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LAND REFORM

in

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LAND REFORM
IN
NORTHEAST BRAZIL

I. SUMMARY

With respect to land reform, Brazil, perhaps more than most countries in Latin America, is an enigma. And the Northeast occupies a particularly poignant chapter in that mystery.

Land reform has been a political theme, related to justice and democracy, for 150 years in Brazil. Most of the political and social oratory revolved around the Northeast. During the last twenty-five years, this theme has been adopted as a national priority by every President since and including Vargas. If Brazilian land reform manifestations stopped at oratory, there would be no mystery. In that case, the easy explanation would describe the power structure and its clear opposition to reform and would consign the oratory to that corner of the political stage reserved for campaign promises and dutiful bows to the national social conscience.

But this explanation will not do. Prodded perhaps by the two serious Northeast droughts in the 1950's, by the land invasions of the Peasant Leagues in the Northeast, by Goulart's strong demagogic appeal for "reforma agraria", and by a Northeast Governor who used his power to support the rural peasants in the early 1960's, Brazil has adopted for the nation and for the Northeast, a series of strong and clear laws and has created a set of institutions which put it in a position to implement a large scale national and regional land reform program. Brazil, in short, has gone much beyond the campaign promise stage but just short of actual reform. Given the nature of its elites and decision makers as well as the general passive character of its peasants, the wonder is, why? In the next few years, Brazil may resolve the puzzle and may decide, one way or another, whether it really wants to use its impressive land reform machinery or whether this machinery is really a higher art form in the practice of political demagoguery.

The rest of this summary statement mentions several of the acts and institutions established to carry out land reform nationally and in the Northeast. An incipient land reform began under the National Institute for Immigration and Colonization (INIC) and the Rural Social Service (SSR) (1960-1962). This was followed by the Goulart creation of the Superintendency for Agrarian Reform (SUPRA), which in 1963, began to play a radicalizing

political role in rural NE Brazil. The 1964 Revolution contained rural agitation, especially in the Northeast, and launched new nationwide legislation, the Land Statute of 1964. In addition to laying down the policy and strategic framework for Brazilian land reform, the law created the Brazilian Institute for Agrarian Reform (IBRA) and the National Institute for Agricultural Development (INDA) to execute land reform.

In the NE two land reform priority areas were designated by Presidential decree (see Section III). The IBRA rural cadaster (1965-1966) and the rural land tax were, surprisingly quickly implemented in the region, at least for the first year. But no meaningful land transfer or redesign of property boundaries followed. IBRA lost its original political and financial backing, and initial promising efforts in the NE were neither sustained nor expanded.

In 1966 began the era of GERAN, the Special Group for the Rationalization of the Sugar Agro-Industry, stimulated by an especially critical harvest and labor crisis in 1965. Part of GERAN's objectives involve land reform. After three years of false starts it recently re-initiated work with the approval of its first modernization project. This project, the first of a promised fifty or more, contains a land reform component involving the resettlement of labor expected to be "liberated" in the modernization process.

II. PRE-REFORM PERIOD

A. Introduction

1. The setting

The Northeast (NE) of Brazil is 1.5 million square kilometers in size (18% of Brazil) and has a population of 29 million (30% of Brazil).^{/1/} Two-thirds of this region is made up of the semi-arid Sertao, with one-third of the NE population. On the east and west are humid lands which offer vastly more favorable natural environments for human settlement.

Rainfall is scant in the Sertao and occurs in a short, but critical "winter" season, when subsistence crops grow sufficient to provide for a sparse population. Cotton is grown in the better watered northern limits of the Sertao, principally in Ceara. Soils are generally

^{/1/} As defined by SUDENE, the NE consists of the states of Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe and Bahia, a north central piece of Minas Gerais and the island of Fernando de Noronha.

fertile and respond well to irrigation, a practice limited to small patches along river banks. When fall rains are delayed throughout the Sertao, the region enters a tense period of waiting. The last major drought occurred in 1958-1959. Landholdings are large in the drier cattle grazing areas but small to minifundio size in Ceara and western Rio Grande do Norte and western Paraiba. Except for higher population enclaves here and there, most of the Sertao has fewer than 25 persons per square kilometer.

The western fringes of Bahia and Piaui and all of Maranhao are humid, but very sparsely settled, with generally less than 15 persons per square kilometer. Accessibility is poor. Forest growth is dense in much of the area. Subsistence production by squatters is common throughout. Incipient commercial rice production occurs in eastern Maranhao. No manufacturing of significance is found in the humid western zone of the NE.

The eastern humid margin of the region is composed of two unequal parts extending longitudinally along the coast: the Agrete and the Zona da Mata. Both are more densely populated than the Sertao and the humid west, and are areas of major social and economic tension and, therefore, of political consequence. The Agrete, lying immediately east of the Sertao, is moderately humid and hilly throughout its approximately 100,000 square kilometers. Rainfall is sufficient for fruit and vegetable crops, cotton and tobacco, although supplemental irrigation is practiced on a small scale. Soils are moderately good. The minifundio dominates the scene, in many cases held in tenancy or sharecropped in the minutest of parcels. Absentee landlordism is common. Commodities grown in the Agrete are trucked mainly to markets in Zona da Mata. Several secondary cities occur in the area. Portions of the Agrete in Paraiba and Pernambuco are included in the NE Agrarian Reform Priority Area described in Section III.

The last and most significant area of the NE is the Zona da Mata, a fringe of variable width, rarely more than 100 kilometers wide and more commonly 50-60 kilometers east-west. It is hilly although under 200 meters in elevation. Extensive coastal flat table lands (tabuleiros) occur. Originally, it had a dense tropical forest, over red and red/yellow Latosols of low fertility. Its abundant rain and warm temperatures facilitate plant growth, although repeated planting depletes soils which soon require fertilizer or abandonment for other newly cleared lands.

The Zona da Mata has about six million people in its 50,000 square kilometers, divided equally between urban and rural areas. Six of the nine states have their capitals in the Zona, and the majority of secondary cities are also in it. Early Portuguese settlements began along the coast and soon founded the NE sugar industry, which in its 400 years of existence has alternately brought riches and financial and social crises to the Zona da Mata. Modern sugar plantations (usinas) are vast, complicated enterprises, and have all too often been managed indifferently. Usinas may hold up to 80% of the land in some municipalities. Sugar-cane growers (fornecedores) who sell cane to usinas are much smaller in size but are remnants of the older, tradition bound, engenho era and thus perpetuate the paternalistic and disciplinarian role over labor. There are also a substantial number of small landholders in the Zona da Mata, but they control a very small fraction of farmland.

The 400,000-450,000 sugar industry workers constitute the core of the Zona da Mata social problem. They are invariably underpaid, ill-housed, and malnourished, and not infrequently harbor a suppressed resentment of landowners who control the land, the economy, institutions, politics and the security forces. As the sugar industry progressively converts to modern technology, labor requirements will decline, forcing tens of thousands into the unemployed group. It is believed that land reform is one solution for these landless and unemployed laborers.

2. Regional Production Pattern and Land Reform

Although the NE was Brazil's leading manufacturing area in the late 19th century, it has always been primarily an agricultural region. The commodities, sugar, cacao, cotton and livestock, characterize the region's major rural, producing areas. Food production is insufficient to provide for some regional needs.

The late 1950's saw an upsurge in NE industrial growth, at the same time that a crisis in the rural sector led to a series of social and political events which contributed to the chaotic political climate leading to the national Revolution of 1964. An exodus of rural unemployed from the drought-ridden Sertao swelled labor surpluses in the Zona da Mata, while the sugar industry began to feel the pinch of high costs and decreased yields. Cities nearly doubled in population between 1950 and 1960. Runaway inflation rendered savings next to valueless, and many investment projects went into limbo. Yet, phenomenally, industry continued its upward climb./2/

/2/ Robock, Stefan H., Brazil's Developing Northeast, the Brookings Institution, Washington D.C., 1963, p. 50. There were the not inconsiderable number of over 4,000 manufacturing establishments with five or more employees; 17,000 factories (shops) with less than five workers; and at least 200,000 workers in manufacturing. Between 1955-1960 petroleum and natural gas production output increased 15 and 10 fold, respectively.

Still the NE regional production pattern at the opening of the 1960's, when land reform first became a significant issue, continued to be dominated by agriculture. Agriculture accounted for 46% of income with 64% of those employed. Industry had 12% and 13%, respectively. /3/ Regional income accounted for 15.9% of the national income although it had 32% of the population. Per capita income was a mere 51% of the national mean. /4/

Sugar cane, sugar and little else was common to the Zona da Mata, which produced one-third of Brazil's sugar. As many as a half million rural workers may have been crowded onto 500,000 hectares planted in sugar cane. Thus cheap labor became the escape valve for the financial survival of the sugar industry. In the Agreste, a multiplicity of small, fragmented properties, many held in tenancy and sharecropping contracts, produced beans, corn, manioc, pineapples, and other fruits and vegetables. Estimates of employment are unreliable but the inflationary and radically fluctuating market of the time did not offer incentives for vigorous commercial production and at best a semi-commercial level could be maintained. The more climatically stable areas of the northern Sertao continued to produce cotton for the national textile industry, but the vast majority of that dry land had recently seen a decline in the traditional cattle industry as cattle died from a shortage of water and feed.

With the cities choked with unemployed, displaced peasants, the sugar industry in crisis and a radically altered national political structure, the NE economic question becomes a tempting target for demagoguery. The rural and urban masses, whether employed or unemployed, were sought after by local and national politicians and political parties. It was then that land reform became a battle cry that found its way into the every day jargon of rural leaders, government officials and professional writers, and now forms part of the professed development objectives for the NE.

/3/ USAID/Brazil, Statistical Tables Relating to NE Brazil, Rio de Janeiro, November, 1963, Table 19.

/4/ Robock, Stefan H., op. cit., p. 46 and Table 2.4

3. Equity and Enfranchisement

Inequitable land tenure patterns prevail in the four major agricultural zones of NE. In tropical humid Maranhao there is a title-and-squatter problem; in the extensive livestock area of the arid Sertao and in the sharecropping and tenancy, horticultural crop, Agreste, outright ownership of land by peasants is generally limited to parcels of marginal size; in the plantation-style sugar zone the landless rural worker is the rule. Economically and socially unsatisfactory as conditions are in the first three areas, they are tolerable in comparison to the sugar zone. It is the abysmal poverty and brutalized situation of the sugar workers that has generated the major part of what pressures for land reform exist in the NE today.

All Brazilian presidents since Vargas have given land reform high priority at least in the rhetoric, setting forth their domestic policies. These policies and Brazilian law reflect a recognition of the need for the creation of a stable rural middle class, for the "valorization" of the peasant, and to bring the peasant nearer to a realization of his potential productive capacity.

However, regardless of the impetus given land reform proposals in Brazil by considerations of equity and social justice for the landless peasant the interests of large landholders who fear and oppose land reform have prevailed. The sugar worker, in particular, has remained bound to the land by a feudal system that offers scant access to ownership, and which has been only slightly responsive to pressures brought against it in the name of humanity, social improvement, or national development.

If Brazil has progress to a point where the debate over land reform is not if, but how, this is a development dating only from the early 1960's in response, not mainly to considerations of equity, but to political pressures. Although literacy requirements, subjugation to the landowner, and ignorance limit his effectiveness at the polls, the great mass of landless peasants cannot be ignored in political calculations. During the years immediately preceding the 1964 Revolution, organized peasant violence and agitation brought home to the region and the nation, the disruptive power of the rural masses and the potential danger they represent to internal security and to the regional and national economy.

The well publicized misery of the sugar workers has created demands for land reform from many sources. These demands are prompted by considerations of morality, national pride, economy, and public safety. Although pressures so generated lack urgency, few Brazilians disagree that it is morally wrong and nationally shameful to have so many citizens living in sub-human conditions. Many also are aware that so many inefficiently utilized, non-consuming workers represent a negative economic factor. Finally, and perhaps decisively, the rural worker by his numbers and patent misery inspires fear of violence, subversion, and guerilla-type insurgency.

B. Land Tenure Structure

1. Characteristics

a) Ownership of Land

Farmland in the NE is predominantly individually owned. /6/ The 1960 Census showed that more than 84% of the farms and 90% of the land in farms was individually owned. From 1940 to 1960, the number of farms in the region increased from 738,000 to 1.4 million, about 91%. The land area in farms increased from 43 million hectares to about 64 million hectares. During this period the average size of farm decreased from 58 to 45 hectares. /7/

b) Types of Farm Operators

In 1960, 63% of NE farms were owner-operated, 19% tenant-operated, about 13% by non-deed holding occupants, and 5% by hired managers. During the period (1940-1960) numbers of all types of operators (except hired managers) increased. Percentage-wise, tenants and occupants without legal ownership documents increased more than owner-operators. /8/ Of the total area in farms, owner-operators held 68%, tenants 4%, occupants without deeds 2% and hired managers 26%. The farm size averages were 48, 10, 8 and 218 hectares, respectively, for the above classes.

/6/ Instituto Brasileiro de Geografia e Estatística, 1960 Census of Agriculture. Individually owned is defined as a farm holding claimed as property by its operator but does not specify the legal status of title.

/7/ R.S. Beck, Land Tenure in Brazil, 1970, Tables 1, 2, and 3, as taken from IBGE 1960 Census of Agriculture.

/8/ Ibid., Table 4

/9/ IBGE, op. cit.

According to the 1965-1966 IBRA cadastral survey, of the total number of farms reported for Brazil (3,639,000), the Northeast had 1,167,000, or about 32 %. Table 1 gives the percentage distribution of these farms by number and area.

TABLE 1

Percentage of Farm Numbers and Area in Farms by Size in NE Brazil

/10/

1967

Size class (ha.)	Farms (Percent)	Area (Percent)
-10	45	3
10-25	20	5
25-50	13	7
50-100	10	10
100-1,000	11	43
+ 1,000	1	32
	100	100

The average number of hectares per farm in the size category under 10 hectares was 3.7 in the NE and 4.2 for the country as a whole. The average size of all farms was 60 hectares for the NE and 91 hectares for Brazil as a whole.

/11/

2. Changes.

As indicated in the previous section of this report, the number of farms and the area of land in farms have been increasing for several decades. From 1950 to 1960, the total land in farms in the NE

/10/ Beck, R., Op. cit., Tables 7 and 8.

/11/ Ibid., Table 11.

increased 11% as compared to 14% for the country as a whole. The areas under crop cultivation (annual and permanent crops) increased from 3.8 million hectares to 6.8 million hectares. This was an 82% increase during this 10-year period. In 1960, however, about 15% of the land in farms was used in annual and permanent crops./12/

The foregoing figures show that land settlement had been going on for many years, apparently on a pioneering type of basis. Much of this type of settlement during the 1950-1960 decade and during the 1960's was a movement to the more sparsely settled areas of the country both within regions and from one region to another./13/ (See Table 4 and population graphs A and B attached.)

/12/ Tables 2 and 3 from article "Agricultural Development and Policy in Brazil by Edward Schuh and Elizeu R. Alves--as published in International Studies in Economics (Monograph No. 8) Dept. of Economics, Iowa State University, Ames, Iowa, Sept. 1968.

/13/ Table 4--"Net Rate of Population Growth by Regions, Brazil, 1872-1960" (Abstracted by R.S. Beck, Boletim Fundacao IUPERJ publication No. 2, 1969, Distribuicao Espacial da Populacao do Brasil), and graphs on Rates of Population Growth in various parts of Regions.

TABLE 2

Area in farms, and area in farms as percent of total, by regions,
1950 and 1960

Region	Area in farm land*				
	Total Area* 1960	1950		1960	
		Hectares*	Percent of Total Area	Hectares*	Percent of Total Area
North	355	23	7	32	9
Northeast	96	42	43	46	40
East	126	60	47	65	51
South	81	54	67	60	74
Central West	180	54	29	61	33

Source: Pan American Union, Land Tenure Foundation and Social Economic Development of Agricultural Sector, Brazil, General Secretariat of Organization of American States, Washington, D.C., 1966, p. 69

* Area in million hectares.

TABLE 3

Changes in land in farms and in crops by region, 1950-60
(hectares in millions)

	Total hectares in farm lands		Total hectares in crops ^b		Percent (2) of (1)		Percent increase since 1950 in	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
	1950	1960	1950	1960	1950	1960	Total Land	Crop Land
North ^a	12.2	12.3	.2	.4	2	3	1	94
Northeast	41.5	40.0	3.2	6.0	9	15	11	82
East	59.6	65.6	5.7	7.0	10	12	10	37
South	54.4	60.1	0.2	13.3	16	22	10	51
Central West	53.6	61.4	.6	1.4	1	2	15	133
All States	221.3	245.4	19.1	29.7	9	12	11	56
Territories	10.9	20.0	c	c	*	*	83	109
Brazil	232.2	265.4	19.1	29.7	8	11	14	56

Source: Pan American Union, *op. cit.*, based on Preliminary Census of Agriculture, 1960.

^aExcluding territories Acre, Rio Branco, Amapa, Rondonia included below.

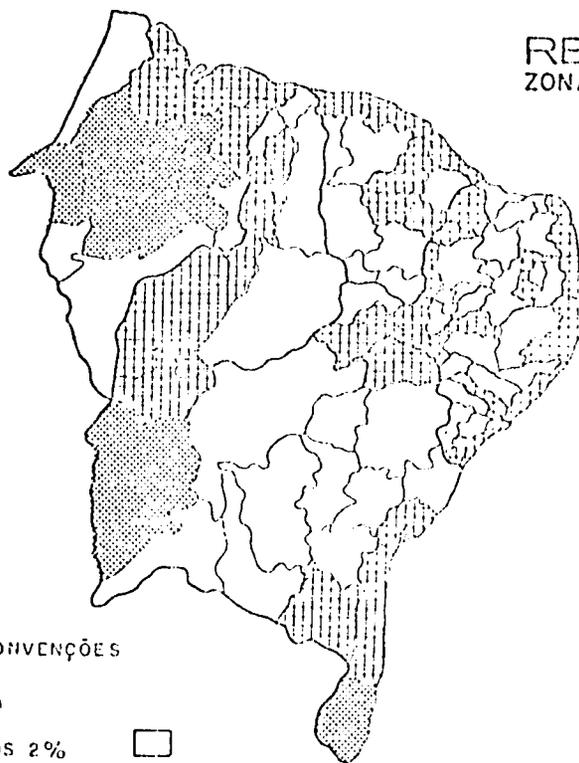
^bAnnual and permanent crops only.
^cAbout 20,000 and 41,000, respectively.

*Insignificant. Note: Discrepancies due to rounding

Source: Tables 6 and 7, abstracted from article by G. Edward Schuh and Elizeu R. Alves from Monograph No. 8, *International Studies in Economics*, Iowa State University, Ames, Iowa, Sept. 1968.

REGIÃO NORDESTE
ZONAS FISIográfICAS

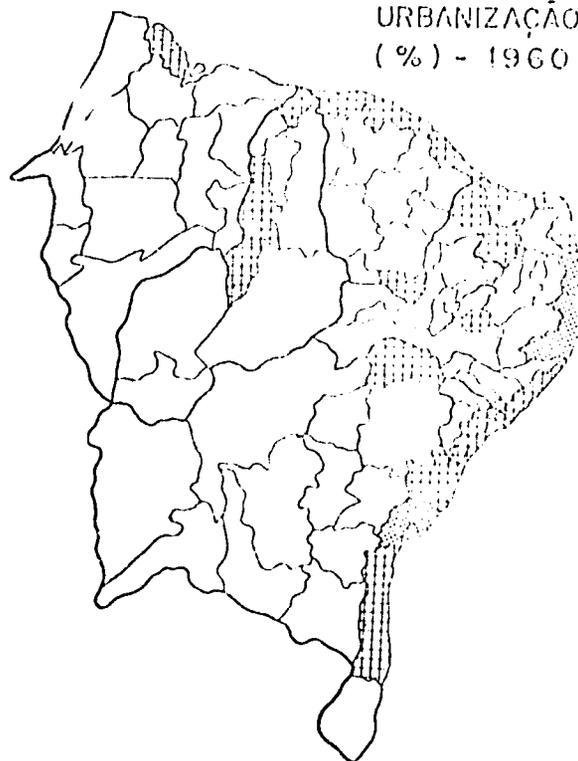
TAXA DE
CRESCIMENTO
DA POPULAÇÃO
(%) - 1950/60



CONVENÇÕES

TAXA	
MENOS 2%	
DE 2% A 3,9%	
4% E MAIS	

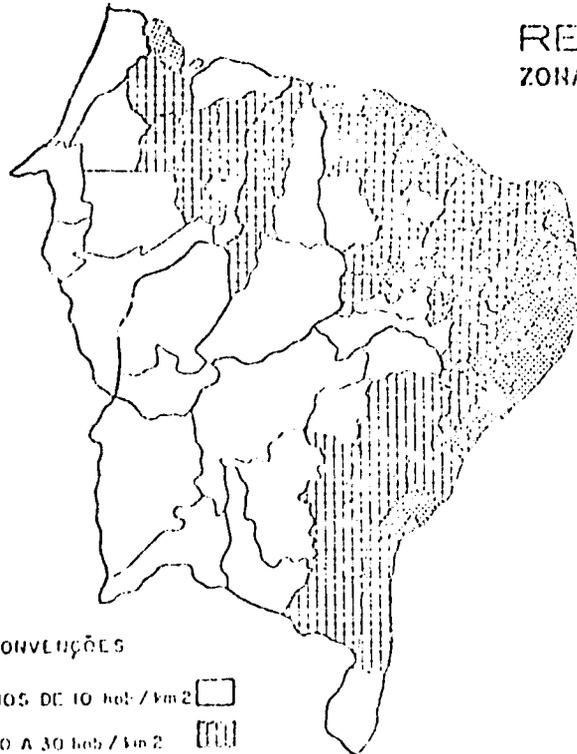
TAXA DE
URBANIZAÇÃO
(%) - 1960



CONVENÇÕES

MENOS DE 30%	
DE 30% A 60%	
MAIS DE 60%	

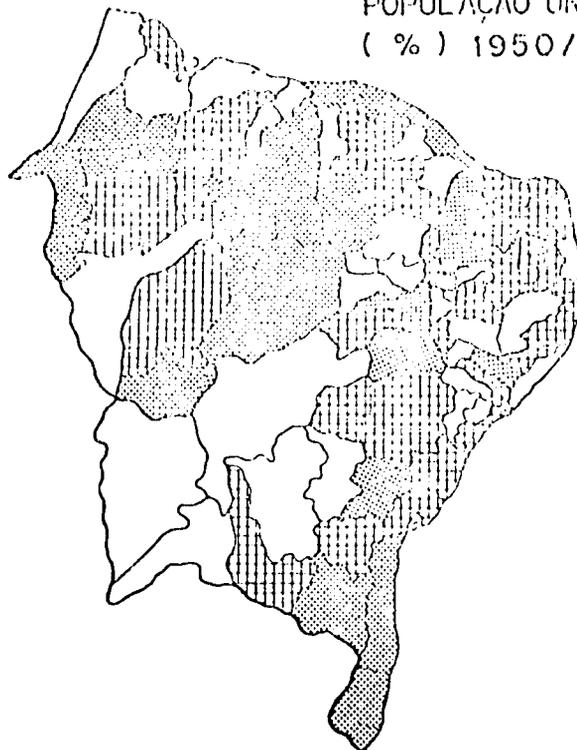
REGIÃO NORDESTE
ZONAS FISIAGRÁFICAS
DENSIDADE - 1960
(hab / km²)



CONVENÇÕES

- MENOS DE 10 hab / km² 
- DE 10 A 30 hab / km² 
- MAIS DE 30 hab / km² 

CRESCIMENTO DA
POPULAÇÃO URBANA
(%) 1950 / 60



CONVENÇÕES

- MENOS DE 4 % 
- DE 4 % A 6 % 
- MAIS DE 6 % 

TABLE 4
Net Rate of Population Growth by Regions, Brazil, 1872-1960[§]

REGIONS	Compounded Annual Rate of Increase (%)			
	1872 to 1890	1890 to 1940	1940 to 1950	1950 to 1960
	Percent	Percent	Percent	Percent
North	2.0	2.3	2.4	3.4
Northeast	<u>1.4</u>	<u>1.3</u>	<u>2.3</u>	<u>2.2</u>
Southeast	<u>2.3</u>	<u>2.2</u>	<u>2.1</u>	<u>3.2</u>
South	3.0	2.0	3.2	4.2
Central-West	2.0	2.0	3.3	5.5
Brazil	2.0	2.1	2.4	3.0

Source: Sinopse Preliminar do Censo de 1960, IBGE.

§ Compound rate takes into consideration migration as well as births and deaths.

According to census data, the net annual compound rate of population growth in Brazil increased from 2.0 % in the period (1872 to 1890) to 3.0 % in the period (1950 to 1960). For the same periods, the net growth rates increased from 1.4 % to 2.2 % in the Northeast region and from 2.0 % to 5.5 % in the Central-West (Mato Grosso, Goiás and Federal District) region.

The evolution of the land tenure pattern in the NE varies from sub-region to sub-region. Earliest settlement in the Sertao and in the humid eastern fringes, including the State of Maranhao, was in large landholdings, many of them in cattle production under extensive practices. Sizeable proportions of these sub-areas are believed not to have been properly alienated and are still public domain. The outflow of population from centers of density, particularly along the coast, initiated a pioneer fringe settlement process underway to the present. From this, a serious squatter problem ensued. Many of the new farms reported in the 1960 census and the 1965-66 IBRA cadaster occurred in these areas. Fragmentation of older properties through inheritance similarly produced additional small farms.

In the Agreste very early land settlement was reportedly in extensive properties, but in the absence of strong, commercially viable plantation units. such as in the Zona da Mata, sub-division of properties under the pressure of population led to the evolution of a highly fragmented landholding pattern.

In the Zona da Mata the dominant land tenure system in the early centuries was characterized by moderately large (2000 to 3000 hectares) sugar cane and sugar plantations. During periods of low population density, large patches of forested land separated clusters of plantations. During the latter part of the 19th century and early decades of the 20th the several hundred plantations were consolidated into less than 200 large operating units (usinas), which included steam-powered sugar refineries. Apart from these large complex plantations, there also evolved a group (numbering in the thousands) of sugar-cane producers, whose sizes range from less than 100 hectares to a few thousand. The establishment of small farms, producing crops other than sugar cane was difficult. Squatters were generally not permitted by larger landholders.

C. Land Resources Information

1. Land Availability

Based on data compiled from the cadastral survey made by IBRA in 1965-1966, which covered 51% of the NE, 86% of the land was considered usable (explotável), of which 25% was then being utilized agriculturally (13% for pastures and 7% for crops)./14/ Using the

/14/ IBRA, A Estrutura Agraria Brasileira, Dados Preliminares,
Volume 1, 1967.

1960 census of rural population, this would provide over seven hectares of unutilized arable land for every man, woman, and child living in rural areas, or 36 hectares for an average family of five.

In examining the area of GERAN, in parts of which some land reform is to be carried out, estimates of land availability are based on the following assumptions: that the area under consideration, consisting of the humid coastal strip (Zona da Mata) of Rio Grande do Norte, Paraiba, Pernambuco, Alagoas, Sergipe and the northern portion of Bahia, contains substantial portions of unused land; that the lands have relatively easy access to roads and markets; and that all rural properties were declared in IBRA's cadastral survey and thus are classifiable for land reform purposes. This area represents only 2% of the total land surface of the Northeast. It is estimated to be 88% usable, of which 47% was being cropped or used for pastures (28% for cropping alone). In absolute terms, there is estimated to be 1,527,018 hectares of usable land not being utilized for crops or pastures, or 0.5 hectares for every man, woman and child living in this rural area.

2. Classification

Soil and water resources surveys of the Northeast are in progress, principally through the efforts of SUDENE and the Ministry of Agriculture. There are four different area projects in operation which will provide a basis for the classification and assessment of the relative value of agricultural land. The most important project is the soil reconnaissance survey being conducted by the Ministry of Agriculture/SUDENE which has been in progress for several years. All field work is programmed to be completed in 1970, for Ceara, Rio Grande do Norte, Paraiba, Pernambuco, Alagoas and Sergipe. Maps for Rio Grande do Norte, Paraiba and Pernambuco should be available this year. Field work has been initiated in Bahia but not in Piaui and Maranhao. This survey will identify slope classes, major soil group classifications and soil parent material.

A water resources survey is in progress on a priority area basis. It is estimated that the survey, which indicates quantity, quality and depth of underground water, has been completed for 45% of the NE. Total coverage will require an additional number of years.

The Ministry of Agriculture, through its regional research institute's (IPEANE) soils testing program, is seeking to determine soil nutritional requirements for the region. The first maps to be printed in Brazil will be for the states of Alagoas, Pernambuco and Paraiba and should be available early in 1970. These maps will indicate the requirements of soils by counties (municípios) of phosphate, potash and lime.

The fourth project which contributes to land classification and assessment of value, is being carried out by SUDENE, through the taking of aerial photography. It is estimated that photographs covering more than half of the NE are now available; these photographs indicate topography, type of vegetation, surface rock, drainage, and proximity to roads and water.

With reference to the area of GERAN, all of the field work in soil reconnaissance is completed, but not published; the water resources survey has been completed; soil nutrient requirement maps should be available for 50% of the municípios this year; and aerial photography is projected for early completion.

3. Identification and Titling

a) Availability and Quality of Cadastral Information

IBRA has gathered a considerable amount of cadastral information, which it has placed on file for public information. The retrievability and quality of information is considered by some who have used it, to be of low order./15/

b) Historical and Legal Basis for Property Claims

In 1531 Portugal began colonizing Brazil, dividing the country into twelve "Hereditary Captaincies", large sections of land over which the owner had absolute sovereignty and which could be transferred to his heirs. The owner could then further divide the land

/15/ In 1967, when members of the Michigan State Recife Marketing Study used IBRA's information for the years 1965 and 1966, they found that it was misleading in two respects: 1) Farmers gave misleading information regarding their landholdings, due to fear of higher taxation or other reasons, and 2) IBRA's information did not match the realities of the land tenure situation. Farms were not located where they were supposed to be, and size of actual holdings did not match IBRA's statistics.

into holdings called "Sesmarias". No evidence exists of any laws, regulations or controls over these grants. However, in 1850, Dom Pedro II returned all land not granted as sesmarias to the Government, and these lands became public under the jurisdiction of the states. All Constitutions since 1891 left this form of administration of public lands unchanged until the creation of the New Constitution of 1967, which states that public land could be federalized and that such land would come under the jurisdiction of IBRA.

Private land transfer up to 1850 was legal only if recorded by the Church. In 1850 Law No. 601 called for the establishment of a Public Registry, which was finally brought into use by a subsequent law, No. 1318 in 1854. This system has existed to the present.

c) Titling Procedures./16/

Real estate laws and practices vary considerably throughout Brazil. Since a clear title to rural lands is difficult to obtain and may be questioned, multiple claims have arisen in many cases. Property titles must be inscribed in Book 3 of the Public Register, which, although regulated by Federal legislation, is actually administered by the states. Considerable discretion has been given to the notary in charge of the Register, and, consequently, the recorded value of many transactions, as well as their size, is many times not correctly stated.

An abstract of the title document must also be inscribed in the Public Register, but compliance with this regulation has varied considerably. Only if land is being subdivided or acquired from the State for the first time does there seem to be a requirement for the filing of a survey map or plot, but these too are often erroneous or incomplete. Recording a transfer of property in the Public Register also does not guarantee it against possible legal defects of title, and there is no known title insurance available in Brazil.

/16/ Walter E. Beck, Land Title Registration in Brazil, 1967.
USAID/Brazil/Rio de Janeiro, April 10, 1967

Today, a landowner cannot legally sell, lease, subdivide, mortgage, obtain credit or contract with tenants unless he has a Certificate of Registration with IBRA, which has been charged with the task of establishing a National Cadaster to create a just tax base for rural properties. The seller must also have a receipt from IBRA, verifying payment of the rural land tax for the preceding fiscal year.

D. Rural Production and Productivity

Agricultural production in Brazil from 1958-1967, increased at an average annual rate of 5.5% (Table 5, Agricultural Attache Report on Agriculture Situation, American Embassy, Rio, Jan. 27, 1969). Using the average annual population growth rate of 3.7% (the annual compound rate was 3.0%) for 1950-1960 as a basis of population increase in 1958-1967, agricultural production per capita increased an average of 1.8% per year during this period. A composite agricultural production index series was not given for the NE. But judging from production trends of individual farm commodities, food crop production on a percentage growth basis has increased faster than the country as a whole (Table 6, Production as Percent of Total Brazil Production, 1958-1968). Staple food crops such as rice, corn, beans and manioc, as well as cattle and eggs showed greater increases in production on a percentage basis than the country-wide increases. Also, on a comparable basis (as above) the population increase was less (an average annual rate of 2.5%), hence the per capita food crop production probably increased more rapidly in the NE than in the nation as a whole.

The NE is a surplus producer of cotton and sugar, although the internal market for the latter is limited to the NE, itself. However, the bulk of the Brazilian quota of the U.S. preferential market comes from the Northeast. Per capita production of food crops is considered to be low in the NE, although as indicated above, growth of farm output in recent years has exceeded population increase. According to the Michigan State University Marketing Study of the Recife area, over 3/4 of the rice marketed in Recife was supplied from outside of the NE./17/ About 1/4 of the beans, similarly, was imported into the region. Surprisingly, South Central Brazil supplied Recife, and perhaps other parts of the NE, with manioc flour, a traditional commodity in the North and NE of Brazil.

/17/ Michigan State University, Marketing Processes in the Recife Area of Northeast Brazil, Latin American Studies Center, Research Report No. 2, East Lansing, Michigan, (1969), Chapter 9.

TABLE 5

Indices of Real Product for Brazil
~~1958-1968~~ 1958-1968
 (Base: 1949=100)

	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967 [*]	1968 ^{1/}
AGRICULTURE	141.3	140.0	156.1	167.9	177.1	170.9	181.3	206.3	199.6	210.9	1-2
CROPS	141.2	151.0	161.3	169.4	176.0	176.7	174.4	209.5	194.6	210.2	
For internal cons.	145.3	152.0	174.8	183.6	193.7	203.1	209.5	239.8	231.4	255.2	
For export <u>2/</u>	138.2	135.2	129.0	130.0	126.0	98.1	66.4	93.6	77.0	76.6	
ANIMAL PRODUCTS	140.7	149.0	145.8	164.4	170.7	181.8	192.8	204.4	213.4	217.3	
VEGETABLE PRODUCTS <u>3/</u>	133.3	143.0	169.0	188.2	197.2	209.5	217.0	225.3	217.1	219.5	
INDUSTRY	213.2	240.7	264.0	293.4	316.0	310.2	334.1	318.3	355.9	366.0	
COMMERCE	71.1	106.9	197.8	209.0	217.0	220.7	227.5	240.3	253.0	269.5	
TRANSPORTATION AND COMMUNICATION	176.7	188.7	219.1	240.0	250.2	272.2	282.1	284.5	300.0	323.0	
GOVERNMENT	123.9	126.9	130.0	133.1	136.3	139.6	143.0	146.5	150.0	153.6	
SERVICES	130.9	134.9	139.0	143.2	147.6	152.1	156.7	161.5	166.4	171.4	
RENT	137.0	142.0	148.0	153.2	158.0	164.6	170.6	176.8	183.2	189.0	
REAL PRODUCT	160.7	172.5	184.0	197.4	208.0	211.3	217.9	226.3	233.9	245.4	

Source: Center for National Accounts, Getulio Vargas Foundation.

(*) Preliminary estimate.

1/ Indices for 1968 not yet available. Agricultural output is estimated to be up 1-2% with coffee and about 4% without coffee. Industrial output is estimated to be up 16%.

2/ Coffee, cocoa, and cotton. 3/ Forestry products (incl. lumber), rubber and other products not planted.

TABLE 6

~~Percentage Changes in~~ Northeast Production as Percent of
Total Brazil Production, 1958-1968

Year	Cattle Numbers	Cattle (head slaughtered)	Rice Produc- tion	Corn Produc- tion	Dry Beans	Manioc Produc- tion	Pineapple Produc- tion	Egg Produc- tion
	%	%	%	%	%	%	%	%
1958 1958	17.7	17.1	9.7	6.9	17.1	41.3	39.1	12.5
1959	13.1	17.7	13.9	10.9	30.0	40.8	40.3	13.0
1960	19.0	17.5	10.4	11.9	28.6	43.3	40.9	13.5
1961	19.0	17.2	14.0	11.8	28.5	42.6	42.8	13.7
1962	19.1	19.5	15.0	12.0	32.0	41.7	44.7	14.1
1963	19.3	20.0	15.8	12.2	31.3	41.0	45.8	14.3
1964	19.6	19.0	14.0	13.0	28.6	40.9	41.6	14.0
1965	19.9	19.5	12.7	11.7	28.2	37.9	41.4	14.1
1966	20.3	21.9	14.1	10.9	30.1	38.9	49.9	14.1
1967	21.4	20.9	14.5	13.9	37.3	41.4	53.2	14.7
1968	21.7		16.6	13.3	36.7	42.4	52.9	14.9

Source: Computations based on data from Anuário Estatístico do Brasil.

The increased production in the NE has come about primarily from expansion in acreage. Part of this expansion resulted from an increase in the number of farms and area farmed, and part from increasing crop acreages and use of existing farmland areas. Yields are low and very little change in yields per acre (or hectare) has occurred during the past 10 years (Table 7, Per Hectare Production of Selected Northeastern Crops, and Graph C, Yields of Important Food Crops in the Northeast). In general, the smaller size farms have a larger percentage of their farms under cultivation than the larger farms./18/

E. Rural Population, Employment and Under-employment.

The number of workers in agriculture actually employed in the NE in 1968 was about 4,840,000 persons, as compared to a total employed labor-force of 8,775,000. In the third quarter of 1968, approximately 55% of the people working in the region, excluding family auxiliaries, were employed in agricultural production. Of the work force in agriculture, 21,000 were reported as not working./19/

A study of 1960 Census data relating to employment in the NE showed:/20/

1. The agricultural labor-force is large in relation to the land under cultivation; 1.5 hectares of cultivated land per person employed in agriculture for the region and 1.2 hectares in the more densely populated states of Alagoas and Pernambuco.
2. The lowest category of farm operators "sub-family farms, share croppers, and salaried workers with or without land" represented 2,408,000 workers or 72 percent of the total agricultural work force; "owners and their working family members on multi-family farms" represented 14%; and "operators of family farms and their working family members" accounted for most of the rest.
3. The sub-family farms represented 72% of the farms and occupied only 7 percent of the land.

/18/ Sund, Michael, Land Tenure and Economic Performance of Agricultural Establishments in Northeast Brazil, Land Tenure Center, Madison, Wisconsin, April 1965.

/19/ Shotwell, J., Agriculture Sector Analysis, USAID/Brazil/ARDO, 7/8/69, pages 18-19.

/20/ Sund, M., op. cit., p. 11-39.

TABLE 7

Per Hectare Production of Selected Northeastern Crops

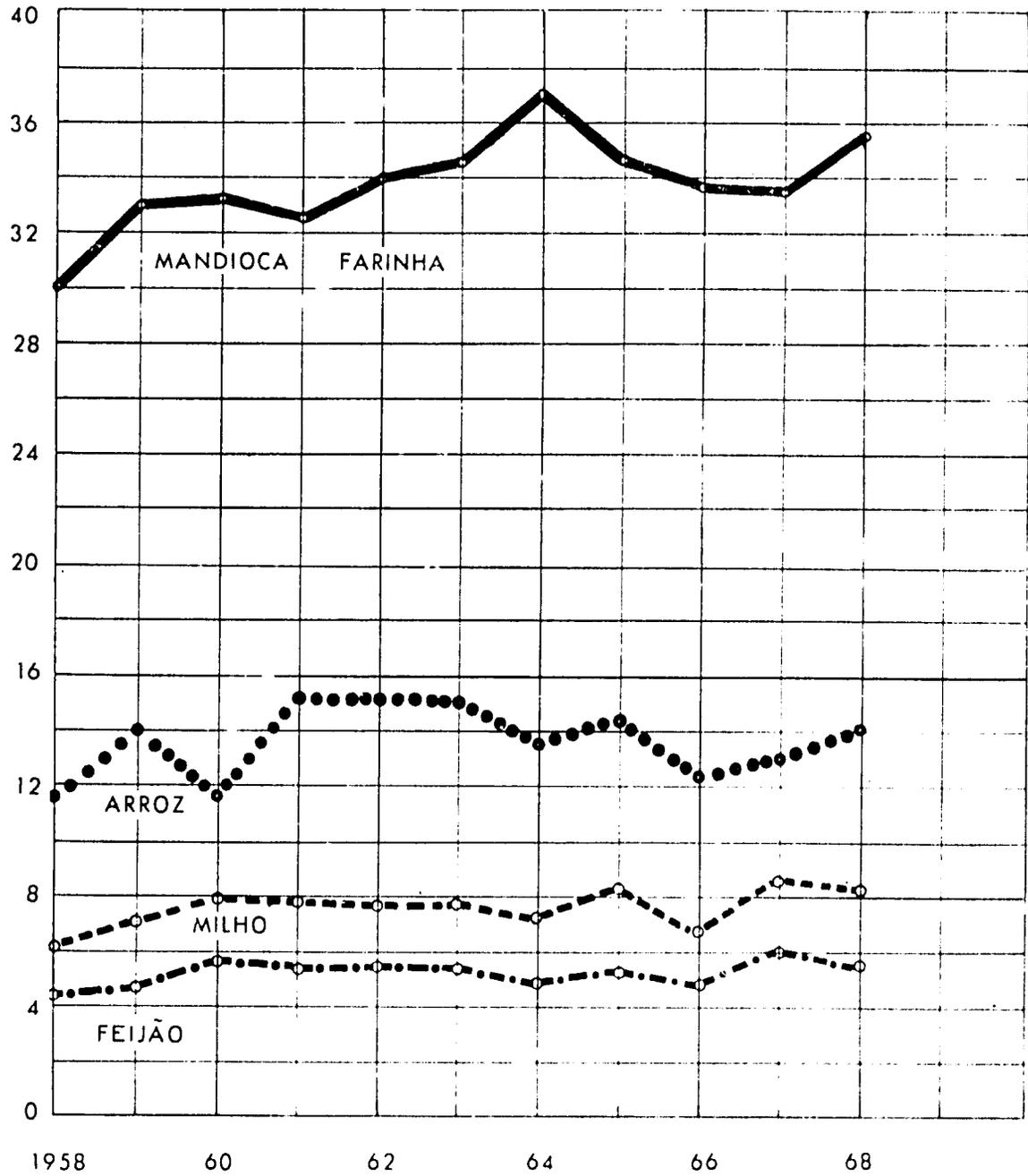
<u>Rice Production in Northeast Brazil, 1958-1968*</u>			
<u>YEAR</u>	<u>Total Hectares Harvested (1,000 Ha)</u>	<u>Total Crop Production (1,000 metric tons.)</u>	<u>Yield (kg/ha)</u>
1958	325	371	1,140
1959	406	562	1,401
1960	430	497	1,154
1961	500	755	1,510
1962	555	834	1,503
1963	604	906	1,500
1964	651	889	1,365
1965	674	965	1,432
1966	675	816	1,210
1967	741	983	1,326
1968	785	1,106	1,408
<u>Corn Production in Northeast Brazil, 1958-1968*</u>			
1958	816	511	626
1959	1,163	852	732
1960	1,297	1,028	792
1961	1,356	1,067	786
1962	1,455	1,146	787
1963	1,635	1,273	779
1964	1,600	1,222	727
1965	1,749	1,417	810
1966	1,801	1,244	691
1967	2,061	1,789	868
1968	2,108	1,700	800
<u>Dry Beans Production in Northeast Brazil, 1958-1968*</u>			
1958	570	249	436
1959	809	465	574
1960	900	495	550
1961	918	497	542
1962	1,014	546	538
1963	1,134	609	537
1964	1,136	552	470
1965	1,218	646	530
1966	1,336	647	485
1967	1,574	951	605
1968	1,565	828	568
<u>Manioc (Favinha) Production in Northeast Brazil, 1958-1968*</u>			
1958	594	1,813	3,052
1959	580	1,921	3,315
1960	657	2,180	3,319
1961	670	2,197	3,277
1962	696	2,362	3,394
1963	753	2,606	3,461
1964	769	2,843	3,697
1965	778	2,705	3,476
1966	817	2,747	3,363
1967	932	3,229	3,463
1968	994	3,540	3,563

* Source: Anuário Estatístico do Brasil.

PRODUCAO DAS PRINCIPAIS CULTURAS ALIMENTICIAS
NO NORDESTE BRASILEIRO

(CEM KG)

[Quilogramas Por Hectare]



F. Income Distribution

SUDENE's Fourth Master Plan states that the NE, with approximately 30% of Brazil's population, earns less than 20% of the nation's income. On a per capita basis, the average Nordestino's income is only 60% of what his average countryman receives. Emphasized by SUDENE is the reality that most income in the NE is concentrated in certain states, regions, and social groups.

Income data for the NE is very scant. But an illustration of urban and rural incomes can be made by surveys taken in Recife by SUDENE/Michigan State University and in the sugar zone of Pernambuco by the Joaquim Nabuco Institute of Social Research (IJNPS). The per capita income in Recife was reported to be US\$30 per month and the income in the sugar zone was about US\$23. Another more current indicator of rural/urban income in the Northeast would be the official minimum wage for rural and urban areas. The current minimum wage in the city of Recife is NCr\$120 per month while in the interior of Pernambuco the official minimum wage is NCr\$104.

Per capita income figures obscure the facts of income distribution. Unfortunately, no reliable data exist. Qualitative impressions can be obtained by information on departures from the legal minimum in the rural areas, the clear large amount of under- and unemployment and other facts of life apparent even to the casual observer.

G. Supplementary Services and Supplies

1. Information

Although agricultural development in the Northeast has progressed less than in south and central Brazil, there does exist a relatively good framework of institutional support in the field of research. The greatest institutional development has taken place principally in the State of Pernambuco, financed by that state (IPA is rated second in the nation in state agricultural research institutions) and the Ministry of Agriculture, (IPEANE), covering all climatic zones of the Northeast.

Applied agricultural research is supported by: the Ministry of Agriculture, with two regional institutes; the Ministry of Education through six agricultural colleges; the Ministry of Interior through three regional development agencies; the Ministry of Finance; and various state agencies. Together, these organizations represent an impressive total of 40 experiment stations and approximately 500 specialized scientists. This does not take into account work being done in related fields of fisheries and forestry, and by private investment such as the sugarcane growers' associations, rubber companies and vegetable oil interests. As a result of their efforts, improved plant material has been identified or produced for most major food and fiber crops.

Agricultural extension in its broad sense, although a more recent institutional development, is on paper equally impressive. Each state in the NE has a federal/state supported extension service, representing a total for the NE of approximately 400 rural extension offices manned by 750 agricultural and nutritional specialists. Equally true, each state agricultural secretariat has a department for the promotion of crops and livestock, representing 300 rural offices with an estimated 800 technicians of college level, and 24 demonstration farms.

The Ministry of Agriculture, which services all states, has a division for the development of crops and livestock, which in the State of Pernambuco alone represents 60 agriculturalists, 39 veterinarians and 13 demonstration farms. There are additional extension services provided by colonization institutions, development banks, cooperatives, private companies and other federal agencies (SUVALE, DNOCS *) on special projects. This total effort in assistance to the farming community of the NE creates an estimated ratio of one extensionist per 500 farm holdings.

* Superintendency for the Development of the Sao Francisco Valley (SUVALE), the National Department for Works Against the Drought (DNOCS).

As yet, this research, promotion and extension support to the agroindustry of the NE has produced few easily recognizable benefits, in part due to the low literacy rate of the farming community and lack of coordination of effort, objectives and resources.

In reference to the GERAN area, institutional effort for agricultural development in the Zona da Mata has fair representation, considering that this zone comprises only 3% of the total land area of the NE. However, when one considers that about 10% of the rural population of the NE is concentrated in that zone, it is not receiving due consideration.

2. Credit

Under the National Agricultural Credit Law of 1965, and through the series of Central Bank resolutions requiring banks to invest in rural credit, the NE has in recent years improved its rural credit system and supply of loans to farmers. Nevertheless, only about 30% of farmers in that region received loans in 1969. The bulk of loans were for short term, production credit at times for an interval shorter than the production season. Medium and long term credit remain in short supply, mainly because of limited experience in this type of lending. Interest rates range from nine to 18%.

The principal lending agencies are the Bank of Brazil (BB), the Bank of NE Brazil (BNB), the National Cooperative Credit Bank (BNCC) and several state banks. These and some private banks have signed agreements with the Central Bank, abiding under laws and regulations administered by it, making available some 400 credit windows to NE farmers through branch agencies.

In the past, small farmers particularly those without firm title to land or with unenforceable tenancy or sharecropper contracts, have almost uniformly not had access to credit. Local money lenders outside the institutional credit system, charge interest rates beyond the capability of such small farmers to pay. Therefore, the advent of government stimulated and regulated farm credit offers improving perspectives for a better flow of capital to the NE farm sector, although the title and tenancy issues remain stumbling blocks to many small farmers.

3. Supplies

For the majority of the farmers in the NE, agricultural inputs are not easily procured. Unfortunately, the majority of farmers as yet do not have the motivation to use modern production inputs.

Private capital plays a small role in the supply and distribution of farm products. Elementary hand tools are the only commodities which can be found in most general stores in small communities. Farm machinery is stocked and sold by business establishments only in the state capitals (all seaports) and major interior cities. Implements and agricultural chemicals (fertilizer, herbicides and pesticides) are similarly limited in outlets. Regional production involves only small quantities of phosphate fertilizer in Recife, irrigation pipe in Recife and hand tools in Campina Grande, Recife and Salvador. There is some custom-made farm machinery made in the larger cities. Only large agencies dealing in agricultural inputs have some traveling commission salesmen covering the interior of the region. They supply no technical assistance; indeed, do not have the capacity to do so.

Little improved seed is imported (principally vegetables) and an estimated 1000-2000 tons is produced locally, all by GOB agencies. There is little hope for increased production until there is greater demand. Approximately 1000 tons of improved corn seed is produced annually in the State of Pernambuco by the Superintendency for the Development of the NE (SUDENE) directly and by private farmers contracted by the Secretariat and Ministry of Agriculture. Each year quantities of this seed are shipped to other states because local demand does not utilize all of it. The small quantities of improved seed produced in the NE are presently limited to rice, beans, castor bean, corn, tomatoes and melons. Most seeds are distributed and sold through the rural offices of the State Secretariats of Agriculture. State and federal agencies also maintain more than 50 nurseries for the production and sale of plants.

Machinery service organizations have been established by state governments, colonization institutions and the Ministry of Agriculture. All are relatively ineffective.

Cooperatives do not yet play an important role in the supply of agricultural inputs.

The area of GERAN does have the advantage in geographical location in being near the larger cities, seaports and principal highways, for easier access to the existing suppliers of agricultural inputs.

4. Infrastructure

An understanding of its infrastructural inadequacies is essential for the most elementary comprehension of NE development problems.

SUDENE made road building a priority in its First Master Plan in 1959 and formulated ambitious goals accordingly. However, because of budgetary cutbacks, lack of full cooperation from the Federal Highway Department (DNER) and institutional bottlenecks, the achievements fell about 20% short of their initial targets. The NE has a total of 223,000 kilometers of improved roads, of which 6,885 are paved. These figures represent increases respectively of 20.28% and 31.55% over 1959 levels./21/ But with less than 0.15 of a kilometer of road per square kilometer, compared to 0.68 in Sao Paulo, NE investment in roads is still low. The road network is much better in the Zona da Mata than in the remaining areas, but even there deficiencies exist. Many interior locales that are not served by paved roads are virtually cut off from the rest of the world during the three-to-four months rainy season.

Railroad service in the NE is at best poor. Outdated, ponderously slow equipment creeps across approximately 7,913 kilometers of dubious track./22/

Bus transportation, given the limitations of the roads, is relatively good, frequent and comparatively inexpensive. Air service is good, considering the circumstances, but almost prohibitively expensive. If increased air transport for goods and materials were to be considered, there would have to be significant improvements in the amount and condition of interior airports.

Outside of U.N. and Israeli projects in the Sao Francisco River Valley, there are few true irrigation projects in the Northeast. The National Department of Works Against the Droughts (DNOCS) has worked over the past several decades in building reservoirs in the interior, but these have seen only limited use for irrigation purposes. Increased use of irrigation in the interior would bring about a dramatic change in the pattern of the region's agriculture.

/21/ SUDENE, SUDENE Dez Anos, Recife, 1969, p. 50.

/22/ BANCO DO NORDESTE DO BRAZIL--(BNB), Manual de Estatística Basica do Nordeste, ENEE, Fortaleza, 1968, p. 109

5. Crop Procurement and Marketing

The system of marketing staple food crops, fruits and vegetables in nearly all areas of the NE is antiquated and inefficient. Most sales between producers and buyers take place in small rural villages, at the market place or at the buyer's place of business. The farmer must generally sell his product at the going price when it is harvested, due to lack of storage facilities and high spoilage rates in the case of some crops. He may also be in debt to the same assembler or buyer as a result of credit extended to him at a prior date. Food commodities usually pass through the hands of from two to four assemblers before reaching the retail market, and at each stage a 10% to 25% mark-up occurs.

In the retail market area, monopoly has not been a problem, although large supermarket chains are gaining more control of the market in the large cities, and an oligopolistic, or even, monopolistic, situation could eventually result. In the wholesale sector, even though there is a large number of assemblers, competition is highly imperfect, due to a lack of mobility and communication in rural areas. Market sharing and collusion are common, but little evidence of pernicious monopolistic practice is to be found.

Seasonal variations in prices have been significant for certain crops, especially rice and beans. There is no active news marketing service at the present time, although Recife is being linked to the new national marketing teletype chain in order to give farmers and buyers current price and market information. Improved storage facilities and marketing cooperatives would considerably improve the marketing situation for the small farmer. Marketing cooperatives have not yet played a major role in the rural marketing program. It would seem that this type of marketing is on the verge of take-off in the Northeast, as some 50 cooperatives are now receiving financing from a recent \$2.7 million loan from the Inter-American Development Bank (IDB) to SUDENE. In every NE state there are at least a small number of cooperatives that are ready to begin or have already begun marketing programs.

No official crop procurement authority presently exists in the NE, although the National Supply Superintendency (SUNAB), has been engaged in selective price controls, and, through one of its agencies (COBAL), has been able to avert several major food shortages in principal cities and has slowed the rate of inflation of food prices at the consumer level. SUNAB's functions are presently being examined rather closely, and COBAL has been delegated to the Ministry of Agriculture. SUDENE has been active in establishing minimum price supports and is also involved in a market information program and other research. CANESA, a delegate agency of SUDENE, is moving to expand and improve urban wholesale markets in Recife and Salvador.

At the present time the Government of Brazil is making an intensive study of national and regional prices for agricultural commodities and has been revising federal price policies.

H. Peasant Associations

In accordance with a Ministry of Agriculture report* there was a total of 1804 cooperatives registered in the NE (6431 for all of Brazil) at the end of 1966. ^{23/} Of these there are 627 agricultural cooperatives of various classifications. The majority of the remaining 1177 are consumer, school and credit cooperatives.

Cooperatives by NE states are as follows:

<u>State</u>	<u>Agriculture</u>	<u>Other</u>	<u>Total</u>
Alagoas	40	72	112
Bahia	30	233	363
Ceará	132	152	284
Maranhão	61	41	102
Paraíba	30	166	246
Pernambuco	142	319	461
Piauí	10	51	61
Sergipe	33	16	43
Rio Grande do Norte	<u>42</u>	<u>77</u>	<u>125</u>
Totals	627	1177	1804

In checking with the various state Cooperative Assistance Departments (DAC) it is revealed that less than half of the registered

* "Relação das Cooperativas Existentes no Brasil até 31-XII-66".

cooperatives are functioning normally. According to DAC-Ceará in April 1969, of the 234 cooperatives registered in Ceará (as of 12/31/66) the status was as follows:

	<u>All</u>	<u>Agriculture</u>
Inactive	96	34
Cancellations	23	11
In liquidation	11	1
In reorganization	1	6
Operating but irregularly	38	18
Operating normally	<u>110</u>	<u>64</u>
	234	134

The situation is about the same throughout the NE, some states better, some worse. Still, there has been considerable cooperative institution development in the NE as evidenced by the number registered. Management, politics and lack of cooperative education and orientation are the main problems and one or all three figure in most failures.

It is estimated that more than 60% of the total cooperative membership consists of small farmers. In at least one NE state there does exist a Federation of Mixed cooperatives aimed at the peasant. The Pernambuco Federation of Mixed Cooperatives is made up of 18 local co-ops whose membership of 5,331 in 1968 was specifically organized to serve small farmers and salaried sugar cane workers.

Although the NE has a large number of cooperatives the amount of business done by them is small, services performed are few and the impact made by them on the general economy is limited.

III. LAND REFORM PROGRAM

A. Legislation

Land reform legislation applicable to the NE, and in effect at the present time, involve two separate but related courses of action. In the first place, the Land Statute (Estatuto da Terra), promulgated November, 1964, created uniform, national level policy, criteria and procedural norms. The second course, led in 1966 to the creation by Presidential decree of the Special Group for the Rationalization of the Northeast Sugar Agro-Industry (GERAN). Subsequent to this, and as the result of the need for strengthening the position of GERAN, additional new and more effective legislation was promulgated in 1968 and 1969./23/

Political events leading up to the 1964 Land Statute and the follow up legislation involving GERAN, had their origin in the social turmoil of the early 1960's involving the Peasant Leagues of the NE. At that time, both the federal and state government (Pernambuco) political machinery focused (although sometimes at cross purposes) on the NE sugar workers as a source of popular power. The Governor became the champion of the rural worker. But although land reform was used as a battle cry, no true reform could be sustained in the absence of well structured government plans. The Revolution of March 1964 reimposed order on the NE, and in particular in the rural sugar zone, ending the political agitation in the region.

In March and April, 1965, attention was once again focused on the sugar zone, as a massive post harvest season employment crisis began to build up. In response to this, the federal government created an interministerial Sugar Working Group (GTIA) to prepare an immediate action program for the unemployed and to formulate recommendations for modernization of the sugar industry. The latter objective led to the creation of GERAN in August, 1966. A Board of Directors consisting of representatives of several federal agencies with responsibility in land reform, financing and the sugar industry was formed. Representatives of sugar cane growers, sugar producers and the rural workers associations were permitted a voice in deliberations of the Board, but not the vote.

/23/ A third course led to a law requiring sugar-cane and sugar plantations to permit permanent laborers to plant food crops on up to two hectares of plantation land, a measure viewed by labor and others as a gesture toward land reform.

The president of the Sugar and Alcohol Institute (IAA) was made president of the Board. GERAN was to have a small staff led by a General Secretary. Its program had 4 objectives:

- 1) Modernization of the sugar economy;
- 2) Diversification of the sugar zone economy;
- 3) Development of sugar zone human resources; and
- 4) Land Reform.

Unfortunately, two crucial flaws occurred in the original decree. One was the failure to provide funding for the GERAN program, later corrected in a decree law of 1967. The second was equally basic but was not corrected until December of 1968. It consisted of a fundamental weakness in GERAN's operational structure which permitted the development of impasses in deliberations of the Board of Directors. The 1968 decree restructured the Board by rotating the presidency and making GERAN an integral part of the Ministry of the Interior. Also, the Executive Secretary of GERAN was to be appointed by the President, upon the recommendation of the Minister of Interior.

At that time, the forces involved in the modernization and land reform program to be carried out by GERAN, on behalf of the government, consisted of SUDENE, IBRA and the National Institute for Agricultural Development (INDA) as proponents of land reform, and IAA as an advocate of sugar industry modernization. The Bank of Brazil (BB) was present because of its role as a financial institution active in the sugar industry.

B. Institutional Arrangements

1. The land statute of 1964, which created IBRA to implement national scope land reform, required that each area selected for priority attention have a regional office (delegacia) for the planning and execution of local projects. The NE has two of the five original priority areas./24/ The IBRA delegacias seek to obtain the collaboration of other regional entities but have no power to force joint action nor to secure program funding for multiple objective projects. Funding is accomplished entirely by the central office in Rio de Janeiro.

/24/ The NE Priority Area, consisting of the Zona da Mata and Agreste municipios of Paraiba and Pernambuco, and the state of Ceara. The Executive Group for Agrarian Reform (GERA) created in 1969 to make and execute national level land reform policy is reportedly re-examining the old priority areas designated in 1965-1966. No decisions are known on the issue.

2. GERAN (see TOAID A-122, USAID A-120, 9/15/69), although administratively tied to the Ministry of the Interior, as described above, can function only with the good will of the component agencies. The 1968 legislation, strengthened the hand of the now Executive Secretary and sanctioned an expanded staff. The GERAN staff is organized into six technical branches, responsible for projects in sugar and sugar cane technology, land reform, human resources development, basic land surveys and technical coordination of the above five units. For inter-agency collaboration the Executive Secretary has the power to make agreements and contracts with public or private entities to implement project plans as designed by GERAN or other collaborating agencies. To this extent, GERAN functions as a coordinating body. The major GERAN officers are appointed by the Minister of Interior and are thus representative of the ideological position and reflect the level of federal government concern with land reform as part of the GERAN sugar industry modernization objective.

C. Program Objectives

1. IBRA's land reform objectives in the two priority areas within the NE are the eradication of the unproductive latifundio and of the minifundio. The Land Statute singles these two land tenure types out as the fundamental agrarian problems and, therefore to be eliminated through the application of steps set forth elsewhere in the law to be implemented by IBRA. For the elimination of the latifundio, the primary instrument is the progressive rural land tax which is to bear heavily on the latifundio (and is not at all applicable to farm holdings under 25 hectares). Theoretically, large land owners will be forced to sell their excess land or use it more efficiently, thus getting off the heavier tax brackets. About 6% of the 1,167,000 farm holdings surveyed by IBRA in the NE are considered to be latifundios.

IBRA's second major objective, the elimination of the minifundio, would involve consolidation of the nearly 900,000 uneconomically small farms in the NE into a fewer number of viable, family-size farms.

2. It is not possible at this juncture to quantify GERAN's goals as part of its four major objectives. There are 103 sugar plantations in the Zona da Mata. All are eligible for assistance from GERAN to modernize both their field and factory operations. There are indications that at least 50 plan to apply for aid. No projections have been made on the number of plantations which may survive the transformation process. Similarly, there may be 4000 or more fornecedores in the NE, many of whom are eligible for assistance.

GERAN's agricultural diversification objective is even less quantifiable at this point. The land reform objective, which is tied to the sugar-cane farm and sugar plantation modernization phase, must await further information of the number of enterprises which will eventually apply for assistance from GERAN. It is generally believed that from 20,000 to 30,000 rural families may be displaced by the sugar modernization program. These are to be settled on lands released by plantations as part of their commitment to the modernization program. Still other ancillary objectives concern the improvement of living conditions for farm labor and the provision of educational and other social services to both resettled labor and labor remaining on sugar farms.

D. Program Implementation and Enforcement

1. IBRA administers the rural land taxes through arrangements with local banks which receive land tax payments made by landholders as billed by IBRA's tax department. Landholders surveyed during the 1965-66 IBRA cadaster, and those subsequently added to the tax rolls, provide the basic data on which IBRA calculates tax bills. No up-to-date figures are available for successful tax collection, but it is reported that by mid-1968, 30% of bills issued had not been paid. By law, IBRA is required to report delinquent taxpayers for subsequent court action. No such cases in the NE had been reported in process as late as mid-1969. Much discussion has been given to the desirability of establishing a special rural court system to process cases of tax delinquency, as well as the many rural conflicts involving labor, tenancy, share-cropping and similar contracts requiring enforcement. No positive decisions have been made by the government on this issue.

Until April 1969, with the promulgation of Institutional Act No. 9 and Decree Law 554, the mechanism for expropriation of rural properties was nearly ineffectual, to the point that cases of expropriation lingered in the courts for years. The new legislation now permits nearly summary expropriation of land. The elimination of the latifundio and the minifundio, as viewed by IBRA, necessarily requires an effective expropriation instrument. Therefore, up to the present, the enforcement of tax collections, by at least the threat of expropriation; the direct intervention in large, unused properties; and the pooling of land from several minifundios for the redrawing of property lines, all measures in the end requiring the power of easy expropriation, have not been readily possible. Under the current legislation, theoretically, IBRA should be able to impose its will in the cases which, under the law, are apt for land reform expropriation. Quite another thing is the political will necessary for the execution of such steps. At this point, at least the legal means appear to be adequate to the program needs.

2. Because land reform in the GERAN program context is tied to sugar enterprise modernization, its implementation is tied to the number of such projects submitted to GERAN and to their structural characteristics. GERAN can not enforce the submittal of modernization proposals; these are purely voluntary on the part of sugar cane growers and sugar plantations. However, once submitted, the effects of modernization on the labor rolls are taken as the basis for the amount of land to be released by the enterprise for the re-settlement of displaced labor.

3. Redistribution of Landownership--Landownership changes in the NE land reform context involve the increase in the proportion of economically viable family-size farms, by a) the transfer of land from those who have excess land to those who have none and b) by the redefinition of minifundio boundaries, resulting in fewer but larger farms. The first process (a) leads to the creation of publicly sponsored colonies, as much by IBRA as by GERAN. IBRA has founded two colony settlements, Caxanga and Quatis, since 1965, as part of the land reform program, although it has other colonies under its control. GERAN is to create colony nuclei on property released by sugar cane farms and sugar plantations but has not yet initiated any. For details on the second process (b), see item 6. below (Consolidation).

4. Changes in tenancy systems--IBRA has not yet assessed the magnitude nor the variety of tenancy types in the NE and has, therefore, implemented no programs for the redefinition of renters and sharecroppers.

5. Colonization--There are 52 colonization projects in NE Brazil, involving approximately 16,000 families. IBRA is responsible for 17, 15 of which were initiated prior to the Caxanga and Quatis projects in 1965, as federal government colonies. Thirty are the responsibility of NE state governments. Five are private cooperative enterprises. In Brazil's land reform program, colonization is a consequence of prior steps, and is not in itself a direct means of establishing the landless rural resident on the land. In the absence of any land expropriation, colonization on private lands is not able to proceed. Colonization on public frontier lands have been viewed as an eventual means of resolving rural over-population problems in the eastern seaboard states. And although plans have been crudely drawn to transplant up to 40,000 families to public lands in southern Mato Grosso, none of these families is reported to be directly from the NE.

Caxanga, a bankrupt sugar plantation, taken over by IBRA in 1965 to avert a social crisis, consists of 20,000 hectares, 11,000 of which are to be subdivided into 984 parcels. Nearly 500 have been awarded to former Caxanga laborers. Slow progress is reported in organizing its cooperative (CIRA, see below) due to fund limitations. IBRA agronomists are providing extension services to the new farmers. Quatis is a smaller colony and is similarly progressing slowly in organization.

6. Consolidation--Part of the national land reform program under IBRA, as stated above, involves the consolidation of minifundios, or small farms, into larger and fewer landholdings. To the present, no projects in this phase have been executed by IBRA in the NE, due in part to the absence of political pressure but also, in no small measure to IBRA's penurious state. In no other phase of Brazil's land reform is there consideration for the redrawing of property boundaries on any grounds. Land reform in the GERAN program, as already made clear, involves the release of lands for the creation of colony enclaves on former sugar plantation lands.

7. Classification, identification and titling--The national reform program contemplates property identification and classification through two successive surveys, one of which was implemented in 1965-66. All rural landholdings in excess of one hectare were reportedly enumerated. This file is to be up-dated at intervals of five years, and is to be used as the basis for a later graphic cadaster to include land use capability mapping of each property. By 1972 it is expected that Brazil will have over 4.5 million landholdings. In certain areas in which title disputes are particularly involved, affecting the tranquility of the farm community, IBRA has proceeded to make spot cadastral surveys with the use of aerial photography and has issued provisional documents of occupancy to landholders within these areas. No such project has been implemented in the NE.

E. Financial Aspects

1. Valuation Procedures

National land reform legislation establishes the value of raw land, as declared by the landholders in the IBRA 1965-66 Cadaster, or updating surveys thereafter, as the upper price level for expropriated land. In the absence of a declared value, the expropriating agency is required to do an independent valuation of the subject property, using prior production and land use capability information as the basis of final determination of value. The law applies equally to IBRA and to GERAN in all cases in which land expropriation in the social interest is carried out.

2. Program Financing

a) Landowner Compensation--Brazilian law requires that compensation for expropriated rural property be made in lump-sum cash payment for improvements and in public debt bonds, maturing from 2 to 20 years at 6% interest, corrected for inflation, for raw land. Up to 50% of the bonds may be used for the payment of the rural land tax on the expropriated and remaining property. Since property expropriation for land reform has been carried out in the NE in very few cases, and only 1% of the NCr\$300 million in bonds authorized have been applied nationally, very little information is available on the attitude of landowners to the payment procedure for expropriated property.

b) Peasant Repayment--Land distributed to peasants as part of the land reform program according to law must be payed for by the recipients. No repayment schedules, or price schedules for land have been released, and it is expected that each case will be judged on the attendant costs of land purchase, plus government services provided, and will vary from case to case.

c) Government Expenditures--Primary costs of land reform, excluding supplementary services and infrastructure, appear to be for land. Therefore, since the land reform program is essentially not yet implemented and land values will vary from place to place, no information is available on this issue.

F. Supplementary Services

The Land Statute of 1964 includes a large array of systems and supplementary measures permissible as an auxiliary to land reform. These measures are presumably to be tailored to each project according to needs and will, for this reason, vary from project to project. A major instrument for the provision of services to land reform colonies is through the founding in each reform created colony of a legally sanctioned Integrated Agrarian Reform Cooperative (CIRA). The CIRA's are to be formed by the colonos and will provide technical assistance, supply and marketing services for the colonies. They are to have the power to contract with agencies or firms for any portion of their responsibilities.

1. Information

For farm extension information and services, the CIRA will turn to the local extension agency, which in some cases will be an affiliate of the nation-wide ABCAR system, but may also be from any of the several institutions cited under II.G.1. IBRA finances some ANCARPE (Pernambuco affiliate of ABCAR) agencies in the NE. In the absence of any available extension office, IBRA will provide agronomists to assist colonos such as in the case of Caxanga.

2. Credit

After a CIRA is created, IBRA is required by law to provide it with seed capital (fund de implantacao). A portion of this original capital is to be used as loan funds to finance colono production and marketing operations.

3. Supplies

Here again the CIRA is instrumental. However, as in the other cases, the figures for the level of application are unavailable in the absence of new land reform settlements under current legislation.

4. Infra-structure

Although irrigation is contemplated as part of the infra-structure permissible under land reform legislation, the high costs involved obviate such investment under current land reform program plans. Under the GERAN program, it is unlikely that irrigation will be implemented because of ecological considerations. Construction of roads and power supplies systems are similarly permissible, but must be programmed and financed as part of specific resettlement projects.

5. Crop Procurement and Marketing

As mentioned above the CIRA's are to assist in marketing production. No price stabilization policies have been adopted for reform areas, although certain crops are eligible for participation in the minimum price system.

G. Mobilization of the Peasantry

1. Economic Aspects

Land reform in Brazil is considered to be an initiative to be taken by the government, not by the peasantry. Therefore, it follows that the selection of areas and circumstances under which land reform will be carried out are the responsibility of government. And it follows from this, that the land reform agency will not only select and secure the land (by expropriation or from the public domain) but will also select those peasants which in its judgment are eligible to benefit from the actions of government as expressed in the land reform act. Mobilization of people is then an after-the-fact event (acquisition of land) and mainly involves the creation of the corporate body (CIRA) from those selected to share in the benefits of land reform.

2. Political Aspects

The GOB, in adopting land reform legislation, has responded to a variety of pressures and forces and has traced a conservative, evolutionary middle course to land reform which appears to lead to structural changes but is in keeping with the Brazilian "reality." Rural labor unions, particularly in the sugar zone, rising out of the turmoil of the 1960's, conceive of land reform as a stepping-stone to security. But the law does not permit (nor does the administration) their aggressive mobilization to force land reform to any conceivable degree. Political parties do not use land reform as a major issue.

H. The Politics of Implementation

Prior to the social and political ferment of 1962-1964, land reform in the NE was not a hard political issue. Its implementation was to be sometime in the nebulous future. Now, however, as a result of the pressures and events since that time, land reform is a concrete political question, especially in the Northeast.

Eighty percent of farm holdings in the NE are said to be too small for economic operation. Hundreds of thousands of tenants, share-croppers, and rural laborers, are trapped and exploited by landholders who are reluctant to part with the land and the power it brings. A growing number of national industrial interests see land reform as the path to a widening national consumer market by the creation of a rural middle class. These factions have occasionally taken open public positions favorable to land reform.

By adopting legislation, in the first instance, the GOB appeared to respond to the rural masses which even under maladroit leadership were capable of disrupting tranquility, and threatening the power of a long entrenched oligarchy. Rural labor, in Pernambuco, is well contained and presents no current threat. Government leaders, particularly the military, themselves in large part members of the middle class, are aware of the need for reform, but are at least uncertain as to what course such reform should take. They are particularly anxious to avoid the potential instability and violence which they believe has not been reduced in the NE since the 1964 Revolution.

In response to its view of the inter-relations among security, social tensions and rural poverty, the Government has moved in the direction of reform. Elaborate legislation has been developed, accompanied by the traditional promissory oratory. At the technical level, the conviction is deep that reform is not only needed but that it will be realized. The Church, too, in an evolutionary shift to the left, in the past decade, openly supported the peasantry; some of its worker priests are involving themselves at the grass roots with the organization of rural labor in the NE. At present, Church involvement is comparatively quiet, partly the result of personality differences, partly in response to government pressures. The landowners, on the other hand, deplore the Church's (or individual priests) meddling; they are inclined to harass and suppress rural workers and their organizations, tenants and sharecroppers, and to caution the government and the military, to proceed with gradualism in land reform.

On the other hand, GERAN, since its reorganization, has received good indications that the release of land for rural workers, as part of the commitment of sugar firms in exchange for modernization assistance, is acceptable to many large sugar zone landowners. While it has approved only one modernization project to date (involving the release of 4,200 ha.), GERAN officials report assurances that up to 50 projects (including all 27 usinas in Alagoas) may be submitted this year.

IV. EFFECTS OF LAND REFORM

Because the land reform process in NE Brazil has not yet moved, in effect, into the "results" stage, this section of the paper cannot deal with an assessment of the effects of land reform on the factors considered in Section II.

However, even before meaningful land reform programs are implemented, it is possible to draw inferences as to their probable results, at least in the Northeast coastal area, by analyzing the effects of several colonization projects which do exist in this region. Accordingly, USAID/Brazil/Recife is currently studying several representative colonization projects in the NE coastal region. When this study is completed (Summer, 1970), it is expected that the findings will provide useful indications of the probable effects of land reform in the Northeast on such factors as production and productivity, income distribution, services and supplies, and other matters. In other words, information and conclusions as to the probable feasibility and viability of land reform programs in the Northeast are likely to be forthcoming from this study. Other factors--peasant participation in decisions, the character of rural society and the broader effects on the economy, society and policy--are less likely to be illuminated, because these colonization efforts are quantitatively minimal, heterogeneous as to social organization and are being conducted, until now, within a society whose public policy actions concerning the rural sector tend not to encourage or permit structural change. To put it another way, even if these colonization projects were generating positive political and social results which could be theoretically extrapolated and applied to a land reform program, until a public policy orientation favorable to structural change comes into being, efforts to transfer the socio-political analysis of ongoing colonization activities to land reform would be a fruitless, class-room exercise.

On the economic side, very preliminary results of the study of colonization projects to date tend to encourage the view that, in the Northeast coastal zone, land reform could provide significant improvement in the level of living for landless peasants, tenants and sharecroppers. Clear title to land seems to have stimulated more intensive cultivation, the beginnings of diversified cash as well as subsistence crops and a rapid increase in the use of bank credit. These early results have yet to be confirmed by further analysis and by returns from the assessment of additional colonization projects.

As part of the inability to assess the effects of land reform, it should be noted that the use of the rural land tax, an instrument of land reform, has yielded negligible results. Tax delinquency seems high and rising especially among the larger landowners in the NE. Unless there is a strong shift in the enforcement of this instrument, significant effects are not likely to be associated with the rural land tax.

V. CRITIQUE AND EVALUATION

Perhaps the answer to the puzzle described in the introductory summary is that, at the very highest levels of government in Brazil, the leadership simply has not yet made up its mind about land reform--neither in national nor in regional (NE) terms. The decision makers are, perhaps, on the horns of a dilemma: within their own circles and among their advisors and in many parts of the society itself, there are persuasive advocates of, and substantial pressures for land reform--which may explain why Brazil has gone so far toward gearing up to implement land reform; but, there are counterpart pressures, at present effectively dominant, who fear and oppose land reform, or who do not believe it is in their present personal political interest to support it or who are searching for more "agreeable" ways of meeting the problems of rural poverty. At this juncture of Brazil's political history, the forces at work have apparently arrived at an unstable equilibrium: the nation is committed to land reform and just about all the necessary machinery has been installed, but resistance is still strong enough to hold back real implementation.

The following discussion delineates many of the forces.

A. Factors Working For Land Reform

1. Land reform is an official national and Northeast priority. In the Northeast, this priority is buttressed by the GOB's explicit goal to accelerate development in the region and reduce inter-regional economic and social disparities.

2. In technical terms the opportunities for land reform in the Northeast are, on the whole, favorable. Acceptable land is available and not costly. A substantial portion of large private land-holdings lies idle in the coastal zone and in the Sertao. The coastal zone possesses considerable infrastructure, accessible to land eligible for reform. The Northeast imports a good deal of its food and there appears to be a viable market opportunity to increase agricultural production, both on the cost and demand side. There are

growing indications that a large number of NE peasants possesses the qualities needed to make a "go" of economic family-size farms. The climate for diversified agricultural production in the coastal zone, the Agreste and in other parts of the Northeast is favorable.

3. Government planners and policy makers have accepted the need to expand the nation's internal market as indispensable to growth and to a continued expansion in the industrial sector. They see the rural sector as a major opportunity for widening the domestic market. This view has special force in the Northeast, where federal public policy, through a tax incentive and transfer program, has sharply stimulated industrial development--whose ceiling is regarded as limited by the region's impoverished rural sector.

4. Many of the elements in Brazil and in the Northeast in a position to influence policy--the military, the business sector, the professional class, the Church--are genuinely concerned with the poverty and social unrest which characterize the rural areas, either for social justice reasons or for fear of the peasants' vulnerability to subversion and political radicalization, or both. They see land reform as an important economic, social and political course of action which would respond to these concerns.

5. The legal and institutional machinery for implementing land reform, especially in the Northeast, is in place. There is a public presumption that at least some reform will occur. It may appear politically undesirable to keep holding off meaningful action. Within the military, the leading opponent of the regime is identified with land reform, and it may become important to the regime to reduce his appeal by increasing its enthusiasm for this program.

6. Population pressure in the Northeast is visibly growing. Land reform may come to be regarded as one approach to this problem. To those opposed to family planning or to public policy which encourages it, land reform might appear as a useful and "moral" program in the context of the population explosion, and as a way of forestalling the advocates of population control.

7. Institutions and capabilities which could usefully contribute to land reform--agricultural credit facilities, extension services, cooperatives, rural trade unions, research activities--exist to an important extent in the region. Many of these institutions do not function well, partly because of low demand for the services they provide, a situation which land reform could alter.

B. Factors Working Against Land Reform

1. The GOB has made the raising of agricultural production one of its highest priorities. Because the belief is widespread in Brazil that land reform is likely to reduce production and/or productivity in agriculture, this priority could serve as an obstacle to land reform.

2. The GOB has pursued for several years a relatively conservative public expenditure policy and appears committed to continue it. Land reform, especially as conceived of in Brazil and the Northeast, would call for significant public outlays which, for economic policy reasons, are likely to be resisted.

3. In certain parts of the Northeast (e.g., the Agreste), the minifundio is an important feature of the land tenure picture, adding additional difficulties to a land reform program aimed at creating a new farmer class with viable farm holdings.

4. Brazil's vast view, with massive unsettled areas, acts to dilute the urgency with which changes in the land tenure pattern are pursued.

5. Although some of the interests of the business sector are consistent with land reform, others are not. Effective land reform could reduce the supply of cheap labor and act to raise rural and urban wage rates. This prospect might serve to reduce the enthusiasm of some elements in this sector for reform.

6. Some Brazilian policy-makers and technicians, lacking hard evidence of successful land reform in Brazil, are hesitant to cut the knot of indecision because of their uncertainty and fear of failure.

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