

A GEOGRAPHIC ANALYSIS OF
THE LAND TENURE SYSTEM
OF BELIZE DISTRICT, BRITISH HONDURAS

Thesis for the Degree of M. A.
MICHIGAN STATE UNIVERSITY
MIGUEL A. BARRENA U.
1971



ABSTRACT

A GEOGRAPHIC ANALYSIS OF THE LAND TENURE SYSTEM OF BELIZE DISTRICT, BRITISH HONDURAS

by Miguel A. Barrena U.

British Honduras is an emerging nation on the Caribbean coast of Central America, and a viable economy is essential for true political independence. Exploitation of the rich forest resources was the only economic activity of any consequence until this century, but as the supply of timber has become more limited agriculture has taken its place in the national economy. Although agricultural production has increased rapidly during the past three decades, national trade still shows a substantial deficit. One of the main difficulties in land utilization is the present status of the land tenure system, but the situation is not the same in each of the six districts.

In Belize District, with a total area of 1,063,980 acres, some 333,970 acres (31.5%) are under private ownership, and the remaining 730,010 acres (68.5%) are Crown lands. More than 73.7 percent of all private land in the district belongs to absentee landowners. While 86.7 percent of the landowners occupy only 10.1 percent of the freehold land, 3.9 percent of the landowners have more than 83.8 percent of the total private land. Of the private land 78.9 percent belong to thirty-seven landowners, while 10 percent belongs to the 1,186

landowners who have from one to forty-nine acres. The average area held by the 1,186 small-scale landowners is twenty-eight acres. Of 1,580 landowners, fewer than 685 are actually engaged in farming. There are about 149,300 acres (14%) of fertile soil in Belize District. Slightly more than 50 percent of these soils are in private lands.

The government utilizes about 15 percent of the Crown land in Belize District, while landowners are using about 10 percent of the private land. Large landowners, with more than 500 acres, utilize only 8.9 percent of their total area; medium-scale farmers, with more than fifty acres and less than 500, use 39.9 percent of their area; and small-scale operators, with less than fifty acres, use 52.3 percent of their area.

There are not many companies and landlords engaged in agriculture, but those who are appear to be prosperous. Proprietor-farmers with a farm size between thirty and fifty acres have the highest income per acre cultivated. Farmers with less than 500 acres use the shifting or "milpa" cultivation system, while landlords, companies, and the government use new and modern techniques.

There are few farmers who are totally dependent economically on their crops. Most of the farmers work part-time at other jobs, even though they own land that is not cultivated.

Besides the land tenure system there are other factors which affect land utilization, such as the lack of marketing security, insufficient technical assistance, and the fear of small farmers which prevents them from obtaining agricultural loans.

A GEOGRAPHIC ANALYSIS OF THE LAND TENURE SYSTEM
OF BELIZE DISTRICT, BRITISH HONDURAS

By
Miguel A. Barrena U.

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Geography

1971

PREFACE

The rate of increase in the gross national product of most Latin-American countries has been lower than that of population growth during the past three decades. It appears that improved land utilization is the best way to rectify this adverse economic situation. However, many countries have found that one of the biggest obstacles to greater agricultural productivity is the prevailing land tenure system. The best lands for agriculture are in a few hands and commonly remain idle. Most governments have formulated plans by which to attack the problem, as is the case in British Honduras. To analyze the problem of agricultural production as related to the land tenure system of Belize District constitutes the primary purpose of this thesis. The idea originated with my advisor, Dr. Clarence W. Minkel, whose knowledge of Latin American problems stimulated my own interest in these matters.

The author is indebted to many persons for their generous assistance and advice during the field work. Particular thanks are extended to the president of St. John's College, Father Leo F. Weber, S. J., and Community; Mr. Albert S. Grant, Lands Registration Officer; Miss A. Cleland, Tax Section Officer in the Lands Department; Mr. K. L. Gibson, Surveyor General in the Survey Department; Mr. Gustavo Bautista, Mapping Section Officer in the Survey Department; Mr. Erick King, Chief Agricultural Officer; Mr. C. D. W. Atkins, Agricultural Officer in the

Agriculture Department; Mr. James A. Waight, Chief Census Officer; Mr. Henry Usher, Marketing Board Officer; Mr. Tomás Sabido, Customs Department Officer; and every farmer interviewed. Among these farmers are Mr. Cornelio Chon in Maskall; Mr. Cetina and Mr. Juan Calderón in Santana; Mrs. Rosa Price and Mr. Eustace Guillett in Burrel Boom; Mr. John Link and Mr. Vicente Herrera in Bermudian Landing; and Mr. Albert L. Bevis in Belize City.

Finally, I am grateful to Dr. Clarence W. Minkel for his patience in the supervision of my thesis, and to Dr. Robert N. Thomas and Dr. Stanley D. Brunn for serving on my examination committee.

TABLE OF CONTENTS

	PAGE
PREFACE	ii
LIST OF TABLES	vi
LIST OF MAPS	viii
CHAPTER	
I. INTRODUCTION	1
The Problem	6
Theoretical Considerations	6
The Study Area	7
Procedure	9
II. BELIZE DISTRICT	10
Physical Features	10
Soils	10
Hydrography	13
Climate	14
Flora and Fauna	16
Cultural Features	16
Population	16
Ethnic Groups	19
Economic Features	19
Industry and Agriculture	20
Transportation	21
III. LAND TENURE SYSTEM	22
Types of Land Title	22
Conditions of Tenancy	30
Size of Holdings	31
IV. LAND UTILIZATION	35
Field Investigation	37
Research Findings	42

Table of Contents (Continued)

CHAPTER	PAGE
V. PROBLEMS OF AGRICULTURE	50
Personal Problems	50
Cultivation	51
The Harvest	53
Marketing	53
VI. CONCLUSIONS AND RECOMMENDATIONS	55
Conclusions	55
Recommendations	57
APPENDICES	59
A. PRICES OF PRODUCE IN THE BELIZE MARKET ON DECEMBER 11, 1970	59
B. QUESTIONNAIRE USED FOR INTERVIEWS WITH FARMERS	60
BIBLIOGRAPHY	62

LIST OF TABLES

TABLE	PAGE
1 AVERAGE RAINFALL AT BELIZE CITY STATION STANDARD, 1941-1950	14
2 URBAN AND RURAL POPULATION IN BELIZE DISTRICT, 1960-1970	17
3 ANNUAL POPULATION GROWTH RATE IN BELIZE DISTRICT, 1960-1970	17
4 VOLUME OF EMPLOYMENT BY INDUSTRIAL DIVISIONS IN BELIZE DISTRICT, MARCH, 1967	18
5 SIZE OF PRIVATE LANDHOLDINGS IN BELIZE DISTRICT, 1970 . .	30
6 LANDHOLDINGS UNDER LOCATION TICKET AND LEASED FROM THE CROWN LAND IN BELIZE DISTRICT, 1970	31
7 LAND IN PRIVATE OWNERSHIP BY SIZE CATEGORIES IN BELIZE DISTRICT, 1970	32
8 HOLDINGS UNDER LOCATION TICKETS AND LEASED FROM THE CROWN IN BELIZE DISTRICT, 1970	33
9 CROWN LAND USE IN BELIZE DISTRICT, 1970	43
10 CLASSIFICATION OF PEOPLE INTERVIEWED IN BELIZE DISTRICT, 1970	44
11 LAND USE BY THE INTERVIEWED LANDOWNERS, TENANTS, AND FARMERS UNDER LOCATION TICKET IN BELIZE DISTRICT, 1970	44
12 CATTLE AND ACRES OF PASTURE PERTAINING TO PERSONS INTERVIEWED IN BELIZE DISTRICT, 1970	45
13 LAND USE IN SAMPLE SURVEY, BY SIZE CATEGORIES, BELIZE DISTRICT, 1970	46

LIST OF TABLE (CONTINUED)

TABLE	PAGE
14 MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE UNDER CULTIVATION BY FULL-TIME FARMERS IN SAMPLE SURVEY, BELIZE DISTRICT, 1970	46
15 MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE UNDER CULTIVATION BY SMALL FARMERS IN SAMPLE SURVEY (OWNERS AND TENANTS), BELIZE DISTRICT, 1970	48
16 MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE CULTIVATED BY TWO FOREIGN COMPANIES, BELIZE DISTRICT, 1970	49

LIST OF MAPS

MAP	PAGE
1 BRITISH HONDURAS: LOCATION	2
2 BRITISH HONDURAS: POLITICAL DIVISIONS	8
3 BELIZE DISTRICT: PHYSICAL AND CULTURAL FEATURES	11
4 BELIZE DISTRICT: SOIL-FORMING PARENT MATERIALS	12
5 BELIZE DISTRICT: ANNUAL RAINFALL	15
6 BRITISH HONDURAS: LAND OWNERSHIP	24
7 BELIZE DISTRICT: LAND OWNERSHIP	26
8 SANTANA RESERVE: LAND TENURE PATTERN	34
9 BELIZE DISTRICT: ARABLE LAND	38
10 BELIZE DISTRICT: AGRICULTURAL AREAS	39
11 BELIZE DISTRICT: LAND USE	40

CHAPTER I

INTRODUCTION

British Honduras is a territory of Central America, between Guatemala and the Caribbean Sea, containing a total area of 8,866 square miles (Map 1). Elongated in shape, it is only sixty miles wide east-west and 17¹/₄ miles north-south. It rises from a low plain in the north to over 3,000 feet in the Maya Mountains to the south. The climate is subtropical, with an annual mean temperature of 78.5 degrees Fahrenheit. Rainfall shows marked variation from north to south. In the north the annual average is sixty inches, while in the south the average is 110 inches. The rainy season extends from June to December and the dry season from January to May. One disadvantage of the country is its location in the dreaded hurricane belt. Because occasional hurricanes have inflicted heavy damage on Belize City, the former capital, a new capital city has been constructed at Belmopan some fifty miles inland.

The population of British Honduras was estimated at 119,645 in 1970, with a density of only thirteen persons per square mile. The earliest inhabitants were the Maya Indians. Spaniards discovered the country during the sixteenth century, but they did not establish themselves permanently. There is a strong tradition that the first



MAP 1

settlement was founded about 1638 by a Scottish buccaneer, Captain Peter Wallace.¹ A few years later a number of settlers arrived from Jamaica to join the original colonizers, and the population by 1671 was about 700. Early in the eighteenth century Negro slaves were brought to the settlement from the West Indies. They worked side by side with their masters in the forest. This work was arduous, but seasonal. In 1786 the Mosquito shore of Central America was abandoned, and colonists coming to the Bay of Honduras (later British Honduras) increased the number of inhabitants. Belize City was founded around 1780. At this time a new settlement was founded at Stann Creek by some Caribs from the island of St. Vincent. Between 1848 and 1858 about four thousand Mexicans took refuge in the northern part of the British settlement. In 1862 the settlement was declared a colony.² Since that time some immigrants have come from Jamaica, Guatemala, and Honduras. The first census was taken in 1816, when the population totaled 3,824, exclusive of aboriginal Indians. Fifty-five years later, in 1871, the population reached 14,623, and by 1921 there were 38,317 inhabitants.³

¹D.A.G. Waddell, British Honduras: A Historical and Contemporary Survey (Oxford University Press, London, 1961), pp. 7-9.

²William Arlington Donohoe, A History of British Honduras (Montreal, Canada, Provincial Publishing Co. Ltd., 1946), pp. 28-38.

³Great Britain, Colonial Office, Report of the British Honduras Settlement Commission (Her Majesty's Stationery Office, London, 1948), pp. 217-220.

This relatively small British colony is now an emerging nation undergoing a transition that affects all aspects of its existence. Politically, the country was ruled by public meeting until 1853, when an act was passed to establish a Legislative Assembly. In 1871, the Assembly abolished itself and left the way open for the establishment of a Crown Colony government. Under the Crown Colony system the country was governed by the Governor in Council.⁴ Since 1964, the country has been managed by a local government.

Economically, the country has been famous for its abundant hardwood lumber. The principal raison d'etre for this colonial enclave in the Central American mainland has rested in the desire to exploit the valuable and extensive resources of the tropical and sub-tropical forest.⁵ For over 200 years, until the latter half of the nineteenth century, the country survived almost solely on the export of its considerable forest wealth, but the introduction of synthetic dyes in the first years of the present century largely destroyed the former market for dyewood. In 1895 lumber export totaled 35,500 tons, decreasing to only 3,000 tons in 1911 and to 1,500 tons in 1920. The number of woodcutters was 1,365 in 1891 and only 455 in 1966. Whereas lumber constituted 80 percent of the total export value in 1927, and 70 percent in 1935, by 1965 it accounted for less than 27 percent.

⁴D.A.G. Waddell, op. cit., pp. 49-56.

⁵Edinburgh University, Expedition to British Honduras-Yucatan, 1966, (ed. Peter A. Furley, Edinburgh, 1968), p. 52.

At present, considerable effort is being made to develop the agricultural potential of British Honduras. Although the rural population constitutes 46 percent of the total, and the country has 2,161,000 acres of land suitable for agriculture, less than 10 percent (178,000 acres) of the arable land is under cultivation. The first expansion of agriculture came with the influx of Mexicans from Yucatan who began to arrive in the 1840's. These people had an agricultural tradition and were to form the basis for the sugar industry. Sugar has been the most important export crop since 1959, when it surpassed citrus for the first time. Sugar in the Corozal and Orange Walk Districts and citrus in the Stann Creek District constituted in 1966 some 56 percent of the total export value. However, only about 25 percent of all persons working in agriculture are engaged in the production of these crops, and the remaining 75 percent are in domestic production at very low levels of productivity per man.

Of the numerous problems affecting the developing country, one of the most serious concerns is the inability to produce sufficient foodstuffs for domestic consumption. As a result, food products constituted about 22 percent of the total import trade in 1965. Surveys made throughout the country reveal no significant mineral resources, and the real key to success in the future thus appears to lie in improved land utilization.

The Problem

The purpose of this study is to define and explain the contemporary land tenure system of Belize District, British Honduras, and how this system affects land utilization. Therefore, answers have been sought to the following specific questions:

1. What is the present land tenure pattern?
2. What past and present socio-economic conditions are associated with the current land tenure system?
3. What variations in land utilization exist within the land tenure system?
4. What changes in land tenure and land use might be initiated to achieve better utilization of the country's physical, economic, and cultural resources?

Theoretical Considerations

Land tenure systems affect land utilization. A sound system of land tenure will lead toward the best and most economical use of the land. Except in England, where more than 60 percent of the farmers are tenants, developed countries have no latifundia and most of the farmers own their land. On the other hand, in countries of the Third World, and especially in Latin-America, land is in a few hands, and its utilization is minimal. There are also countries where the government is the only landowner and farmers hold the land in usufruct.

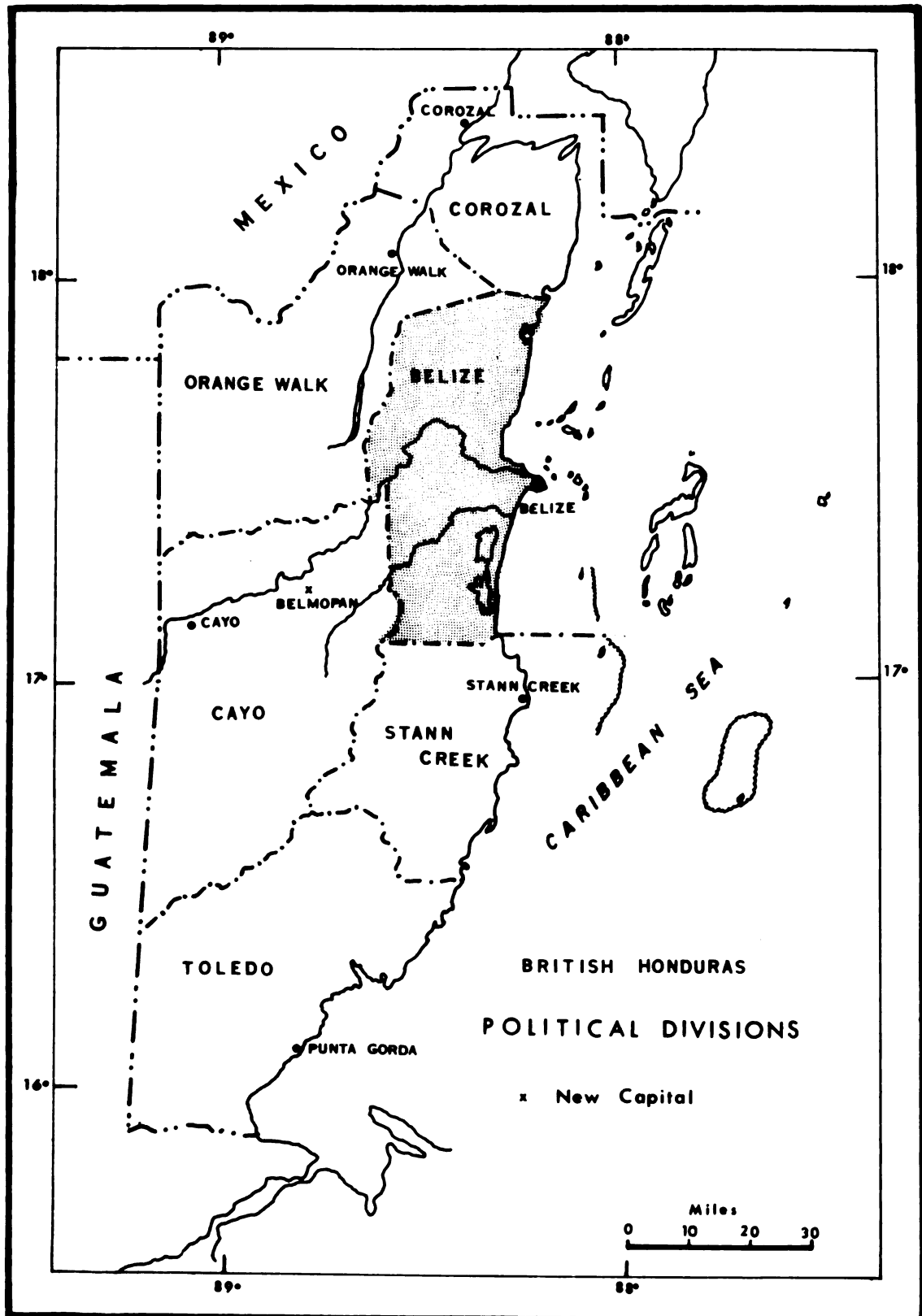
During the twentieth century some countries have changed their land tenure system and thus improved their land utilization, such as Mexico, Japan, and Taiwan. Others have changed without achieving significant improvement, such as Ceylon, Egypt, and Syria.⁶ This means that 1) agricultural development does not depend exclusively upon the land tenure system, and 2) one kind of land tenure system may be better than others in any specific country.

The Study Area

Although British Honduras has six administrative districts, namely Belize, Cayo, Corozal, Orange Walk, Stann Creek, and Toledo (Map 2), this study is concerned only with Belize District. This district has been chosen because of its economic, social, and political importance within the country. Belize City, capital of the district and largest urban center in British Honduras, is the core of transportation and communication. Most of the educational facilities and government offices are also located there, as is 53 percent of the country's total urban population.

Belize District occupies the east-central portion of the country. Its area is 1,683 square miles, almost one-fifth of the country total. There are no significant highlands, and the two principal rivers,

⁶Earl Jones, A Review of Some Agrarian Reforms (Inter-American Institute of Agricultural Science, Turrialba, Costa Rica, 1961), pp. 3-15.



MAP 2

Belize and Sibun, flow slowly across the district's level terrain. Its estimated population for 1970 was 49,615 or 42 percent of the total population in British Honduras.

Procedure

A survey of literature on British Honduras was conducted at Michigan State University during August-September, 1970. Field research was then conducted in Belize District from October through December to analyze the land tenure system and current land utilization. Data were obtained from two main libraries, the National Library and that of St. John's College. Visits were made to the Census Bureau, Marketing Board, Market, and the following departments: Survey, Lands, Forestry, Agriculture, Labour and Customs. Aerial photographs were compared with land-use maps, and personal interviews were conducted with eighty-four farmers, ten landowners who are "non-farmers," and the managers of five companies. The main difficulty in visiting farmers was a lack of transportation. Farms are spread along the roads, especially from Cowhead Creek to Maskall on the Northern Highway, and it is almost impossible to visit them by walking. Usually, I took a produce truck from Belize City to some place along the highway in the morning, visiting farmers during the day by bicycle. A produce truck again provided the means of transport for the return trip to Belize in the evening. Due to poor road conditions, I rented a Jeep for four days to visit Burrell Boom, Bermudian Landing, and Double Head Cabbage in the west-central part of the District.

CHAPTER II

BELIZE DISTRICT

There are many physical, cultural and economic features which affect the behavior of men and nations. The identification of these features and knowledge of their interrelationships may thus be useful for understanding national problems. Likewise, an analysis of the land tenure system is best understood within the broad perspective of local physical, cultural, and economic conditions.

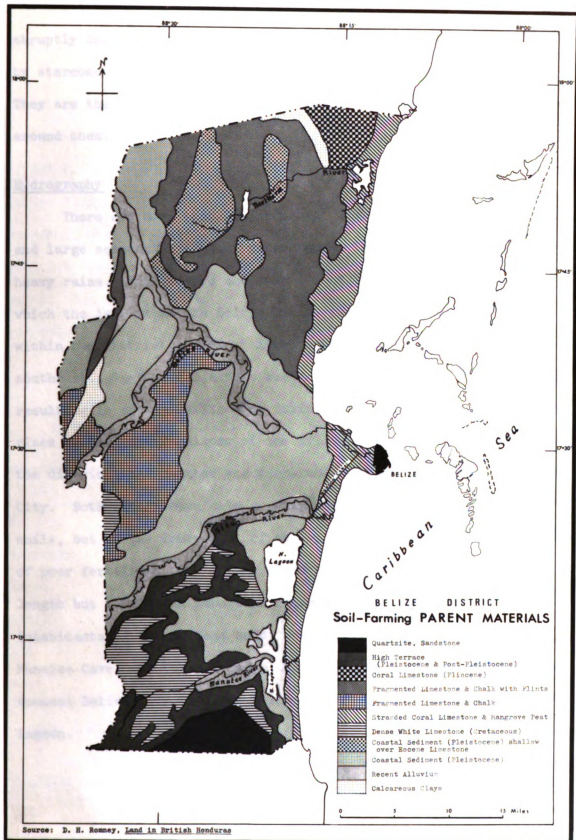
Physical Features

Belize District has an area of 1,623 square miles or 1,063,980 acres (Map 3). Starting from the valley of the Sibun River northward, more than 80 percent of the district is level. Southwest of the Sibun valley the land is hilly, rising to over 1,200 feet. The coastal waters are shallow and studded with coral reefs and small islands known as cays.

Soils

Soils of the low-lying northern area developed primarily upon thick limestone rocks of the Eocene and Miocene periods, but some local differences have developed on the surface as shown in Map 4. Southwest of the Sibun valley are many steep limestone hills, rising

MAP 3



MAP 4

abruptly and becoming smaller and lower toward the coastline. Examined by stereoscope on aerial photographs, they appear as giant needles. They are the source of much fertile parent material now spread out around them.

Hydrography

There are more than ten permanent lagoons in Belize District, and large seasonal bodies of water appear in the north as a result of heavy rains. Four rivers and many creeks traverse the district, of which the largest is the Belize River. About 200 miles in length within the district, it first flows northeastward and then turns to the southeast. Part of its middle basin is lower than the river itself, resulting in extensive flooding during the rainy season. Sibun River rises on the eastern slopes of the hills, makes an 85-mile traverse of the district, and reaches the sea about twelve miles south of Belize City. Both rivers open onto a plain and bring to it varied and fertile soils, but in the lower part of the valley there are some sandy soils of poor fertility. The Northern and Manatee Rivers are short in length but provide an important means of transportation for the inhabitants of Bomba, Nago Bank, More Force, Government Landing, Manatee Cave, and Tubroas Camp. Haulover Creek and the Burdon Canal connect Belize City with the Belize River, Sibun River, and Northern Lagoon.

Climate

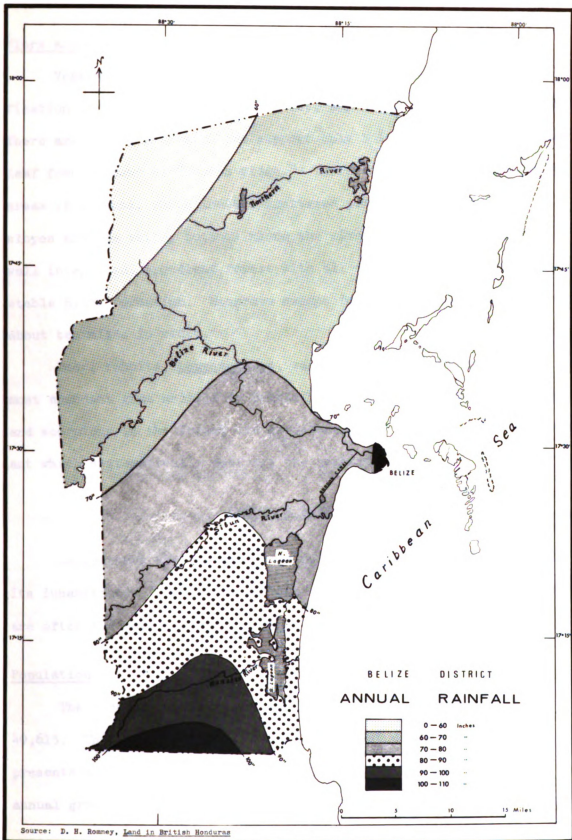
Temperature in Belize ranges from 50° F. to 95° F., with a mean annual average of 79° F. November to January is the coolest period, averaging 75° F., while May to September is warmest, with an average of 81° F. The average annual rainfall in Belize City was 69.59 inches during the period 1941-1950 (Table 1). March has the least rainfall, with an average of 1.35 inches, and September the highest with 9.8 inches. Rainfall increases from north to south, as shown in Map 5. The average relative humidity of the district is about 85 percent.

TABLE 1

AVERAGE RAINFALL AT BELIZE CITY STATION STANDARD, 1941-1950¹

Month	Inches	Month	Inches
January	3.91	July	5.71
February	2.78	August	7.33
March	1.35	September	9.80
April	2.15	October	9.40
May	3.38	November	8.94
June	6.62	December	8.22

¹D. H. Romney, Land in British Honduras. A Report of the British Honduras Land Use Survey Team (London, Colonial Research Publications No. 24, H.M.S.O., 1959), p. 16.



Flora and Fauna

Vegetation in Belize District according to the Holdridge classification is mostly tropical dry forest, depending upon soil conditions. There are some soils which can support only a low shrub type of broadleaf forest known as "broken ridge." There are also relatively large areas of savanna, which include scattered pine forest. Some hill slopes and the valley bottoms along the rivers support a very mixed, well integrated, broadleaf forest with all the characteristics of a stable plant formation. Mangrove swamps form the seaward margin, about ten miles in width.

Deer, rabbits, tepescuintes, racoons, and many birds are the most abundant game animals in Belize District. There are also snakes and scorpions in the forest and grasslands, and the so-called "wee-wee" ant which systematically destroys the orchard trees.

Cultural Features

Geographers are concerned not only with the land, but also with its inhabitants. Population and the social and cultural organization are often the more important factors in development.

Population

The present population of Belize District is estimated at 49,615. This compared with 39,930 in the last census, in 1960, presents a difference or absolute increase of 9,685 persons and an annual growth rate of 2.4 percent. However, as shown in Tables 2 and 3,

the rural population increased more rapidly than the urban. Rural population constituted 18.2 percent of the total population in 1960, whereas in 1970 it was 20.9 percent. The over-all population density per square mile in Belize District is 30.6, while the rural density is 6.3.

TABLE 2

URBAN AND RURAL POPULATION IN BELIZE DISTRICT, 1960-1970

Year	District Population	Rural	%	Urban	%
1960	39,930	7,240	18.2	32,690	81.8
1970	49,615	10,359	20.9	39,247	79.1

TABLE 3

ANNUAL POPULATION GROWTH RATE IN BELIZE DISTRICT, 1960-1970

Year	Population			Annual Growth Rate (percent)		
	Total	Urban	Rural	Total	Urban	Rural
1960	39,930	32,690	7,240	2.4	2.0	4.3
1970	49,615	39,257	10,358			

Although data are not available to determine the relative significance of natural population increase as compared with migration, it is believed that internal migration from Belize City, mainly as a result of Hurricane Hattie in 1961, constitutes more than 1.0 of the

rural growth rate of 4.3 percent. The average size of family is about six people. The total labor force in the Belize District may be estimated at around 7,700 persons, as compared with 7,096 in 1967 (Table 4).

TABLE 4
VOLUME OF EMPLOYMENT BY INDUSTRIAL DIVISIONS IN
BELIZE DISTRICT, MARCH, 1967

Industrial Divisions	Men	Women	Youth	Total
Agriculture	57	1	1	59
Forestry	4	-	-	4
Fishing	10	-	-	10
Mining and Quarrying	27	2	-	29
Manufacturing	646	220	31	897
Construction	901	12	9	922
Gas, Water, Electricity and Sanitary Services	198	2	-	200
Commerce	696	416	94	1,206
Transport Storage and Communication	432	59	17	508
Services	1,850	1,229	129	3,208
Other Activities	32	19	2	53
Total ²	4,853	1,960	283	7,096

²British Honduras, Labour Department, Manpower Report (No. 3, March, 1967), pp. 53-57.

Ethnic Groups

The settlement history of British Honduras has produced within the small total population a great variety of ethnic groups, including Creoles, Maya Indians, Hispano-Indians, Caribs, Latin Americans, Europeans, Syrians, and Chinese. The most important of these in Belize District is the Creole group, a name used to include those persons of Negro origin descending from the earliest arrivals and whose second language is a kind of English patois called "Creole." Farmers living along the Northern Highway are Creoles, Jamaicans, and Hispano-Indians. Farmers from Burrell Boom to the west are mainly Creoles and Maya Indians, and those living along the Sibun River are mostly Creoles. Integration of ethnic groups has created few, if any, problems. Belize District is almost totally English-speaking, and about ten percent of the farmers speak both English and Spanish. The percentage of literacy is one of the highest in Central America. In Belize District the urban population was 98.2 percent literate in 1960 and the rural population 94.3 percent. Most of the education system is operated by religious denominations, and there is a good understanding between the various branches of Christianity involved.

Economic Features

Land and man are combined in the country's economy. Man needs food and tools, which are supplied through agriculture and industry. The country's production and consumption reflect its economy, and the

movement of products depends upon its transportation system. Thus industry, agriculture, and transportation are the three most significant economic features.

Industry and Agriculture

Due to the lack of a sufficient labor force and the absence of significant minerals, industry must be oriented toward agricultural products and fish. In Belize District, but mainly in the capital, about 610 persons are employed in beverage, tobacco, textile, wood, furniture, and metal manufacturing. Agriculture was regarded until recently by the Creole group as an occupation reserved for the Mayas and Caribs, and they preferred to work in the forest. Therefore, few farmers were established in Belize District, where the population is mainly Creole. Agricultural methods, with few exceptions, are very primitive. The farmers first cut the forest or bushes with a machete, later they burn it, and then they plant their crops using a pointed stick. However, since the beginning of the last decade, considerable effort has been made by the government to develop agriculture. Farmers can now lease machines from the Agriculture Department to clear the land and to sow and harvest the crops. There are now 832 farmers in Belize District and about seventy additional persons are employed in agriculture. Agriculture has begun to supply fresh fruit to the local market, and enough coconuts, cucumbers, tomatoes, melons, and spices for some export. The fishing industry and tourism have expanded rapidly during the past six years and also contribute to the commercial economy.

Transportation

The economic development of any area is closely related to its transport system. All transportation before 1930 was by water, either coastal or riverine. Since that time some highways and rural roads have been built to connect the main populated areas of Belize District. The Northern Highway connects Belize City with the Maskall-Santana area (39 miles) and with the northern part of the country. The Western Highway provides access to the southwestern part of the district, and to Cayo, Stann Creek, and Toledo districts. There is also a rural road which connects, through Burrell Boom village, the two highways and leads westward to Rancho Dolores. The swampy land and lack of stone near the coast make road building and maintenance very difficult. Thus, except for a few miles of paved highway, the roads are usually in poor condition. The Belize and Sibun Rivers are no longer used for floating logs, but for produce boats and dories. Belize City has an important harbor, but it has no deep-water port, and all freight must be lightered to and from an anchorage about a mile offshore. There is an airport, Stanley Field, twelve miles northwest of Belize, and various airlines maintain scheduled service with the United States, Jamaica, and Central America.

CHAPTER III

LAND TENURE SYSTEM

From an academic point of view, land tenure is ". . . essentially a "bridge", a subdiscipline, involving a combination of economics, law, sociology, and political science. In general, it can be said that land tenure is concerned with the institution of real property . . . it touches upon a large part of the agricultural economy."¹

Among the more important elements of a land tenure system are such characteristics as 1) types of land title, 2) conditions of tenancy, and 3) size of holdings.²

Types of Land Title

There are basically two forms of land ownership in British Honduras, the Crown or Government lands and the Freehold Properties of private owners. Of the 5,674,800 acres of land in British Honduras,

¹Joseph Ackerman, W. E. Chryst, and M. Harris, Land Tenure Research Workshop (University of Missouri, Farm Foundation, Chicago, 1956), p. 67.

²United Nations, Land Reform. Defects in Agrarian Structure as Obstacles to Economic Development (Department of Economic Affairs, New York, 1951), p. 67.

some 2,326,922 (45%) have been placed under private ownership, while the remaining 3,347,878 acres are Crown Land.³ Most of the Crown lands are in the southern part of the country, while the concentration of private lands is greater in the north. Map 6 shows the distribution of land ownership in 1954, which has remained essentially unchanged to date.⁴

Of the 1,063,980 acres of land in Belize District, some 333,970 (31.5%) had been alienated to private ownership by 1970, while the remaining 730,010 acres were Crown lands.⁵

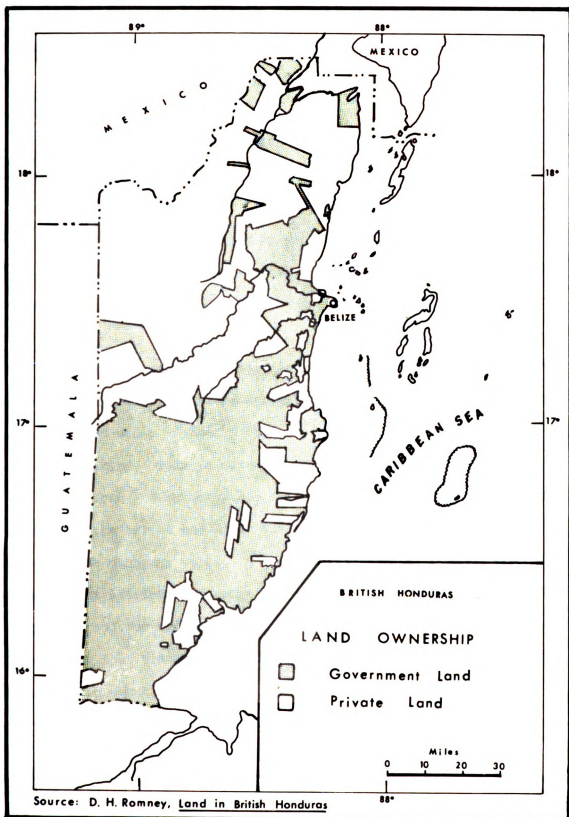
All lands are considered originally as Crown Land, and it is the responsibility of each proprietor to prove title to land. The four major forms of title to freehold property are 1) Crown Grants, 2) Registered titles, 3) Occupation against freehold property, and 4) Occupation against the Crown Land.

Crown Grants were the first titles to be issued in British Honduras. Early ones are recorded in the Deed Books at the General Registry, and later grants were entered in the Crown Lands Books.

³British Honduras. Annual Report for the Survey and Land Department for the Year 1967 (Belize City, 1967), p. 14.

⁴British Honduras, Annual Report of the Forest Department for the Year 1954-1955 (Belize, 1955), Fig. 1.

⁵The Annual Report for the Survey and Lands Department for the Year 1967 states on page 14 that "Private land" amounted 359,228 acres in Belize District, but I tabulated the acreage of each holding as recorded in the Survey Department books three times and arrived at a total of 333,970 acres under private ownership.



MAP 6

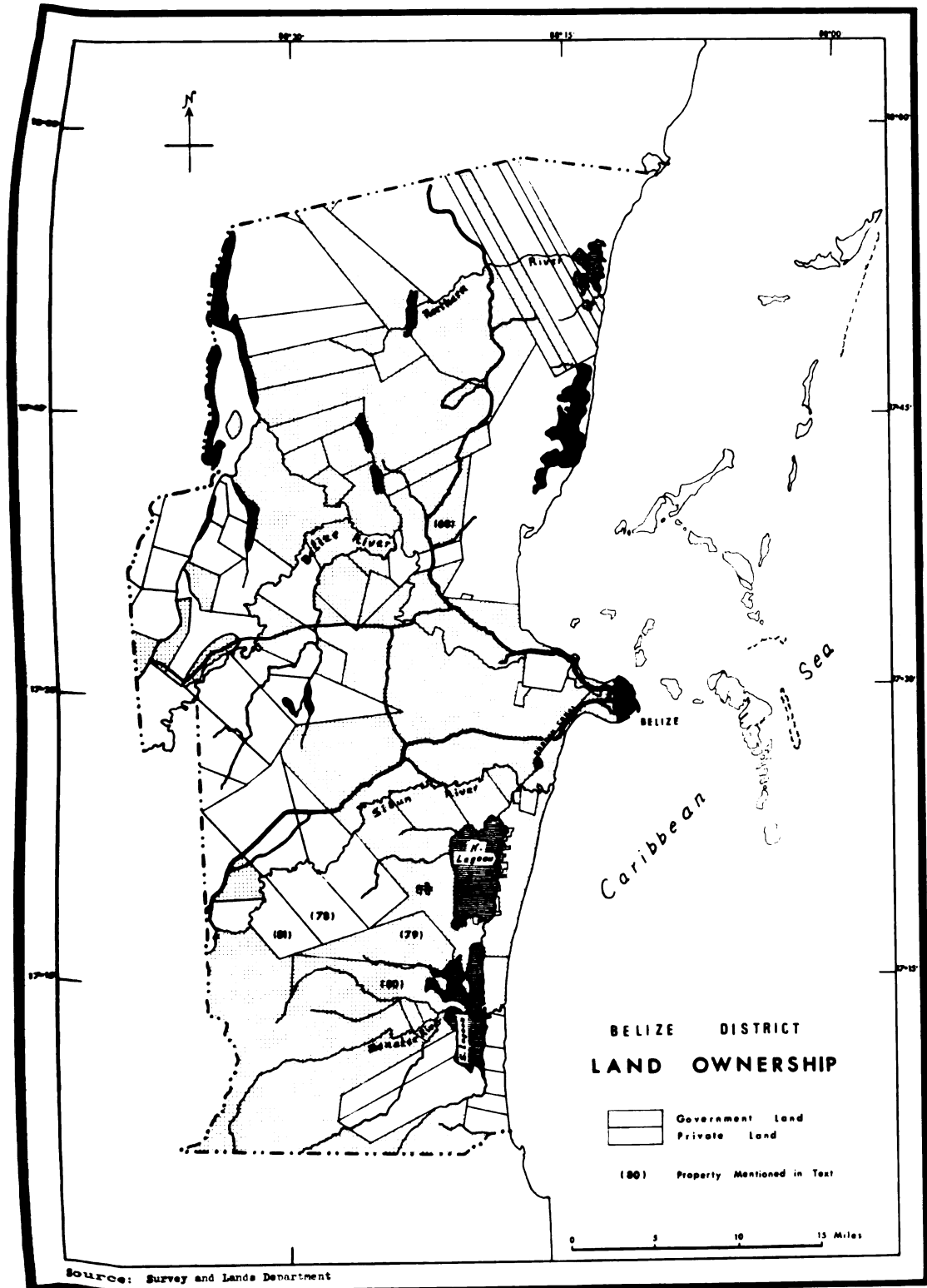
Ben Lemond Work (No. 79 on Map 7) and Cornhouse Creek Work (No. 80), both in Belize District, are among the former. They were granted in 1838.⁶

Registered Titles were first recorded in 1862, and these account for the vast majority of acreage in freehold properties within Belize District. Runaway Creek Work (No. 78 on Map 7) and Tiger Sandy Bay Work (No. 81) are examples. These were entered in the Register in 1864.⁷ From the time of entry in the Register, all subsequent changes of ownership were recorded in the Lands Titles Register, not in the Deed Books.

Occupation against freehold property may be regarded as an ownership claim by virtue of long occupation (forty years) of land which is also included under another proprietor's name in the records of the General Registry. This is more common in Belize District than in the other districts. Such occupance is found particularly along the lower reaches of the Belize and Sibun Rivers. The squatters occupied river banks of the mahogany works. Owners of that period probably welcomed this type of settlement because it provided a convenient source of labor and food for the mahogany operations, which were of paramount interest at that time. The present owners of mahogany works are less enthusiastic about the situation.

⁶See Deed Book 3, Folio 243, and Deed Book 2, Folios 245 and 246, respectively, and Map 7.

⁷See Register entry No. 118 for Runaway Creek Work, and entry No. 119 for Tiger Sandy Bay Work.



MAP 7

Squatters also occupied the river banks of Crown lands along the lower reaches of the Belize and Sibun Rivers. In these areas, it has been customary for the government to recognize the ownership rights of squatters, after thirty years, as extending back from the river to a distance of 300 yards. When mahogany works have reverted to government ownership, as in the case of Bakers Work (No. 68 on Map 7) in Belize District, a distinction has always been made between squatter occupation and that by tenants of the former private owner.⁸

In the early years of settlement, title to land in British Honduras seems to have been acquired simply by finding and occupying the land. A resolution was passed in 1766 by the inhabitants assembled in Public Meeting, which had the force of law among them, to the effect that:

When a person finds a spot of logwood unoccupied and builds his hut, that spot shall be deemed his property, and no person shall presume to cut or fell a tree, or grub a stump, within less than one thousand paces or yards of his hut, to be continued on each side of the said hut, with the course of a river or creek on both sides.⁹

With this resolution each individual came to establish himself on a certain part of the river banks, where he exploited the surrounding area and in time came to regard this area as his own private land. These plots of land were known as "Locations." A Location entitled the grantee to occupy an area of forest and cut forest products, but his

⁸Personal information from the Lands Department, Belize City.

⁹British Honduras, Report for the Years 1964-1965, (Printing Department, Belize City, 1967), p. 36.

rights terminated if he left the settlement or acquired another Location. A subsequent resolution, passed in 1787, defined a logwood or mahogany "Works" as being three miles in a straight line and extending from the extremities of the three-mile frontage either half way to the next navigable river or to a distance of eight miles. These two laws created a pattern of private property ownership which is still evident in the northern and central part of the country.¹⁰

About 1817 the recognition of Locations ceased, and Crown Grants were issued conveying unconditional freehold title. The limitation on the quantity of land which could be held was removed, and large tracts were alienated in perpetuity. In this way, the large landed estates were formed. Practically all of the Works were registered between 1859 and 1864. Registration bestowed a permanent title on the holder. In 1872 the Crown lands were regulated by legislative enactment, and in 1886 an ordinance was passed revising this legislation. This ordinance provided that all Locations made prior to 1817 (when the Location system was abolished) and all Grants made from 1817 to 1879, should be valid as against the rights of the Crown, subject to sufficient proof being produced that such lands had been "located" or "granted."¹²

¹⁰Edinburgh University, Expedition to British Honduras-Yucatan, 1966 (ed. Peter A. Furley, Edinburgh, 1968), pp. 53-54.

¹¹Great Britain, Colonial Office, Report of the British Guiana and British Honduras Settlement Commission (His Majesty's Stationery Office, London, 1948), p. 236.

¹²British Honduras, Report for the Years 1964-1965 (Printing Department, Belize City, 1967), p. 37.

Sixty years ago there were few family farms in British Honduras, and very few farmers owned the land they occupied. The urge to buy land to set up small farms was widespread, but the farmers had insufficient capital to buy and develop even small parcels of land. To meet this problem, the Government introduced, in 1915, a "pay as you grow" system known as the Location Ticket, which gives the applicant no right to the land beyond that of a mere tenant. Applicants normally apply for the specific area and location they desire. The conditions now attached to the Location Ticket came into force in 1935. The most significant of these are that the applicant shall 1) develop and cultivate within five years the land desired by planting at least one-half of the total area with permanent crops, and 2) pay the purchase price for the land in ten semi-annual installments, starting six months from the date of approval of the ticket. When these conditions have been fulfilled, a Crown Grant is issued to the holder of the Location Ticket.¹³ Most land now ceded by the Crown is granted in this manner. With the exception of certain reserved areas, such as Indian reservations in Toledo District and forest reserves, Crown lands may be purchased. The distribution of private land in Belize District according to size of holdings is shown in Table 5.

¹³D. H. Romney, op. cit., p. 266.

TABLE 5

SIZE OF PRIVATE LANDHOLDINGS IN BELIZE DISTRICT, 1970

Farm size	Owner occupants	Acreage	Absentee landowners	Acreage
0-.9	184	40	n.a.	n.a.
1-49	1,186	33,575	n.a.	n.a.
50-99	81	5,465	17	1,209
100-499	68	14,929	28	6,064
500-999	24	16,521	15	10,106
Over 1,000	37	263,440	31	228,637
Total	1,580	333,970	91	246,016

Conditions of Tenancy

Private land is usually rented to peasants on annual leases. The typical arrangement is for milpa land to be leased at an average of \$1.20 per acre per year, and for housing lots at \$3.00 per year. So as to provide a greater degree of security of tenure with such leases, the government passed the Land Reform Security of Tenure Ordinance No. 9 of 1962. Under the provisions of this ordinance, tribunals are established which have the function of determining whether in any particular case a landlord is justified in increasing the rent payable or the tenant is justified in seeking a reduction of rent.¹⁴ The government adopted the same practice on leased lands as on that of landowners, but if any farmer seeks to obtain more than one year's right to use the land, the government usually does not deny it. To

¹⁴British Honduras, Report for the Years 1964-1965 (Printing Department, Belize City, 1967), p. 38.

promote an increase in the number of small landowners the government uses the Location Ticket system. There are 957 people who hold Crown land under Location Ticket in Belize District, amounting to 26,140 acres, and there are 147 family tenants who rent such land, accounting for 11,112 acres, as is shown in Table 6. Data are not available for tenants living on private lands.

TABLE 6

LANDHOLDINGS UNDER LOCATION TICKET AND LEASED FROM THE
CROWN LAND IN BELIZE DISTRICT, 1970

Acres	Location Ticket		Leased	
	Number	Acreage	Number	Acreage
0-.9	10	5	7	1
1-49	898	20,030	92	1,284
50-99	36	2,201	18	956
100-499	12	1,981	26	4,088
500-999	0	0	2	1,100
Over 1,000	1	1,923	2	3,683
Total	957	26,140	147	11,112

Size of Holdings

Three categories of farm size have been selected for purposes of this study to explain land distribution and utilization in Belize District, namely small, medium, and large. Small holdings are considered to be those which include no more than fifty acres, medium holdings which have between 50 and 500 acres, and large holdings which have over 500 acres.

The distribution of private lands by size categories in Belize District is shown in Table 7. This table indicates that latifundia, or the presence of large estates, is the main feature in the land tenure system of Belize District. While 86.7 percent of all landowners account for only 10.1 percent of the freehold land, 3.9 percent of the landowners have 83.8 percent of the total private land. Nearly all owners of the large estates are absentee landlords, and these together account for more than 70 percent of the total private land.

TABLE 7
LAND IN PRIVATE OWNERSHIP BY SIZE CATEGORIES
IN BELIZE DISTRICT, 1970

Acres	Landowners				Absentee			
	Number	%	Acreage	%	Number	%	Acreage	%
0-49	1,370	86.7	33,615	10.1	-	-	-	-
50-499	149	9.4	20,394	6.1	45	-	7,273	-
Over 500	61	3.9	279,961	83.8	46	2.9	238,743	71.5
Total	1,580	100.0	333,970	100.0	91	5.7	246,016	73.7

Holdings under Location Ticket and leased from the Crown in Belize District, by size categories, are shown in Table 8. As indicated, most of the Crown land under Location Ticket is distributed among farmers on small holdings. Thus, 94.9 percent of the farms under Location Ticket include 76.6 percent of the total land.

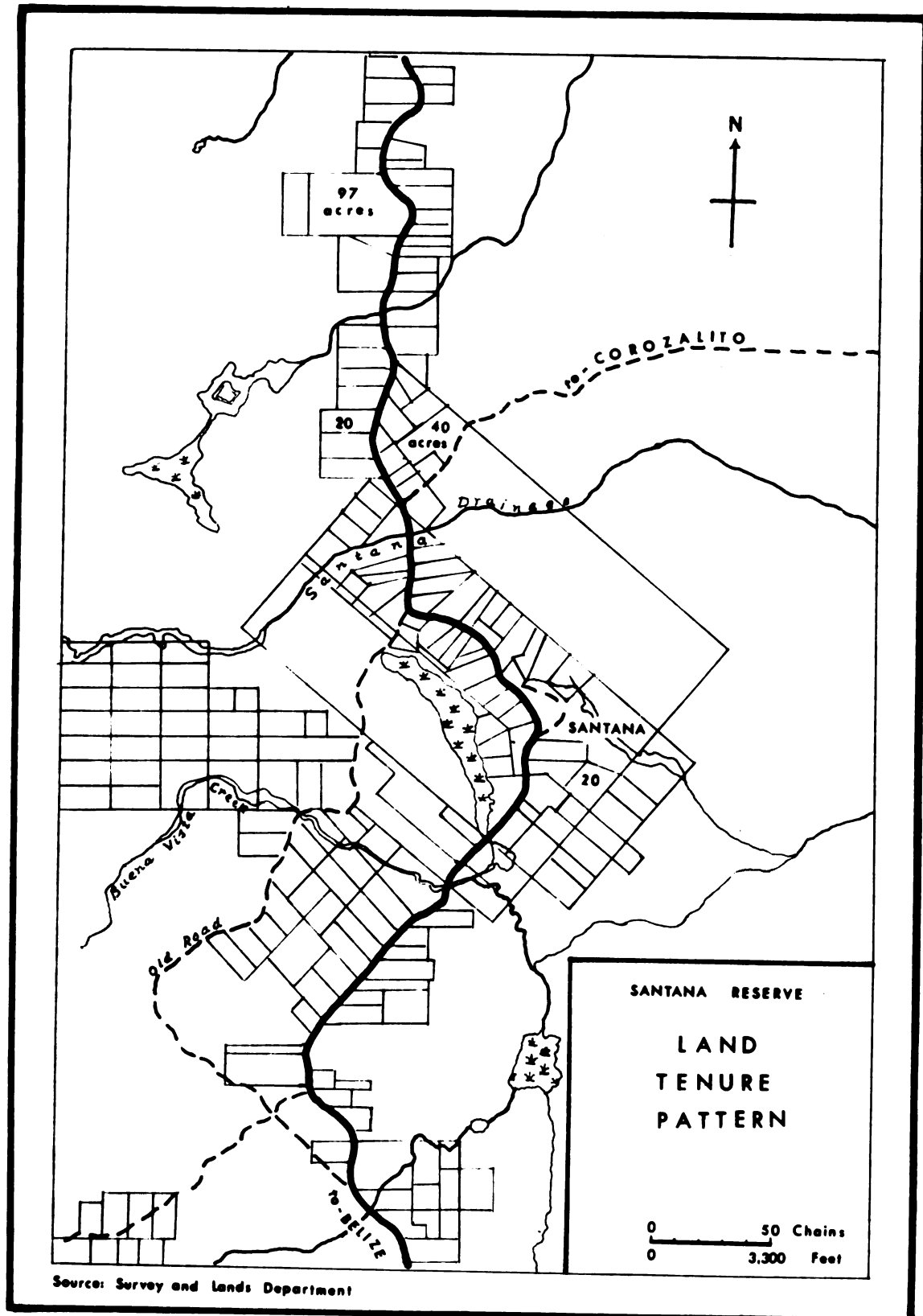
TABLE 8

HOLDINGS UNDER LOCATION TICKETS AND LEASED FROM THE
CROWN IN BELIZE DISTRICT, 1970

Acres	Location Ticket				Leased	
	Number	%	Acreage	%	Number	Acreage
0-49	908	94.9	20,035	76.7	99	1,285
50-499	48	5.0	4,182	15.9	44	5,044
Over 500	1	.1	1,923	7.4	4	4,783
Total	957	100.0	26,140	100.0	147	11,112

Finally, as shown in Map 7 (page 26) and Map 8 (page 34), the land tenure pattern of old granted holdings on both sides of rivers is very different from that of the small holdings alienated under the Location Ticket system along the roads. Map 8 shows the Santana Reserve on both sides of the Northern Highway, with 2,060 acres. There is another reserve in the Belize District, the Black Creek Reserve with 29,800 acres, but it is not yet surveyed. These reserves differ from the Indian reservations in that anyone may occupy land in them, provided sufficient land is available, upon payment of specified occupancy fees.¹⁵

¹⁵British Honduras, Annual Report of the Lands and Survey Department for 1960 (Belize City, 1960), p. 7.



MAP 8

CHAPTER IV

LAND UTILIZATION

Forestry was the predominant type of land use in Belize District for many years. The earliest settlements were based almost exclusively on the cutting of mahogany and logwood along the Belize and Sibun Rivers. In the latter half of the nineteenth century some workers began to extract chicle from the sapodilla tree in the Maskall area, and attempts were made by 450 Italian agricultural laborers to farm in the Manatee area of southern Belize District. Agricultural settlement in the Manatee area failed soon after its start. Mahogany and sapodilla exploitation destroyed the natural resources and put nothing in their place. Increasingly, the landlords who were beneficiaries of the forest exploitation came to reside abroad. They did not bother to engage in husbandry, and their lands still remain idle.

During the 1930's the government began to encourage agricultural production, as a means to increase the national income, and began to make grants of Crown lands conditional upon development under the Location Ticket system. Thus, small farmers settled along the rivers and roads. Although agricultural production has increased since that time, it has not been sufficient to feed the population. On the other hand, most of the small farmers are also engaged in another job.

In 1962 the government passed the Land Reform Security of Tenure Ordinance to provide security to tenant farmers on large estates. To encourage the development of unused lands held by landlords, the government first created a system of "feeder" roads through private lands, and the Legislature then passed a Rural Land Utilization Ordinance, effective January, 1967. The latter imposed taxes on all of the better agricultural land, except for land under approved programs of development and parcels of less than 100 acres.¹ The Ordinance imposed the following taxes per acre:²

1. Savanna (wet, dry, scrub and swamp) 6¢
2. Savanna (good pasture land subject to
inundation) 8¢
3. Pine ridge - 1st Class 12¢
 2nd Class 10¢
 3rd Class 6¢
4. Low forest (alkache). 8¢
5. Medium and high forest 12¢
6. High forest 18¢
7. Land lying within one mile of any road
 maintained from public funds 10¢
8. Land lying between one and two
 miles from any such road 5¢

¹A. A. Hunter, Rural Land Utilization Tax: A Beneficial, Just and Equitable Piece of Legislation (Government Printer, Belize, 1966), p. 7.

²British Honduras, Annual Report for the Survey and Lands Department, 1967 (Government Printer, Belize, 1967), p. 15.

It appears that the Ordinance has had little impact on the landlords' speculative operations, perhaps because the payments they receive from peasants using their land easily compensates for the additional taxes paid. The government therefore announced in November, 1970, that the land tax would be increased almost threefold in 1971.³

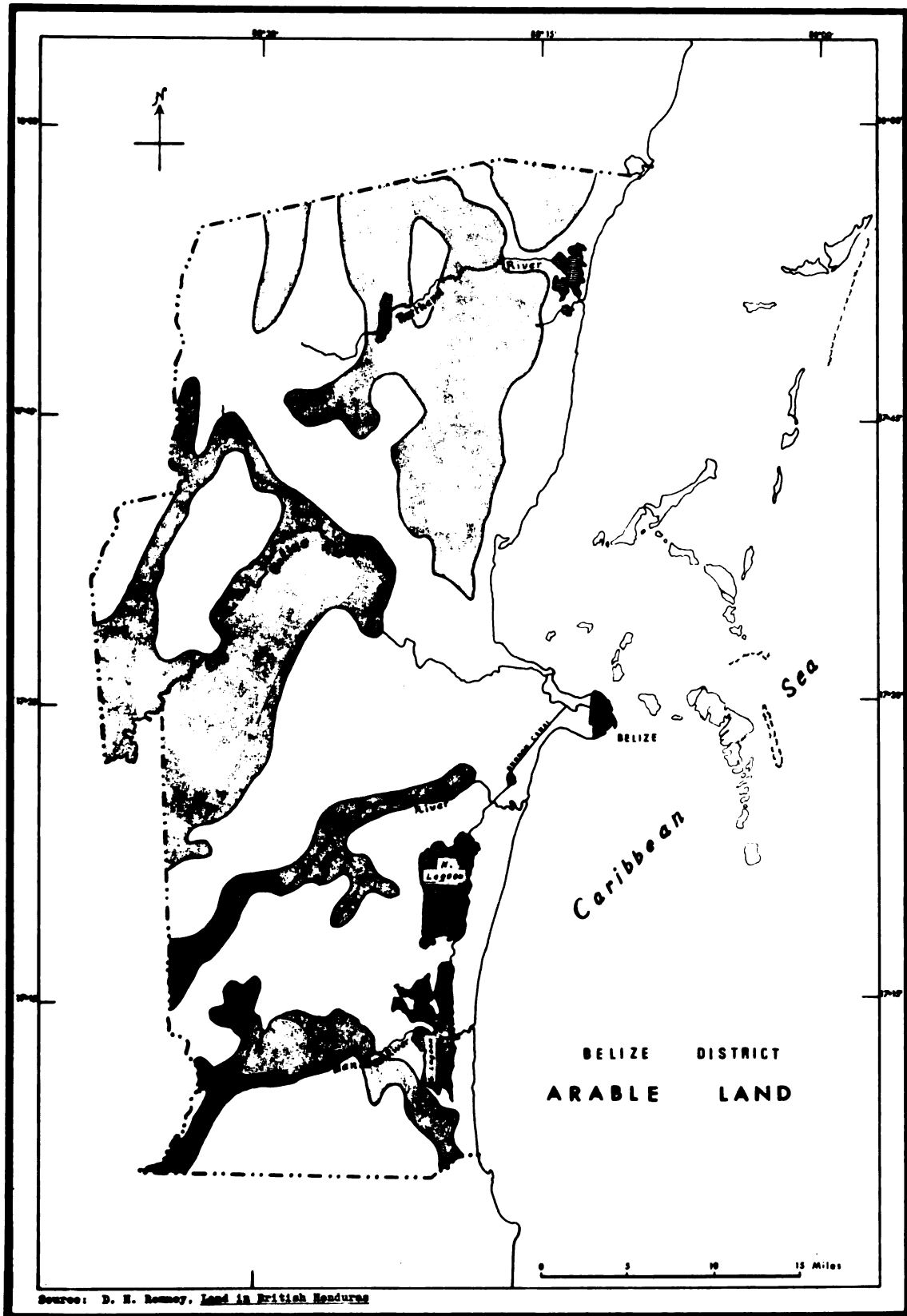
One of the factors most favorable to agricultural development in Belize District is the high ratio of fertile land to number of farm families. There are about 149,300 acres of fertile soils in the district, or 14 percent of the total area, and only 832 farming families. The ratio is therefore about 170 acres per farm family, whereas the common size of farms is less than thirty acres. Thus, much fertile land remains idle. About 79,300 acres of fertile soils are on private holdings and 70,000 on Crown lands (Map 9). The question arises as to how the land of Belize District is actually utilized.

Field Investigation

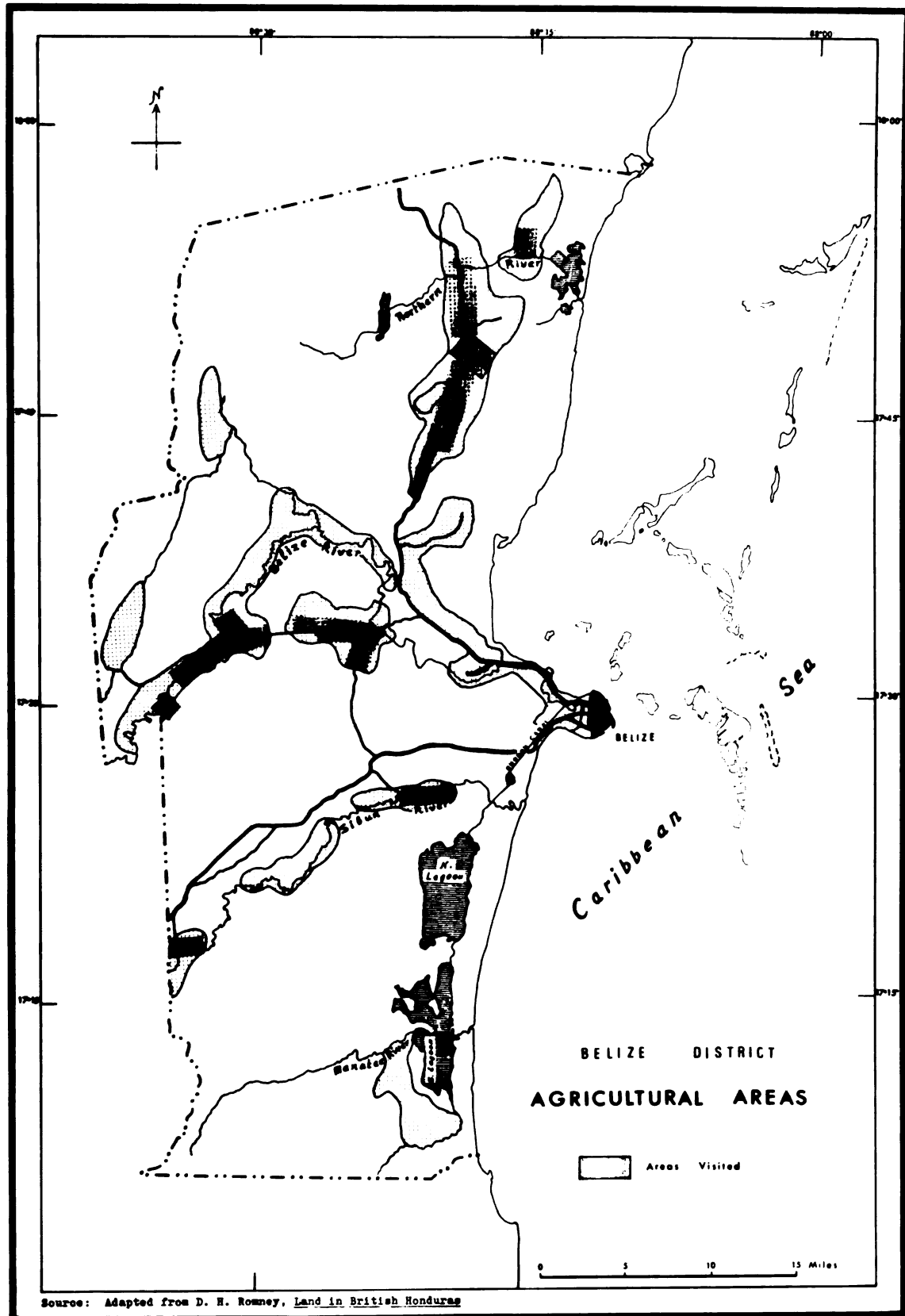
Maps 10 and 11, showing the main farming areas and the land use in Belize District, have been constructed on the basis of a comparison between aerial photographs taken in 1969 and a Farming Population Map of 1958.⁴ Areas visited by the author are shown on Map 10 by the rectangles A,B,b,C,D,E,e,F, and G.

³British Honduras, The Reporter. Extra (Belize, Saturday, November 28, 1970), p. 4.

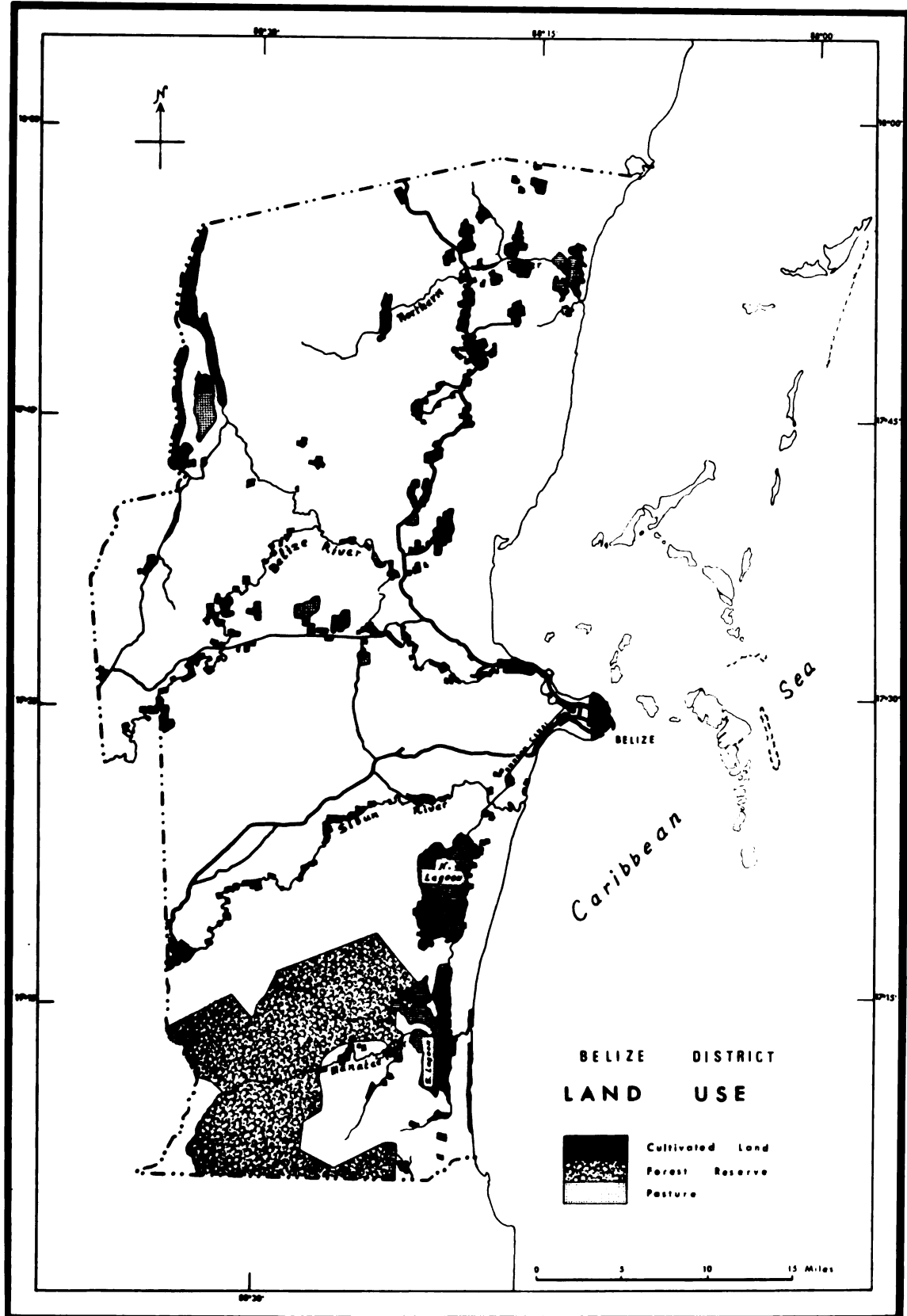
⁴D. H. Romney, op. cit., Fig. IX, p. 34.



MAP 9



MAP 10



MAP 11

There are about twelve tenants on absentee private land within Area A. They have rented almost 200 acres for 1970. The land is very fertile, and the tenants are interested in having their own land. Housing conditions are poor. The tenants raise plantains, bananas, and watermelons. In spite of the Land Reform Security of Tenure Ordinance, they are paying \$6.00 per acre-year in rent.

Most of the farmers in Area B are small landowners or under Location Ticket and are engaged in permanent agriculture on a mixed farming basis. Soil fertility changes from one place to another along the highway but is generally suitable for agriculture. Mangoes, coconuts, plantains, bananas, yucca, cassava, sweet potatoes, spices, rice, corn, and pineapples are the main crops grown in this area. Attempts have been made to set up co-operatives, but these have failed mainly because the shareholders have not yet found farming to be a stable way of life and nearly all must seek off-the-farm jobs during part of the year.⁵ Sub-area b is the Santana Reserve (Map 8) which includes 2,060 acres, mostly under Location Ticket or under lease.

Due to poor soil fertility, most farmers living within Area C are engaged in subsistence farming on lands leased in Area D. Rice and beans are the main crops. Cattle raising is on the decline, whereas poultry raising is becoming more popular. Some small farmers supplement their food supply by hunting and fishing. There are also two

⁵D. H. Romney, op. cit., p. 242.

foreign companies in this area, one of which began growing rice but changed to cattle and hog raising in 1968. The other company is growing mainly cucumbers.

Few farmers are living in the fertile Area D, which is subject to annual flooding. Most of the farmers who do live there are tenants on private land or under Location Ticket on Crown land.

Area E has sandy soils unsuitable for good agriculture. There are pastures, however, and very small gardens. Some farmers from this area cultivate pieces of land under Location Ticket within Area D. A foreign company is developing Sub-area e for the production of rice and cattle.

Small farmers are located within Area F. Most of them are squatters on private lands, where they raise citrus, vegetables, and a few head of cattle. Area G includes some landowners on the north side of the river, and squatters occupy Crown land on the south side.

Small and medium-sized farms are usually cultivated under shifting agriculture, or the "milpa" system, in which the forest cover is cut and burned for temporary cultivation. Landlords, companies, and the government, in contrast, use new and modern techniques.

Research Findings

The largest holding in Belize District is an area of Crown land covering 730,010 acres. About 70,000 acres are fertile soils, some 300,010 are pine ridge and savanna, and 360,000 acres are hilly or

swampy. The government is at present using its lands as shown in Table 9. Of the 615,733 acres of idle land only about 12,000 acres have fertile soils, and these are mostly in the inaccessible central basin of the Belize River and on either side of Black Creek.

TABLE 9
CROWN LAND USE IN BELIZE DISTRICT, 1970

Land Use	Acreage
Idle	615,733
Forest Reserve	76,225
Under Location Ticket	26,140
Leased Lands	11,112
Cultivated	800
Total	730,010

Of 333,970 acres in private land, about 79,300 acres are suitable for agriculture. Data are not available concerning the acreage of private land devoted to specific crops, except for rice (836 acres), corn (761 acres), cucumbers (450 acres), and beans (42 acres). However, approximately 100 interviews were conducted to gain insights into the overall pattern of land occupance in the Belize District. A classification of the people interviewed is shown in Table 10.

TABLE 10

CLASSIFICATION OF PEOPLE INTERVIEWED IN BELIZE DISTRICT, 1970

Type	Number	Acreage
Landowners not engaged in farming	10	145
Farm managers for absentee landowners	5	640
Very old or sick farmers	16	521
Part-time farmers	46	1,073
Full-time farmers	17	2,913
Companies	5	44,377
Total	99	49,669

From the people interviewed in this representative sample, about 10 percent of the total farm families, data concerning land ownership and land use were secured. A summary of findings is presented in Table 11.

TABLE 11

LAND USE BY THE INTERVIEWED LANDOWNERS, TENANTS, AND FARMERS
UNDER LOCATION TICKET IN BELIZE DISTRICT, 1970

Persons Interviewed	Number	Acreage	Acres Used			
			Total	%	Crops	Pasture
Owners	61	43,355	4,361	10.0	1,710	2,651
Tenants	26	5,832	797	13.7	795	2
Occupants under Location Ticket	12	482	232	48.1	67	165
Total	99	49,669	5,390	10.8	2,572	2,818

It can be seen that among those persons interviewed, those who are landowners utilize only about 10 percent of their land, whereas tenants use 13.7 percent and farmers under Location Ticket 48.1 percent.

The 48.1 percent used under Location Ticket does not indicate much concerning the most effective form of occupance, since settlers on these lands are required by the law to plant at least one-half of the area in permanent crops. Although the spirit of the law is to encourage permanent use of the land, many people plant half of the land with coconut or mango trees, so as to receive it as a Grant, and then do not develop the land any further. It should also be noted that more than 50 percent of the land is devoted to pasture for cattle. Nine farmers and two companies raise cattle. The pasture is mostly natural grass. Only twenty-nine acres are seeded, of which twenty-five are owned by a single large farmers. Almost two acres are provided for each head of cattle, as shown in Table 12.

TABLE 12

CATTLE AND ACRES OF PASTURE PERTAINING TO PERSONS
INTERVIEWED IN BELIZE DISTRICT, 1970*

Class	Interviewed	Grass Acreage	Acreage of New Grass	Number of Cattle	Acres per Head
Farm	9	618	29	463	1.3
Company	2	2,200	-	1,179	1.8
Total	11	2,818	29	1,642	1.8

*The more intensive cattle region around Crooked Tree, in northwestern Belize District, was not visited.

For purposes of this study, land holdings were classified into three categories: large, medium, and small. The objective was to determine how the land tenure system affects land utilization and which

size of holding is economically most desirable for Belize District. Table 13 summarizes the data, by size of holding, obtained from the interview sample.

TABLE 13
LAND USE IN SAMPLE SURVEY, BY SIZE CATEGORIES,
BELIZE DISTRICT, 1970

Size of Holding	Persons Interviewed	Acreage	Acreage Used			
			Total	%	Crops	Pasture
Large	8	46,587	4,090	8.9	1,590	2,500
Medium	19	1,909	762	39.9	461	301
Small	72	1,173	538	52.3	521	17
Total	99	49,669	5,390	10.8	2,572	2,818

It is apparent that as the size of farm increases, the intensity of land use decreases. While small farmers utilize 52.3 percent of their land, medium-scale farmers use 39.9 percent and large farmers only 8.9 percent.

The intensity of land use, as reflected by the income of full-time farmers (excluding companies), is illustrated in Table 14.

TABLE 14
MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE UNDER CULTIVATION
BY FULL-TIME FARMERS IN SAMPLE SURVEY, BELIZE DISTRICT, 1970

Size of Holding	Persons Interviewed	Total Acreage	Culti- vated Acreage	Total Annual Income \$B.H.	Median Income \$B.H.	Income per acre \$B.H.	Income per acre Culti- vated
Large	3	2,210	520	42,720	4,746	19.3	82.1
Medium	5	481	229	11,540	2,308	24.0	50.3
Small	9	222	149	28,012	3,112	126.1	188.0

Median income per large holding was calculated on the basis of three landlords and their six permanent employees. Keeping in mind the limited sample, it appears that the median income of large farmers is greater than that of small and medium ones. Income per farmer is normally of greater economic significance to a country as a whole than is production per acre. For purposes of this study, however, income per acre cultivated is more significant because it indicates the intensity of land use and hence the size of holding in Belize District which currently is associated with the greatest agricultural productivity.

From the data gathered in this sample survey, it can be hypothesized that the best size of property is the small holding, averaging between thirty and fifty acres. The small farmers interviewed obtain an average annual income of \$188 B.H. per acre, while farmers with medium-sized holdings receive only \$50.30 and farmers on large holdings \$82.10.

The main factors which account for differences in farm income seem to be 1) size of holding, 2) investment capital, and 3) agricultural techniques. The latter two factors are closely interrelated. The small farmer has only limited area of land at his disposal and little capital to invest. Therefore, he must intensify cultivation on the few acres available and use the old agricultural method of machete and pointed stick. The medium-scale farmer has enough land, but little capital. Therefore, he does not need to intensify cultivation on a

few acres, but neither can he invest capital in new techniques such as fertilization, the use of insecticides, or the planting of new grass for cattle. The large farmer has an abundance of land, and usually sufficient capital to employ some modern techniques, but lacks the financial resources to develop all of his land.

Five of the nine small farmers interviewed are landowners and four are tenants. Table 15 compares the data from four of each with regard to income and acreage cultivated. The median income and income per acre under cultivation of small landowners are seen to be substantially greater than those of small tenants.

TABLE 15

MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE UNDER CULTIVATION
BY SMALL FARMERS IN SAMPLE SURVEY (OWNERS AND TENANTS),
BELIZE DISTRICT, 1970

System	Persons Inter- viewed	Acreage	Acres Under Culti- vation	Total Annual Income \$B.H.	Median Income \$B.H.	Income per acre	Income per acre Cultivated
Owners	4	134	71	15,592	3,898	116.3	219.6
Tenants	4	58	58	11,420	2,855	196.8	196.8

Four of the five companies visited are foreign and one is national. Their total acreage is 44,377. The national company and two of the foreign companies have almost none of their land under cultivation or pasture. Most of these lands (28,377 acres) are therefore idle, except for small areas of good forest and a few acres leased by small tenants. The other two foreign companies have developed some of

their land, as shown in Table 16. The median income was calculated on the basis of the two managers and their sixty permanent employees. Although the companies' income per acre is the lowest, their income per acre under cultivation is higher than that of large and medium farmers.

TABLE 16

MEDIAN INCOME, INCOME PER ACRE, AND INCOME PER ACRE CULTIVATED
BY TWO FOREIGN COMPANIES, BELIZE DISTRICT, 1970

Companies	Total Acreage	Acreage Cultivated	Total Annual Income \$B.H.	Median Income \$B.H.	Income per acre per acre	Income per acre Cultivated
2	16,000	2,450	285,080	4,598	17.8	116.3

In summary, the sample survey findings indicate that 89.2 percent of the land remains idle, and more than 50 percent belongs to three companies which have given little indication that they are interested in agricultural production. The highest production per man is under the agricultural companies system, whereas freeholdings with a farm size between thirty and fifty acres are the most productive land tenure system in yield per acre. The intensity of land utilization tends to decrease as the size of holding increases.

CHAPTER V

PROBLEMS OF AGRICULTURE

It has been confirmed by this research that the land tenure system in Belize District has a direct relationship to land utilization. While medium and small holdings are cultivated to 45.5 percent of their total area, large holdings are only 8.9 percent under cultivation. Why is not more of the land utilized? What kind of obstacles do the landowners face? What is the government doing to help them? To better understand such matters, it is useful to distinguish four kinds of problems: 1) personal problems, 2) cultivation problems, 3) harvest problems, and 4) marketing problems.

Personal Problems

Personal problems include those which relate to the landowners's mental outlook, such as his relative interest in agriculture and in agricultural education. Most owners of large estates were formerly interested in logwood exploitation, and some of them still are, but not in agriculture. It is easier and cheaper, of course, to find a manager to exploit forest resources than to engage in husbandry. Some medium and small-scale farmers are little interested in agriculture, because they simultaneously engage in other types of employment.

However, there are other small, medium, and large-scale farmers who are very interested in developing their land, but who can do so only to a limited extent and that very slowly.

Agricultural knowledge among farmers in Belize District is very limited. Most farmers use the "milpa" method, and few of those who grow beans, okra or pineapple, for example, give adequate attention to good drainage. The government, on the one hand, wants every landowner to utilize his land and imposes taxes on idle lands for this purpose. It is also making a major effort to provide farmers with technical assistance through farm demonstrators, through agricultural research at Central Farm, and through agricultural education offered at Lynam College. Yet, only one out of eighty small and medium-scale farmers visited during this research has taken even a week of training at Central Farm. Farm demonstrators could be of great help, but they are few in number, only five in the entire district, and are said to control what farmers own more than teach what farmers do not know.

Cultivation

A farmer's problem may be to determine what kind of crops to plant on his land. To the question "Why did you plant these specific crops?", twenty-four out of eight farmers answered that if they could not sell all of their harvest, they could consume the remaining produce at home. Seventeen responded that these crops were most easily sold, and five

indicated that the crops selected were best in relation to the quality of land. This reveals that the farmer's mind is, with few exceptions, oriented primarily toward marketing facilities or conditions.

A second problem is how much land to cultivate. To the question "Why you do not utilize more of your land?", fifty farmers answered that it would be very difficult to clear and maintain additional acreage with a machete. "And why," I replied, "do you work part-time at another job if you have idle land?" "Because this land will become more valuable," and "because we can spend less money and time this way," they responded.

Other problems include the selection of seeds, fertilizers, and insecticides. Farmers interviewed had no problem in finding seed, but only two out of eighty use fertilizers, and twenty-two have had trouble with insects (mainly the "wee-wee" ant) during the year. Most of the farmers would like to rent machinery to clear additional land, and to buy fertilizers and insecticides, but they do not have enough money to do so. To resolve this problem the government first founded an Agricultural Credit Fund and then set up a Small Farms Loan Fund. Of the eighty farmers interviewed, twenty-one had received help from the government; nine asked the government for aid but did not receive it; twenty-four were thinking of soliciting a loan; and nine did not wish to borrow because they were afraid of losing their land, which would have to be offered as collateral. The remaining seventeen were not interested in agricultural loans.

The Harvest

Few small and medium-scale farmers have problems during harvest time. Of the farmers interviewed, however, four experienced flood damage during the rice harvest. The company operations sometimes find it difficult to hire enough laborers, and the government had the same problem in 1970 to harvest all its rice in the Rancho Dolores area.

Marketing

Among the most critical problems faced by farmers are those related to transportation and marketing. Transportation is not a significant problem to farmers who live along the highways, since trucks carry produce to Belize for as little as 25¢ per carton. However, no such advantage prevails for those farmers who live far from the main roads. Trucks do not go to the farmer's yard, and there are no storage facilities along the main roads to preserve the crops until the trucks arrive. Some farmers in the Sibun River area must transport their crops about twenty-five or thirty miles by dory or boat to Belize, spending some six hours in the process.

Marketing is perhaps the principal problem of farmers in Belize District. Seventeen of the farmers interviewed could not sell all of their crops in 1970. The Marketing Board helps by offering an assured market at guaranteed prices for rice, beans, and corn, but does not provide price support for other crops. Market prices for mangoes, citrus fruit, sweet potatoes, pineapple and avocados are sometimes very low, so that farmers receive insufficient money to cover the costs

of transportation. Poultry and vegetables are also difficult to sell, since urban dwellers prefer the imported ones. The general uncertainty in the market place does little to encourage an expansion of agricultural production.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

This investigation concerning the land tenure system in Belize District, British Honduras, was conducted from October through December, 1970. During this time I had the opportunity to study the land tenure system of the district, visit the main farming areas, and discuss agricultural problems directly with the farmers. As a result of this study, certain conclusions have been reached and a number of recommendations formulated.

Conclusions

About 31.5 percent of the total area of Belize District is under private ownership, and the remaining 68.5 percent is held by the government. Since land acquisition in the past was largely for the purpose of forest exploitation, and not for agriculture, most of the private land in Belize District is held in large estates, is controlled by relatively few people, and was titled by 1864. Sixty-one large estates, with an average area of 5,000 acres, constitute 83.8 percent of the total private land in the district, and more than 75 percent of the landlords are living abroad. Meanwhile the average size of holdings acquired under the Location Ticket system is twenty acres. This acreage is too small for efficient agriculture, especially for those farmers who wish

to utilize their land for cattle raising. All tenant farmers visited would prefer to own the land they cultivate. About 149,300 acres, or 14 percent of the total area of the district, are suitable for agriculture, and more than 55 percent of this land is in private ownership.

Most of the farmers of Belize District are literate, but they are in need of more extensive technical assistance. Credit facilities for small farmers are not entirely effective, since the land title is required as collateral and the farmers are afraid of losing it. People who live far from the main roads have problems in transporting their produce to market. Because urban people are accustomed to buying processed meat and vegetables, farmers also have problems in selling their products.

Freeholdings of a size between thirty and fifty acres constitute the most productive land tenure units in Belize District. The percentage of land utilization decreases as the size of holdings increases above fifty acres. The highest production per man is achieved by the agricultural companies.

About 84.4 percent of the Crown lands and 89.2 percent of the private lands in Belize District are still unused. The government has created a system of "feeder" roads, and most of these roads were built through private lands with the hope that landlords would take an interest in agricultural development. Yet, despite this effort and the imposition of land taxes, the landowners have not bothered to engage their land in husbandry. There are many landowners with parcels between ten and one hundred acres suitable for agriculture who do not

utilize their land, while many genuine farmers have less than twenty acres and must use primitive methods of agriculture, because of inadequate financial resources.

Recommendations

As land utilization is the real key to the economic development of Belize District, and it is farmers who utilize the land, it appears that the government must give serious attention to the land tenure system and agricultural problems. Specifically, the government should:

- 1). Encourage landlords to develop their fertile lands, by placing a heavier tax on such lands.
- 2). Give special attention to the tax payments of farm tenants, for in some cases they pay as much in taxes for a few acres as does a large landowner for his entire estate.
- 3). Place a high tax on each parcel of land exceeding 100 acres when such land is transferred to absentee owners. Thus, speculation on future land values would be minimized.
- 4). Cease to consider as developed land those holdings which are occupied only with semi-abandoned tree crops.
- 5). Impose some taxation on every idle holding of more than ten and less than one hundred acres.
- 6). Change the conditions attached to the Location Ticket. Holdings of twenty acres are too small for a family farm, and land which grows only a few "permanent" crops should not be considered as developed.

- 7). Consider that every tenant has a right to own some area of land after having cultivated a certain average number of acres over a period of ten years. There are some farmer-tenants who have paid on leases two or three times the actual value of the land.
- 8). Train and employ more farm demonstrators so as to bring farmers into greater contact with the agricultural knowledge gained at Central Farm.
- 9). Improve the credit facilities for farmers so that it will not be necessary for them to risk their land titles as collateral for loans, and build storage facilities along the main roads.
- 10). Promote a poultry feed plant, mixing fish bones and coconuts, and promote also the construction of plants to process milk, poultry, vegetables, fruits, and meat so as to establish a better agricultural market.

Considering the present land tenure system in Belize District and the problems which farmers face today, it appears that any major improvement in land utilization will require a substantial number of years. However, due to the interest shown by the present government in a better transportation and marketing system, it is to be expected that farmers will improve their standard of living and will develop a more efficient land utilization within the foreseeable future.

APPENDIX A

PRICES OF PRODUCE IN THE BELIZE MARKET ON DECEMBER 11, 1970

Product	Quantity	Price \$B.H.
Turkey (alive)	one	7.50
Rooster (alive)	"	3.50
Hen (alive)	"	1.50
Eggs	dozen	.90
Red beans	lb.	.30
Green beans	"	.37
Kidney beans	"	.35
Butter beans	"	.50
Corn	"	.14
Potatoes	"	.18
Sweet potatoes	"	.12
Tomatoes	"	.40
Cocó	"	.20
Pepper	"	.50
Little pepper	"	.30
Lettuce	"	.70
Cabbage	"	.25
Chow-chow	"	.25
Eggplant	"	.30
Onion	"	.50
Carrot	"	.30
Cucumbers	"	.30
Pumpkin	"	.25
Coconut	each	.09
Chili	"	.01
Plantain	"	.05
Bananas	two	.05
Oranges	four	.10
Grapefruit	"	.10

APPENDIX B

QUESTIONNAIRE USED FOR INTERVIEWS WITH FARMERS

1. How old are you?
2. Are you a landowner____, tenant on private land____, tenant on Crown Lands____, squatter____, under Location Ticket____, other____?
3. Acreage of holding____, acreage of land used____?
4. Would you like to become a landowner____; Why____?
5. Why do you not utilize all of your land____?
6. What kind of crops do you cultivate____?
7. How much have you sold this year____; When did you sell____; How did you transport your produce to market____; Could you sell all of your produce____; Why not____?
8. Why did you cultivate these crops____?
 - a) Do you know more about them____?
 - b) Are they the best crops to grow on this land____?
 - c) Are they easier to sell____?
 - d) Other reasons_____.
9. Do you have hogs____; How many____; How many did you sell this year year____?
10. Do you have beef cattle____; How many____; How many did you sell this year____?
11. Do you have cattle dairy____; How many gallons of milk do you get per month____; How many gallons did you sell this year____?
12. Do you have poultry____; How many____; How many did you sell this year____?
13. Why do you have this kind of livestock____?
14. Agricultural method:
 - a) How many tractors?
 - b) How many animals do you have to work the land?
 - c) Do you use the "milpa" method?
 - d) Do you use rotation?
 - e) How do you plant your crops?
 - f) Do you use fertilizers?
 - g) Do you use insecticides?

APPENDIX B (Continued)

15. Did the government help you:
 - a) With money?
 - b) Technical Assistance?
 - c) Analyzing soil samples?
 - d) Other.
16. What kind of help do you need or expect to receive from the government___?
17. Did you ever take soil samples for analysis___?
18. Have you taken any loans___?
 - a) From___?
 - 1 b) For how much___?
19. Are you in any co-operative___?
 - a) Is it useful to you___?
20. Do you plan to make any improvement:
 - a) In your house___?
 - b) In your land___?
 - c) Other___?
21. How many children do you have___?
22. How many employees do you have:
 - a) Whole year___?
 - b) Seasonal___?
 - c) Some days ___?
23. How many years did you enroll in school___?
24. What are the greatest difficulties you have as a farmer___?
25. The approximate cost of a day's food (or for a week)___.

BIBLIOGRAPHY

Books

- Ackerman, Joseph, Walker E. Chryst, and Marshall Harris, eds. Land Tenure Research Workshop. Chicago: Farm Foundation, Inter-regional Land Tenure Research Committee, University of Missouri, 1956.
- Agricultural Mission. International Conference on the Rural Church and Land Tenure. New York: 1946 and 1959.
- Alba, Víctor. La verdadera reforma agraria. México: B. Costa-Amic., 1965.
- Barclays Bank D. C. D. British Honduras: An Economic Survey. London: 1967.
- Barrios, Roberto. El hombre es la tierra. La reforma agraria en el mundo. México: 1966.
- Cacho, C. P. Agricultural Development with Unlimited Land: The Case of British Honduras. Belize: 1967.
- Carey-Jones, N. S. The Pattern of a Dependent Economy: The National Income of British Honduras. Cambridge: Cambridge University Press, 1953.
- Caribbean Commission Committee on Agriculture, N. F., and F. of the Caribbean Research Council. Caribbean Land Tenure Symposium. Washington, D. C.: 1946.
- Clegern, Wayne M. British Honduras: Colonial Dead End, 1859-1900. Baton Rouge: Louisiana State University Press, 1967.
- Delgado, Oscar, ed. Reformas agrarias en la América Latina: Procesos y perspectivas. México: Fondo de Cultura Económica, 1965.
- Donohoe, William Arlington. A History of British Honduras. Montreal: Provincial Publishing Co., Ltd., 1946.
- Earl, Jones. A Review of Some Agrarian Reforms. Costa Rica: Turrialba, 1961.
- Edinburgh University. Expedition to British Honduras-Yucatan, 1966. Edinburgh: Ed. Peter A. Furley, 1968.

- Gregg, Algar Robert. British Honduras. London: Her Majesty's Stationery Office, 1968.
- Hartford University. International Seminar on Land Taxation, Land Tenure, and Land Reform in Developing Countries. West Hartford, Connecticut: 1966.
- Levy, Hermann. Large and Small Holdings: A Study of English Agricultural Economics. London: Frank Cass and Co. Ltd., 1966.
- Ras, Roberto. Seminario sobre problemas de la reforma agraria. Campinas: São Paulo, 1963.
- Romero, Emilio Espinosa. La reforma agraria en México. México: Cuadernos Americanos, 1963.
- Romney, D. H., ed. Land in British Honduras: A Report of the British Honduras Land Use Survey Team. London: Her Majesty's Stationery Office, 1959.
- United Nations. Land Reform: Defects in Agrarian Structure as Obstacles to Economic Development. New York: 1951.
- Van Deusen, Jill. The Jamaican Land Reform Program: Some Social and Economic Aspects. East Lansing: 1969.
- V. Liversage, B. Land Tenure in the Colonies. Cambridge: Cambridge at the University Press, 1945.
- Waddell, David Alan G. British Honduras: A Historical and Contemporary Survey. London: Oxford University Press, 1961.

Articles and Periodicals

- "Agriculture in British Honduras," Geographical Review, Vol. 20, (1930), p. 329.
- Ditto, D. I. "British Honduras Builds for the Future," Foreign Trade, Vol. 126, No. 9 (October, 1966), p. 11.
- Folke, Dovring. "Economic Results of Land Reform," War on Hunger, Vol. IV, No. 9 (September, 1970), pp. 12-15.
- International Trade Mart. "A New Look at Belize (British Honduras)," Latin American Report, (1961).
- Kearns, Kevin C. "Prospects of Sovereignty and Economic Viability for British Honduras," The Professional Geographer, Vol. XXI, No. 2 (March, 1969), pp. 97-103.

Kemps, E. D. S., R. M. MacKenzie and D. H. Romney. "Productivity of Pasture in British Honduras: Jaragua Grass," Tropical Agriculture, Vol. 38, (April, 1961), pp. 161-171.

Marshall, Ione. "The National Accounts of British Honduras," Social and Economic Studies, Vol. 11, (June, 1962), pp. 99-103.

Minkel, C. W. "Programs of Agricultural Colonization and Settlement in Central America," Revista Geográfica, No. 66 (Junho, 1967).

Minkel, T. A. "Mennonite Colonization in British Honduras," The Pennsylvania Geographer, Vol. V, No. 3 (April, 1967).

The Reporter. (Extra). (Belize City), November 28, 1970.

United Nations. Yearbook of International Trade Statistics 1967, New York: 1969.

Reports

British Honduras. Annual Report of the Department of Agriculture and Fisheries for the Year 1968. Belize: 1969.

_____. Annual Report of the Forest Trust, 1927-1928-1935. Belize: 1927-1928-1935.

_____. Annual Report of the Forest Department of British Honduras for Year 1938-1942-1947-1955. Belize: 1938-1942-1947-1955.

_____. Annual Report of the Forest Department for the Year 1966. Belize: 1966.

_____. Annual Report of the Labour Department, 1964. Belize: 1964.

_____. Annual Report for the Survey and Lands Department, 1965. Belize: 1965.

_____. Annual Report for the Survey and Lands Department, 1967. Belize: 1967.

_____. British Honduras: Report for the Years 1964-1965. Belize: 1967.

_____. Office of the Premier. British Honduras Development Plan. 1964-1970. Belize: 1964.

_____. Manpower Report, 1966-1967. Belize: 1966, 1967.

- Clayton, G., W. D. Garner, and E. T. York Jr. Report of the Tripartite Economic Survey of the British Honduras. Government of the U. K. Canada, and U. S. A.: 1966.
- Great Britain. Colonial Office. Report of the British Guiana and British Honduras Settlement Commission. London: 1948.
- Hunter, A. A. Rural Land Utilization Tax: A Beneficial, Just and Equitable Piece of Legislation. Belize Government Printer, 1966.
- Jamaica. Department of Statistics. Census of British Honduras, 1960. Vol. II, Kingston: 1960.
- United States. Department of Agriculture. The Agriculture and Trade of British Honduras. Washington, D. C.: 1968.
- _____. Department of State. British Honduras: Background Notes. Washington, D. C.: December, 1970.

MICHIGAN STATE UNIV. LIBRARIES



31293102131582