.*

of Mexico, but other agencies such as the National Bank of Foreign Commerce and CEIMSA also provided loans from their resources. Yet the majority, 170 million pesos, were resources provided by private, international financial institutions which were channeled through the above agencies. In 1956, this trend was accelerated, with special lines of credit providing 521,235,000 pesos to the BNCE. Of this, 429,752,000 pesos were private financial institutions' resources channeled through semiofficial agencies. During 1957, this source decreased somewhat to 436,081,000 pesos with the private sources responsible for providing approximately 307,250,000 pesos.[58] The total amount of capital provided to the BNCE, from 1953 to 1957, through special lines of credit equaled 1,879,669,000 pesos. Private sources of capital to fund the special lines of credit represented 48.25% of the total, or 907,002,000 pesos.

Revenues and Costs of the BNCE

The BNCE's main source of internal revenues continued to come from interest payments made by the ejido credit societies. Commercial activities also generated small amounts of income, with lesser amounts of income from sources such as the sale of real estate, commissions, and dividends. Government subsidies continued to be a significant source of external revenue for the BNCE. The largest cost category was expenditures for reserves to cover unpaid debts and depreciation of assets, replacing administrative expenses. General administrative expenses now represented the second-highest cost category, followed by interest payments and diverse payments for commercial activities, real estate, commissions, etc.

[58]BNCE *Informes 1953-1957*.

Internal revenues. The total amount of internal revenues generated by the BNCE during the period 1953–1958 was 872,893,000 pesos. Interest payments collected equaled 285,273,000 pesos during the sexennium, or 38% of the total revenues.[59] While the absolute amount of interest payments received was lowest during the first year of the administrative period, this was also the year in which interest received represented the highest proportion of internal revenues. Interest payments equaled 22,112,903 pesos in 1953, representing 56.3% of internal revenues. By the end of the administrative period, 1958, interest payments received equaled 57,119,371 pesos but represented only 27.1% of internal revenues, the lowest percentage for the period. Recuperation of past-due debts and indemnization received from the agricultural insurance program began to represent a considerable portion of the BNCE revenues. For the years 1953–1955 and 1958, this category represented approximately 20.7% of the BNCE's internal revenues.[60]

The remainder of internal revenues, including dividends, commissions, earnings from commercial activities, real estate sales, and diverse earnings, represented approximately 42% of internal revenues. The total for the period was 587,620,000 pesos. Commercial sales represented

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[59] BNCE *Informes 1953-1958*. The 1957 *Informe* published information on net income which necessitated approximation of interest payments received based on total interest payments received and net interest in years 1956 and 1958.

[60] BNCE *Informes 1953-1955, 1958*. Breakdowns are not available for 1956 and 1957.

5.75%, real estate sales 6.2%, dividends less than 0.2%, commissions less than 0.7%, and the remainder comprised of profits from industrial activities and diverse earnings.[61] In 1958, the only year in which the category "profits and diverse earnings" is broken down, profits from processing plants represented 38% of this category (17.8% of internal revenues), profits from operating the agricultural machine centers represented 9% (4.3% of internal revenues), profits from the irrigation districts represented 7% (3.3% of internal revenues), commercial activities represented 3.7% (4.1% of internal revenues), and diverse earnings represented 37% of the category (17.6% of internal revenues).[62]

External revenues. The total amount of external revenues (government subsidies) received by the BNCE during the period 1953–1958 equaled approximately 240 million pesos (see "Federal government subsidies").

Costs. The cost of operating the BNCE main office, agencies, and affiliated agencies during the period 1953–1958 equaled 2,219,024,000 pesos.[63] The formation of reserve funds for depreciation of assets and to cover nonguaranteed loans was the largest cost category, representing 52.7% of total costs during the period. Total reserves accumulated during the period equaled 1,182,553,000 pesos.[64]

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[61] BNCE *Informes 1953-1958.*

[62] BNCE *Informe 1958.*

[63] The BNCE's 1957 *Informe* has reported only net income and costs of administration. Thus, the total costs for 1957 were extrapolated from the trend for years 1953–1957 and 1958. The estimate for total costs equaled 250 million pesos.

[64] BNCE *Informes 1953–1956* and *1958.* Reserves for 1957 estimated (see above footnote for method).

The second largest cost category was general operating costs, representing 19.1% of total costs. As the level of operations increased during the period, so did the costs of operations. In 1953, operating costs were 39,287,249 pesos and increased to 94,871,234 pesos in 1958. The total operating costs for the period equaled approximately 423,838,000 pesos.[65] Comparing the total operating costs to the total lending operations (as an estimate of per unit costs of operation) indicates that for every peso loaned the BNCE spent 10.4 centavos for administrative purposes. For every peso loaned and recuperated, the BNCE spent 5.9 centavos for administration.

The remaining 28.2% of the total costs for the period consisted of interest payments, commissions paid, real estate costs, losses, and diverse expenditures. Diverse expenditures represented most of the remaining costs, approximately 23% of the total costs (or 82% of the remaining cost categories). The total amount spent by the BNCE on all the above categories for the period equaled 612,633,000 pesos.[66]

Earnings and Losses

The BNCE's internal revenues received during the period 1953–1958 equaled 872,893,000 pesos and total costs 2,219,024,000 pesos. This would imply that the BNCE suffered a gross loss of 1,346,131,000 pesos during the administrative period. The BNCE's external revenues for 1953–1958 equaled 240 million pesos. Subtracting this from the BNCE's

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[65] BNCE *Informes 1953-1958*.

[66] BNCE *Informes 1953-1956* and *1958*. Figure for 1957 estimated (see footnote 63 for method).

gross loss indicates a net liquidity loss of 1,106,131,000 pesos for the period 1953–1958.

Summary

The changes initiated in the ejido credit system during this administrative period were the most far reaching since the beginning of the BNCE. The BNCE began organizing Local Societies of Ejido Credit that consisted of a minimum of ten members (as opposed to 51% of an ejido's members). This was often achieved through the division of a single society (ejido) into a number of societies. Thus, the BNCE had substantially more societies organized and receiving credit than previously, but without a corresponding increase in the number of ejidatarios organized or receiving credit. A concomitant change of the division of the ejido credit societies was the separation of the ejido administration from the ejido credit societies' administration. Also, the BNCE began to lend to non-organized ejidatarios during this period.

The BNCE's lending continued to be primarily short-term maturities, although as a percentage of total loans granted this type decreased from 85% to 75% since the previous administration. Cotton continued to receive the heaviest financing as there was a further shift toward production of export crops. For the first time in the history of the BNCE the production of export crops was greater than the production of basic food crops and all other crop categories. The shift toward greater production of commercial and export crops was accompanied by the re-establishment of the BNCE's complementary services. Once again the BNCE expanded its holdings and administration of processing plants, irrigation works, and agricultural machine centers. They also continued and expanded the commercial services (buying and selling inputs and crops), and cooperated with other government agencies in the provision of agricultural insurance.

Due to the increasing costs of re-establishing the vast array of processing facilities, infrastructure and all services (including loans), the BNCE's gross loss increased nearly five-fold over the previous administration. However, because the federal government ceased purchasing BNCE stock and only increased the subsidy for administrative expenses during the latter half of the period, the BNCE's net liquidity loss increased from only 17 million pesos during the previous administration to 1,106 million pesos during the current administrative period. However, the federal government had begun to provide a new type of capital, trust funds, transferred to the BNCE to finance long-term and risky investments.

CHAPTER 7

THE LOPEZ MATEOS ADMINISTRATION, 1959–1964

The BNCE during the Lopez Mateos Administration

The Lopez Mateos administration's policies, with respect to the BNCE, were centered around an effort toward decentralization of the ejido credit system. Agrarian Banks were organized, in place of the BNCE's agencies, in the most important ejido regions of the country. It was believed this would facilitate the direction of the ejido credit institution by individuals knowledgeable of the region's situation. Closer cooperation between the administration and the ejidatarios was envisioned, even to the extent of including ejidatarios in formulating and carrying out the institution's activities.[1]

During the second half of the administrative period, the Lopez Mateos administration increased its funding of the agricultural credit systems, especially the ejido sector. Special funds, not included in the administration's budget plans, were provided to the agricultural credit institutions. The majority of the special, non-budgetary funds were channeled into the ejido credit system bringing it to a level of government financing not achieved since the latter years of the Cardenas administration. Financially, the Lopez Mateos administration appears to have been more generous toward the ejido sector than had been the three previous administrations.

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[1]BNCE *Informe 1961*, p. 50.

Organization of the Ejido Credit System

The most significant change in the organization of the ejido credit system, during the period 1959–1964, was the creation of the Agrarian Banks. However, these changes did not affect the basic organizational structure of the BNCE. The organizational hierarchy remained unchanged, with the exception of the addition of the Agrarian Banks as affiliates of the BNCE. The presidency of the Administrative Council was still held by the Minister of Agriculture, Julian Rodriguez Adame, and the vice presidency was held by the Head of the Department of Agrarian Affairs, Roberto Barrios. In the first year of the administrative period the Director General of the BNCE main office, appointed by the Administrative Council, was Ricardo Torres Gaitan. He was replaced the following year by Emigdio Martinez Adame, who served the remainder of the administrative period.[2]

The functional organization of the BNCE main office underwent several modifications during the administrative period. Two new offices, the General Accounting and Coordinating Offices, were created in 1959 as auxiliary agencies to the main office. The primary responsibility of the Coordinating Office was the administration of the Office of Industrial Plants. The General Accounting Office, as the name indicates, was to maintain the records and accounts of the main office and its dependencies. During the same year, a Department of Studies was also established to provide technical and surveying services to all agencies of the BNCE; to conduct specialized studies on the

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[2]BNCE *Informes 1959-1961.*

profitability of the agencies, industrial plants and other services of the BNCE; to plan and analyze the BNCE internal statistics; to suggest better methods for credit operations; and to dispense technical and financial information through BNCE publications.[3]

The Division of Credit was returned to the less prestigious designation of Department of Credit in 1959. Within this department, five areas of responsibility were delineated: the office for the control of credit, office of credit operations, agricultural services office, agricultural machinery office, and office of irrigation.[4] A further change in the functional organization was in the creation of a Division of the Collective Societies of Ejido Livestock Production. It was established in March 1959, in Cananea, Sonora, along with two *jefaturas de zona*, through which it was to serve the livestock-producing ejidos of the area.[5]

In 1960, further changes were made in the functional organization of the BNCE main office. A division in the management of the departments was established, creating an administrative *subgerencia* and a credit *subgerencia*. The Coordinating Office was eliminated, as was the Department of Studies. The functions of the latter department were transferred to the newly instituted Publications and Economic Archives of the BNCE. The responsibilities of the former office were taken over by a newly created Department of Industrial Plants that was under

[3]BNCE *Informe 1959*, p. 63.

[4]Ibid.

[5]Ibid., p. 64.

the control of the main office. Another addition to the ranks of the departments was the Department of Fisheries. This department was to be financed by the BNCE but was to be under the direction of the Ministry of Agriculture, in coordination with their Campaign for National Fisheries.[6]

There was only one change in the internal functional organization of the BNCE main office during 1961. Responsibility for the offices of agricultural machinery, agricultural services, irrigation, etc., that had been under the direction of the Department of Credit were transferred to the reinstituted Department of Trusts.[7]

The number of agencies operated by the BNCE underwent considerable changes during the period 1959–1964. In 1959, two new agencies were opened, in Cananea, Sonora and Colima, Colima, increasing the number of agencies to 36. The first was actually the Division of Collective Societies of Ejido Livestock Production and the second was the reopening of an agency that had been reduced to the level of *jefatura de zona* in 1957. The number of *jefaturas de zona* increased to 212 in 1959, versus 210 in 1958. During 1960, there were no changes in the number or locations of agencies, but there were an additional five *jefaturas de zona* opened in that year.

During the following year there were considerable changes in the BNCE dependences. The Agrarian Bank of La Laguna was created, eliminating the Torreon, Coahuila agency and its 12 *jefaturas de zona*. In accordance with a presidential decree of December 22, 1960, the

[6]BNCE *Informe 1960*, Anexo IV-1.

[7]BNCE *Informe 1961*, Anexo IV-1.

Agrarian Bank of La Laguna, S. A., began operations January 1, 1961. The Agrarian Bank was founded with a capital stock of 60 million pesos, subscribed by the BNCE.[8] It was to operate, through 12 "agencies," in the zone known as La Laguna, a region that encompasses parts of the states of Durango, Chihuahua, and Coahuila. Various other changes were made in the agencies and *jefaturas de zona*, including the elimination of the agencies in Apatzingan and Brisenas, Michoacan, in favor of an agency in Zamora, Michoacan; the agency in Ciudad Victoria, Tamaulipas, was merged with the agency in Matamoros, Tamaulipas; the agency in Monterrey, Nuevo Leon, was merged with the agency in Saltillo, Coahuila; the agency in Queretaro, Queretaro, was merged with the agency in Celaya, Guanajuato; and the agency in Tuxpan, Veracruz was merged with the agency in Martinez de la Torre, Veracruz.[9] Also, the agency in Ciudad Obregon, Sonora was converted to a branch bank.[10] This reduced the number of agencies to 29, which operated through 195 *jefaturas de zona*. (This includes all dependencies except the Agrarian Bank and its agencies.)

During the last three years of the period, 1962–1964, the total number of dependencies did not change much. Nevertheless, as had become usual, there were openings and closings of agencies and shifts

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[8]Moore, p. 316.

[9]BNCE *Informes 1959-1961.*

[10]The difference between an agency and a branch bank is rather vague, as both were dependencies of the BNCE in all aspects of their operations. It may indicate no more than an important dependency within the BNCE operations, as the agencies that were eventually converted to branch banks usually had the largest operations of all the agencies.

of *jefaturas de zona*. In January 1962, a second Agrarian Bank was established in Merida, Yucatan. It was to finance its operations out of a 50 million peso subscribed stock of capital and was to operate with the henequen-producing ejidos of the peninsula region.[11] Also, the agency in La Paz, Baja California was reopened, and new agencies were opened in Cofradia de Juarez, Jalisco, and Tehuantepec, Oaxaca. During the same year agencies were closed in Zamora, Michoacan and Cordoba, Veracruz; and the agency in Morelia, Michoacan was converted to a branch bank. In 1962 there was no change in the number of dependencies as the agency in Ciudad Victoria, Tamaulipas was reopened, the agency in Martinez de la Torre was closed, and the agency in Guadalajara, Jalisco became a branch bank. During the last year of the administrative period the only agency change was a reopening in Campeche, Campeche.[12]

Organization of Ejido Credit Societies

The number of Local Societies of Ejido Credit organized by the BNCE during the period 1959–1964 did not maintain the growth rate achieved by the previous administration. The total number of societies organized increased from 6,664 in 1958, to 8,599 in 1964. This represented an average annual increase of 2.3%. The number of ejidatarios organized in societies increased at a similar rate, growing

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[11]Moore, p. 316.

[12]Information on agencies operating during 1962–1964 from Table A-3, in the Appendix.

from 609,719 to 687,874 over the period[13] (2.1%). The average number of members per society did not change significantly over the period. In 1959, the average was 70.9 members per society, and in 1964 the average was 71.2 members per society.

However, Eckstein noted during a 1964 visit to the La Laguna ejidos that almost every ejido encountered had been divided into three, four, or six sectors. The process of division generally began when rival political parties would support opposing local ejido leaders. Sometimes this would involve a dispute over the collective system, other times a member would simply abandon the collective and form his own group.[14] Collective cultivation of the ejido resources continued to decrease in importance as a result of this process. In 1960, there were 1,041 semi-collective or collective ejido societies in the entire BNCE system. More than half (682) were located in the La Laguna region, and Eckstein indicates they were mostly semi-collective (individual cultivation of land and collective exploitation of other resources). The Yucatan region was the only region with a substantial number (281) of collective ejidos during this period. Other dependencies with semi-collective or collective ejidos included Apatzingan, Michoacan; Los Mochis, Sinaloa; and Cananea, Sonora.[15]

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[13]BNCE *Informes 1959-1961*, and information provided directly by the Banco Nacional de Credito Rural staff.

[14]Eckstein, p. 146. In La Laguna the new societies that resulted from the divisions were called *sectores*, but they were actually separate societies.

[15]Ibid., p. 173.

The geographical distribution of the societies organized did not change from the pattern established during the previous administrative period. During the first half of the period, 1959–1962, the central region maintained the largest percentage of total societies organized (37% to 37.5%). The next largest percentage of total societies organized was located in the north region with 22.4% to 24.2%, and the gulf region with 20.8% to 21.8% of the total. The regions with the smallest numbers of societies organized were the north pacific (10.5% to 10.7%) and the south pacific (7.5%). Distribution of the total number of members organized was patterned much the same as that of the societies organized.[16]

It is apparent that the organization of Regional Societies of Ejido Credit had ceased to be important in the overall operations of the BNCE. As the 1955 agricultural credit law was still in effect, the Collective Societies and Unions of Local Societies of Ejido Credit were not authorized; other types of regional societies, while legally possible, were not often organized. However, a Union of livestock-producing societies was organized in 1958, and during 1961 three Unions received BNCE loans.[17] Yet most SECAS and Unions that had been organized were liquidated by this time.[18]

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[16]BNCE *Informes 1959-1961.*

[17]BNCE *Informe 1961*, Anexo IV-4.

[18]Eckstein, Ch. 4.

Loan Operations with Ejido Credit Societies

Total Loans

The amount of loans granted (see Table A-1 in the Appendix) by the BNCE increased during the first two years, decreased the following two years, and increased again during the final two years of the administrative period. In 1959, the BNCE's loans were 1,079,841,000 pesos, a 31.4% increase over 1958. The second year of the period loans again increased, by 15.7%, to 1,249,356,000 pesos. Over the next two years loans decreased to 968,417,000 pesos in the first year, and 753,119,000 pesos in the second. This represented an average annual decrease of almost 20%. The recovery of the last two years of the period brought the level of lending near the level achieved in 1960. Loans increased to 1,015,619,000 pesos in 1963, and 1,217,169,000 pesos in 1964. Total loans granted by the BNCE during the sexennium equaled 6,283,521,000 pesos. This compares to the Ruiz Cortines administration.

Table 26 shows the amount of loans granted by the BNCE indexed to the level of loans in 1954, and a similar index of wholesale prices in Mexico, for the period 1959–1964. The 52% increase in nominal loans during the first two years of the administrative period was only minimally decreased by a 6% increase in wholesale prices, thus indicating a 46% real increase in loans. During the next two years, in which nominal loans decreased (40%), there was also a 2.3% increase in wholesale prices which further decreased the amount of loans in real terms. With the increase in nominal loans during the final two years of the administrative period the level of loans was 48% over that in 1958. However, the level of wholesale prices had increased 15%

TABLE 26

INDICES OF BNCE'S LOANS AND WHOLESALE PRICES,[a] 1959–1964

Year	Loan Index	Wholesale Price Index
1959	198.6	131.0
1960	229.8	137.5
1961	178.1	138.8
1962	138.5	141.3
1963	186.8	142.1
1964	223.9	148.1

[a]Base year 1954.

Source: Price index from J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

over the same period, thus indicating a decrease of loans in constant pesos of 33% during the period 1959 to 1964.

The number of ejido credit societies receiving loans in 1959 increased to 5,005, comprised of 260,719 ejidatarios; but in 1960 decreased to 4,922, comprised of 237,064 ejidatarios. During the third year, the number of societies receiving loans increased sharply, to 6,602; however, members in societies receiving loans increased by much less, to 247,393. The next year, 1962, was similar to the second year as the number of societies receiving loans decreased, to 6,082 with only 232,679 ejidatarios. During the last two years of the period the number of societies receiving loans increased by almost 50% over the 1962 level, to 8,958 societies. However, again the number of members in the societies receiving loans did not increase as rapidly, showing an increase of less than 20% over the two-year period.[19] This phenomenon is largely due to the subdividing of societies that was taking place.

The average membership per society receiving loans in 1959 was 52.1, but had decreased to 31.0 by 1964. The average loan per receiving society, during the period 1959–1964, equaled 158,863 pesos. This was an increase of approximately 8,000 pesos per society over that achieved during the previous sexennium. On an annual average, 71% of the societies organized received loans during the period. However, only 37% of ejidatarios organized were in societies receiving loans.

The BNCE also continued providing loans to non-associated ejidatarios during the period. Data are available only for the first three years of the period, which indicate that 23,300 ejidatarios received loans on an individual basis from the BNCE.[20] Comparing the number of non-associated ejidatarios and ejidatarios in societies receiving loans in 1960 with the total number of ejidatarios censused (1,597,691) indicates that the BNCE was serving approximately 15% of the ejidatario population.[21]

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[19]BNCE *Informes 1959-1961*, and information provided directly by the Banco Nacional de Credito Rural staff.

[20]BNCE *Informes 1959-1961*.

[21]*VIII Censo General de Poblicion* (Mexico, D. F.: Secretaria de Industria y Comercio, 1962).

Loan Distribution by Geographic Region

The distribution of loans (see the Appendix, Table A-3) throughout the regions of the country was more equal by the end of this administrative period than at the beginning. However, there were considerable variations from year to year. The north pacific region's share increased from 24.8% at the end of the previous period to a high of 37.2% in 1962. Its share then decreased to only 20.6% of the total loans granted by the BNCE in 1964. The north region's share increased from 31.8% in 1957 to 38.7% in 1959. Each year thereafter its share decreased until, in 1963, it received only 19.4%. The last year its share increased again to 27.2% of the total loans. The central region fared the best among the different regions. Its 1957 share of 13.8% increased continuously until 1963, when it received 26.4% of the total loans. The following year its share decreased to 24.3%. The south pacific more than doubled its share over the period. Its 1957 share was only 2%, increasing to 4.7% of total loans in 1964. The gulf region suffered the largest, and most frequent, changes in loan percentage. From its high of 27.4% in 1957 its share decreased to 8.05% in 1962, and then recovered during the next two years to 23.2% in 1964.

The distribution of loans within most of the regions does not show much change. The north pacific region continued to distribute the majority of its loans among a few agencies, primarily Los Mochis, Sinaloa; Mexicali, Baja California; and Ciudad Obregon, Sonora. The north region was, as always, dominated by the Torreon, Coahuila agency (La Laguna Agrarian Bank). In the south pacific region the agency in Tapachula, Chiapas was the dominant distributor of BNCE loans. The gulf region was again heavily biased in favor of the agency in Merida, Yucatan. The central region also continued to be the most equitable region in terms of distribution of loans among its agencies. There is some indication, however, that the conversion of the Morelia, Michoacan agency to a branch bank began a favored status for that dependency. During the latter half of the period, it distributed a quarter of the region's total loans.

Distribution of Loans by Type[22]

Short-term loans represented approximately 77% of the total loans granted by the BNCE during the period 1959–1961. Medium-term loans represented approximately 10.4% of total loans for the period. The remaining loans were combined in a single category, including direct, commercial, and real estate loans.

The short-term loans were most often used to finance the production of cotton, as had been the case for a number of years. Cotton production received nearly 40% of the total short-term crop advances. Corn and bean production were also heavily financed by the BNCE, receiving approximately 19% of the short-term loans. Wheat was the third most-financed crop with approximately 13% of short-term loans, and rice production received approximately 5% of the short-term lending. Of the medium-term loans granted for purposes of crop production and cultivation, henequen production was the most heavily financed, receiving 61% of the total.[23]

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[22]Data on the distribution of loans by type are available only for the years 1959–1961.

[23]BNCE *Informes 1959-1961.*

Loan Repayments Collected by the BNCE

The BNCE continued to experience difficulties in the collection of loan repayments and, therefore, took measures to try to improve the situation through the selection of clientele. As a part of this selection process, the BNCE main office classified delinquent societies as *en recuperacion* or *en liquidacion*. The first classification simply meant that the society could not receive loans again until it had paid its debt with the BNCE. The second classification, for all intents and purposes, meant that the society had ceased to function (although often still included in the BNCE's computations of organized societies). Information on this topic is limited to the years 1959 and 1960. In 1959, of the 4,005 societies not receiving loans, 2,899 were *en recuperacion* and 251 were *en liquidacion*. The following year an additional 142 societies were placed *en recuperacion* and 72 societies were *en liquidacion*.[24] There are no other indications in the *Informes* of further measures (e.g., taking processing plants under administration, etc.) taken by the BNCE during this period. However, as the number of processing plants and other facilities administered by the BNCE continued to increase during the period, it is almost certain that some of them were acquired in this manner.[25]

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[24]BNCE *Informes 1959-1960.*

[25]Ramon Fernandez y Fernandez, *La Empresa Ejidal* (Mexico, D. F.: Talleres Graficos de la Nacion, 1978), p. 133.

Total Repayments[26]

The amount of repayments collected by the BNCE during the years 1959–1961 is shown in Table A-2 in the Appendix. The sum, for the first half of the administrative period, equaled 2,400,235,000 pesos. The majority of the repayments were applied to the removal of short-term debt. This category of repayments equaled 1,908,139,000 pesos, which represented 79.5% of the total repayments collected during 1959 to 1961. The second largest category of repayments included liquidation of direct loans, mortgage loans, and commercial loans. This amounted to 443,618,000 pesos for the period, or 18.5% of the total repayments collected during the period. The remaining 2% in repayments (48,478,000 pesos) was to retire medium-term debt.

The continuously high percentage of repayments for the retirement of short-term debt by the ejido credit societies was mainly a result of the BNCE's long-standing policy of applying repayments to remove debt from the current year before applying it to other debts. The relatively small (as compared to previous years) amount of repayments on medium-term debt is partly attributable to this policy also, but can further be traced to conditions under which the loans were made. The 1959 *Informe* states that "there had been many medium-term loans, as in the case of the Torreon (Coahuila agency), granted in the face of an economic crisis for the ejidatario that was necessary to attend to."[27] It could hardly be expected that the ejido credit

[26]Information on the repayments of loans is available only for the years 1959–1961.

[27]BNCE *Informe 1959*, p. 80.

societies would have been able to cover their medium-term debt due, within the administrative period, after receiving loans on an emergency basis during the very first year of that period.

Gontran Noble provides data on repayments collected, during the second half of the administrative period, by the BNCE (not including the Agrarian Banks). The total collected during 1962–1964 was 1,587.1 million pesos.[28] In 1959 (last year available) the (then) agencies of Merida, Yucatan and Torreon, Coahuila collected roughly 40% of the total repayments. Using this as a substitute for the collections of the two Agrarian Banks, we can estimate that total collections during 1962–1964 equaled approximately 2,645 million pesos. Adding this estimate to the total for the first half of the period indicates that the BNCE collected 5,045,235,000 pesos during the period 1959–1964.

Geographic Distribution of Loan Repayments[29]

During the first year of the administrative period the distribution of repayments collected by the BNCE was similar to previous years. The north region made the largest amount of repayments to the BNCE, representing 39.3% of the total repayments in 1959. Again, the Torreon, Coahuila agency had the largest amount of repayments of any single agency in the ejido credit system. Its repayments equaled 26.1% of the total repayments collected by the BNCE, a percentage somewhat

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[28]Gontran Noble, *El Desarrollo del Campo en Mexico* (Mexico, D. F.: Imprenta Arana, S. A., 1970), p. 141.

[29]Information on the distribution of the repayments collected by the BNCE is available only for the first year of this administrative period, 1959.

below the previous levels collected by this agency. The north pacific paid the second highest percentage of total repayments, representing 30%. This had been the general trend for most of the previous years, with the exception of the last year of the Ruiz Cortines administration. The gulf region's agencies contributed the third largest amount, representing 14.8% of the total. It was followed in accounts repaid by the central region's agencies, representing 13.2% of the total. These two agencies had typically fallen to the third and fourth positions in repayments, the ranking of the gulf region being primarily determined by whether or not the BNCE was operating with the henequen-producing ejidos of the Yucatan. The region least attended was the south pacific, which typically received a small percentage of loans and accounted for a small percentage of total repayments. The repayments collected by the agencies in this region represented only 2.7% of the total repayments collected by the BNCE during 1959.[30]

Loan Repayment Coefficients

Calculating repayment coefficients for the entire period is possible only with the first method; the second method is calculated for 1959 and 1961, and the third method could not be calculated due to a lack of data. The coefficient of repayments collected to total loans granted equaled 0.80 (or for each peso loaned during 1959–1964, the BNCE collected 80 centavos). Information on loans due is available only for the years 1959 and 1961. In 1959 the BNCE collected 84

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[30]BNCE *Informes 1959-1961.*

centavos for each peso owed during that year,[31] or a coefficient of 0.84. This amount decreased drastically in 1961 to only 61 centavos for each peso owed, or a coefficient of 0.61. This was largely a result of the La Laguna Agrarian Bank being unable to collect the medium-term loans granted under emergency conditions during 1959, that were largely due in 1961.[32]

Outstanding Debt

The last year of the period for which there is published information on the BNCE's outstanding debt is 1961. In the BNCE *Informe* of that year, it is reported that the BNCE's portfolio had grown to 1,785,100,000 pesos. The amount of debt overdue was 1,179,100,000 pesos, and the amount of outstanding debt not currently due was 606,000,000 pesos. That is, 66.1% of the total BNCE portfolio was held in overdue debt, and 33.9% in debt not mature. It is noted in the *Informe* that the amount of overdue debt, as a proportion of the total portfolio, had increased disproportionately over the years 1959 to 1961. This was due in part to the administration's policy of not removing "uncollectible" debts from the BNCE accounts as had been done during many of the previous administrations.[33]

The overdue debt consisted primarily of short-term credits, 73.9% of the total debt overdue. Medium-term credits represented 21.2% of the overdue debts, and commercial, direct and mortgage credits

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[31]BNCE *Informe 1959*, p. 79.

[32]BNCE *Informe 1961*, p. 89.

[33]Ibid., pp. 89-90.

represented only 4.9% of the total overdue debt held by the BNCE in 1961. The portion of the portfolio that was due in years after 1961 was almost equally divided between short- and medium-term debt. Short-term debt instruments were slightly favored, with 50.6% of the total debt not mature; while medium-term debt represented 45.4% of the debt not due. Direct, commercial and real estate credits represented only 4% of the debt not due in 1961.[34]

Agricultural Production Financed by the BNCE

The land resources available to the ejidos for agricultural production continued to increase during the period. The Lopez Mateos administration redistributed more land to the ejido sector than had any of the three previous administrations. Also, data collected by Yates indicate that an increasing proportion of the land received was arable, rather than forest and other land.[35]

During the period 1959–1964, 5,106,902 hectares were distributed to 207,974 ejidatarios. The additions increased the amount of land received through ejido grants, restitutions and enlargements to 48,768,917 hectares (since 1916). The beneficiaries of the land redistribution increased to 2,300,428.[36] The majority of the land was redistributed during the latter half of the administrative period, with only 1,626,213 hectares distributed during the first three years. However, approximately

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[34]Ibid., p. 91.

[35]Paul Lamartine Yates, *El Campo Mexicano* (Mexico, D. F.: Ediciones el Caballito, 1978), Table 14.3, p. 673.

[36]*Statistics on the Mexican Economy*, Table 3.1, pp. 46-48.

50% of the ejidatarios receiving land during the sexennium had received their land during the first three years of the period.

Total Production

The number of hectares harvested and the value of output produced by ejidatarios under financing of the BNCE during the first three years of the period are shown in Table 27.

TABLE 27

PRODUCTION FINANCED BY THE BNCE, 1959—1961

Year	Hectares Harvested	Value of Production (pesos)
1959	879,663	1,012,342,000
1960	780,393	897,477,000
1961	772,361	1,352,203,000

Source: BNCE *Informes 1959-1961.*

The number of hectares harvested during 1959 increased by 116,541 hectares, or approximately 17.7%, over the 1957 level. The following year the number of hectares harvested decreased for the third time in five years. The administration of the BNCE attributed the decrease in 1960 to the heavy losses suffered by the ejido credit societies. As a result of the crop losses the hectares harvested were only 72.3% of the hectares planted by the ejido credit societies.[37] The decrease

[37]BNCE *Informe 1960*, p. 21.

during the following year was also partially a result of losses (only 81.6% of the land planted was harvested), but was further due to a decrease in the number of hectares planted by the ejido credit societies.[38]

The value of output produced by the ejido credit societies is also included in Table 27. The increase in output during the first year of the administrative period was approximately 23.7% over the previous year. However, as can be seen, the increase was short-lived as the value of output decreased in 1960, along with the number of hectares harvested. During the third year of the period, while the number of hectares continued to decrease, the value of output increased. This increase may be more illusory than real, as the BNCE *Informe* notes that "the difference, in large part, is due to better internal statistics on controlled crops."[39]

Table 28, indices for the value of ejido credit societies' production and food prices, indicates the direction of change in real output. The change in the value of real output, during 1959–1961, equaled approximately 18%. This was nearly equaled by the 17% increase in hectares harvested, thus indicating no change in the productivity per hectare harvested during the years 1959–1961. Again, it should be kept in mind that the increase for 1961 was downplayed by the BNCE *Informe* due to more efficient bookkeeping methods.[40]

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[38]BNCE *Informe 1961*, p. 21.

[39]Ibid., p. 22.

[40]Admission of such a possible margin of error should also be a reminder that the reliability of such statistics is somewhat questionable.

TABLE 28

PRODUCTION AND FOOD PRICE INDICES,[a] 1959–1961

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1959	104.2	147.8	70.5
1960	92.4	151.7	60.9
1961	139.2	157.1	88.6

[a]Base year 1954 for all indices.

Source: Production index calculated from Table 27. Food price index from J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

Ejido Credit Society Production by Type of Crop

Production by the ejido credit societies under financing of the BNCE, during the first three years of the administrative period, continued along much the same pattern that had been set during the previous administration. Cotton continued to receive the largest share of financing, yet the majority of the ejidatarios' land resources was dedicated to the production of basic food crops. Stavenhagen reported that the introduction of cotton production to the central region led to division of many of the collective societies in the state of Michoacan. The individualization of the ejido credit societies and the shortage of BNCE resources (both financial and technical) soon led to the renting of ejido lands in the area to private cotton producers.

Stavenhagen states,

> It soon became necessary to "legitimize" these arrangements, and in 1960, the federal agrarian department authorized contracts between the investors and the ejidatarios which appeared as an extension of credit by the former to the latter for the improvement of their land and cultivation of cotton, but which in fact simply turned out to be a cover for the rental of ejido lands [an illegal act].[41]

Thus, the BNCE was apparently able to successfully introduce cotton production (through example) to the private producers, but not to the ejidatarios of the central region.[42]

Corn, beans, rice, and wheat production required approximately 77% of the land harvested (corn and beans represented approximately 35% to 40%). The first three crops are of relatively low value, which shows up when comparing the value of the basic food crops to the value of all crops. The 77% of land harvested in basic crops produced only 45.4% of the total value of crops produced by the credit societies. This was offset by the 10% to 19% of land harvested in export crops producing 40% to 48% of the value of the ejido credit societies' output, and the 1.3% of land harvested in agricultural industry crops (peanuts, sesame, tobacco, etc.).[43]

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[41]Stavenhagen, p. 160.

[42]See T. Barkin and D. King, *Regional Economic Development in Mexico* (London: Cambridge University Press, 1970), p. 189.

[43]BNCE *Informes 1959-1961.*

Livestock Breeding and Ownership

During the first year of the administrative period, the BNCE created the Division of Collective Ejido Livestock Societies, as mentioned in the section on organization of the BNCE. This dependency differed from others in that it was more involved in the internal organization of its societies.[44] In the agrarian reform grant of 261,653 hectares, it was stipulated that the 853 ejidatarios had to collectively exploit the resources. Seven collective societies were organized into a Union, which received the majority of the BNCE's lending and investments in livestock during 1959. They received credits of 29 million pesos to purchase livestock (28,515 head of Hereford cattle, 783 horses, 92 mules, and 89 donkeys), and an additional 1.1 million pesos were loaned for the purchase of machinery, implements, and vehicles needed to operate the collectives. The BNCE further invested 11.2 million pesos in storage facilities, machinery, corrals, cattle trailers, houses, schools, wells, motors, storage tanks, cattle feeders, and other minor implements. This was not documented as a loan but rather was included in the agrarian land grant.[45]

Other credits granted in the promotion of livestock breeding were funneled through the agency in Villahermosa, Tabasco. Approximately 614,000 pesos were loaned for the purchase of 853 head of cattle and an additional 1,977,000 pesos in working capital loans

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[44]Eckstein, p. 168.

[45]BNCE *Informe 1959*, pp. 41-42.

were granted during 1959.[46] Unspecified credits were also loaned to maintain sheep herds begun in 1957, in the ejidos of agencies in Durango, Durango; Zacatecas, Zacatecas; San Luis Potosi, San Luis Potosi; Toluca, Mexico; Tlaxcala, Tlaxcala; and Martinez de la Torre, Veracruz.

During the next two years the BNCE's promotion of livestock breeding was largely concentrated on bringing to fruition the recently created ranches. In 1960, working capital loans and credits for the maintenance of livestock equaled 6.4 million pesos, and investments of 1.9 million pesos were granted to the collective societies of Cananea. An additional one million pesos were loaned through the agency in Villahermosa, Tabasco for the purchase of livestock. In 1961, loans of 6.95 million pesos, primarily for working capital, were granted to the Union in Cananea, Sonora. Investments in housing and infrastructure continued, including the completion of reservoirs for irrigation and watering livestock.[47]

Complementary Services of the BNCE

The BNCE's role continued to grow in the direction of providing inputs and services, processing facilities, and marketing the ejidos' crops.[48] In 1959, a new government trust fund was established, the National Fund of Ejido Promotion, that was to be managed by the BNCE.

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[46]Ibid.

[47]BNCE *Informe 1961*, p. 48.

[48]This section pertains to the period 1959–1961 only, due to a lack of information for 1962–1964.

This was added to the other affiliate agencies managed by the BNCE. The National Fund of Ejido Promotion was established on April 23, 1959, by presidential decree. The fund was capitalized at 144,000,000 pesos "to promote economic and social progress of the ejidos."[49] From the date of its creation until the end of 1960, approximately 50,500,000 million pesos were spent from this fund. The fund was used to finance emergency loans (25,000,000 pesos) for corn and bean crops, primarily in the north and central regions of the country; construction of houses (3,700,000 pesos); land purchases for ejidatarios (3,000,000 pesos); livestock purchases (2,700,000 pesos); agricultural machinery and implements (1,300,000 pesos); electrification of ejidos (1,300,000 pesos); working capital for crop production (1,200,000 pesos); construction and repair of schools (1,000,000 pesos); diverse construction (2,000,000 pesos); works in the desert regions probably related to harvesting of desert plants such as candelilla (5,300,000 pesos); and other projects (4,000,000 pesos).[50] In addition to these investments the fund financed work on the construction of a sugar mill for the Plan de Ayala ejido in the region of Ciudad Valles, San Luis Potosi.[51]

During the following year, the fund financed loans and investments of 114,400,000 pesos. Investment in the sugar mill, Plan de Ayala, consumed 21,000,000 pesos, and a second mill was begun in the state of Jalisco. Other investments financed by the fund totaled 13,800,000 pesos, including construction of houses and other

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[49]BNCE *Informe 1960*, p. 70.

[50]Ibid., pp. 70-71.

[51]Ibid.

facilities, acquisition of work and breeding animals, construction of irrigation works, and the purchase of vehicles. These investments were to be repaid by the ejidatario beneficiaries while an additional group of investments, 11,700,000 pesos, was made without obligation to repay. These investments included construction of schools, electrification of ejidatarios, and the provision of drinking water in ejidos.[52] Approximately 5,500,000 pesos in loans were granted and 62,500,000 pesos for other works.

The commercial activities carried out by the BNCE were still classified in three categories: purchases of inputs, sale of crops (primarily export crops), and purchase of crops at guaranteed prices. The purchase of inputs, to be transferred to the ejido credit societies as loans in kind, increased during the first two years but declined during 1961. During 1959, 176,100,000 pesos were spent on the purchase of various inputs. The majority of the expenditures were for fertilizers and insecticides (60%); approximately 16% was for the purchase of vehicles, tools, and industrial machinery; agricultural machinery purchases represented 8%; seed purchases 5%; and other purchases 11%.[53] During 1960, purchases increased to 119,900,000 pesos--43% for fertilizers and insecticides, 22.8% for agricultural machinery, 10.3% for industrial equipment, and the remainder for diverse purchases.[54] In 1961, total purchases decreased to 117,700,000 pesos. The purchase

[52]BNCE *Informe 1961*, p. 73.

[53]BNCE *Informe 1959*, pp. 48-49.

[54]BNCE *Informe 1960*, pp. 54-55.

of fertilizers and insecticides represented 67.8% of the total, while the purchases of agricultural machinery and industrial equipment decreased to 3.8% and 4.8% respectively.[55]

The sale of ejido credit societies' crops through BNCE intermediation served to eliminate private intermediaries in the marketing process and also facilitated the collection of loans by the BNCE. The primary crop sales were of cotton, henequen, rice, and cottonseed. The majority of the cotton sales were from the agency in Torreon (after 1961, the Agrarian Bank of La Laguna), while the henequen sales originated in the Merida, Yucatan region.[56] Sales of ejido credit societies' crops were at their highest during the first year of the period, decreasing in each of the two following years. During 1959, sales equaled 489,600,000 pesos, decreasing to 366,200,000 pesos in 1960, and declining again in 1961 to 234,900,000 pesos.

The third commercial activity of the BNCE was the cooperative purchase of basic foods, primarily grains, through the government agency CEIMSA.[57] In 1959, these purchases equaled 154,800,000 pesos, largely for corn and wheat. In 1960, the BNCE purchased 153,400,000 pesos worth of corn and wheat from the ejido credit societies. In 1961, purchases grew to 248,600,000 pesos; the majority again was made up of corn and wheat, but also included were purchases of beans (9,600,000 pesos) and sorghum (4,800,000 pesos).[58]

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[55]BNCE *Informe 1961*, pp. 71-72.

[56]BNCE *Informes 1959-1961*.

[57]In March 1961 CEIMSA was replaced by *Compania Nacional de Subsistencias Populares* (CONASUPO).

[58]BNCE *Informes 1959-1961*.

The operation of agricultural machine centers by the BNCE continued during the period 1959–1961. The policy of investing in agricultural machinery by the BNCE rather than selling the machinery to the ejido credit societies was justified on the basis that it prevented excessive indebtedness of the societies.[59] During this period the centers were organized into agricultural machine stations and substations. Stations had separate administrative staffs and budgets, while substations were staffed by the agency personnel and their budgets were included in the agency's general budget. In 1959, eight stations were operated located in Brisenas, Michoacan; Celaya, Guanajuato; Ciudad Obregon, Sonora; Los Mochis, Sinaloa; Queretaro, Queretaro; San Luis Potosi, San Luis Potosi; Tepic, Nayarit; and Apatzingan, Michoacan. The substations were operated by 20 of the agencies in various regions of the country.

During 1959, the BNCE purchased 7,800,000 pesos worth of agricultural machinery, primarily tractors and wheat harvesters. The agricultural machinery owned by the BNCE at the end of 1959 included 736 tractors, 481 harvesters, 2,438 plows, 410 harrows, 189 planters, and 223 other implements. Slightly more than 50% of this machinery was at the disposal of the machine stations and the remainder was distributed to the substations (agencies).[60]

During the next two years the BNCE continued to operate eight machine stations, but the number of substations was decreased, to 13

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[59]BNCE *Informe 1959*, p. 34.

[60]Ibid.

in 1960, and 9 in 1961. BNCE investments in agricultural machinery also decreased, to 3,700,000 pesos in 1960 and 350,000 pesos in 1961. The agricultural machinery at the disposal of the stations and substations also decreased over the two-year period. At the end of 1961 the BNCE had 449 tractors, 248 wheat harvesters, 312 harrows, 474 tillers, 310 planters, 772 plows, and 1,816 other implements. In a majority of the dependencies the machinery operated in 1961 was less than that employed in 1959. This was partly a result of normal depreciation and obsolesence, but also was attributable to the BNCE's selection of the best machinery for use at the stations and substations, while other machinery was stored in warehouses.[61]

The 13 irrigation districts inherited by the current administration continued operation during 1959, and the BNCE invested an additional 1,300,000 pesos in construction of irrigation facilities. This increased the number of irrigation works owned by the districts to 694 units, of which 571 units were functioning in 1959. With these the BNCE irrigated approximately 25,000 hectares in 1959. During 1960, the BNCE expanded its irrigation districts to 15, adding districts in La Barca, Jalisco and Pachuca, Hidalgo. The number of irrigation works increased to 732, but only 586 units were operated during that year. However, the land irrigated increased to approximately 38,332 hectares. In 1961, installed irrigation works increased to 737 units with 661 units operating to irrigate approximately 28,891 hectares.[62]

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[61]BNCE *Informes 1960-1961.*

[62]BNCE *Informes 1959-1961.*

The area in which the BNCE had the most extensive investments was agricultural industry, with 43 processing plants operating in seven lines of industrial production. In 1959, the BNCE owned and/or managed 22 cotton gins, 6 rice mills, 6 defibration plants, 2 sugar cane mills, 2 oilseed mills, 3 coffee processing plants, and 2 vegetable processing plants.[63] There were also several other industrial facilities that were owned by the BNCE but were either idle or rented to private producers.

The BNCE owned 17 of the cotton gins, with the other five owned by the ejido credit societies operating in the zone of the Torreon, Coahuila agency. Of the 17 gins owned by the BNCE, 8 were located in the Torreon region, 6 near the Matamoros, Tamaulipas agency, and 1 each located in Ciudad Obregon, Sonora; Apatzingan, Michoacan; and Mexicali, Baja California. Two of the four sugar mills owned by the BNCE were operated during 1959. Those in operation were located in Tareton, Michoacan and Acatlan de Juarez, Jalisco, the latter being an affiliated agency of the BNCE. Due to poor market conditions, the BNCE did not directly operate any of the three oilseed mills. Two plants, located in Mexicali and Matamoros, were rented to private management and the third, located in Apatzingan, remained idle. The three coffee processing plants operated were all located in the region of the Tapachula, Chiapas agency. They were operated at less than capacity due to a lack of raw materials. The other industry in which the BNCE was operating was the processing and packing of fruits (especially pineapple). This was done

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[63]BNCE *Informe 1959*, p. 50.

through the management of three affiliate agencies: Empacadora Ejidal, S. A. de C. V.; Productos de Tropicales, S. A.; and Empacadora de Isla. The first two were located in Loma Bonita, Oaxaca, and the latter in Isla, Veracruz.[64]

During 1960, the BNCE increased the number of industrial plants in operation despite the fact that a number of plants operating during the past year were underutilized. An additional cotton gin was opened in the region of the Agrarian Bank of La Laguna, increasing the total to 23 plants. Two new chile processing plants were located in the region of the Jaral de Berrio, Guanajuato agency and in Pabellon, Aguascalientes. The other new industrial plants operated by the BNCE were insecticide mixture plants, located in Matamoros, Tamaulipas; Rinconada, Durango; and Delcias, Chihuahua.[65]

During 1961, the BNCE added only one new plant to its agricultural industry facilities while at the same time reducing the number of cotton gins to 18. This increased the number of cotton gins owned by the BNCE, but not in operation, to six. This, as in the case of many other industries, was due largely to a lack of raw material. The expansion of the BNCE's processing plants was in the drying of alfalfa produced by the ejidos of Casas Grandes, Chihuahua. However, this effort also operated at a loss due to unfavorable market conditions.[66] The sugar cane processing mills in Taretan, Chiapas and Bellavista continued to operate during 1961 while the BNCE studied the possibility

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[64]Ibid., pp. 50-59.

[65]BNCE *Informe 1960*, pp. 65-78.

[66]BNCE *Informe 1961*, pp. 55-70.

of relocating one or both plants for 1962. The fruit processing plants were operated at a much diminished level, again due to a lack of raw materials. Three of four coffee processing plants in Tapachula, Chiapas continued in operation, but two others were left inoperative.

During 1959—1961, the BNCE further participated in other agricultural markets through continuing to operate, on a minor scale, an office for the purchase of candelilla wax, and managing six fish hatcheries. In addition, the BNCE cooperated with the Agency for Agricultural Insurance in providing agricultural insurance to the ejidatarios. The first office had evidently been functioning on a sporadic basis for years, within the BNCE main office. Its purpose was to aid in the marketing of candelilla wax produced by the ejido credit societies near the agency in Saltillo, Coahuila. The management of fisheries was in conjunction with the Ministry of Agriculture and a National Campaign for Fish Production. The BNCE's responsiblity was to provide for the construction of small-scale ponds and the purchase of selected fish species. The insuring of the ejido credit societies' crops continued as a prerequisite for obtaining credit in those regions where insurance was available. Thus, the BNCE was involved in the lending for payment of premiums, estimating the remittances for damaged or destroyed crops, and collection of indemnities.[67]

During the second half of the administrative period, detailed information is not available on the operations of complementary services. However, from the data on costs of the BNCE's operations,

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[67]BNCE *Informes 1959-1961.*

it can be determined that the BNCE continued operating the irrigation districts, machine stations and substations, and various industrial plants. There is no indication of commercial activities, but the history of the BNCE and common sense tell us that these activities were maintained throughout this period. From the data on costs it appears that the BNCE's 1962–1964 operations in the irrigation districts and the machine centers were similar to the level of 1961. The costs of operating the agricultural industry facilities increased by an annual average of almost 7% (in nominal terms). Thus, it appears that there may have been an expansion in this area during the years 1962–1964.

Financial Accounts of the BNCE during the Lopez Mateos Administrative Period

Sources of Capital

The total amount of capital received by the BNCE during the first half of the administrative period (1959–1961) equaled 2,857,614,000 pesos.[68] The federal government's support had achieved a level, during this period, that had not been achieved since the later years of the Cardenas administration. As a result of the increased government support, a majority of the BNCE's capital was once again provided by various federal government subsidies and investments. From 1959 to 1961, this source represented 45.3% of the total BNCE capital received. The second most important source of capital during this period was the decentralized semi-official institutions (e.g., Banco Nacional de Comercio Exterior, S. A.; CIEMSA). Loans and specialized lines of

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[68]BNCE *Informes 1959-1961*, Anexos V-1. Information on the BNCE's sources of capital is not available for the years 1962–1964.

credit provided by these institutions represented 36.8% of the BNCE's total capital received during 1959–1961. A third source of capital for the BNCE during this period was loans provided by private, foreign banks (e.g., The Chase Manhattan Bank, Continental Illinois National Bank, Chemical Corn Exchange Bank). They provided 10.9% of the BNCE's capital received during the period. The fourth, and smallest, source of capital received was loans from private companies and domestic banks. This source provided approximately 7% of the total capital received between 1959 and 1961.[69]

According to James Wilkie's estimates of the federal government's support for agricultural credit, 0.56% of the budget was channeled into agricultural credit during 1959–1961. Of the total support for agricultural credit, 67.6% was for the ejido credit system.[70] Thus, we can estimate that approximately 0.4% of the federal government's budget was devoted to the ejido credit problem.

While information on the BNCE's sources of capital received is very limited for the years 1962–1964, Wilkie's tables indicate that the federal government increased its nominal support of the ejido credit system by approximately 279% from 1961 to 1962. The ejido credit system's share of the federal budget increased from 0.54% in 1961 to 1.95% in 1962. The following year their share increased to just over 2% of the total budget.[71]

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[69]BNCE *Informes 1959-1961*, Anexos V-1.

[70]Wilkie, Tables 6-4 and 6-5, pp. 139-41.

[71]Ibid.

Federal government subsidies. The federal government's subsidy for the BNCE's administrative expenses equaled 45,000,000 pesos in 1959 and increased to 50,000,000 pesos in the following two years.[72] Therefore, the total subsidy for the years 1959 through 1961 equaled 145,000,000 pesos. (Noble reports that 50,000,000 pesos were also provided in each of the last three years of the period.[73])

Contribution to BNCE's capital. The federal government made contributions to the BNCE's capital through payments on the institution's debt. Payments of this sort equaled 1,097,484,000 pesos during 1959–1961. (Gontran Noble, BNCE administrator and member of the Administrative Council during 1966–1968, notes that during the period 1962–1964 the federal government liquidated additional debts of 957.9 million pesos.) Payments made to the BNCE by the federal government, to cover deficiencies in recuperations of loans, equaled 719.4 million pesos from 1962 to 1964.[74]

Trusts. The federal government continued channeling funds to the BNCE through the creation of trust funds for social investments or investments of a risky nature. In 1959, trusts were funded for 27,850,000 pesos, decreasing in each of the next two years, to 17,330,000 pesos and 6,605,000 pesos respectively.[75] The total trusts funded by the federal government during 1959–1961 equaled 51,785,000 pesos.

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[72] BNCE *Informes 1959-1961*, Anexos V-1.

[73] Noble, p. 158.

[74] Ibid.

[75] BNCE *Informes 1959-1961*, Anexos V-1.

Decentralized institutional sources. The Banco Nacional de Comercio Exterior, S. A., continued to provide the BNCE with special lines of credit to be invested in projects that the government deemed risky investments or social investments (i.e., emergency loans, investments in crops or regions of low productivity). In addition, the CEIMSA extended loans to the BNCE to enable it to purchase crops from the ejido credit societies at guaranteed (government support) prices. The total capital received from the decentralized institutions equaled 1,050,535,000 pesos from 1959 to 1961.[76]

Foreign private banks. This source provided funds only during 1959. The total loans provided by five United States banks equaled 312,500,000 pesos.[77]

Private domestic banks and companies. During the first year of the period, private domestic banks provided 4,860,000 pesos to the BNCE, but did not continue lending during the remainder of the period. Loans from private domestic companies, on the other hand, were received in each of the first three years of the period, equaling 195,450,000 pesos.[78]

Revenues and Expenses of the BNCE

The BNCE's main source of internal revenue was from the diverse complementary services. For the first time in the history of the

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[76]Ibid.

[77]Ibid.

[78]Ibid.

BNCE, interest payments received were not the major source of income to the BNCE. In addition to these two sources of internal income, the BNCE received small amounts of income from dividends, commissions, sale of real estate, repayments from overdue accounts, etc. The major cost was that of establishing reserves for depreciation of assets and unguaranteed loans, as in the previous administration. The cost of administration, which had traditionally been the main source of expenditure, was equaled by costs associated with complementary services provided by the BNCE. An expenditure of intermediate importance was the payment of interest on borrowed funds. Minor expenses were incurred in the payment of commissions, cost of maintaining real estate, and diverse expenses.

Internal revenues. The total income received from internal sources by the BNCE during 1959 to 1961 equaled 904,164,768 pesos. Revenues generated in the many complementary services provided by the BNCE equaled 272,635,992 pesos, representing 30% of the total. The primary sources within this category were income earned by the agricultural industry plants and the commercial activities. Interest payments received from the ejido credit societies during 1959 to 1961 equaled 229,372,081 pesos, or 25.3% of the total. Repayments received on overdue debts, sale of crops held as collateral, and depreciation of assets provided 84,851,921 pesos of income, or 9.2% of the BNCE's internal revenue for the period.[79] The remaining 35.5% of the internal

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[79]Ibid., earning and loss statements.

revenues were from dividends, commissions, real estate sales, and diverse earnings equaling 317,307,774 pesos for the period 1959 to 1961.

Gontran Noble indicates that the BNCE further earned 401,000,000 pesos during the years 1963 and 1964[80] (there are no data provided for 1962). There is no breakdown by source of revenue. The total internal revenue earned by the BNCE, for the quinquennium (1959–1961 and 1963–1964) was 1,304,164,768 pesos.

External revenues. The federal government provided the BNCE with approximately 145,000,000 pesos in subsidies for general administrative expenses for the period 1959 to 1961. An additional 50 million pesos were provided in each year from 1962 to 1964.

Expenditures.[81] The total expenditures incurred by the BNCE in carrying out their many services to the ejido sector during 1959 to 1961 equaled 1,524,567,877 pesos. The main category of expenses was reserves for depreciation of physical assets and reserves for unguaranteed loans of the ejido credit societies. These expenses amounted to 716,348,155 pesos, or 47% of the total expenses for the period.

The second largest cost category was payments made in the operation of the various agriculture-related services provided by the BNCE, equaling 332,951,421 pesos or 21.8% of the BNCE's total expenditures. The agricultural industry facilities owned and managed by the

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[80] Noble, p. 165.

[81] BNCE *Informes 1959-1961*, earning and loss statements.

BNCE incurred the largest of these expenses, followed by expenses for irrigation districts and the agricultural machine centers.

The costs of administration fell to the third position in the expenditure column. The total for the period 1959–1961 was 327,455,580 pesos representing 21.5% of the total. Comparing the expenditures of the BNCE for administration to the volume of lending operations indicates that the costs represented approximately 9.9% of the loans (or for every peso loaned, the BNCE spent 9.9 centavos). Administrative costs represented 5.7% of the total loans and payments collected by the BNCE.

The remaining 9.7% of expenditures was included under the following categories: interest paid, commissions, cost for real estate, diverse losses, and exchanges. Interest payments totaled 142,886,875 pesos for the three-year period, representing 9.3% of the total expenditures. The remaining 0.4% of the total was fairly evenly divided among the first three of the four following categories, with the last category almost zero.[82]

Referring again to Noble's data for the years 1963 and 1964, the BNCE's expenditures increased to 603 million pesos and 759 million pesos respectively.[83] Again, there is no breakdown by category of expenditure for these years.

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[82]See Noble, pp. 152-65.

[83]Ibid., p. 165.

Earnings and Losses

Losses by the BNCE, for the period 1959–1964, are calculated for two subperiods, 1959–1961 and 1963–1964. The data available for the first subperiod are similar to those available for previous periods. However, due to the change in sources of information, the data on the later subperiod are calculated in a different manner.

From 1959–1961 the BNCE's internal revenues equaled 904,164,768 pesos but their costs equaled 1,524,567,877. Therefore, they suffered a gross loss of 620,402,109 pesos for the subperiod. The federal government provided an additional revenue of 145,000,000 pesos, which indicates that the BNCE's net liquidity loss for the subperiod was 475,403,109 pesos.

For the years 1963 and 1964 Noble indicates that revenues equaled 401 million pesos, but costs equaled 1,362 million pesos. Thus, the BNCE suffered losses of 961 million pesos. In addition, losses were suffered by the Agrarian Banks (and were covered by the BNCE) of 102 million pesos, increasing the gross loss to 1,077 million pesos. The federal government provided revenues (directly and indirectly) of 1,059 million pesos during these years. This was largely in the form of indirect revenues, as the federal government authorized the Ministry of the Treasury to liquidate large sums of BNCE debt with government and private agencies.[84] Thus, the net liquidity loss for the period equaled only 18 million pesos.

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[84]Ibid., pp. 164-65.

Summary

During this administrative period there were few changes of significance in the ejido credit system. The rate of growth in the number of local societies organized slowed, as did the division of ejido credit societies. Lending for the production of the most profitable crops continued, as production of cotton and other export crops topped the list of BNCE-financed production. The BNCE also continued to expand its productive holdings and commercial services during this period. Repayments of loans decreased slightly from 77% to 78% during the previous two administrative periods to 73% during the current period.

The provision of capital to the BNCE was an area, however, which had changed somewhat during this administration. Semi-official financial institutions continued to directly provide large amounts of capital for the BNCE's lending, but this represented a decreased proportion of the BNCE's total capital received as compared to the previous two administrations. The federal government's contributions to capital received during this period increased relative to the previous two administrations. These were largely indirect contributions, as a majority of the federal government's contribution was through payments of BNCE debt. The federal government also continued to provide subsidies and trust funds, but they represented a decreasing proportion of the capital received.

The exact amount of the BNCE's gross loss for the period is unknown, as there are no data available for 1962. Yet it is apparent that the BNCE's gross loss for the sexennium was roughly equal to that of the previous period. However, due to the federal government's indirect contributions to capital through paying off the BNCE debt, the net liquidity loss for this period was approximately 50% less than that of the previous administrative period.

CHAPTER 8

THE DIAZ ORDAZ ADMINISTRATION, 1965–1970

The BNCE during the Diaz Ordaz Administration

The policies of the BNCE during the Diaz Ordaz administration are less easily determined than during previous administrations. This is due to the fact that the BNCE discontinued the annual publication of the *Informe* after 1961 and only published one report during this period, in 1970. The 1970 publication, *Estadistica Año Agricola*, and a 1971 publication by the BNCE, *365 Dias de Actividad* (prepared for presentation before President Echevarria), provides the majority of the information on the BNCE for this period.

An important part of the Ordaz administration's policies on agricultural credit that was only indirectly related to the BNCE was the creation of the Banco Nacional Agropecuario. This had the potential of drastically affecting the BNCE, as the Agropecuario Bank was to be established through merging the BNCE and BNCA2. Thus, a single institution, the Agropecuario Bank, was to replace the two-institution agricultural credit system.[1] However, the merger, as planned, was never accomplished and the three institutions continued to operate separately through their respective agencies and branches. The BNCA2 continued to operate only with private farmers, the BNCE with ejidatarios, and the Agropecuario Bank with both private farmers and ejidatarios. It is apparent that, at least during this administrative period, the BNCE had

[1]Ramon Fernandez y Fernandez, *Una Estructura Institucional Ideal para el Credito Agricola*, 2nd ed. (Chapingo, Mexico: Centro de Economica Agricola, 1974), p. 93.

the largest volume of operations among the three official agricultural credit institutions.[2]

Organization of the Ejido Credit System

While apparently participating in the planning of the merger of the three agricultural credit institutions, the BNCE continued to operate pretty much as it had in the past. The hierarchical structure of the BNCE remained unchanged during the period 1965 to 1970. The Administrative Council was headed by the Minister of Agriculture, Juan Gil Preciado. The position of Director General was, for the second consecutive administrative period, held by two individuals during the period. The Administrative Council appointed Francisco Hernandez y Hernandez in 1965, who served until 1968 when he was replaced by Jose Isabel Rodriguez Elias who served out the term.

Noble quotes from the Administrative Council's Project for the Operation Plans of Spring/Summer 1965 on the BNCE's activities to be developed by this administration.

> The decentralization of the ejido credit system will be continued and intensified because in this manner the complex problems of our clientele can be confronted and solved locally.
>
> It is our desire that the Operation Plans . . . strictly agree with the programs of the Ministry of Agriculture and Livestock, to generate the increases in production, promote the use of better agricultural and livestock technology, that include the adequate management of soil and water, technical assistance, use of hybrid seeds, fertilization, employment of agricultural machinery and implements, animal and plant health, modern zoological techniques, as well as the reduction in the production

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[2]Yates, p. 868.

> costs. We propose to redouble our efforts in the commercialization of our clientele's products to obtain more favorable prices and markets through the elimination of the intermediary. . . . also we intend to perfect and increase the number of industrial plants . . . through adequate investments that are necessary.[3]

The Administrative Council did not find it necessary to institute many changes in the functional organization of the main office or its dependencies. The main office continued to be comprised of nine departments. The organization and number of dependencies did not change drastically as the decentralization was slow-paced. In 1965, the Morelia branch bank and the Apatzingan and Brisenas agencies were converted into the Michoacan Agrarian Bank. The only other change in dependencies was the creation of four specialized *jefaturas de zona directa*. Thus, in 1970 the ejido credit system was comprised of the BNCE main office; 3 Agrarian Banks and their 34 agencies; 2 branch banks and their 21 agencies; 24 agencies, with 121 *jefaturas de zona*; a division of ejido collective ranches and its 2 *jefaturas de zona*; and 4 *jefaturas de zona directa* with 6 field inspector stations.[4] The *jefaturas de zona directa*, as BNCE dependencies, were under the direct control of the main office rather than under an agency.

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[3]Noble, pp. 132-33.

[4]*El Agro Mexicano 1964-1970* (Mexico, D. F.: Ministry of Agriculture and Livestock, 1970).

Organization of Ejido Credit Societies

During 1965 the number of ejido credit societies organized decreased from 9,649 to 9,192, while the number of members organized decreased from 687,874 to 644,797. It is questionable that this indicates an actual decrease in the number of active societies. It is possible that this is the number of societies the new administration was able to verify as "organized," and may have excluded some societies that had been inoperative for many years. Unfortunately, this does not give any indication of the number of new societies organized, if any, during the year. During the next five years the BNCE increased the number of societies organized by 460 and their membership by 49,823,[5] representing an average annual increase in societies of less than 1%, and in members of 1.3%. This was approximately half the rate of organization of new societies achieved during the previous administration. There was little change in the average number of ejidatarios per society organized over the administrative period. In 1964 the average number of members per society was 71; this fell to 70 in 1965 but increased to 71 by the end of the period. The relative growth rates in the number of societies and ejidatarios organized and the constant size in the societies' membership indicates that the division of societies within ejidos had slowed somewhat during this administrative period.

Based on information available for 1965 only, the geographic distribution of the societies and members organized did not change

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[5]Ibid.

significantly from that of 1959–1961. However, there were marginal changes recorded in the percentage of total societies organized that were located in each region. In the north pacific region the societies organized increased by 1.8%, the north region increased by 0.2%, the central region decreased by 1.5%, and in the gulf region a decrease of 2.5%, while the total societies organized that were located in the south pacific region increased by 2%.[6]

Loans with Ejido Credit Societies

Gontran Noble, who was then a member of the Administrative Council of the BNCE, notes that the BNCE's actual lending was consistently below the planned lending. During the first half of this administration, actual lending equaled only two-thirds of planned operations. This Noble attributes to the lack of capital resources for the ejido credit system. He concludes,

> despite the strong demand for credit in the ejido sector . . . the agrarian movement, and the investments realized in infrastructure and services in the country, the lack of resources for the Ejido Bank has impeded their parallel growth, along with the progressive development of these activities.[7]

Total Loans

The total amount of loans granted by the BNCE during 1965–1970, according to a report of the Ministry of Agriculture and Livestock, equaled 8,306,400,000 pesos (see Table A-1 in the Appendix). The amount

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[6]*Cuestionario Estadistica* (Mexico, D. F.: BNCE Departmento de Credito, 1966).

[7]Noble, pp. 132.33.

of nominal loans granted during the first year of the period (1,085,000 pesos) was 1.1% less than that loaned during the last year of the previous administrative period. However, the increases in loans granted by the BNCE over the next five years of the administrative period brought the amount of loans granted, in 1970, to approximately 1,538,563,000 pesos. This represented an increase of 26.4% over the amount loaned in 1964.

Table 29, with indices of both loans granted by the BNCE and wholesale prices in Mexico, indicates that both nominal and real loans increased during the period. The loan index increased by 26.4% while the prices of inputs purchased increased by only 17.5%. It can be

TABLE 29

LOAN AND PRICE INDICES,[a] 1965–1970

Year	Loan Index	Wholesale Price Index
1965	199.6	150.9
1966	199.7	152.8
1967	186.5	157.2
1968	245.0	160.2
1969	273.8	164.3
1970	283.0	174.1

[a]Base year 1954.

Source: J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

estimated that the real increase in loans during the period 1965–1970 was approximately 9% over that achieved during the last year of the previous administrative period. This is somewhat misleading; further inspection reveals that, during the first three years of the period, there was actually a decrease in the amount of real loans granted.

The number of societies and ejidatarios receiving loans decreased during the first year of the administrative period to 5,767 and 237,701 respectively. This represented decreases of 35.6% in the number of societies receiving loans and 14.5% in the number of ejidatarios. During the second year of the period the number of societies and ejidatarios receiving loans increased to 6,313 and 296,478 respectively. While the number of ejidatarios comprising the receiving societies increased to a level above that achieved in 1964, the number of societies receiving loans was still far below that of 1964. During 1967 the number of societies receiving loans increased (to 6,747), but the number of ejidatarios comprising those societies decreased (to 234,830). This is not explained in the article by the Minister of Agriculture and Livestock, but it may have been because the societies receiving loans were smaller in 1967 than in 1966, which would be consistent with the policy of client selection and smaller societies.

The second half of the period showed relatively constant increases in the number of societies receiving loans and the number of ejidatario members. In 1968, the respective numbers increased to 6,885 and 241,787. Over the next two years the number of societies receiving loans increased to 7,037 and 7,195, comprised of 249,428 and

257,070 ejidatarios.[8] These levels were still below those achieved at the end of the previous administrative period by approximately 4.5% in the number of societies and 7.5% in the number of ejidatarios.

Comparing the number of societies receiving loans with the number of societies organized indicates that the BNCE was operating with 70.5% of the organized societies on an annual average during the administrative period. However, the number of ejidatarios comprising the societies receiving loans equaled only 38.3% of the total number of ejidatarios organized. This also indicates that the BNCE was operating with the smaller (in terms of membership) organized ejido credit societies. Noting that the smaller solidarity groups were the more recently organized credit societies, one may hypothesize that the BNCE was probably operating with recently organized societies (post-1955). The BNCE provided credit to societies with approximately 12.8% of the ejidatarios in the country (approximately 2 million, according to the 1970 agriculture and livestock census).[9]

The average loans received per ejido credit society, during the period 1965—1970, equaled 124,700 pesos, a considerable decrease compared to the level of the previous administrative period (158,863 pesos per society). This is largely due to the relatively high number of societies receiving loans at the end of the previous period, and the relatively low levels of loans granted during the first half of this period.

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[8]Ministry of Agriculture and Livestock, *El Agro Mexicano*.

[9]Yates, census figures cited in Table 12.8, p. 519.

Loan Distribution by Geographic Region[10]

The BNCE continued the trend toward a more equal distribution of loans during the first year of the administrative period. In 1965, the central region received the largest share of total loans, 32.2%. The north region received 30.2%, the north pacific region 17.9%, the gulf region 16.7%, and the south pacific region 3.0% of the total loans in 1965. During the remainder of the administrative period, however, the BNCE's distribution of loans once again heavily favored the north and north pacific regions. The north pacific region's share of total loans peaked at 31.8% of the total in 1969, and decreased to 29.6% in 1970. The north region's share increased to 34.0% in 1966 and decreased slowly over the next four years, to 26.7% in 1970. The central region's share decreased quickly, in 1966, to 19.3% and then fluctuated between 20% and 24.4% during the next four years. The gulf region increased its share to 18.8% in 1968, but thereafter decreased to 16.8%. The south pacific region's share fluctuated slightly between 3% and 3.5% during 1966–1969, then decreased to its low for the period, 2.5%, in 1970.

There were no significant changes in the distribution of loans within the regions. However, during 1969 and 1970 with the Los Mochis, Sinaloa agency closed, the agency in Culiacan, Sinaloa became one of the three primary agencies, along with those in Mexicali, Baja California and Ciudad Obregon, Sonora. The only other change in the distribution within the regions was taking place in the central region.

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[10]Information on the distribution of loans during this period is taken from data provided directly to the author by an ex-employee of the BNCE. See Table A-3 of the Appendix.

The shift of loans toward the branch bank in Morelia, Michoacan continued during the period 1965–1970, after the branch was converted to the Michoacan Agrarian Bank. During these years this area received approximately 46% of the region's total loans. This is an indication that the central region, which traditionally had the most equal distribution of loans, was becoming more like the other regions in the concentration of credit resources. In addition, it points out the domination of the ejido credit system by the Agrarian Banks, which Gontran Noble mentions briefly.[11] In three of the five regions the dominant institutions were the Agrarian Banks, and the three regions distributed 45% to 50% of the total loans granted through the BNCE during this period.

Distribution of Loans by Type

The BNCE continued its pattern of lending primarily for short-term investments by the ejido credit societies. Short-term loans equaled 6,530,900,000 pesos for the period 1965–1970, or 78.6% of the total. This was similar to the percentage that had been dedicated to short-term loans during the two previous administrative periods. Medium-term loans equaled 1,615,300,000 pesos, during the sexennium, representing approximately 19.4% of the total loans. This was a higher percentage than that of the two previous administrations, but was offset by the relatively low levels for other loans. Loans for commercial, real estate, and diverse purposes equaled 160,200,000 pesos, or 2.0% of the total loans for the period.[12]

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[11]Noble, p. 132.

[12]*El Agro Mexicano 1964-1970* (Mexico, D. F.: Ministry of Agriculture and Livestock, 1970).

Collection of Loan Repayments

In its first year the new administration, noting the BNCE's poor repayment record, began a study into the causes of the low repayments. Without indicating the relative importance of each, Noble lists the following causes: (1) delays in authorization of operation plans; (2) inopportune delivery of funds; (3) lack of coordination with CONASUPO, ANDSA (the government system of warehouses), and the Agricultural and Livestock Insurance Agency; (4) inopportune reception of inputs (fertilizers, hybrid seeds, pesticides, etc.); (5) insufficient credit quotas for some crops; (6) delays in the decisions to purchase the ejidatarios' crops; (7) low productivity of land; (8) need to diversify crops; (9) lack of technical assistance; (10) lack of opportune application of irrigation; (11) dispersion of clientele; (12) deficient means of communication; (13) removal of clientele (by the BNCE); and (14) failure to uphold the principle of unlimited responsibility among the borrowers.[13]

Noble further states that, upon completion of the study, the Administrative Council adopted the following proposal: to manage those zones and societies that had reported adequate repayments on a strictly banking basis (with BNCE resources) and to manage through trust funds those that did not fulfill this requirement. After rehabilitation, a zone or society was to be financed in accordance with banking practices. However, Noble also notes that within the BNCE and its dependencies there was not much enthusiasm for the latter proposal.[14]

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[13]Noble, p. 138.

[14]Ibid., p. 140.

Information on the BNCE's collection of loan repayments is limited to a partial record of repayments for the years 1965–1967. Noble reports that the repayments collected by the BNCE during those years, excluding collections by the Agrarian Banks, equaled 1,956.2 million pesos. From 1965–1967 the BNCE dependencies (excluding Agrarian Banks) collected 75% of the loans due in each year, and 80% of the loans granted in each year.[15]

Agricultural Production Financed by the BNCE

The land resources made available to the ejido sector, through grants, restitutions, and enlargements of ejido lands, increased by 14,031,826 hectares during the period 1965 to 1970. The Diaz Ordaz administration nearly tripled the amount granted by the previous administration and increased the total of all land grants to ejidos to 62,800,743 hectares. The number of beneficiaries of the land grants during 1965 to 1970 was 219,193, only a slight increase over the number receiving land during 1959–1964,[16] indicating that the per hectare allotment (64 hectares per beneficiary) during 1965–1970 was greater than that of the previous administrative period. However, it is implicit in information provided by Paul Lamartine Yates on the types of land granted to the ejidos that, while the total increased over the decade, the percentage of arable land decreased. The portion of total land transferred during the 1950s that was arable equaled 15.4%, while the same during the 1960s equaled only 11.5%. Yates further indicates that most of the land

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[15]Ibid., p. 141.

[16]*Statistics on the Mexican Economy*, Table 3.1, pp. 46-48.

transferred during the 1960s was neither pasture nor arable land, but rather forest or other marginal land.[17]

Total Production

Table 30 indicates the number of hectares harvested that the BNCE financed through the ejido credit societies. The relatively large increases in the number of hectares harvested and value of output for 1969 should probably be considered a statistical aberration rather than actual increases. This is due to the fact that the data were published in early December 1969 and therefore were, at best, preliminary estimates. The increase in the number of hectares harvested during the sexennium equaled 216,335 hectares, or a 27% increase over that harvested

TABLE 30

BNCE-FINANCED EJIDO PRODUCTION, 1965–1970

Year	Hectares Harvested	Value of Production (pesos)
1965	800,730	1,045,684
1966	835,906	1,163,482
1967	796,043	1,122,149
1968	825,242	1,148,639
1969	1,104,956	2,343,386
1970	1,017,065	1,554,014

Source: *1965-1969 El Nacional*, December 1, 1969 (Mexico, D. F.); and *1970 Estadistica Año Agricola* (BNCE).

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[17]Yates, Table 14.3, p. 673.

during the first year of the administrative period. Yet, this increase meant that the BNCE-financed ejido credit societies were harvesting only 9.5% of the 10,626,000 hectares of cultivable ejido land.[18]

The value of output produced by the BNCE's ejido credit societies that were in operation is also included in Table 30. Ignoring the 1969 data, the table indicates that the nominal value of the credit societies' output increased by approximately 508,330,000 pesos over the sexennium. This represented an increase of approximately 48.6% over the value produced in 1965.

The change in the real value of output during the period, calculated from Table 31, approximated a 19% increase. However, again the average figure for the period is a little misleading; the bulk of the increase was achieved during the last two years of the period, while the increase in food prices was rather consistent throughout the period. Thus, over the entire period, the value of output increased faster than that of food prices; but over the first four years, the increases in output just barely kept pace with the increases in food prices.

When the increase in the number of hectares harvested is taken into account, the results are even less favorable. The number of hectares harvested increased by approximately 27% between 1965 and 1970. In comparison to the above increase in real output, this indicates a decrease in productivity per hectare harvested of approximately 6%.

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[18]Ibid., Table 14.1, p. 672.

TABLE 31

FOOD PRICE AND PRODUCTION INDICES,[a] 1965–1970

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1965	107.6	166.5	64.6
1966	119.7	172.8	69.3
1967	115.5	177.2	65.8
1968	118.2	182.2	64.7
1969	241.2	185.5	130.0
1970	159.9	192.1	83.2

[a]Base year 1954 for all indices.

Source: *Statistics on the Mexican Economy* (Mexico, D. F.: Nacional Financiera S. A., 1977), Table 6.3, pp. 218-19.

Ejido Credit Society Production by Type of Crop

Estimating the makeup of the BNCE-financed crop mix from the Ministry of Agriculture and Livestock publication, *El Agro Mexicano*, and the BNCE *1970 Estadistica Año Agricola*, indicates that cotton production continued to receive the most financial resources and corn production required the largest amount of land resources. Cotton received approximately 32% of the short- and medium-term credits granted by the BNCE during 1965 to 1970. Cotton production financed by the BNCE was largely in the north and north pacific regions, and covered approximately 9% of all land harvested. Corn production received approximately 15% of the short- and medium-term loans, and required 28% of the total land resources. Henequen production received the third-highest financing from the BNCE during the period, 11.7% of the loans, and encompassed 20.2% of the land harvested by the BNCE's ejido credit societies. Wheat production, another heavily financed crop, received 10.6% of the loans and required 8.6% of the land harvested. Other crops of some importance that were financed included sorghum, rice, coffee, beans, sugar cane, alfalfa, grapes, and saffron. The total production financed by the BNCE during the period included 35 different crops.[19]

Use of credit and land resources by categories indicates that the ejido credit societies dedicated 35.7% of their short- and medium-term loans, and 11.7% of land harvested, to the production of export crops. Production of basic food crops required 33.5% of the credit resources and 46.8% of the land harvested. The production of raw materials for use in agricultural industries claimed 16.6% of the ejido credit societies' credit and 25.5% of their land resources. Other crops, for the most part unspecified, required 14.1% of the credit resources and 16.0% of the land resources harvested by the BNCE's ejido credit societies during the period 1965 to 1970.[20]

The value of production of the various crops produced by the ejido credit societies is only available for the final year of the period. From this we can make some rough calculations as to the relative importance of the ejidatarios' crops produced in terms of income generated. Basic crops represented 43.8% of the total value of

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[19] *El Agro Mexicano.*

[20] Ibid.

crops produced by the BNCE's ejido credit societies. Export crops were the second most valuable crops produced by the ejido credit societies, equaling 27.0% of the total value. This is a relatively small percentage for this category as compared with previous years. The decrease in the importance of this category is largely attributable to the decrease in the market value of henequen and to the slight shift of resources away from cotton production. Diverse crops represented a relatively large proportion of the total value of output, 26.7%. This indicates that the BNCE was somewhat successful in the diversification of the ejido credit societies' crop mix. The value of raw materials produced for agricultural industry continued at the relatively low level of 2.5% of the total value.[21] This figure is indicative of one of the problems the BNCE had in managing the agricultural industry plants--a lack of sufficient raw material to operate facilities at capacity levels. However, this figure must also be considered a result of the BNCE policy of paying low prices for such raw materials, thus keeping the value of this category low.

Livestock Breeding and Ownership

The BNCE continued to finance livestock breeding, primarily for those ejido credit societies where stables were established. From 1965 to 1970 the BNCE financed such operations located in Cananea and Vicam, Sonora, and La Laguna, Coahuila, in addition to other operations in the states of Jalisco, Chihuahua, Zacatecas, Tabasco, and Puebla. The total amount of loans granted by the BNCE during the period for

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[21]BNCE, *Estadistica Año Agricola*, 1960-1970.

the purchase of livestock equaled 197.5 million pesos, or 2.4% of the total loans granted during 1965–1970.[22]

Forestry

The BNCE dedicated approximately 141,300,000 pesos to the exploitation of the ejido credit societies' forest resources during the administrative period. These investments were made primarily in the state of Michoacan for the production of raw materials for resin processing plants, and in Guerrero, Michoacan, Durango, and Baja California for timber production. This represented approximately 1.7% of the total loans granted by the BNCE during the administrative period.[23]

Complementary Services Provided by the BNCE

During 1965–1970, the BNCE continued to operate the various industrial facilities, machine centers, and irrigation works in addition to providing commercial services. The Ministry of Agriculture outlined some of the noncredit activities of the BNCE for the period, pertaining to the industrialization of and marketing of the ejido credit societies' crops. Information on the operation of the agricultural machine centers and irrigation facilities is limited to the publication *Estadistica Año Agricola* for 1969–1970.

Between 1965 and 1969 the BNCE made investments of approximately 99,700,000 pesos in various industrial plants and machinery. By the

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[22]Ibid.

[23]*El Agro Mexicano.*

end of the period, the BNCE operated industrial processing plants for sugar cane (3), rice (5), citrus fruits (2), cotton (5), henequen (6), chile (2), sorghum (9), and coffee (4). Other industrial facilities included a textile mill, various fruit and vegetable packing plants, a cold storage facility, two insecticide mixture plants, an oilseed pressing facility, and a peanut processing plant. There is also mention of completion of the installation of 30 coffee processing plants in Tapachula, Chiapas and San Luis Potosi, San Luis Potosi.[24]

This is roughly the same number of total installations operated by the BNCE during the previous administration. There was, however, an apparent reduction in the number of cotton processing plants, from 17 to 5. The sorghum processing plants were new additions to the BNCE's facilities as, obviously, were the 30 coffee processing plants. There also appears to have been some new expansion into warehouse (storage) facilities and into the processing of inputs for agricultural production.

The commercial activities provided by the BNCE during 1965–70 were, as always, related to the purchase of inputs, sale of crops, and purchase of grains in cooperation with CONASUPO. During the sexennium the BNCE purchased 1,563,800,000 pesos worth of inputs, the majority of which were transferred to the ejido credit societies as loans in kind. The largest purchases were of fertilizers, representing approximately 40% of the annual average. Irrigation equipment and machinery purchases represented 20%, and an additional 10% each for hybrid seeds and insecticides. Other, lesser, purchases included livestock, vehicles

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[24]Ibid.

and parts, fuel, and lubricants.[25] The value of such purchases equaled approximately 20% of the short- and medium-term loans for the period. However, in the La Laguna Agrarian Bank, Gomez Tagle indicates that purchases of inputs represented as much as 65% of short- and medium-term loans.[26]

The sale of the ejido credit societies' crops equaled 1,859,900,000 pesos for the period 1965 to 1970. This was largely composed of sales of cotton and its subproducts. Rice and sorghum sales each represented 10% of the total sales with smaller sales of cottonseed oil, wheat, saffron, beans, and livestock.[27]

The purchase of grains from the ejido credit societies, in conjunction with the government agency CONASUPO, equaled 4,913,000,000 pesos. Purchases of the basic staples, corn, wheat, and beans, represented approximately 94% of the total purchases. Corn purchases, in both volume and value, were the largest, equaling almost 65% of the total value. Wheat purchases were second, representing 19% of the total, with beans representing 10% of the total. The remaining 6% were purchases of sorghum, saffron, soybeans, and linseed.[28]

The number of machine centers operated by the BNCE throughout the entire period is not available. Information provided for the agricultural year 1969/70 indicates that work was completed by the machine centers in 20 agencies throughout the country. The largest number of hectares worked were in the agencies of Culiacan, Sinaloa; Monterrey, Nuevo Leon; Saltillo, Coahuila; Vicam, Sonora; and in the

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[25]Ibid.

[26]Gomez Tagle, p. 83.

[27]*El Agro Mexicano.*

[28]Ibid.

zones of the La Laguna and Michoacan Agrarian Banks. The various tasks performed were estimated to be the equivalent of cultivating 155,073 hectares.[29]

Irrigation works were operated in 18 districts during the two agricultural cycles of 1969/70. A total of 50,463 hectares were irrigated. During the winter cycle 1969/70, irrigation districts were operated in the following agencies: Aguascalientes, Aguascalientes; Celaya, Guanajuato; Chihuahua, Chihuahua (2); Durango, Durango; Guadalajara, Jalisco; Monterrey, Nuevo Leon; Ciudad Obregon, Sonora; Pachuca, Hidalgo; Puebla, Puebla; Saltillo, Coahuila; San Luis Potosi, San Luis Potosi; Toluca, Mexico; and Zacatecas, Zacatecas. During the first cycle of the year 22,969 hectares were irrigated, with the largest number of hectares irrigated located in the Chihuahua and Ciudad Obregon districts. During the second cycle additional districts were operated in Queretaro, Queretaro; Ciudad Victoria, Tamaulipas; Tlaxcala, Tlaxcala; and Apatzingan, Michoacan. The total number of hectares irrigated was 27,494, with the largest amounts in Aguascalientes, Queretaro, Chihuahua, Durango, San Luis Potosi, and Zacatecas.[30]

Financial Accounts of the BNCE

Sources of Capital

The sources and amounts of capital are difficult to determine with complete certainty for the period 1965 to 1970. The only source

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[29]BNCE *1969-1970 Estadistica Año Agricola*, pp. 109-21 and 188-97.

[30]Ibid., pp. 122-24 and 198-200.

of information is a publication prepared for presentation by the Director General, Fernando Foglio Miramontes, before an audience including the President of Mexico, the members of the Administrative Council, and other state dignitaries. The publication provides information on "resources that the Secretaria de Hacienda y Credito Publico provided [to the BNCE] during the sexennium 1965–70."[31]

Net transfers for the sexennium 1965–1970 equaled 5,493,000 pesos. This is divided into three broad categories: resources to be spent in agricultural production, increases in capital to pay debt, and accounts for general expenditures. The heaviest government support was for resources directly spent on agricultural production, equaling 2,717,000 pesos for the sexennium. This category included subsidies, trusts, payments of debt, and insurance payments. The government provided a subsidy of 564,000,000 pesos to the Yucatan Agrarian Bank to help cover the losses suffered in purchasing henequen from the ejido credit societies at prices above the market price. Trusts of 150,000,000 pesos were funded by the federal government for projects such as emergency loans, building of houses for ejidatarios, etc. The federal government also indirectly increased the BNCE's resources by paying off their clients' debts worth 930,000,000 pesos with the Banco Nacional de Comercio Exterior. The remainder of the first category consisted of indemnity payments made indirectly by the federal government, through the National Agency for Agriculture and Livestock Insurance, to the ejidatarios and BNCE, of 1,073,000 pesos.[32]

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[31] *365 Dias de Actividad al Servico de los Ejidatarios Organizados del Pais* (Mexico, D. F.: BNCE, 1971).

[32] Ibid.

The second category consisted of payments made by the federal government to remove uncollectable debts of the ejido credit societies from the BNCE accounts (900,000,000 pesos), payments in connection with the various facilities and infrastructure operated by the BNCE (342,000,000 pesos), and remittance of loan funds to the Agrarian Banks (190,000,000 pesos). The total increase in capital received indirectly through payments of debt equaled 1,434,000 pesos during the period 1965–1970. The third category was listed as a balance of 1,342,000 pesos, which, it was explained, corresponded to general expenses that were incurred in serving the ejido credit societies.[33] The total government support during the Diaz Ordaz administration is estimated at 5,493,000 pesos.

Sources of capital received during 1965–1970, in addition to government financing, included loans from private and semi-official financial institutions. Unfortunately, the amounts of these capital receipts are not indicated in the report. It is noted that the BNCE made interest payments of 828,000,000 pesos on loans borrowed through 1970.[34] On an annual average the BNCE paid 138,000,000 pesos in interest payments, which can be used to calculate a rough estimate of the BNCE's borrowing for the period. Assuming an interest rate of 3.0% to 3.5% annually,[35] and no grace period on interest payments, the

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[33]Ibid.

[34]Ibid.

[35]Noble reported that, in 1968, the BNCE had loans of 1,294.4 million pesos with the Banco Nacional de Comercio Exterior, and paid 40.8 million pesos in interest on the loans. From this, it can be deduced that the BNCE was paying 3.2% on the average for such loans.

above interest payments would indicate a principal in the range of 4,140,000 to 4,830,000 pesos.

Revenues and Expenses of the BNCE

The information available on the BNCE's revenues, expenditures, earnings, and losses for the period is extremely limited. The total amount of revenues and costs are unknown. Costs of administering the agricultural credit programs is estimated, on a per unit basis, for the period. The only other quantitative data available are the total losses suffered by the BNCE during the period 1936–1970.

Costs of administering the agricultural credit program include costs associated with lending and repayment; technical assistance; administration of the main office, agencies, and branches; overseeing of cultivation; and the control of the harvest. For the period 1965–1970, the costs of operation of the agricultural credit program were in excess of 17 centavos "per peso operated".[36] This most likely means that the BNCE's expenses equaled 17% of the total loans granted, although due to the usage of terminology it is difficult to be certain. "Per peso operated" (*por peso operado*) could mean "per peso loaned", "per peso loaned and collected", or some other unspecified category.

Gontran Noble also provides data on the cost of administration for the years 1965–1967. He estimated administrative costs of the BNCE (not including Agrarian Banks) at 417 million pesos over the three years.[37] As a percentage of lending by the BNCE's dependencies (excluding the

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[36] *365 Dias de Actividad.*

[37] Noble, p. 154.

Agrarian Banks), this represents a per unit cost of 0.23 (or 23 centavos for each peso loaned). Thus, it is likely that the BNCE's estimate is for costs per unit of money loaned and recuperated. (The alternative is to believe that the BNCE decreased its costs drastically during the second half of the period, or that the Agrarian Banks had considerably lower costs of administration than the BNCE dependencies.) Regardless, both sets of figures indicate at least a tripling in the cost of administering the BNCE and its dependencies, in comparison to the previous administrative period.

Earnings and Losses

There is also a lack of information on earnings and losses of the BNCE for the period 1965 to 1970. The publication *365 Dias* indicates that the BNCE had lost 4,088,000,000 pesos during its 35-year history (1936–1971). This is equivalent to an annual average loss of 117,000,000 pesos.[38]

An estimate of losses for the period 1965–1970 can be obtained through considering a possible range of figures. At 117,000,000 pesos per year, the total loss for the period would equal 702,000,000 pesos. This is likely to be a low estimate as the level of operations and associated costs were increasing rapidly during the latter years of the period, thus probably generating heavier losses than the average. An alternative estimate can be arrived at by subtracting the total amount of losses suffered during all previous administrative periods from the cumulative losses cited for 1971. The estimate for losses

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[38] *365 Dias de Actividad.*

suffered in 1936–1961 (1961 is the last year for which reports are available) is approximately 1,725,000 pesos. This implies that during the period 1962 to 1971 the BNCE lost an additional 2,363,000 pesos. The average annual loss for the nine-year period would then approximate 262,000,000 pesos per year.[39] This would indicate that the loss incurred by the BNCE during the period 1965 to 1970 was approximately 1,572,000,000 pesos. It is probable that the actual losses suffered by the BNCE during the period were closer to the second, higher, estimate than to the first estimate.

Summary

During the Diaz Ordaz administrative period the BNCE's operation continued along the lines of the previous two administrative periods. Lending was heaviest for the production of cotton and other export crops. The largest percentage of loans continued to be distributed in the northern regions, except during 1965, when the central region received the largest amount of financing. Loan repayments improved slightly over the previous administrative period, but were still below the level of repayments during the Aleman and Ruiz Cortines administrative periods. There was little or no expansion in the BNCE's operations of processing plants and other facilities. There were, however, some new plants opened during the period but this was offset by the closing of other facilities.

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[39]This estimate is supported by Noble's estimates of "losses not eliminated." He calculated an annual loss of approximately 243.5 million pesos to 1965 and 1966.

The total cost of operating the BNCE is unavailable, but comparing the per unit costs of administration indicates that the BNCE's costs were approximately 70% higher during this period than during the previous two administrative periods. The federal government continued to provide subsidies to partially cover these costs and, in addition, contributed considerable sums to pay the BNCE's and the credit societies' debts. This represented approximately 55% of the capital received by the BNCE during this period, while loans from the private and semi-official financial institutions provided the remainder. The federal government had, in this manner, increased its share of capital received by the BNCE during each of the last three administration (this was only technically true, in the sense that most of the government's contributions were indirect, through the removal of debt, rather than direct, e.g., through stock purchases). Losses during this period were apparently similar to the losses suffered during the previous administration; however, the data on this account are highly conjectural.

PART 4

NATIONAL BANK OF EJIDO CREDIT - PART III

1971–1974

CHAPTER 9

THE LUIS ECHEVERRIA ADMINISTRATION, 1971–1976

The BNCE during the Luis Echeverria Administration

During most of the Echeverria administration, there was an uncertainty in the agricultural credit institutions. This was due to the confusion created by the Diaz Ordaz attempt to merge the agricultural credit institutions and the subsequent operations of three largely independent agricultural credit institutions. In June 1971 President Echeverria held a meeting of the Administration Council of he Bank of Mexico, after which he stated,

> In these last few weeks we have made, along with the directors of the agricultural credit institutions, a reevaluation of what is necessary for a restructuring [of the credit institutions], to increase all forms of credit . . . to those that are good credit subjects and those that are experimental credit subjects . . . .[1]

During the years 1971 through 1974 the heads of the Ministry of the Treasury, Ministry of Agriculture, and the Bank of Mexico continued their efforts to unify the agricultural credit system. During this time, the BNCE (and the other institutions) continued operating independently with respect to policies on resources, personnel, and clientele. Some joint meetings were held by the three banks to facilitate "harmony and flexibility" in the policies of the agricultural credit system. However, there was little indication of much progress towards harmony or merger. In January 1975, the three institutions

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[1]Jerjes Aguirre Avellaneda, *La Politica Ejidal en Mexico* (Mexico, D. F.: Instituto Mexicano de Sociologia, C. A., 1976), p. 85.

were brought under the supervisory control of the Director of the Agropecuaria Bank (Jorge Rojo Lugo) in the first concrete step toward a merger. During the next six months the process of merging the institutions was completed. This was achieved through the integration of various departments of the institutions until all departments were fully integrated. Thus, in July 1975 the National Bank of Rural Credit, which was created by presidential decree, constituted a single-institution credit system for the provision of agricultural credit in Mexico.[2] With the creation of this institution the long history of the BNCE came to an end.

Organization of the Ejido Credit System

The ejido credit system maintained its recent organizational structure during the years 1971 to 1974, most probably as a result of the uncertainty of the times. The Administrative Council continued to direct the BNCE with the Minister of Agriculture, Manuel Bernardo Aguirre, serving as president from 1971 to 1973. During the remainder of the administrative period, Oscar Brauer Herrera served as Minister of Agriculture. The Administrative Council appointed Fernando Foglio Miramontes as Director General of the BNCE, who served during 1971 and 1972. From 1972 to 1974 the appointment was filled by Enrique Perez Gonzalez. The relatively rapid turnover in the high-level positions of the bureaucracy indicates, in itself, a degree of uncertainty and instability in the agricultural credit institutions and policies during this period.

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[2]Alvaro Albornoz de la Escosura, *Credito Agricola Por Niveles de Desarrollo* (Mexico, D. F.: Imprenta Moderna, S. A., 1977), p. 38.

Changes made by the main office in the number and location of its dependencies were minimal during the years 1971 to 1974. During 1971, there were no changes in either the number or location of the Agrarian Banks, agencies or branches (there was an increase only in the number of *jefaturas de zona* from 180 to 184). Also, the BNCE began efforts to computerize their accounting operations, beginning with the Jalisco branch bank and the La Paz, Baja California agency in 1971; and subsequently expanding the system to all the Agrarian Banks, branches, and agencies.[3] In 1972, the number of dependencies remained unchanged but a new agency was opened in Acapulco, Guerrero and a *jefatura de zona directa*[4] was established in Ciudad Altamirano, Michoacan. These openings were offset by closing the agency in Chilpancingo, Guerrerro and the *jefatura de zona directa* in Tlaxcala, Tlaxcala. In 1973, the number of dependencies was increased to 37 with the opening of an agency in Vicam, Sonora and the reopening of the Tlaxcala, Tlaxcala *jefatura de zona directa*. During 1974, there was a net decrease of four dependencies in the BNCE system. Closings included the Ciudad Obregon, Sonora branch and agencies located in Mexicali, Baja California; Toluca, Mexico; Vicam, Sonora; and La Paz, Baja California. In place of the two agencies in Baja California, the BNCE opened an agency in Mar de Cortes, Baja California.[5]

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[3] *365 Dias de Actividad*, p. 11.

[4] A *jefatura de zona directa* was comparable to a *jefatura de zona* in the operations, but was directly responsible to the BNCE main office rather than an agency.

[5] BNCE *Resumenes Año Agricola*, 1971-1973.

Organization of Ejido Credit Societies

The most important changes instituted during the administrative period were related to the organization of ejido credit societies. The collectivization of the ejido credit societies once again became the policy of the BNCE. The basic idea was to reincorporate the ejido and the ejido credit society; the ejido was to eventually become the subject of credit. The local societies of credit, solidarity groups, and some other forms of organization were to be tolerated while a mechanism for the integration of the ejido could be initiated.[6]

The number of Local Societies of Ejido Credit organized by the BNCE increased from the 9,652 achieved during the last year of the previous administrative period to 12,047 in 1974. This represents an average annual increase of approximately 6.2%, considerably higher than that achieved during the two previous administrations. However, nearly half (47.6%) of this increase took place during the year 1974.

During the first year of the period the number of Local Societies of Ejido Credit organized increased by 860 but the number of members organized decreased by 26,339, to 668,281 ejidatarios. This could be taken to imply that the BNCE was organizing smaller societies, or it may simply be a recalculation of membership by the new administration. The following year the number of ejido credit societies organized increased by 210, and the number of members increased by 810. During 1973, the number of societies increased again, by 185, and the number of members also increased, by 642. During the three years, the average membership

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[6]Fernandez y Fernandez, *El Empresa Ejidal*, pp. 23-24.

per society decreased from 63 in 1971, to 61 in 1973. However, during 1974, as mentioned above, the BNCE's organizational efforts had the greatest success. The number of Local Societies of Ejido Credit increased by 1,140 and the number of members increased by 89,691. With this increase the average membership increased again to the 1971 level of 63 per society.[7]

The geographic distribution of the Local Societies of Ejido Credit was more similar to that of the period 1953–1960 than that indicated by the 1965 *Informe*. Approximately 40% of the organized societies were located in the densely populated central region. The north region contained approximately 21.4%, the gulf region 20.6%, the north pacific region 11.7%, and the south pacific region approximately 6.4% of the total number of Local Societies of Ejido Credit organized.[8]

The increasing size of the ejido credit societies during 1974, and the distributional bias toward the more densely populated regions of the country, indicate that the reversal in the BNCE organizational policies was showing results. Regional organizations also began to appear in the ejido credit system. During 1974, the National Confederation of Ejidal Unions was constituted, which assisted 62 Ejido Unions comprised of 1,500 ejidos and 50,000 ejidatarios.[9]

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[7]BNCE *Resumenes Año Agricola*, 1971-1973; and BNCE, *Catalogo de Sociedades Locales de Credit Agricola - Año Agricola 1974* (Mexico, D. F.: Departamento de Estudios Economicos y Supervision, March 1975).

[8]Ibid.

[9]Fernandez y Fernandez, *El Empresa Ejidal*, p. 60.

Loans with Ejido Credit Societies

The process for obtaining credit from the BNCE had not been legally altered since the agricultural credit law of 1955. An example of the process conventionally established by the field agents in one agency follows.[10]

1. Beginning six months before an agricultural cycle, the field agent obtains a list of credit requirements of the society (usually through the *socio delegado*[11]).

2. The field agent summarizes the societies' credit needs for the *jefatura de zona*, from which the operation plan for the agency is compiled and sent to the main office.

3. After the operation plan is approved, final adjustments (not allowed within formal BNCE guidelines) are made, and the true list of recipients is obtained.

4. When this is accomplished, the field agent types an application for agricultural insurance for the members of the societies.

5. The field inspector also draws up a contract for each kind of credit, consisting of one contract for the total quota per hectare, and another for the premium lent to the society for agricultural insurance. This is done for each crop (in eight copies) to be signed by the *socio delegado* on behalf of the members, the field agent, and the head of the *jefatura de zona*. The contract is then registered with a registrar of deeds by administrative personnel of the bank.

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[10]Heliodoro Diaz-Cisneros, "An Institutional Analysis of a Rural Development Project: The Case of the Puebla Project in Mexico," Thesis University of Wisconsin, 1974, pp. 194-95.

[11]The *socio delegado* is the highest authority in the ejido credit societies' Administrative Committee.

6. The field agent types collateral paper which, in reality, only states the name of the client, the total amount lent, and the total interest to be paid.

7. After this is completed, the field inspector notifies the *socio delegado* when the members must go to the *jefatura de zona* office to pick up the materials.

8. The *socio delegado* generally hires a truck and, with the members, picks up the materials and takes them to the *socio delegado's* home for distribution.

9. When the clients receive the materials, they sign the collateral paper. The field agent also enters the amount in the individual account book that is kept for each client (later used by the agent to record repayments collected during the agricultural cycle).

Total Loans

The total amount of loans granted by the BNCE during its last years of operation, 1971–1974, equaled approximately 13,442,000,000 pesos.[12] During 1971 total loans increased to 2,116,800,000 pesos, a 37.6% increase in nominal loans over the level of 1970. Over the next two years total loans increased by approximately 500,000,000 pesos each year, equaling 3,194,300,000 pesos in 1973 (an average annual increase in nominal loans of approximately 25%). During the last year of its existence the BNCE increased loans by the greatest amount (in both

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[12]Data from BNCE *Informes*, cited in Yates, Table 8.1, p. 898.

absolute and relative terms), 2,306,500,000 pesos (to 5,500,800,000 pesos), an increase of 72.2% over 1973. The average annual increase in nominal loans approached the 40% level for the period 1971–1974.

Table 32 shows an index of total loans granted by the BNCE during the period, and the wholesale price index for the same years. This indicates that real loans increased in each year of the four-year period. Total loans increased by approximately 160% over the four years, while the price level of wholesale goods increased by approximately 46%. Therefore, the level of real loans more than doubled during the last years of the BNCE's operations.

During the two agricultural cycles which comprised the agricultural year 1971, approximately 8,929 Local Societies of Ejido Credit received loans. The receiving societies included 267,647 ejidatarios, but each

TABLE 32

LOAN AND PRICE INDICES,[a] 1971–1974

Year	Loan Index	Wholesale Price Index
1971	389.4	180.6
1972	483.8	185.7
1973	587.6	214.9
1974	1011.9	263.2

[a]Base year 1954.

Source: J. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change Since 1910* (Los Angeles: University of California Press, 1970), Table 6.3, pp. 218-19.

did not necessarily share in the loans his society received. There were an additional 278 ejido communes, 3,228 solidarity groups, and 97 non-organized ejidos that received loans during 1971. The number of local societies to receive loans during the agricultural cycles incorporated in the agricultural year 1972 was 10,828, comprised of 264,994 ejidatarios. Additional organizations that received loans included 287 ejido communes, 2,814 solidarity groups, and 125 nonorganized ejidos. The groups contained 4,323, 55,081, and 4,584 ejidatarios respectively. It was estimated that the BNCE provided financial assistance to approximately 15% of the country's ejidos during this year.[13] In 1973, the number of Local Societies of Ejido Credit to receive credit decreased to 9,499, with 279,892 ejidatarios. Other groups to receive loans included 310 ejido communes, 4,421 solidarity groups, and 215 nonorganized ejidos comprised of 5,509, 73,528, and 4,895 ejidatarios respectively.[14] It is interesting to note that the Department of Agrarian Affairs and Colonization estimated that 4,477 ejidos had received official credit (from the BNCE and the Banco Nacional Agropecuario) during 1973.[15] Assuming that, during the pre-1955 years, each Local Society of Ejido Credit represented a different ejido village, the number of ejidos receiving credit in 1973 was approximately equal to the number receiving credit in 1953–1954.

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[13] A. L. Regaldo, "Reorganizacion de los Sociedades Ejidales a fin de Darles Credito," *El Nacional*, Mexico, October 25, 1972.

[14] BNCE *Resumenes*, 1971-1973.

[15] Department of Agrarian Affairs and Colonization, *Prime Censo Nacional Agropecuario Ejidal y Communal* (Mexico, D. F.: Consejo Editorial Campesino, 1974), Table 7, p. 31.

Information available for 1974 is listed only by the number of Local Societies of Ejido Credit and nonorganized ejidatarios that received loans. During the two agricultural cycles, 7,580 local societies comprised of 318,826 ejidatarios received loans. Approximately 60,563 nonorganized ejidatarios received loans in 1974.[16] Thus, it does not appear that the BNCE was very successful in eliminating the division of the ejidos.

A study conducted by the BNCE during 1974 analyzed the causes which prevented societies from operating. These causes included: low productivity of land, insufficient credit quotas, inopportune credit delivery, lack of proper organization for exploiting resources, poor credit subjects, lack of rainfall, shortage of BNCE resources, ejidatarios renting land, society did not need credit, losses incurred by society in last four consecutive years, landholding too small, and noncultivable landholding. The major reason cited was that the subjects were poor credit risks. Other reasons often cited were lack of proper organization, lack of rainfall, renting of land, and low productivity of land.[17]

Determining the average annual loan per society for this period is impossible because the breakdown of lending between the societies and the nonorganized ejidatarios cannot be determined. The average annual loan per ejidatario (including all members in the local societies) for the period 1971 to 1974 equaled 946.8 pesos. For the year 1971, there is available a breakdown of average loans received per ejidatario by region. This indicates that the distribution of loans (including only short- and

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[16]BNCE *Catalogo de Sociedades*, 1974.

[17]Ibid.

medium-term loans for agricultural production) was highly unequal throughout the country. The north pacific region's ejidatarios received the largest loans with an annual average loan of 19,000 pesos per ejidatario. The south pacific region's ejidatarios received the second largest loans at 7,160 pesos per ejidatario, followed by the gulf region at 5,420 pesos per ejidatario; the central region, with 4,700 pesos per ejidatario; and the north region's ejidatarios receiving 4,020 pesos each.[18]

Loan Distribution by Geographic Region

Looking at each region's share of the total loans granted by the BNCE during the period 1971–1973 gives a slightly different perspective on distribution. The north pacific region received an average 29.4% of total loans, the largest percentage of the five regions. This region continued to be dominated by three agencies located in Mexicali, Baja California; Ciudad Obregon, Sonora; and Culiacan, Sinaloa. The second region most heavily financed by the BNCE was the traditionally dominant north region, with an average of 28.8% of the total loans for 1971 to 1973. The La Laguna Agrarian Bank remained the most active lending institution in the region, granting nearly 60% of the region's loans. The central region received the third-largest BNCE financing, averaging 18.6% of the loans for the period 1971 to 1973. This region again showed tendencies toward a pattern of concentrating the credit resources in the area of the Michoacan Agrarian Bank. The Agrarian Bank's lending equaled nearly 50% of the loans in the central region. The gulf region received

[18]BNCE *Resumen*, 1971.

17.1% of the BNCE's loans for 1971–1973. The Agrarian Bank of Yucatan again dominated in this region. The least-financed region in the BNCE system was the south pacific, receiving only 6% of the total BNCE loans for 1971–1973. This region was dominated by the agency in Tapachula, Chiapas, with nearly 60% of its loans passing through this agency.[19]

Distribution of Loans by Type

The distribution of loans granted by the BNCE during the years 1971–1974 followed the established trend. Short-term loans represented an average of 80.6% of total loans. This is a level slightly higher than that of the last three administrative periods, but slightly less than the amount of short-term loans granted during 1936–1952. Medium-term loans, during 1971–1974, equaled 1,731,040,000 pesos, or approximately 12.5% of the total. Other loans, including real estate, commercial, and direct loans, equaled 807,454,000 pesos during 1971 to 1974. This category represented 6.9% of the total loans granted by the BNCE during this period.[20] The percentages dedicated to medium-term and other loans continued to fluctuate from period to period, as they had during the entire history of the BNCE.

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[19]BNCE *Resumenes*, 1971-1973.

[20]Ibid.

Loan Repayments Collected by the BNCE

Total Repayments[21]

Loan repayments collected by the BNCE during the period 1971 to 1973 equaled 4,780,925,000 pesos. Almost all of the repayments collected during these years were classified as payment on short-term debt. This category equaled 4,743,970,000 pesos, or 99.2% of the total repayments collected during the period. Repayments reported for medium-term debt equaled 35,361,000 pesos, only 0.7% of the total repayments. Other debt repayments for direct, commercial, and real estate loans equaled 2,108,000 pesos, or 0.1% of the total loan repayments collected by the BNCE during 1971 to 1973.[22]

While short-term debt repayment had always represented the majority of total repayments, during this period it was excessively high. This may be partially due to incomplete reporting of repayments collected. There are several tables in the 1971—1973 *Resumenes* in which medium-term and other loans are indicated, but for which there are no corresponding repayments indicated. There is often a note accompanying the listing of medium-term loans which states that medium-term loans are to be repaid during future years.[23] Therefore, it is quite possible that the actual collection of repayments for medium-term and other debts during this period may have been higher than that reported in the *Resumenes*.

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[21]Repayments collected by the BNCE are only reported for the years 1971-1973 inclusive.

[22]BNCE *Resumenes*, 1971-1973.

[23]For example, see BNCE *Resumen Año Agricola*, 1973, tables on loans for machinery, etc.

Geographic Distribution of Loan Repayments

The distribution of repayments collected by the BNCE during the years 1971 to 1973 mirrors the loan distribution for the same period. Of the repayments reported, the agencies in the north pacific region collected 35.1%, the north region 28.1%, the central region 19.0%, the gulf region 12.2%, and the south pacific region 5.5% of the total repayments. There was also a noted tendency toward concentration of loan repayments among a handful of the BNCE's agencies, branches, and the Agrarian Banks. The agencies located in Culiacan, Sinaloa and Mexicali, Baja California; the branch bank in Ciudad Obregon, Sonora; and the Agrarian Banks of La Laguna, Michoacan and the Yucatan collected almost 65% of the BNCE's total repayments during the years 1971 to 1973. These are the dependencies that dominated in their respective region's lending.

Loan Repayment Coefficients

There is no information available on the amount of loans mature in each year from 1971 to 1973, nor for the period. This makes it impossible to calculate repayment coefficients by comparing repayments with loans due. A coefficient for repayments collected versus total loans granted can be calculated. Total loans granted during the years 1971 to 1973 equaled 7,941,200,000 pesos. Comparing this with the 4,780,025,000 pesos in repayments collected results in a coefficient of 60.2%.

As can be appreciated in the above data, the BNCE's record on repayment collection continued to get worse. While there are no data available for 1974, it is probable that the situation did not improve substantially. This conclusion is arrived at when one considers that most of the inoperative ejido societies were poor credit subjects, and during 1974 the number of societies receiving credit increased by a considerable amount. Certainly many of these could be categorized as poor-credit-risk societies.[24]

Outstanding Debt

During 1973, in accordance with President Echeverria's proclamation, the BNCE's outstanding debt (4,750 million pesos) was removed from the accounts. The debts that were outstanding prior to 1965 were consolidated and the ejidatarios were to pay these off at a rate of 20% each year, in addition to paying current debts. Debts which accumulated between 1965 and 1971 were consolidated and were to be paid (without interest) at a rate of 10% of the ejidatarios' profits obtained during each agricultural cycle. Ejidatarios that met these requirements were again eligible to apply for loans with the BNCE.[25]

Production Financed by the BNCE

During the first four years of the Echeverria administration 4,024,569 hectares were transferred to the ejidos.[26] Surprisingly, the Echeverria administration was redistributing land during 1971—1974 at a rate much below the level of the two previous administrations.

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[24]See Yates, pp. 844-85.

[25]*Mas y Mejor Credito al Campo en la Presenta Administracion* (Mexico, D. F.: Secretaria de Hacienda y Credito Publico/Secretaria de Agricultura y Ganaderia, 1973), pp. 16-17.

[26]*Statistics on the Mexican Economy*, Table 3.1, pp. 46-48.

There were 681,118 beneficiaries of the land transfers, each receiving an average of 59.1 hectares of land. This was, however, only slightly below the number of hectares granted per ejidatario during the previous two administrations. There is no information on the types of land transferred during the mid-decade, making it impossible to formulate a more accurate accounting of the land redistribution of this administration.

Total Agricultural Production

The production financed by the BNCE during the period 1971 to 1973 is shown in Table 33.

TABLE 33

BNCE-FINANCED EJIDO PRODUCTION, 1971–1973

Year	Hectares Harvested	Value of Production (pesos)
1971	1,092,184	2,039,572,000
1972	1,095,802	2,013,052,000
1973	1,161,883	2,975,619,000

Source: BNCE *Resumenes*, 1971-1973.

The number of hectares harvested during the first year of the period increased by 75,119 over the number of hectares harvested during the previous year, an increase of 7.4%. In 1972 the number of hectares increased by only 3,699, or 0.3%. During the 1973 agricultural year hectares harvested by the ejido societies, and financed by the BNCE, increased by 66,081, or 6.0%. The average annual increase from 1971 to

1973 equaled 4.7%. This was only slightly below the average annual increase achieved during the Diaz Ordaz administration.

The value of output produced by the BNCE-financed ejidatarios, also shown in Table 33, increased by 485,558,000 pesos during the first year. During the second year of the period the value of output produced by the ejidatarios decreased by 26,520,000 pesos, or 1.3%. During 1973 the nominal value of output recovered substantially, increasing by almost 48% over 1972. The average annual increase in nominal value equaled approximately 30%.

The increase in the real value of output was considerably less, approximately 26% during 1971–1973, or 8.8% annually. This is derived from Table 34.

TABLE 34

FOOD PRICE AND PRODUCTION INDICES,[a] 1971–1973

Year	Current Value of Production Index	Food Price Index	Value Index in Constant 1954 Pesos
1971	209.9	202.4	103.7
1972	207.2	206.7	100.2
1973	306.2	235.4	130.1

[a]Base year 1954 for all indices.

Source: *Statistics on the Mexican Economy* (Mexico, D. F.: Nacional Financiera S. A., 1977), Table 6.1, pp. 218-19.

Information in the Tables 33 and 34 indicates that the average productivity per hectare harvested by the BNCE-financed ejidatarios increased by approximately 12% during 1971–1973.

Production by Type of Crop

The BNCE continued to channel the greatest amount of its financing to the production of cotton, while the ejidatarios continued to dedicate more land to corn production than any other crop during 1971 to 1973. Cotton production, which encompassed only 10% of the land harvested, received 37.6% of the average annual crop loans granted by the BNCE during 1971–1973. Corn production by the BNCE-financed ejidatarios covered approximately 25% of the hectares harvested during this period. While this remained the largest amount of land resources dedicated to a single crop, it also represented a decrease from the previous years. Other crops that were becoming more important in the crop mix of the ejidatarios financed by the BNCE were henequen and sorghum.[27]

In current market value, export crops such as cotton, coffee, henequen, etc., ranked first in the total output produced by the BNCE-financed ejidatarios. They represented approximately 39% of the value of agricultural output produced during 1971–1973. This production was achieved employing approximately 49% of the BNCE's total crop loans and 27% of the BNCE-financed ejidatario lands. The basic food crops produced by the ejidatarios operating with the BNCE represented approximately 29% of the total value of output. This production required

[27]BNCE *Resumenes*, 1971-1973.

approximately 27% of the crop financing and 42% of the land resources (hectares harvested). Production of raw materials for agricultural industry (sesame, peanuts, sugar cane, and tobacco) attracted only 2.1% of the BNCE's agricultural credit and required only 3.8% of the land harvested. A diverse group of many crops, each requiring small amounts of credit and land resources, resulted in output equaling approximately 30.3% of the ejidatario's produce. The sum of these crops required approximately 22.1% of the credits and 26.9% of the land harvested.[28]

Livestock Promotion by the BNCE

The BNCE continued its programs of financing livestock purchases and providing working capital for livestock-breeding ejidos. Credits granted to ejidatarios for all types of livestock operations equaled 352,015,000 pesos during 1971–1973.[29] This represented 4.4% of the loans granted by the BNCE during those years. Thus, during these several years, the BNCE continued the trend begun during the 1950s of slowly expanding the promotion of livestock production within the BNCE.

Based on the annual average for 1971 and 1972, purchases of 110,534 breeding and work animals represented approximately 57.5% of the financing for all livestock activities. The remainder was for working capital loans.[30] In the 1972 *Resumen*, the only report in which purchases of work animals are separated from purchases of breeding animals, the

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[28]Ibid.

[29]Ibid.

[30]BNCE *Resumenes*, 1971-1972.

indication is that the vast majority of the purchases (over 80%) were of breeding animals.

During 1971 and 1972 the *jefatura de zona directa* in Cananea, Sonora received the largest amount of working capital (approximately 30%) while the agency in Villahermosa, Tabasco received the largest loans for purchases of livestock. During 1973, the *jefatura de zona directa* in Cananea continued to receive the greatest amount of working capital but the agency in Mexicali, Baja California was the only dependency to finance purchases of livestock.[31]

Complementary Services of the BNCE

Throughout the first part of the 1970s, and the early years of the Echeverria administration, the BNCE continued to operate a variety of facilities related to the agricultural production of the ejidos. The BNCE's emphasis in this area was not altered; rather, its expansion was assured through the BNCE's acquisition of productive facilities and the expanded use of green revolution technologies. During the 1970s, the BNCE managed and/or operated processing plants, irrigation districts, agricultural machine centers, purchased inputs, and sold outputs (through the ejido organizations and CONASUPO).

In 1971 the BNCE owned and/or managed 141 processing plants and other agricultural industry facilities. This is many more facilities than were previously reported. This may be partly a reflection of the increased number of plants transferred to the BNCE from other government agencies, and partly a reflection of the inclusion of facilities owned

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[31]BNCE *Resumenes*, 1971-1973.

and operated by ejido societies in the data. There is also the probability that some of these are actually new additions to the BNCE holdings. By source of origin, the 141 facilities were categorized as: 29 plants transferred to the BNCE by the Ministry of Treasury; 4 plants transferred from the BNCA2; 3 plants transferred from Nacional Financiera, the National Bank of Foreign Commerce, and CEIMSA; 5 plants acquired from societies unable to pay debts; 69 plants that were owned by ejido societies and managed by the BNCE; and 31 plants, constructed by the BNCE, and transferred to various societies.[32] The facilities included plants for processing the major crops, such as cotton, rice, wheat, sugar cane, various oil-extracted seeds, and coffee, in addition to the other less important crops. Expansion into processing of a greater variety of crops was being pursued through the construction of 15 new plants. These included plants for processing strawberries, tuna, alfalfa, tomatos, resins, and a textile mill. Economic studies were also carried out on the feasibility of constructing plants in various zones for processing citrus fruits, peanuts, chiles, nuts, alfalfa, and coffee.[33]

The 1971—1973 *Resumenes* of the BNCE indicate that medium-term loans of 52,200,000 pesos were granted to ejidatarios for purchases of machinery and for the construction of 65 industrial units. The loans were granted through the Agrarian Banks of La Laguna and the Yucatan, and agencies in ten localities. The majority of the construction was

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[32]BNCE, *365 Dias de Actividad*, pp. 8-9.

[33]Ibid.

storage facilities, rice mills, corrals, and coffee processing plants.[34] It is impossible to determine if this construction was in addition to the 141 plants, because of the BNCE policy of documenting loans for construction projects, in their accounts, after the facility had been completed. Yet, it does indicate that construction of processing plants and other industrial infrastructure was an integral part of the BNCE policy.

A further service which had become an integral part of the BNCE complex was the provision of irrigation works. In 1971, the Director General reported that the BNCE operated 17 irrigation districts in 15 federal entities. The irrigation works included 1,238 wells with a capacity for irrigating 35,000 to 40,000 hectares.[35] However, the 1971 BNCE *Resumen* indicates that 18 irrigation districts were operated during the winter 1970–1971 agricultural cycle with 20 irrigation districts operating during the summer cycle. It is further indicated that the winter operations were capable of irrigating 49,993 hectares, but actually irrigated only 21,019 hectares. The summer operations were estimated at a capacity of 63,560 hectares, but only 32,612 hectares were irrigated during that cycle.[36] The 1972 and 1973 *Resumenes* do not include information on the operation of irrigation districts. In all probability, this information was simply not included rather than indicating a termination of these services.

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[34]BNCE *Resumenes*, 1971-1973.

[35]BNCE, *365 Dias de Actividad*, pp. 17-18.

[36]BNCE *Resumen*, 1971.

The BNCE also provided irrigation equipment directly to the ejido societies through short- and medium-term loans during the 1971–1973 period. The *Resumenes* indicate that the BNCE loaned 48,600,000 pesos for the purpose of constructing irrigation works or purchasing irrigation machinery.[37] This included sinking wells; purchasing pumps, motors and other equipment; and constructing canals and pump houses.

The Director General's 1971 report noted that agricultural machinery was provided through four systems: agricultural machine centers; transferred as medium-term credits (in kind); transferred to the societies by the BNCE, but financed with BNCE-backed private loans; and machinery owned by the agencies. The BNCE and its dependencies owned 1,930 tractors (with unspecified equipment) and 225 harvesters. The agricultural machinery operated by the BNCE and its dependencies performed various cultivating and harvesting tasks on approximately 200,000 hectares in 1971[38] (the equivalent of 19% of BNCE-financed cultivation served by agricultural machinery). The BNCE *Resumenes* of 1971 and 1972 show that the BNCE financed machine services to ejidatarios of 28,088,000 pesos and 24,022,000 pesos respectively. This covered expenses for tasks attending to 311,989 hectares in 1971 and 289,990 hectares in 1972.[39] In comparing the two 1971 figures, it should be noted that this latter figure explicitly includes two agricultural cycles (1970–1971 and 1971–1971) while the first does not explicitly state the basis upon which it was calculated.

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[37]BNCE *Resumenes*, 1971-1973.

[38]BNCE, *365 Dias de Actividad*, pp. 20-21.

[39]BNCE *Resumenes*, 1971-1972.

The statistics in the 1971 and 1972 *Resumenes* are reported by dependency. The data indicate that 20 dependencies were providing agricultural machine services, directly or indirectly, during this period. This is roughly the same number of dependencies providing services during 1970, but there were some agencies of lesser importance changed from year to year. The three Agrarian Banks provided services during 1971 and 1972 in addition to other major dependencies such as Chihuahua, Chihuahua; Durango, Durango; Mexicali, Baja California; Monterrey, Nuevo Leon; Ciudad Obregon, Sonora; Saltillo, Coahuila; and Villahermosa, Tamaulipas.[40]

While the 1973 *Resumen* did not report the amount of loans granted for service provided by agricultural machinery, it does report, as do the 1971 and 1972 *Resumenes*, the amount of medium-term credits granted for the purchase of agricultural machinery. During 1971–1973, 8,755 agricultural implements and machines were purchased by the ejidatarios through loans of 100,440,000 pesos. The most numerous of these implements and machines included planters, cultivators, plows, tractors, and harrows. The amount loaned, in nominal terms, during 1973 was more than double the average in 1971–1972, which allowed the ejidatarios to purchase more than half the implements purchased during the three-year period.[41]

The other service provided by the BNCE-owned equipment was the clearing of land for cultivation. From 1971 to 1973 the BNCE invested 144,355,000 pesos in clearing 151,449 hectares. The heaviest investments

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[40] Ibid.

[41] BNCE *Resumenes*, 1971-1973.

in land clearing were made in the following dependencies: Ciudad Victoria, Tamaulipas; Campeche, Campeche; Colima, Colima; Culiacan, Sinaloa; Ciudad Obregon, Sonora; Tapachula, Chiapas; and the Agrarian Bank of Yucatan.[42]

Purchases of inputs are not explicitly indicated in the 1971 to 1973 *Resumenes*. However, the amounts of hybrid seeds, fertilizers, and pesticides employed by the ejidatarios and financed by the BNCE are published in the 1971 and 1972 *Resumenes*. Since it was generally the policy of the BNCE to transfer these and other inputs (machinery and implements) in kind to the ejidatarios and ejido credit societies, it is a reasonable estimate of the BNCE commercial purchases. The BNCE purchased an annual average of 425,555,000 pesos worth of fertilizers, pesticides and hybrid seeds.[43] Adding this to the average 23,373,000 pesos in agricultural machinery and implements purchased during the two years gives a total of approximately 448,928,000 pesos in yearly purchases by the BNCE. It is likely that in 1973 and 1974 such purchases were higher in nominal terms as the total amount of loans, for all purposes, increased considerably during these years.

There is no direct information on purchases of grain crops by the BNCE in conjunction with CONASUPO and sale of ejidatario crops, nor is there any means of inferring the amounts involved in these services.

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[42]Ibid.

[43]BNCE *Resumenes*, 1971-1972.

Financial Accounts of the BNCE

Sources of Capital

Data on the BNCE's sources of capital during 1971–1974 is limited to eight months of 1971. The BNCE's publication *365 Dias* reported that during January to August of 1971, the BNCE received 756 million pesos from the federal government. The BNCE repaid the federal government 36 million pesos during this period, in interest payments on special lines of credit. Therefore, a net transfer of 720 million pesos was received by the BNCE. The funds received were broken down into four categories: resources to carry out the operation plan of the BNCE, 448 million pesos; a trust fund to underwrite loans by private cotton processors to the ejidatarios, 59 million pesos; a subsidy provided to the Yucatan Agrarian Bank, 38 million pesos; and general expenditures subsidy, 175 million pesos.

Extrapolating from the data on the first eight months of 1971, as much as 1,080 million pesos could have been received from the federal government during the entire year. On the same basis, one could estimate that during the period 1971–1974 the BNCE received 4,320 million pesos from the federal government. However, this is likely to be an extremely low estimate, as the BNCE's operations more than doubled from 1971 to 1974. Therefore, one could justify an estimate of 8 to 10 million pesos in capital received by the BNCE from the federal government between 1971 and 1974.[44]

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[44]This estimate is somewhat supported by the fact that the federal government had authorized 1,264 million pesos in capital for 1972 (cited in *365 Dias de Actividad*, published by the BNCE).

In addition to the capital provided by the federal government, the BNCE received lines of credit from the Banco Nacional de Comercio Exterior. During the winter agricultural cycle the BNCE received approximately 500 million pesos from this source.

Similarly, one could extrapolate from the data on credit received from the Banco Nacional de Comercio Exterior. As it is well known that during the winter cycle less financing is needed than during the summer cycle, simply doubling the 500 million peso figure is likely to yield a low estimate. An estimate as high as 1,500 million pesos for the winter and summer agricultural cycles is likely to be closer to the actual figure.[45] During the four-year period this would indicate that the BNCE received as much as 6,000 million pesos in credit from the Banco Nacional de Comercio Exterior. However, again since the BNCE's operations had more than doubled during this period, an estimate of 10 to 15 million pesos may be more accurate.

Revenues and Costs

Information on the BNCE's costs and revenues for the period 1971–1974 is even more limited. Revenues received by the BNCE during the period were not reported. Total costs of operation are also unknown for the period. However, in 1971, the publication *365 Dias* indicates that the cost of operation for that year was approximately 14 centavos for each peso "operated." This is identical to the terminology used in the

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[45]This estimate is supported by the comparison of the BNCE's operations during the winter and summer cycles of 1969/70 (the most recent year in which comparison is available). The lending operations of the BNCE during the summer cycle were 2.3 times greater than during the winter cycle. Thus, an estimate of 2 or 2.5 times the winter figure would not be out of line.

BNCE's estimate of costs of operation during the previous administration. Subsequent investigation indicated that this probably meant costs of operation equaled 14% of the total amount loaned and repaid during the year.

The amount of losses suffered by the BNCE during the period is impossible to estimate, given the almost complete lack of information on costs and revenues. The only statement that can be made on this subject is that the losses of the BNCE were certainly very high and growing. This conclusion is supported by: (1) the large increases in the amount of outstanding loans; (2) the large increases in the BNCE's operations during this period; and (3) the resumption of the publication of annual reports during the 1970s that contained information on all aspects of the BNCE's operation, except sources of capital, costs, and revenues. The first reason simply means that the BNCE was recovering smaller and smaller percentages of loans granted, which certainly would result in higher losses. The second reason refers to the complementary operations of the BNCE which had almost always resulted in financial losses for the BNCE. Thus, since these operations had increased along with the BNCE's lending operations, one would expect that the losses generated from these services would increase at least proportionately. The third reason is an intuitive guess that, at least part of the reason for publishing annual reports without financial information, was the political sensitivity of publishing the amounts of losses the BNCE was suffering during a period of uncertainty in the agricultural credit policy.

Summary

During the Echeverria administration there were considerable changes proposed in the functioning of the BNCE. There were efforts made at reintegrating the ejido and the ejido credit societies. Collective production was to be reinstituted and regional societies were to be organized once again. However, the extent to which the proposed changes were actually carried out is somewhat uncertain. The number of Local Societies of Ejido Credit organized and the average membership per society increased, which would indicate some reintegration of the ejidos and an overall greater organizational effort by the BNCE. Also, a number of Unions of Local Societies of Ejido Credit were organized for the first time in 20 years. On the other hand, there were still a large number of solidarity groups and other non-organized ejidatarios receiving credit from the BNCE during this period.

Production financed by the BNCE was still heavily biased in favor of cotton and other export crops during this period. The north pacific region displaced the north region as the most heavily financed area of the country. However, this was not a drastic change as these two regions had consistently, throughout the history of the BNCE, distributed more loans than the other three regions. Repayments on loans decreased considerably (from 75% during the previous administrative period to 60% in the current period). This may be somewhat attributable to the BNCE's efforts to provide more loans to the marginal ejidos that had not previously received BNCE financing.

The BNCE expanded its operations of agricultural processing plants during this period. This was partly due to an increased number of facilities transferred from other government agencies and from the ejido credit societies, but was also a result of new plant construction by the BNCE. The agricultural machine centers and irrigation districts were also continued during this period but the level of operations is undetermined. Provision of commercial services to the ejido credit societies also continued during the period, increasing in volume along with the increase in BNCE-financed production.

The financial accounts for the BNCE during this period are rather sketchy but it appears that the federal government again had to pay large sums of BNCE-related debts. The government also continued to provide subsidies and trust funds to the BNCE during this period. The private and semi-official financial institutions also provided additional capital to the BNCE during this period, primarily for its lending programs. Although the data are incomplete, it appears that the trend (since 1953) continued toward a greater percentage of the BNCE's capital received coming from the federal government. This, if it is correct, is largely due to the government's indirect support of the BNCE through paying its debts and the debts of the ejido credit societies.

As stated above, in 1975 the National Bank of Rural Credit was created as a result of a merger of Mexico's agricultural credit institutions, including the BNCE. Thus, the 50-year history of the BNCE came to an end. This also cut short the BNCE's attempt to reintegrate the ejido and ejido credit societies, and in general, to expand the nature of services to the ejidos. Whether or not the merger has resulted in the successful achievement of these goals or a further change in policy is a question that cannot be answered in this study.

CHAPTER 10

CONCLUSION

The introduction of the BNCE as a development agency took place in Mexico at a time when, in most developing countries, credit programs for small farmers were simply viewed as an alternative to monopolistic moneylenders. The Mexican government had shared this view of the agricultural credit institution during the immediate post-revolutionary period. During the years following the Revolution of 1910–1917 the ejido was created in response to political pressure deriving from the peasants' demand for land. It was thought that the small ejido plots would serve as a source of subsistence crops for the peasants and would complement their low wages in rural employment. Thus, during the 1920s and the first half of the 1930s, the Ejido Bank's role was limited to providing an alternative source of capital for the ejidos to finance subsistence crops.

Beginning in the mid-1930s, with the Cardenas administration, the role of the ejido changed. The ejido became an integral part of the Mexican agricultural sector as large, commercial, crop-producing lands and plantations were expropriated and redistributed to the ejidos. At that time the National Bank of Ejido Credit was created with the goal of developing the potential of the ejido sector. The role of the BNCE, as a development agency, took on economic, social, and political aspects. The role of the BNCE in the ejidos' economic development was rather narrowly defined to include lending for productive purposes or providing the ejidos with the necessary physical and working capital to produce commercial crops. The BNCE's role in the social development of the ejidos largely meant organizing collective means of production and cooperative credit societies to disseminate technical and financial assistance. It also included such activities as lending for social purposes, formation of social funds, provision of rural schools and medical care. The BNCE's political role was to supervise the administration of the ejidos and the ejido credit societies. This era in the evolution of Mexico's agricultural credit system was at least 20 years ahead of the developments in most other developing countries.

The BNCE, as an innovator in instituting an agricultural credit system for development purposes, experimented with varying types of programs during its first two decades of operations. The BNCE was faced with difficult circumstances from the time it assumed the role of a development agency. The ejidos were by their very nature without capital or knowledge of how to operate a modern cooperative agricultural enterprise. This presented the BNCE with the necessity of financing the purchase of semi-fixed and fixed capital in addition to providing working capital. During the first two years of existence the BNCE granted a relatively high proportion of medium-term loans and some long-term loans to provide the ejido credit societies with the modern technologies required to increase productivity of the basic food crops and to produce commercial crops.

The ejidos' lack of capital and experience also made prudent the BNCE's entry into various services necessary to commercial agricultural production. The ejidos were without agricultural machinery and implements to cultivate and harvest commercial crops. They were also lacking skills required to operate such machinery or to negotiate such purchases. Thus, a part of the BNCE's role as a development agency was to provide agricultural machinery and supervision to the ejido credit societies to clear, cultivate, and harvest the commercial crop land. The ejidos were also without access to national or international markets for inputs and output. For this reason, inputs were purchased by the BNCE directly or indirectly and transferred to the ejido credit societies. The ejido credit societies' crops were purchased through the BNCE, in conjunction with CEIMSA, or sold through the BNCE in the international markets.

The ejidatarios' poor resource base and inexperience in managing an agricultural enterprise or organizing a cooperative provided the main impetus for the BNCE to assume the role of a social and political development agency. In assuming this role the BNCE organized collective ejidos and cooperative credit societies. Production was primarily on a collective basis, with the cooperative societies' administration superimposed upon the administration of the ejido. In this manner, supervising the leadership of the ejido credit societies was tantamount to supervising the leadership of the ejidos. Thus, many of the BNCE's social and political responsibilities were encompassed in its supervision of the ejido credit societies' administration. However, the BNCE also responded to the ejidos' social needs in providing loans to marginal ejidos for the production of subsistence crops. Such loans were distributed in almost all regions of the country for the production of corn, beans, and rice. Loans were often granted even though the ejidos lacked the necessary complementary inputs and thus the loans often went unpaid.

After President Cardenas' administration the BNCE began to evolve from an economic, social, and political development agency toward an economic development agency. This change is often attributed to strictly political causes. The collectives were supposedly believed, by the Camacho administration, to be communistic. Thus, in this view, the administration and the BNCE began to eliminate the collective ejidos which were perceived as at least a potential social(ist) success story or, at most, as Mexico's way out. It is true that there is much evidence to support the view that the role of the BNCE was altered for political reasons. Most notably, the studies of the collective ejidos by Stavenhagen, Eckstein, and Glantz argue that the regional and local societies of ejido credit changed leadership during this period with the introduction of the Central Unions dominated by the CNC. Thus, it seems that one must conclude that political motives were an important cause of the change in the BNCE's role. Yet economic factors were also important in the role change.

A factor that had important implications for the BNCE was the cost of administering credit and services to the collectives. Contrary to the general belief that it is less costly to administer credit programs through collectives or cooperative societies, the average cost of administering the ejido credit programs was nearly twice the average interest rate charged to the ejido societies. The high cost of administering the ejido credit system was not only a result of legitimate costs of organizing the societies and providing services but was also magnified by extenuating circumstances. The rapid land redistribution, primarily in the La Laguna region, and the subsequent overpopulation of the ejidos, meant that even the most productive ejido land could not provide full employment for the ejidatarios. The ejidatarios responded, in many cases, by extending the work as long as possible (when paid by the hour) or as short as possible (when paid by the task). In both cases, the cost of supervising the ejidos was high and productivity was low.

A second economic factor of importance in forcing a change in the BNCE's role was the low level of loan repayments. The high man/land ratio, low capital, and risks of agricultural production resulted in defaults of perhaps one-third to one-half of the loans granted prior to 1940. As the interest rates were set below market rates, and did not take into account such high default rates, the payments collected by the BNCE did not equal the loans granted.

A third economic factor was the high cost of providing complementary services to the ejidos. The scarcity of capital among the ejido credit societies made it necessary for the BNCE to directly supply semi-fixed and fixed capital to the credit societies. The BNCE aided the societies in the purchase of processing plants for coffee, cotton, henequen and sugar cane, in addition to agricultural machinery and implements. The ejido credit societies' lack of experience in operating such facilities forced the BNCE to manage or administer the facilities. The BNCE was also evidently lacking in such experience and therefore often poorly managed the facilities. Most such facilities were underutilized and suffered losses. The losses meant that the ejido credit societies could not meet the payments on their loans (which contributed to low repayment rates). The losses on the loans were amplified by the fact that the BNCE had to pay the cost of administering the facilities.

These three economic factors caused a depletion of the BNCE's capital which would have soon threatened its existence. Faced with a diminishing capital base and a limited number of sources of capital, it was necessary that adjustments be made. The most plausible means of decreasing the rate of growth in the cost of administering the ejido credit societies was to reduce the costs of organization and supervision of the ejidos. The alternative of increasing the level of repayments could not have been accomplished in the short run. A second alternative of significantly reducing the costs of complementary services was also unacceptable because it would have made it difficult for the societies to buy inputs and sell or process their crops.

There was also a fourth factor which contributed to the narrowing of the BNCE's role. There was a large pool of ejidatarios who had not previously received credit. This allowed the BNCE to substitute clients without significantly decreasing the level of agricultural production. Sometimes such changes were made for economic reasons while other times they were made for less worthy reasons. The ejidatarios who had not previously received credit were likely, after receiving credit, to become loyal supporters of the new administration. Thus, for a variety of political and economic reasons, the BNCE evolved toward an economic development agency; still retaining a political role, but relinquishing an important part of its social role.

During the period 1941–1946 the BNCE continued to seek its appropriate role. It sought new sources of capital in the private market and from other government agencies, in addition to the federal government. It began to finance more commercial crops (i.e., a smaller percentage of loans were granted to social reasons), yet basic food crops continued to represent most of the ejido credit societies' total production. Short-term lending became more important, accounting for 85% of the total loans during this period versus 50% to 60% during the previous period. Complementary services were expanded along with the BNCE's financing of commercial crops.

Administrative costs decreased as the BNCE transferred the costly henequen-producing ejidos of the Yucatan to another agency and reduced its social and organizational activities. The credit societies' and ejidos' leadership was still largely overlapping, and the BNCE continued to play a part in the political organization of the societies. Some would argue that their role had deleterious effects, but nonetheless that political role continued. Loan collections by the BNCE improved during the period but nevertheless losses continued to increase rapidly. This was primarily due to expanded lending for the most costly production of cotton and the high costs of complementary services. There was also the added cost of interest payments for funds borrowed from the private financial institutions.

During the Aleman administration (1947–1952) the BNCE further narrowed its role as a development agency. Capital for expanding its lending to the ejido credit societies was sought, and received, from private and semi-official financial institutions, while a decreased level of federal government support provided subsidies and stock purchases to cover the costs of administration and losses. Complementary services were eliminated, with the exception of commercial services, to reduce costs. Selection of clientele was more stringent, as fewer marginal ejidos were financed. Cotton production was expanded (primarily in the north), yet financng of basic food crops, while it had decreased, still received the majority of the BNCE's lending. Despite the measures taken to reduce costs during this period losses grew at an even faster rate than previously. This can be mainly attributed to the decrease in repayments (from approximately 87% during 1941–1946 to 78% during 1947–1952). This in turn can be attributed to the very poor agricultural production in 1952, an absence of control over the processing of crops, delinquencies of some ejido credit societies that had been operating the various processing plants, and possibly also diminished supervision and technical assistance. The BNCE's capital base continued to erode as the federal government's contributions were not sufficient to completely make up the losses.

During the period 1936–1952 it is clear that the BNCE evolved from an agency that organized collective credit societies; provided credits for the production of subsistence and commercial crops, and the purchase of machinery, implements and processing facilities; and provided complementary services into an agency that organized fewer credit societies and collectives, loaned smaller percentages of funds for subsistence crops, loaned smaller amounts for capital purchases, and eliminated almost all complementary services. It is not so clear that the Camacho and Aleman administrations should be held unduly responsible, or receive undue recognition, for the changes in the BNCE's policy and the subsequent demise of the collective ejidos. If we are to view the Camacho and Aleman administrations as burying the collective ejidos for political purposes through changes in the BNCE's policy, then we must also view the Cardenas administration as setting up the collective ejidos for an ambush and the ejidatarios, their leadership, and the BNCE administration as the assassins.

From all accounts the Camacho and Aleman administrations were guilty of making changes in the BNCE's policy for political reasons. Thus, responsibility for the subsequent disintegration of the collective ejidos justly lies with their administrations, but only in part. The Cardenas administration also shares responsibility for the changes because of the manner in which it carried out the land redistribution. The resulting overpopulation of the ejido credit societies and their lack of non-labor resources practically doomed them to economic failure. The situation was further worsened by the economically perverse reaction of the ejidatarios in their new status as landholders/employees. The BNCE administration also contributed to the demise of the collective ejidos through the overcapitalization of the collectives and inadequate management and supervision of the ejido credit societies and their operations. Lastly, the leadership of the ejidatarios must share responsibility for the demise of the collectives in that they allowed themselves to be coopted by the national leadership.

During the period 1953—1970, the BNCE solidified its role as an economic development agency and adopted the role of a public enterprise while largely eliminating its political and social roles. Increased capital funds were provided by semi-official financial institutions (largely by international agencies) through the National Bank of Foreign Commerce. The federal government continued to provide subsidies to offset some of the losses and costs of administration. Sales of BNCE stock were discontinued completely, but special trust funds were established to finance risky investments (mainly medium- and long-term investments). Production was mainly organized on an individual basis throughout the country. Short-term financing (approximately 75% of the total loans) of crops was based upon profitability which resulted in a further move toward commercial crops. Cotton production was continued in the north and was also expanded to the north pacific and central regions as irrigation opened up new land. Production of henequen was resumed with the reincorporation of the Yucatan ejidos into the BNCE system. The result was that export crops received the largest financing for the first time in the BNCE's history.

The role of the BNCE as a public enterprise began to evolve during the latter half of the 1950s. This role was brought on by the need to keep the ejido land productive; the inability of the ejido credit societies to accumulate capital; the BNCE's early policy of financing the purchase of processing facilities, irrigation works, and agricultural machinery; and the perceived need to control the supply of inputs, and the processing and selling of output. The necessity of keeping the ejido land under cultivation was important, as approximately 25% of all agricultural land and 40% of arable land was held by the ejidos in 1960. The inability of the ejido credit societies to accumulate capital made it inadvisable for the BNCE to finance the production of commercial crops where the ejidatarios did not have the appropriate technology to cultivate, harvest, and sometimes process such crops. The BNCE's early attempts to finance the purchase of machinery, irrigation works, and processing facilities only resulted in the overcapitalization of the ejidos and their subsequent default on loans. This forced the BNCE to take over many of the ejido societies' facilities. The perceived need to control inputs and output resulted, on the one hand, from the belief that the BNCE could obtain better prices and more uniform inputs and output than could the individual ejido credit societies. On the other hand, it was believed that the control of the processing and sale of crops facilitated the collection of loan repayments.

For these reasons, the BNCE expanded its economic role to include the direct production and processing of agricultural products. The BNCE acquired and managed processing plants for coffee, cotton, henequen, sugar cane, and other crops. Agricultural machine centers were established in which the BNCE cleared, cultivated, and harvested much of the ejidatarios' land. Irrigation districts were established to provide adequate and timely water necessary for optimum productivity with the green revolution technologies.

During the period 1952–1970 the BNCE placed minimal effort on the social and political development of the ejidos. Organizational activities had largely ceased (although the data on societies organized showed an increase, this was mainly achieved through the subdivision of preexisting societies). The cooperative principles, while given lip service, were not enforced (social funds were seldom accumulated by the societies and those that were formed were used for political or personal purposes, the unlimited responsibility of the societies was not enforced, and the BNCE kept individual accounts for each of the ejidatarios). The administration of the ejido credit societies and the ejidos was no longer identical which meant the BNCE was not supervising the administration of the ejidos. The only BNCE activities that could be classified as social were the lending for non-commercial (social) purposes and providing rural schools for the ejidos. The BNCE made "emergency" loans to areas drastically affected by poor harvests and continuously shifted dependencies from one marginal area to another to distribute loans for subsistence purposes to the ejidatarios. The provision of rural schools for the ejidos was done in conjunction with the Ministry of Education and therefore involved only a financial contribution on the part of the BNCE.

The timing of the BNCE's policy changes in which the BNCE narrowed its activities in the ejidos' development and adopted the role of a public enterprise points out a potential conflict in public agricultural credit systems. Should the public agricultural credit systems concentrate more on production or development? An objective of any agricultural credit system should be to increase agricultural production. Within a developmental context this, it is believed, leads to a higher income and an increased standard of living for the farmer. However, this is not a certainty as increased agricultural production does not directly result in higher incomes or increased standards of living for the farmer if the costs of production exceed the farmers' returns or the agricultural credit institution produces the output directly.

During 1953–1970, the BNCE apparently chose to directly produce a significant portion of the ejidos' commercial agricultural output by substituting its own management for the ejido credit societies' administration. In doing so, did the BNCE choose increased agricultural production over the development of the ejidos? The production of all crops financed by the BNCE increased through the mid-1950s but, due to adverse weather conditions, decreased during the latter half of the decade. During the 1960s, production increased again early in the decade, stagnated during mid-decade and increased during the last years of the decade. The evidence on the development of the ejidos is more sketchy. Since this was not a direct subject of this study, only conjectural conclusions can be drawn. The data indicate that the BNCE's organizational activities slowed to a near halt, it decreased the percentage of medium- and long-term loans granted to the ejidos for capital accumulation, and the default rate of the ejido credit societies increased. All of these must be considered policies detrimental to the development of the ejidos. While this is not conclusive evidence that the ejidos' development was given second priority, it does indicate that the BNCE's responsibility for the ejidos' development was taken less seriously than in the past.

It is also noteworthy that the BNCE's financial position did not improve. Losses increased five-fold during 1952–1958, decreased by 50% during the following administrative period, but nearly tripled again by 1970. This left the BNCE technically bankrupt during the 1960's. This situation was due to low repayments, high costs of production, and increased administrative costs. Due to a number of poor harvest years (1952, 1956–1958, 1965) and the BNCE's emergency loan policy, repayments remained at a low level (75%). The high cost of producing commercial crops also had a negative effect on the BNCE's financial position. While the BNCE was mainly financing the higher-priced crops, they were not necessarily profitable investments. The high cost of green revolution technologies and the lack of technical expertise often resulted in the costs of production exceeding the returns, which further contributed to low repayments. Administrative costs increased again, most probably as a result of increased responsibilities in managing the processing facilities, increased lending, and increased need to borrow funds at market interest rates.

The Echeverria administration (1971–1976) inherited an agricultural credit system that was in chaos. The failed merger during the Diaz Ordaz administration and the financial position of the BNCE were the major institutional problems. In addition, there was a post-1965 agricultural slump and a considerable increase in rural unrest. The latter two problems evidently were more important to the Echeverria administration early in the period while the other problems were to take more time to straighten out.

Beginning in 1971, the BNCE's role in the ejidos' development was once again expanded. The collective ejidos were the desired form of productive organization and were to be reinstated. The local societies of ejido credit were, once again, to be composed of at least three-fourths of the ejidatarios in a single ejido. The longer range plan was to phase out the local societies with the ejido becoming the recipient of credit. This would also facilitate the political reintegration of the ejidos under the BNCE.

The growth rate in agricultural output, on the national level, had decreased from an average of 5.7% during 1940–1965 to only 2.6% during 1965–1970. The ejidatarios' production financed by the BNCE, during this period, also suffered. During 1941–1961 the ejidos' output increased at an average annual rate of 1.5%, but during 1965–1968 their output remained constant. As a part of the Echeverria administration's agricultural recovery plan, the BNCE's lending increased by over 100% during the period 1971–1974. This was also projected to provide credit to more of the millions of ejidatarios who were not receiving government assistance. The BNCE's role as a public enterprise also continued and expanded to help increase production and to process the ejidatarios' crops.

The organization of local societies of ejido credit increased considerably during the period as did the formation of collective societies. However, there were still a large number of nonassociated ejidatarios receiving credit and other services from the BNCE. While the amount of loans more than doubled, the number of ejidatarios receiving loans did not increase proportionately. Only 15% of the country's ejidatarios received credit in 1972. Agricultural production loans still heavily supported the production of cotton and other export crops. Diversification of the ejidatarios' crop mix was more noticeable as the production of sorghum became relatively important and the total number of crops financed increased to over 60. The diversification of crops and expansion of irrigated land in the north pacific region resulted in a shift of lending toward that region. There was also an increase in the concentration of resources in the areas of the Agrarian Banks.

The BNCE's productive activities expanded with more processing plants and other facilities being constructed and transferred from other government agencies and the ejido credit societies. The BNCE's holdings included the usual processing plants for the major ejido crops, and through new acquisitions this activity was also diversified. The irrigation districts and agricultural machine centers were maintained near the same level at which they had operated during the Diaz Ordaz administration.

The production of the ejido credit societies increased over 15% annually during the first three years of the period. Productivity per hectare harvested also increased. However, the repayments collected by the BNCE decreased, during 1971–1974, to approximately 60% of the loans granted, down from 75% during 1952–1970. This can be attributed largely to the relatively high increase in the cost of production (which also contributed to the increase in loans) and a lack of technical assistance. Defaults had increased to such a level that President Echeverria ordered the overdue accounts withdrawn from the BNCE's assets, stipulating that they be paid off over a period of five or more years. Data such as these, and the obviously high cost of operating the increased number of processing plants and other facilities, indicate that the BNCE had not solved its financial crisis before it was subsumed in the merger of the BNCE, BNCA2, and the Banco Nacional Agropecuario (National Bank of Agriculture and Livestock).

In evaluating the BNCE's record during its final years, we find on the positive side that while the country's agricultural production had not fully recovered, the ejido credit societies' output had increased considerably. Also, there was an indication of increased diversification of the ejido crop mix which included more commercial crops. On the negative side, however, the number of ejidatarios receiving government assistance had not increased, the BNCE had not made significant steps toward integrating the administration of the ejidos and the ejido credit societies, and the financial position of the BNCE and the ejidos was apparently no better, and probably worse, than it was previously.

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APPENDIX

BNCE AGENCIES IN 1937

La Paz, Baja California

Campeche, Campeche

Oaxaca, Oaxaca

Aguascalientes, Aguascalientes

Colima, Colima

Zacatecas, Zacatecas

San Carlos, Coahuila

Cuidad Victoria, Tamaulipas

La Llave, Queretaro

Tuxtla Gutierrez, Chiapas

Huaracha, Michoacan

Iguala, Guerrero

Puebla, Puebla

San Luis Potosi, San Luis Potosi

Culiacan, Sinaloa

Matamoros, Tamaulipas

Pachuca, Hidalgo

Chihuahua, Chihuahua

Los Tuxtlas, Veracruz

Toluca, Mexico

Cordoba, Veracruz

Monterrey, Nuevo Leon

Jalapa, Veracruz

Durango, Durango

Morelia, Michoacan

Navajoa, Sonora

Celaya, Guanajuato

Guadalajara, Jalisco

Tepic, Nayarit

La Barca, Jalisco

Cuernavaca, Morelos

Mexicali, Baja California

Merida, Yucatan

Torreon, Coahuila

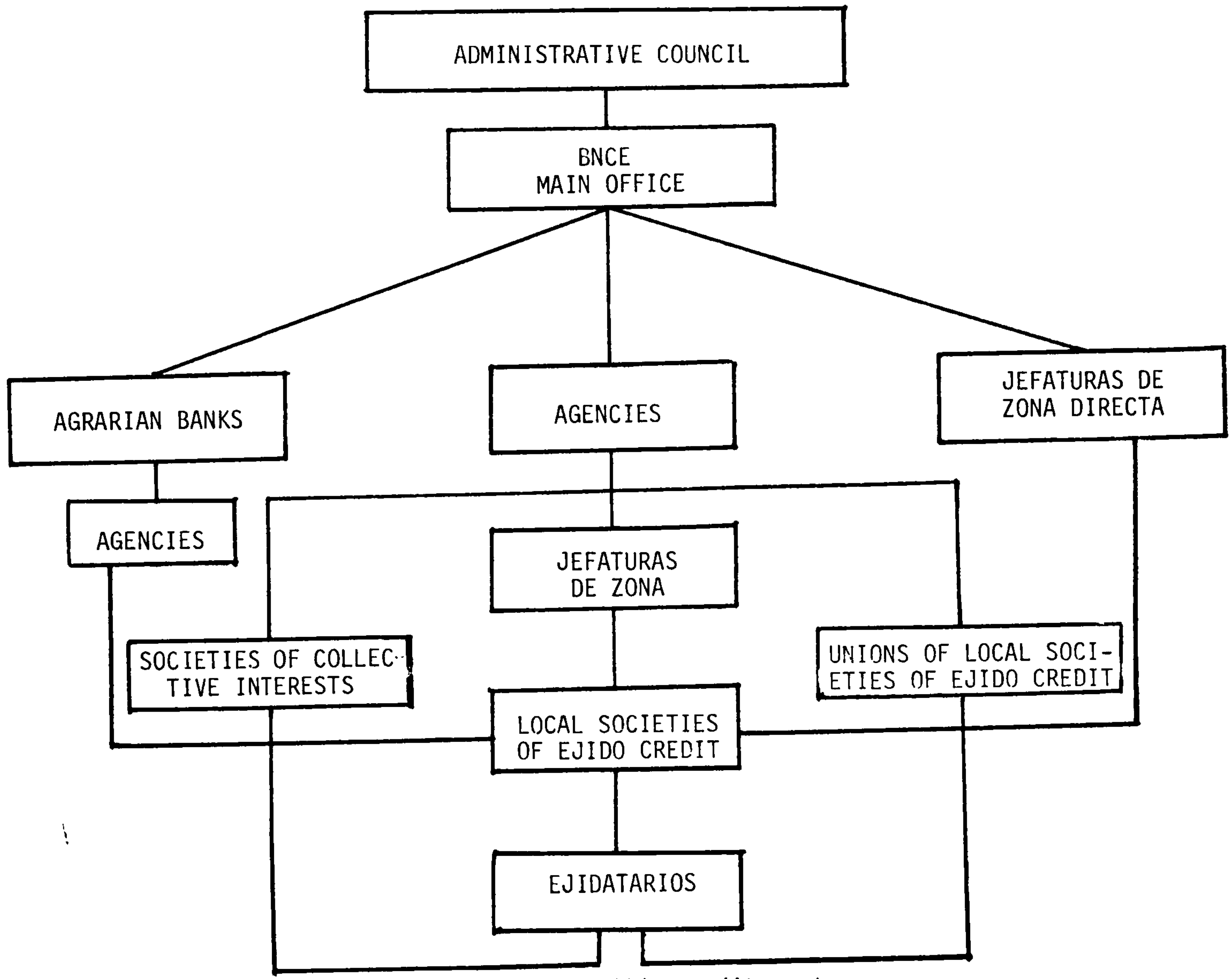

Figure 1. The ejido credit system.

TABLE A-1

BNCE LOANS, 1936–1974[a]
(1,000 Pesos)

Year	Short-term Loans	Medium-term Loans	Other Loans	Total Loans
1936	12,739	5,829	4,707	23,275
1937	48,198	19,886	14,794	82,878
1938	51,921	6,382	5,147	63,450
1939	52,634	7,613	3,874	64,121
1940	50,012	7,892	1,244	59,148
1941	55,722	6,862	835	63,419
1942	57,726	7,524	2,787	68,037
1943	77,661	8,647	16,948	103,256
1944	91,852	8,962	7,630	108,444
1945	91,261	10,857	6,664	108,782
1946	109,113	12,052	9,995	131,160
1947	153,457	17,344	8,514	179,315
1948	170,377	12,381	4,398	187,156
1949	168,842	39,018	6,864	214,724
1950	184,874	11,903	5,573	202,350
1951	242,668	32,926	6,258	281,852
1952	225,889	38,736	5,815	270,440
1953	335,435	54,976	9,412	399,823
1954	468,611	57,517	17,544	543,672
1955	525,877	65,228	12,417	603,522
1956	643,485	81,962	108,103	833,550
1957	580,460	66,741	196,515	843,716
1958	585,109	75,453	161,535	822,097
1959	805,523	131,423	142,895	1,079,841
1960	921,013	121,115	207,228	1,249,356
1961	808,821	90,516	69,080	968,417
1962	591,000	95,000	48,000	734,000
1963	712,000	195,000	95,000	1,002,000
1964	885,000	244,000	88,000	1,217,000
1965	765,300	174,700	145,000	1,085,000
1966	938,300	145,000	2,400	1,085,700
1967	851,900	159,700	2,200	1,013,800
1968	1,043,300	278,600	10,000	1,331,900
1969	1,202,900	284,900	600	1,488,400
1970	1,299,602	238,961	0	1,538,563

TABLE A-1 (continued)

Year	Short-term Loans	Medium-term Loans	Other Loans	Total Loans
1971	1,771,895	231,675	113,230[b]	2,116,800
1972	2,227,606	379,794	22,700[b]	2,630,100
1973	2,318,385	322,180	553,135[b]	3,194,300
1974	4,483,713	793,146	787,442[b]	5,500,800

[a]Includes agrarian banks after 1962.

[b]Category estimated by subtracting total loans from short- and medium-term loans.

Sources: 1936–1961 data, BNCE *Informes*.

1962–1964 data, Sergio Reyes Osorio, *Estructura Agraria y Desarrollo en Mexico* (Mexico, D. F.: Centro de Investigaciones Agrarias, 1970), Vol. III, Table XI-4.

1965–1969 data, *El Agro Mexicano* (Mexico, D. F.: Secretaria de Agricultura y Ganaderia, 1970).

1970 data, BNCE Departamento de Estudios Economicos.

1971–1974 data, BNCE *Resumen Año Agricola* and P. L. Yates, *El Campo Mexicano* (Mexico, D. F.: Ediciones el Caballito, 1978), Table 18.1(b), p. 898.

TABLE A-2

BNCE REPAYMENTS, 1936–1961
(1,000 Pesos)

Year	Repayments on Short-term Loans	Repayments on Medium-term Loans	Repayments on Other Loans	Total Repayments
1936	4,446	475	1,241	6,162
1937	10,345	884	3,120	14,349
1938	36,958	3,344	4,669	44,971
1939	41,975	5,824	937	48,737
1940	43,294	5,411	625	49,330
1941	41,496	4,490	670	46,656
1942	53,123	6,377	1,383	60,883
1943	75,237	8,104	3,438	86,778
1944	85,639	5,672	20,262	111,573
1945	84,808	6,394	7,166	98,367
1946	71,696	7,924	6,255	85,875
1947	113,408	7,074	8,496	128,978
1948	144,232	5,717	4,939	154,889
1949	164,644	12,797	4,601	182,042
1950	179,289	13,081	5,486	197,855
1951	172,729	8,121	4,245	185,094
1952	155,288	4,742	4,399	164,429
1953	190,368	4,712	3,860	198,940
1954	392,877	18,673	12,342	423,891
1955	449,388	23,188	18,321	490,896
1956	530,295	21,836	50,046	602,177
1957	505,303	21,433	146,630	673,366
1958	489,097	18,956	151,114	659,167
1959	618,379	14,495	171,933	804,807
1960	683,339	17,867	150,705	851,911
1961	606,421	16,116	120,980	743,517

Source: BNCE *Informes*, 1936-1961.

TABLE A-3

LOANS BY BNCE DEPENDENCIES, 1936–1973[a]
(1,000 Pesos)

Region	Dependency	Year 1936	1937	1938	1940	1941
North Pacific	La Paz, B.C.	0	23	59		
	Culiacan, Sin.	325	584	819	1,052	1,361
	Navajoa, Son.	783	1,471	2,506		
	Tepic, Nay.	1,144	1,691	1,676	1,284	1,065
	Mexicali, B.C.	0	6,594	10,027	9,588	6,447
	Los Mochis, Sin.				4,759	5,149
	Cuidad Obregon, Son.				5,203	6,425
	San Jose del Cabo, B.C.				30	26
	El Rodeo, Nay.				65	
	Cananea, Son.					
	Vicam, Son.					
	Bellavista, Nay.					
North	Zacatecas, Zac.	197	167	80		
	San Carlos, Coah.	349	0	0		
	Cuidad Victoria, Tamps.	531	410	283	232	204
	San Luis Potosi, S.L.P.	368	576	414	261	229
	Matamoros, Tamps.	0	588	454	980	1,400
	Chihuahua, Chih.	632	677	576	795	1,045
	Monterrey, N.L.	62	977	381	318	441
	Durango, Dur.	438	1,124	957	579	455
	Torreon, Coah.	2,486	40,887	29,442	26,481	24,328
	Saltillo, Coah.					

TABLE A-3 (continued)

Region	Dependency	Year 1936	1937	1938	1940	1941
Central	Aguascalientes, Aguas.	184	137	296	200	248
	Colima, Col.	89	167	126	186	289
	La Llave, Que.	208	418	285		
	Huaracha, Mich.	0	450	345		
	Queretaro, Que.	287	551	111	203	
	Puebla, Pue.	304	558	348	458	612
	Pachuca, Hgo.	386	625	441	303	298
	Toluca, Mex.	521	754	395	1,681	1,959
	Morelia, Mich.	781	1,212	888	1,065	1,106
	Celaya, Gto.	1,734	1,572	1,325	808	810
	Guadalajara, Jal.	1,281	1,642	1,367	1,045	692
	La Barca, Jal.	1,996	2,730	2,091		
	Cuernavaca, Mor.	1,517	3,800	2,134		480
	Nueva Italia, Mich.			49	1,862	
	Cuautla, Mor.			476		
	Brisenas, Jal.				2,468	2,045
	Uruapan, Mich.					2,779
	Gabriel Zamora, Mich.					
	Apatzingan, Mich.					
	Taretan, Mich.					
	Raiz de Zacaton					
	Tlaxcala, Tlax.					
	Jaral de Berrio, Gto.					
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.					
	Lazaro Cardenas, Mich.					
	Cuidad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1936	1937	1938	1940	1941
South Pacific	Oaxaca, Oax.	91	90	78	157	253
	Tuxtla Gutierrez, Chis.	93	443	426		
	Iguala, Guer.	619	538	434	263	170
	Tapachula, Chis.				1,485	1,598
	Ixtepec, Oax.				40	5
	Pintopec Nacional, Oax.					
	Tehuantepec, Oax.					
	Juchitan, Oax.					
	Acapulco, Guer.					
Gulf	Campeche, Camp.	145	76	0	1	46
	Villahermosa, Tab.	61	89	22	348	382
	Los Tuxtlas, Ver.	388	694	465	290	162
	Cordoba, Ver.	474	941	914	792	852
	Jalapa, Ver.	566	1,042	321	220	241
	Merida, Yuc.	4,241	8,585	4,065	77	196
	Veracruz, Ver.					
	Martinez de la Torre, Ver.					
	Tuxpan, Ver.					
	Puente de Jula, Ver.					
	Chetumal, Q.R.					
	Loma Bonita, Ver.					
	Chilpancingo, Ver.					

TABLE A-3 (continued)

Region	Dependency	Year 1942	1943	1944	1946	1947
North Pacific	La Paz, B.C.					
	Culiacan, Sin.	2,050	1,324	2,885	4,782	7,277
	Navajoa, Son.					
	Tepic, Nay.	798	1,752	4,501	3,837	5,715
	Mexicali, B.C.	4,315	5,988	7,852	13,285	13,998
	Los Mochis, Sin.	4,529	5,063	6,481	3,712	2,593
	Ciudad Obregon, Son.	7,223	7,806	9,318	15,221	18,590
	San Jose del Cabo, B.C.	9				
	El Rodeo, Nay.					
	Cananea, Son.					
	Vicam, Son.					
	Bellavista, Nay.					
North	Zacatecas, Zac.					
	San Carlos, Coah.					
	Ciudad Victoria, Tamps.	389	964	1,822	1,410	2,058
	San Luis Potosi, S.L.P.	182	278	576	842	593
	Matamoros, Tamps.	1,650	1,822	2,584	2,435	6,800
	Chihuahua, Chih.	1,191	1,447	2,211	2,125	2,801
	Monterrey, N.L.	510	565	932	1,139	1,881
	Durango, Dur.	511	894	923	1,994	4,441
	Torreon, Coah.	27,222	54,277	38,396	31,994	49,828
	Saltillo, Coah.					75

TABLE A-3 (continued)

Region	Dependency	Year 1942	1943	1944	1946	1947
Central	Aguascalientes, Aguas.	201	255	500	824	1,275
	Colima, Col.	564	753	1,085	1,593	1,621
	La Llave, Que.					
	Huaracha, Mich.					
	Queretaro, Que.			96	373	399
	Puebla, Pue.	1,014	1,191	1,405	1,071	1,777
	Pachuca, Hgo.	519	510	623	566	497
	Toluca, Mex.	924	1,106	2,057	2,467	1,060
	Morelia, Mich.	1,070	1,354	1,566	1,367	2,098
	Celaya, Gto.	689	810	627	1,402	3,404
	Guadalajara, Jal.	916	1,391	2,113	4,153	3,899
	La Barca, Jal.					
	Cuernavaca, Mor.	2,946	4,373	6,244	9,993	6,760
	Nueva Italia, Mich.					4,324
	Cuautla, Mor.					
	Brisenas, Jal.	934	828	970	1,177	1,582
	Uruapan, Mich.	2,860	2,254	3,218	5,313	4,388
	Gabriel Zamora, Mich.					
	Apatzingan, Mich.					
	Taretan, Mich.					
	Raiz de Zacaton					1,846
	Tlaxcala, Tlax.					
	Jaral de Berrio, Gto.					
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.					
	Lazaro Cardenas, Mich.					
	Ciudad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1942	1943	1944	1946	1947
South Pacific	Oaxaca, Oax.	245	497	531	945	1,617
	Tuxtla Gutierrez, Chis.					
	Iguala, Guer.	205	606	979	4,092	9,093
	Tapachula, Chis.	2,086	2,499	4,192	4,239	4,344
	Ixtepec, Oax.					
	Pintopec Nacional. Oax.			24		
	Tehuantepec, Oax.					
	Juchitan, Oax.					
	Acapulco, Guer.					
Gulf	Campeche, Camp.	24			46	109
	Villahermosa, Tab.	164	9	67	424	567
	Los Tuxtlas, Ver.				4,071	8,322
	Cordoba, Ver.		1,786	2,857	3,307	3,656
	Jalapa, Ver.					
	Merida, Yuc.	309	177	210		
	Veracruz, Ver.	1,538				
	Martinez de la Torre, Ver.			317	434	1,175
	Tuxpan, Ver.			322	474	560
	Puente de Jula, Ver.					493
	Chetumal, Q.R.					
	Loma Bonita, Ver.					
	Chilpancingo, Ver.					

TABLE A-3 (continued)

Region	Dependency	Year 1948	1949	1950	1951	1953
North Pacific	La Paz, B.C.					
	Culiacan, Sin.	6,361	6,561	4,942	8,957	9,738
	Navajoa, Son.					
	Tepic, Nay.	2,823	2,620	1,450	917	13,083
	Mexicali, B.C.	9,964		11,818	19,427	18,378
	Los Mochis, Sin.	1,766	1,560	508	450	1,659
	Ciudad Obregon, Son.	16,104	22,458	16,014	22,935	44,990
	San Jose del Cabo, B.C.					
	El Rodeo, Nay.					
	Cananea, Son.					
	Vicam, Son.					
	Bellavista, Nay.					
North	Zacatecas, Zac.		882	931	1,168	4,383
	San Carlos, Coah.					
	Ciudad Victoria, Tamps.	2,922	2,606	1,329	306	9,350
	San Luis Potosi, S.L.P.	309	245	389	627	5,020
	Matamoros, Tamps.	12,262	15,337	17,383	28,873	25,760
	Chihuahua, Chih.	3,087	4,232	4,147	4,201	8,538
	Monterrey, N.L.	1,399	1,403	590	453	2,376
	Durango, Dur.	4,523	4,293	2,657	1,497	9,109
	Torreon, Coah.	55,109	61,974	73,151	75,314	119,663
	Saltillo, Coah.	3,018	2,767	4,556	1,784	3,235

TABLE A-3 (continued)

Region	Dependency	Year 1948	1949	1950	1951	1953
Central	Aguascalientes, Aguas.	1,398	2,578	1,276	790	3,882
	Colima, Col.	1,726	1,815	1,321	1,155	1,521
	La Llave, Que.					
	Huaracha, Mich.					
	Queretaro, Que.	523	504	527	345	3,577
	Puebla, Pue.	2,768	2,952	2,653	681	4,686
	Pachuca, Hgo.	328	762	1,728	2,064	4,771
	Toluca, Mex.	968	1,166	419	492	4,974
	Morelia, Mich.	2,548	1,733	1,746	961	8,238
	Celaya, Gto.	3,484	3,105	3,229	4,314	12,968
	Guadalajara, Jal.	6,699	7,809	7,640	6,417	16,115
	La Barca, Jal.					
	Cuernavaca, Mor.	8,943	8,413	6,727	6,613	12,064
	Nueva Italia, Mich.	1,917	2,245			
	Cuautla, Mor.					
	Brisenas, Jal.	2,291	1,745	1,396	2,725	8,675
	Uruapan, Mich.	1,319	205			
	Gabriel Zamora, Mich.	2,199	3,598			
	Apatzingan, Mich.		2,644	7,257	8,312	10,526
	Taretan, Mich.		717		1,092	
	Raiz de Zacaton	26	1,613			52
	Tlaxcala, Tlax.				1,220	1,189
	Jaral de Berrio, Gto.					
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.					
	Lazaro Cardenas, Mich.					
	Ciudad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1948	1949	1950	1951	1953
South Pacific	Oaxaca, Oax.	1,554	951	752	749	793
	Tuxtla Gutierrez, Chis.					
	Iguala, Guer.	8,230	7,319	6,553	5,793	3,870
	Tapachula, Chis.	5,112	3,458	5,443	9,191	8,370
	Ixtepec, Oax.					
	Pintopec Nacional, Oax.					
	Tehuantepec, Oax.					
	Juchitan, Oax.					
	Acapulco, Guer.					
Gulf	Campeche, Camp.	272				
	Villahermosa, Tab.	530	414	257	771	1,392
	Los Tuxtlas, Ver.	5,771				
	Cordoba, Ver.	3,033	1,766	1,728	1,801	2,588
	Jalapa, Ver.					
	Merida, Yuc.		14,950		75	19,913
	Veracruz, Ver.		2,466	2,097	3,289	7,227
	Martinez de la Torre, Ver.	1,694	532	632	261	1,055
	Tuxpan, Ver.	218	422	325	107	1,882
	Puente de Jula, Ver.	470				
	Chetumal, Q.R.					
	Loma Bonita, Ver.					
	Chilpancingo, Ver.					

TABLE A-3 (continued)

Region	Dependency	Year 1954	1955	1956	1957	1959
North Pacific	La Paz, B.C.					
	Culiacan, Sin.	13,081	6,417	8,270	12,620	18,950
	Navajoa, Son.					
	Tepic, Nay.	28,305	28,373	34,371	53,543	50,889
	Mexicali, B.C.	22,637	23,399	31,282	24,650	64,812
	Los Mochis, Sin.		14,262	46,077	49,942	58,230
	Ciudad Obregon, Son.	63,814	83,951	74,301	68,831	106,347
	San Jose del Cabo, B.C.					
	El Rodeo, Nay.					
	Cananea, Son.					6,090
	Vicam, Son.					
	Bellavista, Nay.					
North	Zacatecas, Zac.	4,646	3,415	4,276	3,658	5,475
	San Carlos, Coah.					
	Ciudad Victoria, Tamps.	5,353	4,379	5,577	5,014	4,012
	San Luis Potosi, S.L.P.	4,074	3,607	3,574	1,310	3,754
	Matamoros, Tamps.	24,950	36,486	48,934	36,991	49,332
	Chihuahua, Chih.	9,085	17,745	23,343	27,321	39,575
	Monterrey, N.L.	5,063	5,779	3,834	3,757	5,335
	Durango, Dur.	8,762	6,897	9,052	11,235	15,467
	Torreon, Coah.	175,708	195,549	211,944	171,397	286,024
	Saltillo, Coah.	3,542	3,919	9,125	7,980	8,914

TABLE A-3 (continued)

Region	Dependency	Year 1954	1955	1956	1957	1959
Central	Aguascalientes, Aguas.	3,908	29,995	2,697	2,768	4,657
	Colima, Col.	3,114	2,553	4,012		7,138
	La Llave, Que.					
	Huaracha, Mich.					
	Queretaro, Que.	2,830	1,702	2,739	2,208	3,395
	Puebla, Pue.	7,132	5,881	5,187	5,967	7,288
	Pachuca, Hgo.	4,307	2,468	3,927	2,399	7,784
	Toluca, Mex.	6,197	3,121	6,801	2,798	6,683
	Morelia, Mich.	9,097	5,822	6,504	6,435	10,524
	Celaya, Gto.	12,484	9,335	12,179	9,063	18,930
	Guadalajara, Jal.	21,553	14,980	19,402	26,906	35,589
	La Barca, Jal.					
	Cuernavaca, Mor.	11,055	11,703	13,033	12,281	13,448
	Nueva Italia, Mich.					
	Cuautla, Mor.					
	Brisenas, Jal.	11,599	11,725	12,758	12,102	17,486
	Uruapan, Mich.					
	Gabriel Zamora, Mich.		18,202			
	Apatzingan, Mich.	13,391	13,002	13,724	15,790	13,818
	Taretan, Mich.			1,143	1,134	1,691
	Raiz de Zacaton					
	Tlaxcala, Tlax.	1,403	1,217	3,330	1,251	1,845
	Jaral de Berrio, Gto.				128	68
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.					
	Lazaro Cardenas, Mich.					
	Ciudad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1954	1955	1956	1957	1959
South Pacific	Oaxaca, Oax.	575	1,060	1,153	1,314	3,479
	Tuxtla Gutierrez, Chis.					
	Iguala, Guer.	5,139	5,879	6,121	2,730	6,496
	Tapachula, Chis.	16,192	18,202	16,204	13,090	15,840
	Ixtepec, Oax.					
	Pintopec Nacional, Oax.					
	Tehuantepec, Oax.					
	Juchitan, Oax.					
	Acapulco, Guer.					
Gulf	Campeche, Camp.					510
	Villahermosa, Tab.	50	314	6,266	5,238	4,484
	Los Tuxtlas, Ver.					
	Cordoba, Ver.	5,539	3,952	2,578	3,333	2,982
	Jalapa, Ver.					
	Merida, Yuc.	17,631	42,867	84,594	218,275	163,786
	Veracruz, Ver.	4,758	2,677	1,887	2,173	3,836
	Martinez de la Torre, Ver.	3,910	3,737	5,578	2,548	3,466
	Tuxpan, Ver.	1,593				
	Puente de Jula, Ver.					
	Chetumal, Q.R.				0	1,438
	Loma Bonita, Ver.					
	Chilpancingo, Ver.					

TABLE A-3 (continued)

Region	Dependency	Year 1960	1961	1962	1963	1964
North Pacific	La Paz, B.C.			617	2,587	2,663
	Culiacan, Sin.	23,556	31,405	24,756	24,290	19,267
	Navajoa, Son.					
	Tepic, Nay.	43,654	29,186	19,855	20,175	22,046
	Mexicali, B.C.	73,339	51,893	46,678	56,297	45,056
	Los Mochis, Sin.	93,074	89,780	60,024	62,756	36,025
	Ciudad Obregon, Son.	89,259	70,881	78,397	102,949	79,554
	San Jose del Cabo, B.C.					
	El Rodeo, Nay.					
	Cananea, Son.	12,912	13,937	12,369	8,592	8,410
	Vicam, Son.	18,693	21,234	37,215	32,555	38,253
	Bellavista, Nay.					
North	Zacatecas, Zac.	10,551	15,017	14,757	14,239	14,411
	San Carlos, Coah.					
	Ciudad Victoria, Tamps.	7,905			3,603	3,064
	San Luis Potosi, S.L.P.	5,020	4,438	5,553	6,893	5,266
	Matamoros, Tamps.	50,850	44,963	37,482	32,332	44,610
	Chihuahua, Chih.	57,830	44,611	30,205	16,538	33,043
	Monterrey, N.L.	4,779				
	Durango, Dur.	21,580	18,514	10,093	8,017	6,542
	Torreon, Coah.	271,093	185,365	68,011	110,086	219,375
	Saltillo, Coah.	5,165	7,947	7,485	5,329	4,432

TABLE A-3 (continued)

Region	Dependency	Year 1960	1961	1962	1963	1964
Central	Aguascalientes, Aguas.	6,863	4,384	4,716	5,778	5,522
	Colima, Col.	15,765	8,953	7,635	7,961	7,786
	La Llave, Que.					
	Huaracha, Mich.					
	Queretaro, Que.	6,118				
	Puebla, Pue.	7,747	11,377	7,838	6,480	9,993
	Pachuca, Hgo.	7,185	4,491	8,429	5,604	4,028
	Toluca, Mex.	8,555	10,141	7,860	8,057	9,912
	Morelia, Mich.	14,730	15,500	42,025	61,485	84,640
	Celaya, Gto.	29,762	36,684	32,953	22,714	19,558
	Guadalajara, Jal.	51,385	34,045	20,936	24,656	31,711
	La Barca, Jal.					
	Cuernavaca, Mor.	10,374	7,502	6,269	7,218	7,766
	Nueva Italia, Mich.					
	Cuautla, Mor.					
	Brisenas, Jal.	27,377				
	Uruapan, Mich.					
	Gabriel Zamora, Mich.		45,830			
	Apatzingan, Mich.	15,027				
	Taretan, Mich.	2,378	2,945	2,297	3,358	3,298
	Raiz de Zacaton					
	Tlaxcala, Tlax.	1,829				
	Jaral de Berrio, Gto.					
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.			1,859	4,369	4,889
	Lazaro Cardenas, Mich.					
	Ciudad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1960	1961	1962	1963	1964
South Pacific	Oaxaca, Oax.	3,781	3,597	4,592	3,402	4,614
	Tuxtla Gutierrez, Chis.					
	Iguala, Guer.	8,511	9,129	5,366	7,147	16,521
	Tapachula, Chis.	20,260	15,218	29,549	34,551	35,332
	Ixtepec, Oax.					
	Pintopec Nacional, Oax.					
	Tehuantepec, Oax.			272	38	545
	Juchitan, Oax.					
	Acapulco, Guer.					
Gulf	Campeche, Camp.	1,549				8,087
	Villahermosa, Tab.	2,334	3,226	3,270	3,737	4,414
	Los Tuxtlas, Ver.					
	Cordoba, Ver.	4,378	4,063			
	Jalapa, Ver.					
	Merida, Yuc.	206,141	105,433	29,640	157,939	220,869
	Veracruz, Ver.	3,334	2,645	6,465	26,930	30,023
	Martinez de la Torre, Ver.	5,592	7,704	14,196		
	Tuxpan, Ver.					
	Puente de Jula, Ver.					
	Chetumal, Q.R.	990	1,051	3,687	4,467	10,231
	Loma Bonita, Ver.	2,146	2,318	2,868	5,507	8,188
	Chilpancingo, Ver.					

TABLE A-3 (continued)

Region	Dependency	Year 1965	1966	1967	1968	1969
North Pacific	La Paz, B.C.	2,297	2,457	3,447	4,829	4,019
	Culiacan, Sin.	22,973	24,845	25,953	28,523	96,369
	Navajoa, Son.					
	Tepic, Nay.	29,939	33,900	33,744	35,959	41,806
	Mexicali, B.C.	39,536	57,273	64,949	79,307	136,922
	Los Mochis, Sin.	34,292	44,207	40,519	46,947	
	Ciudad Obregon, Son.	70,157	82,045	82,862	111,492	106,735
	San Jose del Cabo, B.C.					
	El Rodeo, Nay.					
	Cananea, Son.	8,825	9,224	21,335	13,251	17,714
	Vicam, Son.	23,445	38,466	27,871	29,675	47,647
	Bellavista, Nay.					
North	Zacatecas, Zac.	11,301	12,102	11,949	9,986	22,846
	San Carlos, Coah.					
	Ciudad Victoria, Tamps.	2,800	3,309	4,428	5,924	14,618
	San Luis Potosi, S.L.P.	2,606	6,110	5,839	6,635	10,089
	Matamoros, Tamps.	43,960	46,792	46,065	47,510	40,704
	Chihuahua, Chih.	32,255	43,293	39,447	33,043	40,040
	Monterrey, N.L.			654	5,848	3,687
	Durango, Dur.	5,292	4,816	5,786	11,469	9,600
	Torreon, Coah.	287,606	263,663	219,935	238,163	247,314
	Saltillo, Coah.	4,777	6,371	5,724	3,195	1,859

TABLE A-3 (continued)

Region	Dependency	Year 1965	1966	1967	1968	1969
Central	Aguascalientes, Aguas.	5,672	5,408	5,238	8,012	7,471
	Colima, Col.	6,258	6,109	9,962	8,784	9,724
	La Llave, Que.					
	Huaracha, Mich.					
	Queretaro, Que.	1,885	3,069	3,521	2,890	
	Puebla, Pue.	17,379	14,239	23,500	12,412	12,491
	Pachuca, Hgo.	3,699	5,516	5,010	5,848	6,110
	Toluca, Mex.	8,563	7,465	10,248	7,661	10,231
	Morelia, Mich.	161,471	106,220	115,258	139,064	135,510
	Celaya, Gto.	11,906	14,416	17,304	27,982	34,520
	Guadalajara, Jal.	32,982	30,156	37,582	33,208	42,520
	La Barca, Jal.					
	Cuernavaca, Mor.	10,459	13,729	17,844	10,582	14,633
	Nueva Italia, Mich.					
	Cuautla, Mor.					
	Brisenas, Jal.					
	Uruapan, Mich.					
	Gabriel Zamora, Mich.					
	Apatzingan, Mich.					
	Taretan, Mich.					
	Raiz de Zacaton					
	Tlaxcala, Tlax.				2,872	4,512
	Jaral de Berrio, Gto.					
	Valle de Mexico, Mex.					
	Cofradia de Juarez, Jal.	4,780	3,968	1,941		
	Lazaro Cardenas, Mich.	4,552	5,525	5,350	5,843	8,998
	Ciudad Altamirano, Mich.					

TABLE A-3 (continued)

Region	Dependency	Year 1965	1966	1967	1968	1969
South Pacific	Oaxaca, Oax.	4,270	3,396	4,155	4,160	6,230
	Tuxtla Gutierrez, Chis.					
	Iguala, Guer.					
	Tapachula, Chis.	34,204	34,765	34,325	37,086	30,640
	Ixtepec, Oax.					
	Pintopec Nacional, Oax.					
	Tehuantepec, Oax.					
	Juchitan, Oax.	699	2,088	2,582	3,666	8,215
	Acapulco, Guer.					
Gulf	Campeche, Camp.	9,874	12,527	9,483	6,014	12,934
	Villahermosa, Tab.	5,294	1,608	5,871	7,352	10,765
	Los Tuxtlas, Ver.					
	Cordoba, Ver.					
	Jalapa, Ver.					
	Merida, Yuc.	153,312	152,025	152,310	164,676	174,232
	Veracruz, Ver.	17,738	15,226	19,376	35,674	24,174
	Martinez de la Torre, Ver.					
	Tuxpan, Ver.					
	Puente de Jula, Ver.					
	Chetumal, Q.R.	11,033	2,352	4,017	4,333	2,146
	Loma Bonita, Ver.	6,629	3,546	6,298	10,358	12,836
	Chilpancingo, Ver.	12,720	9,707	11,375	10,510	7,851

TABLE A-3 (continued)

Region	Dependency	Year 1970	1971	1972	1973
North Pacific	La Paz, B.C.	7,647	9,535	8,990	7,668
	Culiacan, Sin.	138,261	200,161	242,323	165,758
	Navajoa, Son.				
	Tepic, Nay.	55,596	49,773	60,623	51,073
	Mexicali, B.C.	155,900	156,487	181,535	245,937
	Los Mochis, Sin.				
	Ciudad Obregon, Son.	130,719	210,527	289,622	150,681
	San Jose del Cabo, B.C.				
	El Rodeo, Nay.				
	Cananea, Son.	17,084	19,820	20,538	17,273
	Vicam, Son.				49,359
	Bellavista, Nay.				
North	Zacatecas, Zac.	53,403	53,276	17,269	23,986
	San Carlos, Coah.				
	Ciudad Victoria, Tamps.	62,211	61,372	181,680	114,948
	San Luis Potosi, S.L.P.	16,348	20,185	14,153	18,564
	Matamoros, Tamps.				
	Chihuahua, Chih.	52,265	70,093	97,140	77,420
	Monterrey, N.L.	7,012	9,354	8,183	7,941
	Durango, Dur.	11,083	18,214	14,619	9,568
	Torreon, Coah.	248,564	327,583	430,385	494,480
	Saltillo, Coah.	6,400	11,747	10,069	8,104

TABLE A-3 (continued)

Region	Dependency	Year 1970	1971	1972	1973
Central	Aguascalientes, Aguas.	6,676	8,121	9,458	13,781
	Colima, Col.	14,421	20,477	21,516	18,157
	La Llave, Que.				
	Huaracha, Mich.				
	Queretaro, Que.		12,447	10,434	11,876
	Puebla, Pue.	23,452	22,223	17,349	19,788
	Pachuca, Hgo.	7,432	7,487	4,444	5,857
	Toluca, Mex.	9,764	9,406	9,047	14,781
	Morelia, Mich.	214,444	227,452	226,867	224,162
	Celaya, Gto.	49,906	41,123	35,379	32,659
	Guadalajara, Jal.	51,265	51,409	55,531	65,768
	La Barca, Jal.				
	Cuernavaca, Mor.	22,229	33,585	43,862	22,768
	Nueva Italia, Mich.				
	Cuautla, Mor.				
	Brisenas, Jal.				
	Uruapan, Mich.				
	Gabriel Zamora, Mich.				
	Apatzingan, Mich.				
	Taretan, Mich.				
	Raiz de Zacaton				
	Tlaxcala, Tlax.	4,035	4,791	4,642	9,473
	Jaral de Berrio, Gto.				
	Valle de Mexico, Mex.				
	Cofradia de Juarez, Jal.				
	Lazaro Cardenas, Mich.	10,323			
	Ciudad Altamirano, Mich.			15,917	17,330

TABLE A-3 (continued)

Region	Dependency	Year 1970	1971	1972	1973
South Pacific	Oaxaca, Oax.	4,642	5,034	6,142	6,334
	Tuxtla Gutierrez, Chis.				
	Iguala, Guer.				
	Tapachula, Chis.	30,134	64,453	85,841	112,098
	Ixtepec, Oax.				
	Pintopec Nacional, Oax.				
	Tehuantepec, Oax.				
	Juchitan, Oax.	7,151	39,849	24,010	22,090
	Acapulco, Guer.			17,292	58,173
Gulf	Campeche, Camp.	19,872	31,520	29,231	22,513
	Villahermosa, Tab.	21,486	31,619	30,783	6,161
	Los Tuxtlas, Ver.				
	Cordoba, Ver.				
	Jalapa, Ver.				
	Merida, Yuc.	171,030	302,745	243,849	344,484
	Veracruz, Ver.	39,817	31,061	26,290	31,056
	Martinez de la Torre, Ver.				
	Tuxpan, Ver.				
	Puente de Jula, Ver.				
	Chetumal, Q.R.	3,272	4,799	9,211	5,204
	Loma Bonita, Ver.	19,244	21,099	20,331	27,401
	Chilpancingo, Ver.	11,867	14,289		

[a]Data are not available for the years 1939, 1945, 1952, and 1958.

VITA

John William Mogab was born in St. Louis, Missouri, on July 30, 1951. He attended elementary school in that city and was graduated from Northwest High School in June 1969. The following September he entered Blackburn College, Carlinville, Illinois, and received a Bachelor of Arts degree in Economics in May 1973. In September 1974 he began graduate study at the University of Tennessee, Knoxville. The following term he accepted a research assistantship to continue work toward a Masters degree in Economics. This degree was awarded in December 1976.

Following a year of teaching at Piedmont College, Demorest, Georgia, he returned to the University of Tennessee, Knoxville, in September 1977. He received the Doctor of Philosophy degree with a major in Economics in December 1981. Beginning in September 1981 he accepted the position of assistant professor of economics at Southwest Texas State University, San Marcos, Texas.