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SPECIAL REPORT

LAND TENURE IN THE
DOMINICAN REPUBLIC

May, 1972

M. B. Badenhop
and
Nelson Rodriguez

THE UNIVERSITY OF TENNESSEE
DEPARTMENT OF AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY,
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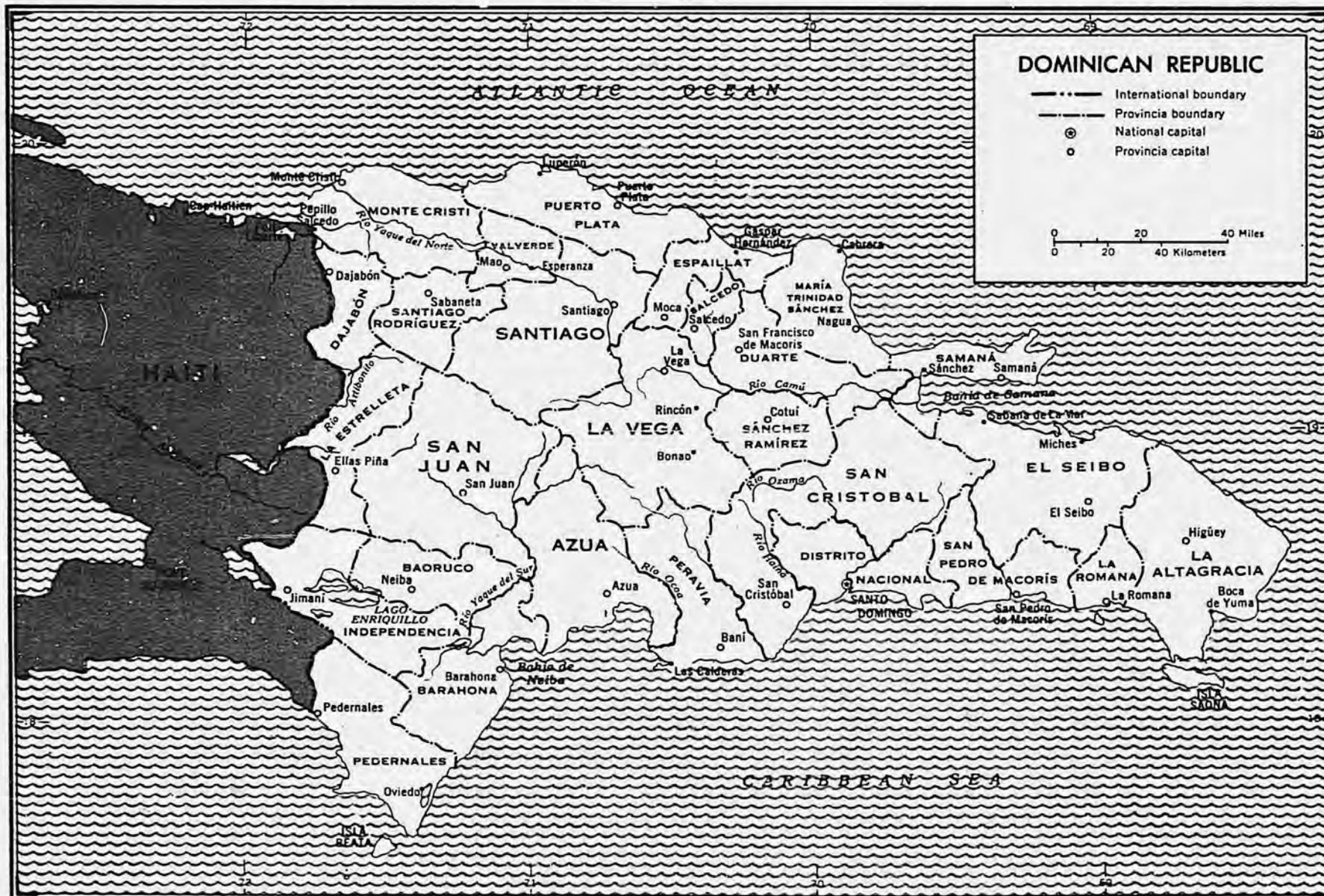
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LAND TENURE IN THE DOMINICAN REPUBLIC

M. B. Badenhop and Nelson Rodriguez*

INTRODUCTION

In the Dominican Republic, as elsewhere in Latin America, land tenure institutions define a farmer's status. They initiate conditions that bring about expectations and doubts that motivate him to economic activity. Land and people are the basic resources in the rural areas, and institutions controlling the use of land must evolve in such a way that the creative energies of the rural people can be released to develop their capacities to the maximum. Herein lies the real potential and rationale for developing a meaningful tenure system¹ -- where the rights and obligations of individuals with respect to land, to other individuals, and to the state are clearly defined so that secure economic opportunities are provided for large numbers of rural people.

The Dominican Government is aware of this fact and has given first priority to agriculture in its development programs. This concern is

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¹Peter Dorner and Raymond Penn, Agrarian Reform in the Dominican Republic, in Agrarian Reform in the Dominican Republic: The Views of Four Consultants: Dorner, Loomer, Penn, and Thome (Madison: Land Tenure Center, University of Wisconsin, LTC No. 42, December 1967), p. 1.

evident in the promulgation and implementation of the goal of the agrarian reform law No. 5879 of June 14, 1962. According to the preamble of this law, "intensive government action on behalf of the economic and social welfare of the campesino (peasant) population was of primary interest to the nation."² This need for agrarian reform, or better land tenure arrangements, is clearly evidenced by these facts: (1) the level of living of the campesinos is extremely low; (2) 70 percent of the nation's people live in rural areas and depend on agricultural activities for their livelihood; (3) landholdings of the campesino are generally small, often fragmented, uneconomic units; (4) land concentration has stimulated excessive migration of rural people into the cities, with the resulting growth of urban slums and other economic and social problems; (5) concentration of landownership has also resulted in the migration of many campesinos into the mountainous areas of the country, where their efforts at clearing land are often antagonistic to the preservation of land, water, and forest resources; (6) a sound national development requires the economic security of its campesino population; and (7) previous colonization programs have largely failed due to the lack of planning, adequate credit services, and technical assistance.³

²Joseph R. Thome, The Agrarian Reform in the Dominican Republic: Problems and Prospectives, in Agrarian Reform in the Dominican Republic: The Views of Four Consultants: Dorner, Loomer, Penn, and Thome (Madison: Land Tenure Center, University of Wisconsin, LTC No. 42, December 1967), p. 25.

³These factors were largely confirmed in a report prepared by the International Development Service (Gifford Rogers, Land Tenure in the Dominican Republic, June 1963) and were reinforced in the report prepared by Thome (Ibid., pp. 25-26).

Unfortunately, many obstacles have impeded the achievement of programs designed to introduce major structural changes in the relation of man to land. One critical need is for reliable information on land tenure patterns; the kinds of property rights held by the government and by individuals; the specific rights associated with the use of land and water and the way these rights are distributed among the different users; how lands were acquired by the campesinos; who holds land titles and how such titles were obtained; information on the characteristics of Dominican farmers within different tenure categories; and the basic problems campesinos face with respect to transportation, credit, and marketing. Basic information of this type can be extremely valuable in identifying problems, selecting projects, and formulating policies at all stages of effort to modify tenure relationships.

The main purpose of this study is to provide some of this much needed information. In a sense, the study attempts to fulfill the mandate succinctly stated by Professor Parsons:

As we search for solid foundations upon which to build enduring and just programs of economic and social development, we are compelled to try to understand the present and prospective unrest of the land; and if we are wise, we will strive to honor the aspiration of peasants and use their stirring hopes as energy for economic and social development.⁴

⁴Kenneth Parsons, "Land Reform and Agricultural Development," Land Tenure, eds. Parsons, Penn, and Raup (Madison: The University of Wisconsin Press, 1963), p. 1.

THE SETTING

Like most nations of the world, the Dominican Republic, one of the oldest settlements of Spaniards in America, is being dramatically affected by technological progress and related forces. It remains, however, basically an agricultural nation. Agriculture accounts for about one-fourth of the gross domestic product, employs over one-half the labor force, and furnishes about nine-tenths of the value of all merchandise exports from this Caribbean nation.⁵ The recent performance of the agricultural sector has not been as satisfactory as performance in other parts of the economy; the per capita index of production in 1968 was only 71 percent of its 1957-59 level.⁶

The Dominican economy is faced with a number of problems. The most serious are a high rate of unemployment (about 20 percent), the continuing imbalance of trade,⁷ and man and his relationship to the

⁵Robert M. McConnel., "Focus on Agriculture of the Dominican Republic," U. S. Department of Agriculture, FAS, Foreign Agriculture, September 8, 1969.

⁶There was an upward trend in agricultural production from the late 1950's through 1964, but this rate of increase did not keep pace with annual population growth and in 1966 the per capita level of production was less than 80 percent of its 10-year earlier level. A severe drought in late 1967 and early 1968 seriously retarded the production of sugarcane and was partly responsible for the poor showing in 1968.

⁷Total exports in 1968 were valued at \$163 million of which agricultural shipments had a value of \$145 million. The leading agricultural exports are sugar (and its by-products), coffee, cocoa, tobacco, and beef. The United States is by far the most important market for Dominican agricultural exports, taking between 85 and 90 percent of these exports annually in recent years.

On the import side, total value of goods entering the Dominican Republic was \$195 million in 1968 of which agricultural items amounted to \$37 million. The leading agricultural imports, value-wise, in recent years have been wheat and flour, oilseeds and vegetable oils, dairy products, tobacco, canned goods, other cereals (including rice), tallow, and beans and peas. The United States has provided from 50 to 60 percent of these imports in recent years.

land. Also, for generations, institutions and attitudes were effectively stifled by the prevailing leadership. Since the 1961 assassination of Trujillo, which ended more than 20 years of dictatorship, there have been more than a half dozen changes in government, including a period of revolution and civil war. The distrust and bitterness resulting from this long experience of repression and turmoil are not easily eliminated. Programs aimed at improvement through developing human capacities are complicated by the low level of literacy, skills, health, and social development of the rural population.⁸ Nevertheless, they must be developed to secure opportunities for large numbers of rural people and in as short a time as possible.

The Dominican Republic itself occupies an area of 18,703 square miles and has a population of 4,174,000 growing at a rate estimated about 3.6 percent.⁹ The Cibao is the largest and most fertile valley of the country. It is approximately 150 miles long and 10 to 30 miles wide. Almost one-half of the inhabitants live in the valley, which is often called the "Food Basket" of the country.¹⁰

⁸Dorner and Penn, op. cit., p. 1.

⁹Socio-Economic Progress in Latin America, Social Progress Trust Fund Ninth Annual Report, 1969, Inter-American Development Bank (Washington, 1970), p. 295.

¹⁰Garland R. Marshall, "Background Information on Marketing Methods and Practices Utilized at the Models and Hospedaje Markets," Instituto Superior De Agricultura Division De Investigaciones Agricolas, Bulletin No. 2 (Santiago de los Caballeros: Dominican Republic, October 31, 1966), p. 1.

DATA FOR THE STUDY

Data for this study were obtained by personal interview of 673 household heads randomly selected from those respondents included in the 1967 National Education Survey who had landholdings of 4 or more tareas (6.4 tareas equal one acre).¹¹ The interviewing was done by personnel from the Division of Agricultural Extension of the Secretariat of Agriculture of the Republic who lived in and knew the area in which the data were collected. The subsample drawn from the National Education Survey respondents was divided into farm and nonfarm groups for (1) the rural areas; (2) other urban zones, which included 29 municipios (municipalities); (3) the Santiago urban zone; and (4) the Santa Domingo metropolitan zone. The resulting eight strata, along with the number of household units sampled in each stratum, and the expansion factor used to calculate nationwide results are shown in Table 1.

Tables containing the detailed results of the study and supplementary data used are included in the Appendix. No references to individual tables are made in the text.

THE EXISTING PATTERN OF LAND TENURE

Historical Background

Soon after Columbus reached the island of Espanola (part of which is the territory called Dominican Republic), he began to distribute land

¹¹The sample was developed by Donald Keating, Agricultural Statistician, on the staff of the United States Agency for International Development (USAID) in the Dominican Republic in 1968.

Table 1. Number of units sampled and expansion factor used in land tenure study, Dominican Republic, 1968

Strata	(1) Expansion factor used in National Education Survey	(2) Number of units sampled in National Education Survey	(3) Number of units from the National Education Survey sampled in the land tenure study	(4) Percent of units of the National Education Survey sampled in the land tenure study (Col. 3 ÷ Col. 2)	(5) Expansion factor for sample (Col. 1 ÷ Col. 4)
I. Rural farm	21.391	11,888	569	4.78634	446.917
II. Rural nonfarm		8,086	9	.11130	19,219.227
III. "Other urban" nonfarm	9.613	9,267	11	.11870	8,089.567
IV. "Other urban" farm		1,481	68	4.59149	209.365
V. Santiago nonfarm	20.000	759	1	.13175	15,180.265
VI. Santiago farm		32	3	9.37500	213.333
VII. Santa Domingo nonfarm	30.000	4,567	11	.24086	12,455.885
VIII. Santa Domingo farm		1	1	100.00000	30.000
Total	--	36,081	673	1.86525	--

among the discoverers of the new colony. Later Diego Colon, son of Columbus and first governor of the island, received instructions from the Crown to provide the members of the ruling elite (military and civilians) with large extensions of land. This first partition of land which took place among conquerors and discoverers was called repartimiento de tierras. Together with the tract of land received by the conquerors, they were given Indians to work the land. This was called repartimiento de indios. In 1503, a new arrangement known as the encomienda appeared in the life of the new colony. The encomienda was perhaps one of the most important components of the agrarian system in the beginning of the colonial period; its importance, however, declined after the sixteenth century.¹² There are different views concerning the significance of the encomienda. However, it seems that there is a common consent concerning the influence of the encomienda in establishing "the caste system of management and labor, which, together with the land policy of the times, created the agrarian system inherited by the republics."¹³ The encomienda was also a territorial grant to the Spaniards; this grant consisted of Indians and land. Under this type of tenure, the Indians were forced to work for the new owners, and in exchange they received the right to cultivate a tract of land for themselves.

One of the most peculiar characteristics of land tenure during the colonial period was the usurpation of Indian lands by the conquerors. The

¹²David Weeks, "The Agrarian System of the Spanish American Colonies," Journal of Land Public Utility Economics, Vol. XXIII, No. 2, May 1947, pp. 153-168.

¹³Ibid., p. 156.

land taken from the Indians was added to the grants controlled by the Spaniards. This resulted in very large tracts of land, the effect of which is still felt today.

Another important aspect of the colonial agrarian system is the appearance of the mayorazgos. The mayorazgos was the name given to the titles awarded by Spain to the ruling elite of the colony.

The mayorazgos of America as in Spain were symbols of the landed aristocracy who held tenaciously to this remnant of feudalism. Though limited in numbers they were extensive in area. Owned by the most illustrious families they became patterns for the less illustrious and thus played an important role in the perpetuation of large estates and in establishing and continuing outmoded agrarian customs.¹⁴

The large concessions of land to the ruling elite brought about another important form of tenure, the plantation. The plantation was an extensive tract of land in which hundreds of families were forced to produce agricultural products mainly for export. There is no doubt that the plantation together with the other tenure systems which have existed in the island have played a key role in determining the present tenure system.

One of the most important factors in recent history affecting the evolution of the present tenure system in the country was the Trujillo administration. Unfortunately, there is little reliable information about the tenure situation during his regime, except that during his government most of the best land of the country was acquired in various ways by the Trujillo family. After Trujillo's death many of these lands

¹⁴Ibid.

were occupied by thousands of families who today claim ownership to that land. This has resulted in a lack of information about the present tenure situation with respect to many parcels of land in the land registry records of the nation.

Present Situation

The tenure arrangements of the country now form two main groups. In the first group are those tenure situations in which the man who uses the land has acquired the right to do so by following the statutory or customary practices existing in the country. In the second group are those cases of usurpation or occupation of lands, that is, the cases in which there is no legal relationship established between the man who uses the land and the entity or person who claims ownership of it.

The tenure forms of the first group can in turn be divided into six categories: (1) full ownership; (2) part ownership; (3) renting (arrendamiento); (4) sharecropping (mediería or aparcería); (5) colonato; and (6) "occupied by concession."

"Renting" includes all cases in which the tiller of the land agrees to pay a fixed amount in cash (fixed rent) for the right to use the land. Under the "sharecropping" category are those arrangements in which the farmer, according to a previous agreement, shares with the owner part of what he has produced on the land. This share is the payment for the right to use the land. Under the category "occupied by concession" are those cases in which the farmer temporarily enjoys the right to cultivate a tract of land; in exchange for this privilege, he is supposed to fulfill some conditions expected by the owner of the land. The

farmers, for example, in exchange for the temporary right to use the land, are asked: (1) to cultivate the land with the aim of building up soil fertility; (2) to clean up new lands; (3) to leave the field, prior to his departure, clean and ready to grow other crops of interest to the owner; and/or (4) any combination of these three conditions. Finally, the form of tenure described as "colonato" is a particular form which evolved during Trujillo's regime. Land was given mainly to foreign descendents (particularly Germans) who settled small colonies, or "colonatos." At the time of the settlement, however, no ownership title was awarded to the colonos. Even today, most of the colonos do not have title to the land they occupy.

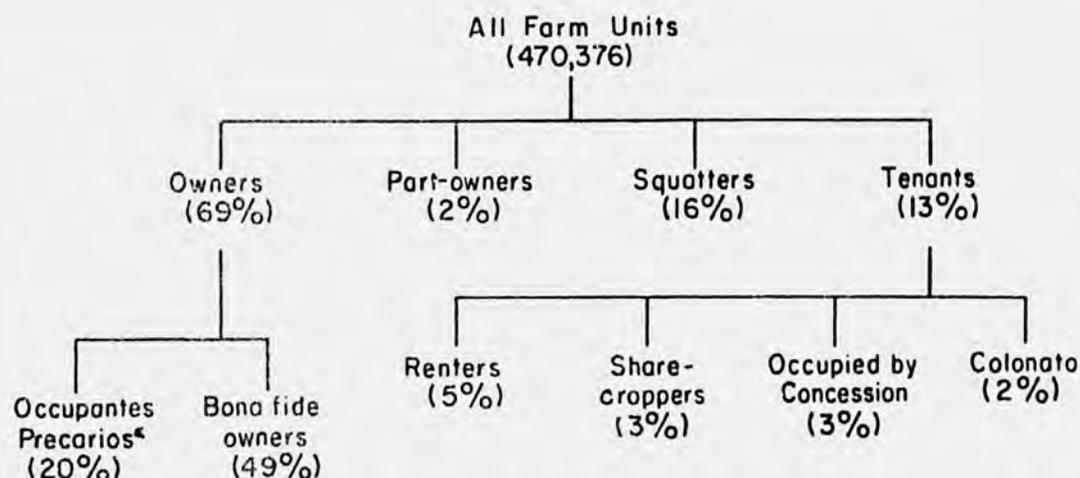
The second group of tenure arrangements includes only one form, namely, the condition of those farmers who occupy a tract of land without attempting to establish a legal relationship with the entity which claims ownership -- in other words, "squatters."

LAND TENURE CHARACTERISTICS

Importance of Various Types of Land Tenure

According to our survey, there were an estimated 470,376 farm units in Dominica in 1968. These farms are operating under a variety of types of land tenure, reflecting a confusion inherited from the past. At present, 71 percent of the farm units are operated by owners (69 percent full owners and 2 percent part owners) with about one-fifth of these owners being ocupantes precarios (squatters). These squatters think of themselves as legitimate owners but they have neither title to the land nor a legal arrangement with the entity that claims ownership, usually the

state. Tenant-operated farm units comprised 13 percent of the total, of which 5 percent were renters, 3 percent were share-croppers, 3 percent were occupied by concession, and 2 percent were colonatos. Sixteen percent of the farm units were occupied by bona fide squatters, that is, by farmers who are aware that they have occupied or usurped control of a tract of land and have not claimed ownership or established legal use (Figure 1).



*Farmers who call themselves owners but who actually are squatters since they do not have title to the land they occupy.

Figure 1. Tenure Status of Farmers of the Dominican Republic, 1963.

The nature of the titles possessed by the farmers of Dominica is only one of the problems they face. There are also problems associated with the amount of land each has control over, the fragmentation of such holdings into more than one contiguous parcel, and living at a distance from the farm being operated. The extent to which each of these is a problem varies by type of tenure.

Characteristics of Farms According to Tenure

Forty-three percent of the 470,376 producers in 1968 operated very small farms (under 20 tareas in area), and 25 percent operated farms in size groups 20-29 and 30-39 tareas. Another 10 percent operated farms between 50 and 99 tareas in area; thus, 78 percent of the producers operated farms under 100 tareas, or 15.6 acres, in size. Only 16 percent operated farms between 100 and 299 tareas in area, and a relatively small number of producers, 6 percent, had farms of 300 tareas or larger.

The largest landholdings are found in the areas predominantly devoted to cattle raising, as on the high pastures and savannas of El Seibo province. The small and medium-sized farms are largely owner-operated and are concerned chiefly with cultivating crops for the domestic market and with the export crops of coffee, cacao, and tobacco. The smallest farms are in La Vega province and often consist of several parcels, many reduced to a few thousand square metres in area.

Farmland in Dominica comprises an area of 33.6 million tareas¹⁵ of which 67 percent is tilled by owners, 23 percent by squatters, and the remainder by tenant operators. Crop production is heavily concentrated in the El Cibao Region of the country, where 84 percent of the farm units are farmed by owner operators (including part owners).

Two-thirds of the farm units consist of only one parcel of land. More landowners have one parcel than do renters, sharecroppers, and squatters. Twenty-one percent of the farm units consist of 2 parcels of land and only 13 percent have 3 or more parcels.

¹⁵Excludes about 3 million tareas planted in sugarcane on government lands.

Most of the farmers -- 69 percent -- lived on the farm they operated. Another 16 percent had their place of residence less than 2 kilometers from the farm. Only 9 percent of the farmers lived 5 or more kilometers from their farm. In general, the rural Dominicans' homes are grouped into villages situated near the main thoroughfares.

Characteristics of Farmers According to Tenure

We found that owners and part owners of farms were considerably older than tenants and squatters. One-fourth of the owners were 65 years of age or older compared to less than 5 percent of the tenants and 6 percent of the squatters. Conversely, 37 percent of the owners and 32 percent of the part owners were less than 45 years of age while over three-fifths of the tenants and squatters were in this age group.

Seventy percent of the owners had operated their present farms for 10 years or more; the corresponding figure for tenant-operated farms is about 50 percent and for squatters, 55 percent. Over 16 percent of the squatters have operated their present farms for less than 2 years and over 90 percent of the renters for less than 3 years.

Land Acquisition

Of the 324,031 farmers who presently claim ownership of land, 41 percent acquired their current holdings through buying land. One-third of the farmers inherited their current holdings from their fathers. An additional 7 percent bought part of their land and inherited the remainder from their fathers. Some farmers also inherited their current holdings from their mothers (5 percent) or from other relatives (3 percent). Seven

percent obtained their present land from public agencies operating settlement programs and 3 percent received theirs as a gift.

It became obvious while obtaining these data that a great deal of confusion exists in the system of recording titles to land and that attempts to straighten out land records will encounter serious problems. In many instances the boundaries of farms are obscure, poorly drawn, and in some cases not known. It is recognized that in recent years the country has made attempts to improve the process of land registration and land delineation, but the results have not been very effective. Until titles to rural land are registered properly, there will remain the problem of developing an effective taxation policy on rural property.

Among the 324,031 farmers who claimed ownership, 21 percent did not actually have a land title in their possession that legally recognizes them as the owners of the land they now occupy. Eleven percent of the owners had some sort of provisional title to their land but the exact nature of such titles was not clear. Two-thirds of the owners claimed they had permanent title to the land they now occupy. Many of these owners, however, had no official papers recognizing ownership. Consequently, there was no legal recording of titles or registration of such lands with the proper government entity. Actually, many who claimed they had a permanent title were occupying land that was formerly occupied by their parents who, in turn, occupied the land lived on by previous generations of their family.

Transactions legitimatizing these transfers of occupancy were generally not recorded, or if they were, the records have been lost, mis-

placed, or destroyed. So, even though these farmers claim they have a permanent title to the land they operate, in many cases there is no official record of such titles. These discrepancies exist largely because of practices or the customary way lands have been divided in the past, particularly communal lands. In a report dated 1920, the practices are described.

Upon the death of the original grantee, the tract was not divided among his heirs. Instead, it was customary to have a notary public or other official set a money value upon the whole tract and give to each heir a certain money value representing his share of the whole value. These shares, expressed in pesos, came to be known as "acciones" or "peso titles." The shares of each of these heirs would, upon his death, be distributed among his heirs, without any division of the land, and so on for generation after generation. Also peso titles were sold from time to time without specifying any particular part of the whole original tract as passing to the purchaser. Loss and destruction of records of these transactions made a bad matter worse.¹⁶

It is apparent that many farmers who claim to be owners but do not have a title to their land, and those who say they have permanent title to the land they occupy, do not officially own the land. It is estimated that about one-fifth of the farmers who claim ownership to the land are in reality squatters, or occupantes precarios. In fact, while studying the process of land acquisition, it was found among the farm owners that 20 percent indicated they were squatters immediately before becoming landowners for the first time.

¹⁶Santa Domingo, Its Past and Present Conditions (A pamphlet prepared by the members of the Military Government of Santa Domingo: Santa Domingo City, D. R., January 1, 1920), p. 28.

Prior Tenure Status

To obtain additional information on the land acquisition process, farmers were asked about their tenure status immediately prior to their present tenure arrangement. Their answers revealed that 44 percent of the present owners and 30 percent of the tenants did not have rights to any land before that which they now occupy. Among the present owners, 29 percent were formerly owners or part owners of farmland they operated before operating the farm they now own; 8 percent were previously renters or sharecroppers; and 20 percent, squatters. Prior status of tenancy among present tenants varied considerably; most of them, however, were tenants of one type or another, although a few, about 9 percent, were previously owners.

Age When Land Acquired

Forty-four percent of the present farm owners were under 30 years of age when they acquired their first landholding. Another 40 percent were in the 30-39 year age group. Not many present farm owners, 13 percent, obtained their first landholding after age 40. A rather large number of the present farm owners, 46 percent, worked on their family's farm until they inherited it. At the time of inheriting the farm, most of the farmers were between 30 and 39 years of age. When they first acquired land, 42 percent of the present owners were single (including widowers and divorcees) and 58 percent, married.

In general, tenant farmers tended to acquire land for the first time at an earlier age than owners. About two-thirds of the tenants acquired their first land for farming when they were under 30 years of

age. Also, more tenants than owners were married when they acquired their first holding.

Contractual Arrangements on Use of Land

Fifty-eight percent of the tenants on the 139,874 tenant-operated farms had no contract of any kind with their landlords about land use; 37 percent had only a verbal arrangement; and only 5 percent a written contract. Among those that had written contracts less than 10 percent had contracts that stated the duration of the agreement. Rights about the use of land were not indicated clearly and provided little security for the tenants. In general, arrangements were very simple; that is, tenants were allowed to use a plot of land in exchange for cash or other form of payment without the owner being committed to provide any of the other production inputs. Squatters, of course, occupied individual plots of land and did not pay rent of any kind.

Farmers' Plans During Next Five Years

Considerable uncertainty existed in the minds of the farmers about what they were going to do with their farm businesses during the next 5 years. In fact, 30 percent did not know what they were going to do. This feeling was more common among renters and colonatos than among those in other tenure groups. Thirty-nine percent of all the farmers expected to increase their production. Tenants, however, were less optimistic about increasing production than were owners and part owners. Eight percent of the producers expected to leave their farmland to an inheritor within the next 5 years and another 8 percent expected to acquire more land. Six percent of the owners expected to sell their farms.

LAND USE

Land use and availability estimates for 1967 indicate a total of nearly 77 million tareas of land in the Dominican Republic. Of this total, 35.05 million tareas (46 percent) are land in farms.¹⁷ Of the land in farms, 26.65 million tareas (76 percent) are developed for agriculture, leaving 8.40 million tareas (24 percent) underdeveloped. The 41.95 million tareas of land not in farms (54 percent) consists mostly of mountains, swamp, semi-arid areas, and forest. However, practically all the land not in farms -- 40.95 million tareas (98 percent) -- has capabilities for agricultural development either mainly in forest, capabilities for forest, in tree crops, or for other uses.

Land is used most intensively in the southeastern portion of the country and in the rich alluvial plains of the northwestern area of the Cibao Valley and southwestern Yaque del Sur Valley. About one-third of the area of the country is usable for agricultural production without serious physical limitations.¹⁸

Of the 35.05 million tareas in farms, only 10.25 million tareas (29 percent) are cultivated -- 1.75 million tareas (17 percent) as irrigated land and 8.50 million tareas (83 percent) as dry land. Fallow land, suitable for crops or pasture, comprises 3.30 million tareas (9 percent of land in farms) and grassland, including improved pasture (9.0

¹⁷Land use and availability estimates for 1967 were compiled by the U. S. Agency for International Development in collaboration with the Dominican Government and were based on the 1950 and 1960 census and other available data.

¹⁸A. Obiols and R. Perdomo, Atlas de informacion basica existente y lineamientos para la planificacion del desarrollo integral de la Republica Dominicana, 1966.

million tareas) and native pasture (4.10 million tareas) comprises 13.10 million tareas (37 percent of the land in farms). Other land in farms -- that is, land which is underdeveloped, in wood and brush, and wasteland -- makes up 8.40 million tareas (24 percent).

Annual crops, irrigated and dry land, are planted on 3.12 million tareas (9 percent of land in farms), with rice being the most important crop. Perennial crops are grown on 7.15 million tareas (20 percent of the land in farms) of which 6.30 million (88 percent) are dry land tareas and 850 thousand (12 percent), irrigated tareas. The main perennial crops grown are sugarcane, coffee, cocoa, platano, and coconut. There is no information on the amount of land double or triple cropped, but apparently this is significant in some areas, especially those under irrigation.

Sugarcane, the Dominicans' most important crop, is grown on more than 2.65 million tareas of land and is concentrated in 16 plantations extending along the southern half of the country from Barahona to La Romana.¹⁹ The harvested area of other major crops as reported in the preliminary version of the First National Development Plan (1970-1974) is as follows: Coffee, cherry, 2.48 million tareas; rice, 1.74 million tareas; plantains, 1.37 million tareas; cocoa, wet, 1.20 million tareas; and peanuts on 1.30 million tareas. Beans, all types, are harvested from

¹⁹ A Review of Agricultural Development Prospects and Priorities in the Dominican Republic, Paper No. 3, published by the Economics and Social Development Division of the Inter-American Development Bank, October 1968, p. 15. The source of the area planted to sugarcane by private and public enterprises is E. D. White, et. al., Report of Study Team in Dominican Republic Agriculture, USAID, Mimeograph, 1966, p. 73.

546 thousand tareas; corn from 483 thousand tareas; and tobacco from 307 thousand tareas.

LIVESTOCK ESTIMATES

Reasonably accurate estimates of livestock numbers indicate that there were around one million head of cattle in the Dominican Republic in 1966, of which 150 thousand were dairy cows, 130 thousand dual purpose cows, 100 thousand beef cows, 84 thousand oxen and the remainder being young stock and bulls.²⁰ Total swine numbers were estimated to be 550 thousand head including 100 thousand sows, 300 thousand pigs under 10 months of age, and 150 thousand pigs 10 months or older. Goat population was estimated to be 280 thousand head including 52 thousand does, with bucks and kids of various ages being the remainder.

It was apparent from our survey that there are many resources available and well suited for use in development of the livestock industry. Many farmers interviewed said they wanted to improve their livestock, but they were not very knowledgeable on how to start doing it. Technology and capital were manifested as the limiting factors in production, marketing, and processing. When these increase, livestock numbers will increase. In fact, preliminary estimates from the 1970 census indicate that cattle numbers have already exceeded 1.2 million head.

²⁰The figures on estimated livestock numbers were compiled by the U. S. Agency for International Development in collaboration with the Dominican Government.

FARM INPUTS RELATED TO TENURE

Land

It is apparent that the Dominican Republic is in a land scarcity situation. On the basis of total population and total cultivated area in 1967, there were only 2.86 tareas per person, one of the lowest land/man ratios in the world. Hence, in the present situation, and probably of long standing, land availability is a limiting factor of agricultural production. While much of the historical expansion of output has resulted from new areas being put into cultivation, this is not a feasible alternative for the future, except in the arid western valleys. Relatively high cost irrigation investments, however, will be required if permanent agriculture is to be expanded into these valleys.²¹

Results from our survey indicate considerable pressure on land. Progressive subdivision of the small farms will undoubtedly continue as it has in the last two decades. Now, 38 percent of all farm owners have farms less than 15 tareas in size and during the next 5 years 8 percent of the owners indicated they would pass their land on to inheritors. Other studies also show that the small farms are becoming smaller, and that large farms -- those over 1,000 tareas in size -- are continuing to grow.²² This pressure on land has contributed strongly to the rapid migration of rural population into the cities.

²¹Currently, over 40 percent of the 1,733,100 tareas (109,000 hectares) of total irrigated land is unutilized or underutilized each year due to siltation and poor maintenance of the irrigation canals, control gates, and water intakes.

²²Texas A & M University, International Programs Office, Marketing Survey Mission Report, Dominican Republic, 67-1, 1967.

Labor

There is an excess of labor in the agricultural sector. One indicator, already stated, is that there are only 2.86 tareas of cultivated area per person on the basis of total rural and urban population. Another indicator is that 48 percent of the farm owners and about two-thirds of the tenants and squatters farm their small landholdings by themselves. When members of the owner, tenant, and squatter families are included as part of the labor force, about 90 percent of total labor requirements are met on all the farms. Hired labor plays only a minor role in meeting farm labor needs. Obviously, the rural labor supply is not an inhibiting factor in agricultural production. Much of the agricultural labor force, an estimated 50 percent, is marginal to rural labor requirements.²³

Water

Our survey showed that over half of the farmers are not satisfied with their accessibility to water. The situation is about the same for owners as it is for tenants and squatters. Eighty percent of the farmers used water only for home consumption, and for some, the amounts available were not adequate. In fact, 10 percent of all farmers did not have

²³A later analysis, completed by the Texas A & M Mission and the Secretariat of Agriculture, estimated, under conditions of full employment, that only 20 to 30 percent of the present rural labor supply would be required to achieve current production levels. This indicator should be interpreted with caution, however, as it is unlikely that 70 to 80 percent of the available labor supply could be withdrawn from the agricultural sector without substantially reducing output.

enough water available to meet the primary needs of the home. Another 27 percent had only enough to meet home needs. One-third of the farmers had enough water for home needs but not enough to meet irrigation needs and only 7 percent had enough water for all purposes.

Only a fourth of the farmers paid for the use of water. In many cases, the payments were not actually for the water used but were payments for services provided by those who haul the water from its source to where it is consumed.

The source of water for farm and home use varied. About one-third of the farmers obtained their water supply from natural sources, that is, from rivers, lakes, and ponds. Twenty-six percent of the farm owners, about 45 percent of the tenants, and 60 percent of the squatters used the natural sources. Over a fourth of the owners and less than 5 percent of the tenants and squatters depended upon aqueducts as the source of their water. Twelve percent of all the farmers depended on public fountains and tanks as a water source. The rest of the farmers depended on a combination of sources, most of which were not satisfactory.

From discussing water problems with the farmers we surveyed, it was clearly established that irrigation water was not used very effectively. Present use and distribution does not reflect rational allocation based on the economic value of water. As a result, water is often used on lower valued products which otherwise would not be produced if water tariffs reflected the real cost of supplying the water. Thieme²⁴ has indicated

²⁴Alfred Thieme, Jr., Report on Program Policies, and Agricultural Development in the Dominican Republic, Inter-American Development Bank, August, 1971, pp. 16-17.

four reasons to believe that more rational use and efficient administration of existing water supplies would permit a substantial increase in the area actually irrigated. These reasons are:

- 1) "The existing water tariffs are based on area and do not reflect the volume of water used. These tariffs encourage nonrational excessive use of water on certain crops, relative to optimum requirements, and contribute to development of cropping patterns without the consideration of the real cost of water. In addition, tariffs are inadequate to maintain the irrigation infrastructure, much less to amortize previous investments.
- 2) Even if the tariffs were adequate, the Instituto Nacional de Recursos Hidraulicos (INDRHI) is unable to collect the existing charges from most water users.
- 3) Because of the traditional water use rights that have evolved, upstream farms have access to more water and downstream farmers often are left with little or no water.
- 4) Inadequate natural drainage and failure to install or maintain drainage systems are forcing land out of production as salt concentrations become excessive."

If existing water charges were enforced, collected, and later used for rehabilitation and maintenance of the irrigation systems, there would be not only a greater available water supply through reduction of losses, but improved and more economical use of it. From the many complaints concerning water availability and use expressed by the farmers interviewed, it is obvious that steps need to be taken to improve the administration of water rights and the system for delivery of water, at the time and places and in the quantities needed.

Agricultural Machinery

Mechanization is little advanced in Dominican agriculture. Most farms irrespective of tenure arrangements used human labor and animal

power, and only a small proportion, about 6 percent of all farm units, used mechanized power for farming. Most of the agricultural machinery is used in sugarcane production. Traditional hand tools and oxen drawn ploughs, seeding machines, and weeding equipment were present on many farms. However, hand tools were the only form of equipment found on many of the small farm units.

Fertilizer

Only 14 percent of the farm owners, about 5 percent of the tenants, and 1 percent of the squatters reported using fertilizer in their crop production programs. In general, the farmers, irrespective of tenure arrangement, complained about the high price of fertilizer. Over three-fourths of the farmers also felt that fertilizer was not readily available because of the distance of market outlets, the problem of hauling fertilizer to their fields, and the lack of credit to buy it.

Most fertilizer consumption -- about 60 percent of the total -- is used on sugarcane produced by the state and two private firms with practically all the remaining 40 percent distributed primarily among rice and vegetable and fruit crops. Fertilizer usage could be expanded greatly if more of the farm operators understood its value for food production. Inadequate technical knowledge among farmers and lack of credit have inhibited a more rapid expansion in the use of this input.

Pesticides

Only 11 percent of the farm owners, less than 5 percent of the tenants, and 3 percent of the squatters used insecticides during the 1968 crop year. As with fertilizer, most of the insecticides were used on sugarcane. Also, as with fertilizer, inadequate knowledge among farmers reflecting lack of research and extension education rather than lack of supplies have been responsible for the limited use of the various types of pesticides.

Seeds

Farmer responses to questions on the use of improved seeds and genetic material indicated their use of hybrid seed and improved root stock is very limited. With the possible exception of rice, well adapted, improved, or hybrid seeds are not used extensively. In part, this is due to the lack of an adequate supply of hybrid or improved seed. We found that even though the farmers' knowledge on improved seeds appeared limited, nearly half of the owners and part owners and two-thirds of the tenants and squatters indicated that they were not satisfied with the seeds available for planting their crops. Farmers, in general, were not aware of research being done on improved or hybrid seeds. In fact, very little research on improved seed varieties has been done and the government's effort to operate small seed production and multiplication farms appears inadequate to meet present needs.

Credit Arrangements

According to our survey, the official Banco Agricola de la Republica Dominicana (BA) was the main source of institutional credit for

from 1964 to

all farm operators ~~in~~ 1968. Nearly three-fourths of the farmers that *during the 1964-1968 period* used credit ~~in 1968~~ obtained it from the BA. More tenant operators that used credit relied upon the BA to provide such credit than farm owners or squatters. The BA was more active in providing loans for rice production than it was for providing loans for other agricultural purposes.

Commercial banks were the second most important source of credit available to farmers, particularly for owners and part owners. About one-fourth of the credit funds used by farm operators were supplied by the commercial banks. Relatives and friends and government institutions other than the BA were not important credit sources for most farmers.

from 1964 to

~~During~~ 1968, 40 percent of all farmers obtained a loan of some type from the sources indicated. According to tenure, 39 percent of the farm owners and part owners, 55 percent of the tenants, and 23 percent of the squatters obtained a loan in that year. In terms of the total number of loans made, two-thirds of the total were made to owners, one-fourth to tenants, and 9 percent to squatters.

In general, farmers were not well informed on how to obtain credit. Results of the survey revealed that 55 percent of the farmers had very little or no knowledge on how to go about the process of obtaining credit. An additional 26 percent knew only part of the procedures involved. On the other hand, 19 percent of the farmers appeared to be well informed on how to obtain the credit they needed.

Relative to the access to farm credit, one-fourth of the farmers thought that credit was relatively easy to obtain. Another fourth, however, thought that it was too difficult to meet the requirements for obtaining a loan. Again, it was noted that a limiting factor in the use

of credit was that many farmers simply did not know enough about how to obtain loans. Problems of minor importance relative to the access to credit listed by the farmers were: (1) credit was not easy to obtain; (2) too much time was required to get a loan; and (3) credit institutions were not easily accessible.

The principal uses farmers made of credit were: (1) to buy improved seeds; (2) to improve the house in which they were living; (3) to make land improvements; and (4) miscellaneous uses, such as expenditures for fencing materials, farm equipment, conservation practices, and in a few cases for family living expenses. About 35 percent of the owners and part owners, nearly half the tenants, and a fourth of the squatters used credit to purchase seeds. About 15 percent of the owners and part owners, about a fourth of the tenants, and 45 percent of the squatters used credit to improve the house in which they were living. About 19 percent of the capital borrowed was spent for land improvements and 18 percent for miscellaneous uses. Very little credit (2 percent) was used to buy fertilizer and insecticide.

It appears that the scarcity of agricultural credit has been an important factor limiting agricultural output. Even though the supply of institutional credit has expanded considerably (about 7 percent annually during the 1965-69 period), the rate of expansion is not adequate to meet the needs.

AGRICULTURAL MARKETING AT THE FARM LEVEL

It was apparent from questions asked in our survey that farmers face a considerable amount of uncertainty. They were, for example, reluctant to increase production of many crops because of the risk that large quantities produced during normal harvest periods would not be absorbed by the limited market available. They feared that prices would be forced to low levels, thereby reducing incomes. In general, farmers were not well attuned to marketing problems and did not understand the intricacies of the marketing system.

Although the farmers recognized that moving products from farms to marketing centers was costly, three-fourths of the owners and part owners indicated that transportation was not a major problem. Yet, 71 percent of the farm owners moved produce from their farms by animal or pack to the nearest secondary road where the produce could be transferred to a truck to be moved to a market center. Thus, transportation time and cost is a serious marketing problem even though it is not recognized as such by most farmers.

Lack of secondary or access roads that are suitable for motor truck passage and the fact that many of the highways linking the main towns are poorly maintained discourage increased agricultural production in many productive valleys in the interior of the country. It is evident that transportation and time costs influence the location of production centers, the market area served, the qualities and sizes of products

shipped to market, the form in which they are marketed, and the kind and type of transportation service used.²⁵

About one-third of the farmers produced only for home consumption or sold what little extra produce they had at their farms; thus these farmers were not concerned with moving produce from their farms to a market center. This explains in part why so many farmers did not consider transportation a major marketing problem. These farmers simply were not involved with this function. On the other hand, nearly 20 percent of the farms on which produce was grown were more than 15 kilometers from a market center. Transportation was a significant marketing problem for these farmers. In general, tenants and squatters lived further from market centers than farm owners or part owners. Twenty-six percent of all the farmers lived from 3 to 15 kilometers from a market center and many of these centers were small and not very viable.

The lack of satisfactory shipping containers for farm produce was a marketing problem at the farm level mentioned by nearly three-fourths of the farmers. The lack of sound shipping containers, poorly maintained roads, and often bulk trucking of fruits and vegetables results in much spoilage and waste since there is no protection against bruising or mashing. Also, fruits are generally given no protection against heat while in transit. Thus, improper handling and transporting lowers the keeping quality and often results in shortages in local markets because storekeepers do not want to risk stocking up with fruit and vegetables of poor keeping quality.

²⁵Texas A & M University, International Programs Office, Marketing Survey Mission Report, Dominican Republic, 67-1, 1967, pp. 8-10.

Farmers, in general, appeared convinced that there was little point in their expanding production unless the marketing system could absorb the increased output with some reasonable return. Although the farmers' knowledge about marketing possibilities was very limited, it was evident that they felt the present system did not offer the basic facilities necessary for processing and handling the output to their best advantage or that of the consumers. While some such facilities are available in the producing areas and urban centers, they are mostly inadequate.

SOCIAL CHARACTERISTICS RELATED TO TENURE

Housing of Rural Families According to Tenure

The rural Dominican usually lives in a three-roomed house with wooden walls and thatched with palm leaves. These houses are generally grouped into villages situated near the main thoroughfares.

The condition of the rural houses as assessed by the interviewers indicated that 29 percent of the farm owners and 9 percent of the part owners had houses that could be classified as being in good condition. For tenants, only 5 percent, and for squatters, only 2 percent, of their houses were classified as being good. One-fourth of the owners lived in houses classified as being in poor or bad condition compared to about a third of the part owners, 42 percent of the tenants, and over half of the squatters.

Housing conditions are reflected in the availability of water, electricity, and sanitary facilities. Fifty-one percent of the farm owners had water available at the homesite, 24 percent had electricity,

and 53 percent had some sanitary facility. Such services were less frequently available for tenants and squatters. Only 24 percent of the squatters had water available at the homesite, only 2 percent had electricity, and only 40 percent had some form of sanitary facility. The tenants fared somewhat better than the squatters.

The type of floor and number of rooms are additional criteria for measuring the quality of housing. Sixty-three percent of all rural houses had dirt floors. According to tenure of the rural families, 54 percent of the farm owners, about 85 percent of the tenants, and 79 percent of the squatters lived in houses with this type floor. In terms of number of rooms, 21 percent of the farm owners lived in a house with 2 rooms, that is a multi-purpose room and 1 bedroom; 58 percent had houses with 2 bedrooms; and 21 percent had 3 bedrooms or more. Corresponding figures for tenants and squatters were less favorable. Nearly three-fourths of the squatter families and about 60 percent of the tenant families lived in houses consisting of only a multi-purpose room and 1 bedroom.

Fifty-six percent of all rural households had 6 or more persons per household. According to the tenure of the household head, 51 percent of the farm owners, 72 percent of the part owners, and slightly more than two-thirds of the tenant and squatter families consisted of 6 or more persons.

Education of Farm Operators

Our 1968 study indicated that 35 percent of the farm operators in the country had received no formal education. Another 22 percent had

gone to school from 1 to 2 years and 25 percent 3 to 4 years. Only 18 percent had more than 5 years of formal schooling. These data are similar to those of the 1960 Census which indicated a literacy rate of the population 10 years of age and older as 41 percent with an average of 3.5 years of school for the population from 15 to 19 years of age, 3.2 years for those 20-24 years old, and barely 2 years for the population 25 years of age and older.

Out-migration from Rural Areas

According to our survey, over 160,000 persons left their homes in the rural areas for cities and district towns during the 5-year period, 1964 through 1968. The principal reasons motivating such out-migration were economic, that is, "to get a job." Sixty-two percent of the migrants left the rural area (their parental home) for this reason. They believed more and better opportunities for employment existed in the urban centers. Other reasons given for leaving were: marriage, 17 percent; education, 12 percent; to live with a relative, 4 percent; and miscellaneous reasons, 5 percent.

Most migrants left their parental home in the rural areas at a young age. Eighteen percent of those who left did so before reaching their sixteenth birthday. Another 39 percent who migrated were in the 16-20 year age group. Seventy-eight percent of all those who left their rural community the first time to go to urban centers were less than 26 years old. Very few persons left the rural areas in which they were reared if they had not done so before reaching age 30.

The educational level of the migrants was low. Thirteen percent of them had no schooling before they left their parental home for the

urban centers. Over 60 percent had a very limited education, that is, from 1 to 4 years of schooling. Only 6 percent of the migrants completed 8 years of schooling; and only 6 percent had any education beyond the eighth grade. Undoubtedly, low levels of education, and presumably the absence of skills among the migrants, combined with the young age of most of these migrants when they left the rural areas, were deterrents to finding adequate employment at an acceptable wage.

Work Activities Other Than Agriculture

Seventy percent of the farm owners and part owners, 85 percent of the tenants, and 83 percent of the squatters engaged in no work activity other than farming to earn their livelihood. For all farmers, however, about one-fourth were employed in a work activity other than farming. Of these, 9 percent were employed as skilled workers, such as mechanics, carpenters, and barbers; 5 percent as chauffeurs; 2 percent as laborers on someone else's farm; 2 percent were involved in some kind of commercial activity; and 7 percent held a variety of other occupations such as secretarial workers, clerks, and cooks.

Participation in Social Organizations: Three-fourths of the farm owners and part owners, about 85 percent of the tenants, and 69 percent of the squatters did not belong to any kind of social or political organization. Of those farmers who took part in social organizations, activities were generally limited to programs of political groups or to labor groups which were politically oriented. This was particularly true among the squatters, with 20 percent participating in political activities. For all farmers, only 11 percent belonged to a local social club; 5 percent

to agrarian leagues; 5 percent as active members of a political party; 2 percent to organizations associated with school activities; and 1 percent to miscellaneous organizations.

For many farmers, social life was limited essentially to their participation in religious activities. Data from the study indicate that 37 percent of all farmers (and their families) attended religious services at least once a week, 4 percent twice a month, and 30 percent once a month. Twenty percent of the farmers stated that they seldom attended religious activities and 9 percent said they did not attend at all.

Medical Facilities: Medical facilities in the Dominica are limited. In 1968 there were 10,745 hospital beds in the country, 2,200 physicians, and 2,236 nurses. This is a ratio of 27 beds, 5 physicians, and 6 nurses for every 10,000 inhabitants. Barely 22 percent of the practicing nurses were graduates.²⁶ The general mortality rate in the country is about 6.9 per thousand and the infant mortality is about 72.0 for every thousand live births. It is indicated, however, that the omission of the registration of death, particularly in the rural areas, has pulled down these mortality rates.²⁷

The results of our survey indicated that 60 percent of the rural houses are located in areas that lack medical facilities. In terms of distance, 62 percent of the rural households are more than 5 kilometers

²⁶Socio Economic Progress in Latin America, Social Progress Trust Fund Ninth Annual Report, 1969, published by the Inter-American Development Bank, Washington, D. C., March 6, 1970, p. 305.

²⁷Ibid., p. 304.

from the nearest medical facility and about 20 percent of the houses are more than 20 kilometers away. This means that rural people who may be quite ill often have to walk or ride a mule or burro for a considerable distance to receive limited medical care.

IMPLICATIONS OF THE STUDY

The present land tenure system of Dominica was extensively influenced by the form of government ruling the country from the late 1920's to 1961. During this time, much of the better agricultural land was acquired or already held by the ruling elite and was used mainly for sugar production, extensive livestock operations, or held idle for speculative purposes. Along with these large landholdings were small plots which some farmers were able to retain. Many of these plots were successively subdivided into even smaller plots. Also, following the change in government in mid-1961, thousands of families occupied many of the large landholdings of the ruling elite and today claim ownership of that land. The result is that 78 percent of the 470 thousand farm units in the country today have an area of less than 100 tareas.²⁸

The economic and social implications of the resulting tenure arrangements are far-reaching when one considers that each farm unit must provide a living for families of from 5 to 10 persons.²⁹ This places

²⁸Ernest Feder, Agriculture in the Dominican Republic, Observations based on a short evaluation trip, 1965. Feder's observations point out that families with less than 75 tareas must be considered "under-privileged."

²⁹Fifty-six percent of all rural households had 6 or more persons per household. Slightly more than two-thirds of the tenant and squatter families consisted of 6 or more persons.

serious restrictions on the possibility that such a farmer may become fully incorporated into the market economy. The subdividing of available land, particularly the small plots, linked with the population growth rate, has been worsening the already deprived conditions of much of the rural population.³⁰

Another implication is that agricultural production is hampered by the existing tenure arrangements. Farmers with large tracts of land and managers of large government holdings, for example, generally conduct an extensive type of enterprise, such as cattle grazing in which the land is often used below its productive capacity. Inefficiencies due partly to management limitations and to administrative and technical constraints are apparent in many of these situations and are manifested in low levels of mechanization and a limited amount of new technology being adopted by Dominican farmers. Furthermore, large tracts of land are frequently held for speculative purposes and are frequently kept idle or used in a limited way and thus contribute little to agricultural production.

Small and subsistence type farms present different problems. For these farms it is doubtful whether a reallocation of the resources available on the farms would increase production significantly. In other words, these farmers are producing about as efficiently as might be possible with the resources available to them. On these farms, work is

³⁰The number of farm units increased about 60 percent between the 1950 and 1960 censuses. Over 90 percent of this increase represents an increase in the number of farms with less than 75 areas. It is reasonable to assume that the causes of this process lies in the high population growth rate linked with strong family ties which, together with limited job opportunities in urban areas, are conducive to an endless fractioning and distribution of farm plots among family members.

done almost exclusively with family labor, a large part of which is either unemployed or underemployed during a good part of the year.

The relatively insecure tenure relationships, where many farmers neither own their land nor have legal tenure arrangements to the land they work, act as a disincentive for small farmers to invest in improvements or in new forms of inputs. Also, ownership of too small farms simply makes it uneconomical to undertake large capital investments. These elements, combined with an inadequate market infrastructure, often result in financial difficulties for the small farmer -- difficulties compounded by large families.

One way to alleviate these difficulties is to resolve the difficult question of land titles.³¹ Few of the small farmers now have clear, registered titles. However, it appears that the tradition and stability of tenure of owned and tenant-operated farm units are similar. Except for cut-and-burn squatter operations, stability of location is not so serious, but farm units whether owned or tenant-operated are small and undercapitalized.

Thus, the Dominican Government needs to attack the problem of granting titles energetically and with a determination to show significant progress in a relatively short time period. A national cadastral survey offers one possibility. Such a survey should require owners to come forward, define their claims, and to report on productivity and land

³¹Milo L. Cox, et. al., Evaluation Report, Dominican Republic, Agriculture Sector, United States Agency for International Development, Unnumbered Report, June 6, 1969.

use. On the basis of such data, real estate taxes could be assessed.³² The cadastral survey could be the basis for establishing an incentive tax on lands; that is, taxes could be progressive with size of farm and regressive with intensity of use, providing relatively low taxes on large well used units and small farms, but higher taxes on large underused or unused lands. The survey should clear up titles and make it possible to distribute lands in large enough units to small farmers who have demonstrated success in operating lands. It is essential that simple titling procedures be developed that would include rapid clarification of titles of small farmers with uncertain titles. Only through a survey of this type can the Dominican Government obtain uncontested title to the uncertain, large amount of land it presently owns. Considerable aerial photographic coverage and soil resource data are available that would be helpful in checking land declarations, in planning land use, and in distributing lands.

³²C. W. Loomer, Study Report on the Land Settlement Program of the Dominican Republic, in Agrarian Reform in the Dominican Republic: The Views of Four Consultants: Dorner, Loomer, Penn, and Thame (Madison: Land Tenure Center, University of Wisconsin, LTC No. 42, December 1967), pp. 16-19.

APPENDIX

Table 1. Number and size of farms according to tenure, Dominican Republic, 1968

Size of farm (tareas)	Tenure							All farms
	Owner	Part owner	Renter	Share- cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Less than 10	28	--	1	17	21	12	19	24
10-19	21	--	2	30	13	29	31	19
20-29	10	9	86	14	11	3	19	14
30-49	11	5	2	23	11	29	6	11
50-99	8	32	9	10	16	13	25	10
100-299	18	36	--	1	16	8	--	16
300 or more	4	18	--	5	12	6	--	6
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376
Percent in tenure group	69	2	5	3	16	3	2	100

Table 2. Land area and number of farm units according to tenure, Dominican Republic, 1968

Tenure	Land area		Farm units			
			Dominican Republic		El Cibao region	
	Tareas	Percent	Number	Percent	Number	Percent
Owners (incl. part owners)	22,674,395	67	333,502	71	167,047	84
Renters	574,306	2	23,224	5	1,565	1
Sharecroppers	1,334,471	4	15,944	3	8,331	4
Squatters	7,886,446	23	75,853	16	15,971	8
Occupants for concession	997,704	3	15,068	3	4,271	2
Colonato	<u>180,685</u>	<u>1</u>	<u>6,785</u>	<u>2</u>	<u>2,255</u>	<u>1</u>
Total	33,648,007	100	470,376	100	199,440	100

Table 3. Number of parcels of land per farm according to tenure, Dominican Republic, 1968

Number of parcels	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
1	71	23	11	66	60	88	88	66
2	16	36	89	20	23	9	12	21
3	9	18	--	13	12	3	--	9
4 or more	<u>4</u>	<u>23</u>	<u>--</u>	<u>1</u>	<u>5</u>	<u>--</u>	<u>--</u>	<u>4</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 4. Distance from farm to place of residence according to tenure, Dominican Republic, 1968

Distance in kilometers	Tenure							All farm residences
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
At farm	71	52	88	29	64	75	38	69
Less than 1	9	10	5	19	7	3	6	8
1.0-1.9	7	19	--	20	8	9	31	8
2.0-2.9	2	5	4	11	5	3	--	3
3.0-3.9	2	--	2	3	3	--	--	2
4.0-4.9	1	--	--	4	2	--	6	1
5.0 or more	<u>8</u>	<u>14</u>	<u>1</u>	<u>14</u>	<u>11</u>	<u>10</u>	<u>19</u>	<u>9</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	78,853	15,068	6,785	470,376

Table 5. Age of the farm operator according to tenure, Dominican Republic, 1968

Age of farm operator Years	Tenure						Colonato	All farm operators
	Owner	Part owner	Renter	Share- cropper	Squatter	Occupied by concession		
	-----Percent-----							
Under 25	--	--	--	3	4	10	13	1
25-34	23	5	87	27	15	23	34	25
35-44	14	27	8	33	44	39	26	21
45-54	16	32	3	17	18	25	14	16
55-64	22	18	2	15	13	* ^a	13	18
65 and over	<u>25</u>	<u>18</u>	<u>--</u>	<u>5</u>	<u>6</u>	<u>3</u>	<u>--</u>	<u>19</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 6. Number of years operated farm according to tenure, Dominican Republic, 1968

Years of operation	Tenure							All farm operators
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Less than 1 year	1	--	3	3	* ^a	3	--	1
1 to 2 years	1	4	4	9	16	6	18	4
2 to 3 years	4	--	84	--	3	5	27	9
3 to 4 years	2	--	1	9	5	3	--	3
4 to 5 years	8	5	--	6	3	3	--	7
5 to 10 years	14	5	4	22	18	40	46	15
10 years or more	<u>70</u>	<u>86</u>	<u>4</u>	<u>51</u>	<u>55</u>	<u>40</u>	<u>9</u>	<u>61</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 7. Farm owners' method of acquiring current landholdings,
Dominican Republic, 1968

Method of acquisition	Number of farmers	Percent of total
Purchase	133,733	41
Inherited from father	108,059	33
Inherited from father and purchase	21,057	7
Inherited from mother	17,380	5
Inherited from other relatives	8,852	3
Obtained from public agencies	23,318	7
Received as a gift	9,018	3
Other	<u>2,614</u>	<u>1</u>
Total	324,031	100

Table 8. Means by which farmers first obtained land according to tenure, Dominican Republic, 1968

Method	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Purchase	39	24	2	13	1	3	--	28
Inheritance	46	24	--	6	4	15	--	34
Father	(32)	(14)	(--)	(3)	(3)	(12)	(--)	(24)
Mother	(5)	(5)	(--)	(3)	(*a)	(--)	(--)	(4)
Other relative	(9)	(5)	(--)	(--)	(*a)	(3)	(--)	(6)
Squatter	8	19	83	5	87	11	13	25
Sharecropping	2	--	2	60	5	3	7	4
Gift	2	9	--	3	1	15	--	2
Renting	1	5	13	7	1	3	--	2
Occupied by concession	--	--	--	--	--	4	20	1
From public agencies	1	--	--	--	--	43	--	2
Colonato	*a	--	--	--	1	3	60	1
Other	<u>1</u>	<u>19</u>	<u>--</u>	<u>6</u>	<u>--</u>	<u>*a</u>	<u>--</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 9. Farmers' immediately prior land tenure status according to current tenure, Dominican Republic, 1968

Immediately prior tenure status	Tenure						Colonato	All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession		
	-----Percent-----							
Owner or part owner	29	43	42	6	8	9	--	24
Renter	3	14	29	16	--	9	--	4
Sharecropper	4	--	29	26	13	9	--	8
Squatter	20	15	--	8	37	21	100	23
Occupied by concession	--	14	--	--	2	9	--	1
Colonato	--	--	--	--	2	--	--	*a
Did not have land before	<u>44</u>	<u>14</u>	<u>--</u>	<u>44</u>	<u>38</u>	<u>43</u>	<u>--</u>	<u>40</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 10. Farmers' first land tenure status according to current tenure, Dominican Republic, 1968

First tenure status	Tenure						Occupied by concession	Colonato	All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Percent			
Owner	89	38	2	6	2	6	--	63	
Part owner	*a	48	--	7	1	--	--	1	
Renter	1	5	96	6	1	3	--	6	
Sharecropper	2	--	2	70	5	3	7	5	
Squatter	8	9	--	11	89	13	20	21	
Occupied by concession	--	--	--	--	1	72	--	2	
Colonato	*a	--	--	--	1	3	73	2	
Total	100	100	100	100	100	100	100	100	
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376	

*aLess than 1 percent.

Table 11. Age of farmers when they first acquired land according to tenure, Dominican Republic, 1968

Age (years)	Tenure							All farmers
	Owner	Part owner	Renter	Share- cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Under 20	20	30	3	24	29	33	18	21
20-29	24	35	88	43	38	45	46	32
30-39	40	25	6	25	27	16	18	34
40-49	8	5	3	8	6	6	18	8
50-59	5	5	---	---	---	---	---	3
60 and over	<u>3</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>---</u>	<u>2</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 12. Contractual arrangements for use of land according to tenure, Dominican Republic, 1968

Contractual arrangement	Tenure					Tenant-operated farms
	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----					
Verbal contract	88	73	7	64	47	37
Written contract	10	15	--	3	33	5
No contract	<u>2</u>	<u>12</u>	<u>93</u>	<u>33</u>	<u>20</u>	<u>58</u>
Total	100	100	100	100	100	100
Number of farms	23,224	15,944	75,853	15,068	6,785	136,874

Table 13. Farm operators plan for their farm business in the next five years according to tenure, Dominican Republic, 1968

Farmers' plan	Tenure							All farm operators
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Increase production	41	68	4	29	37	48	54	39
Does not know	28	9	92	4	28	17	38	30
Leave farm to inheritor	9	5	--	9	3	10	8	8
Sell farm	6	--	--	--	--	--	--	4
Acquire more land	5	18	1	27	15	12	--	8
Maintain as presently	3	--	--	29	12	10	--	5
Buy more machinery	1	--	--	--	1	* ^a	--	1
Miscellaneous	<u>7</u>	<u>--</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>3</u>	<u>--</u>	<u>5</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 14. Land use and availability estimates, Dominican Republic, 1967

Item	Tareas (000)	Acres (000)	Percent of total
<u>Land in farms, total^a</u>	<u>35,050</u>	<u>5,450</u>	<u>45.5</u>
Developed for agriculture	<u>26,650</u>	<u>4,140</u>	<u>34.6</u>
Irrigated land	1,750	270	2.3
Irrigated land not irrigated	750	120	1.0
Dry land	24,150	3,750	31.3
Undeveloped for agriculture	<u>8,400</u>	<u>1,310</u>	<u>10.9</u>
Irrigated potential	700	110	0.9
Dry land potential ^b	7,000	1,090	9.1
Wasteland	700	110	0.9
<u>Land not in farms, total</u>	<u>41,950</u>	<u>6,520</u>	<u>54.5</u>
Capabilities for agriculture ^c	<u>40,950</u>	<u>6,365</u>	<u>53.2</u>
Irrigated potential	100	15	0.1
Dry land potential	40,850	6,350	53.1
Unsuited for agriculture ^d	<u>1,000</u>	<u>155</u>	<u>1.3</u>
TOTAL LAND, SUMMARY	77,000	11,970	100.0

^aIncludes all sugar operations.

^bIncluding tree crops.

^cIncluding forest, tree crops and other.

^dIncludes waste, residential and other infrastructure land.

Source: Compiled by the United States Agency for International Development in collaboration with the Dominican Government. Based on the 1950 and 1960 census and other available data.

Table 15. Land use estimates detailing major crops, Dominican Republic, 1967

Category	Tareas (000)	Acres (000)	Percent of total
<u>Land in farms, total^a</u>	<u>35,050</u>	<u>5,450</u>	<u>45.5</u>
Irrigated (cultivated)	<u>1,750</u>	<u>270</u>	<u>2.3</u>
Annual crops (cultivated)	900	140	1.2
Rice	(600)	(95)	(.8)
All other	(300)	(45)	(.4)
Perennial crops (cultivated)	850	130	1.1
Sugarcane	(450)	(70)	(.6)
Platano	(265)	(40)	(.3)
All other	(135)	(20)	(.2)
Dry land (cultivated)	<u>8,500</u>	<u>1,320</u>	<u>11.0</u>
Annual crops	2,220	340	2.8
Rice	(160)	(25)	(.2)
All other	(2,040)	(315)	(2.6)
Perennial crops	6,300	980	8.2
Sugarcane	(1,800)	(280)	(2.3)
Coffee	(1,250)	(195)	(1.6)
Cocoa	(1,100)	(170)	(1.4)
Coconut	(350)	(55)	(.5)
Platano	(800)	(125)	(1.1)
All other	(1,000)	(155)	(1.3)
Fallow land (land at rest) ^b	<u>3,300</u>	<u>510</u>	<u>4.3</u>
Grassland	<u>13,100</u>	<u>2,040</u>	<u>17.0</u>
Improved pasture	9,000	1,400	11.7
Native pasture	4,100	640	5.3
Other land	<u>8,400</u>	<u>1,310</u>	<u>10.9</u>
Undeveloped ^b	1,600	250	2.1
Wood and brush ^c	6,100	950	7.9
Wasteland	700	110	0.9

Table 15 (continued)

Category	Tareas (000)	Acres (000)	Percent of total
<u>Land not in farms</u>	<u>41,950</u>	<u>6,520</u>	<u>54.5</u>
Capabilities for agricultural development ^d	<u>40,950</u>	<u>6,365</u>	<u>53.2</u>
Irrigated potential	100	15	0.1
Dry land potential	40,850	6,350	53.1
Presently in pine forest	(5,100)	(800)	(6.7)
Capability for soft woods	(16,250)	(2,520)	(21.1)
Capability for hard woods	(19,500)	(3,030)	(25.3)
Unsuited for agricultural development ^e	<u>1,000</u>	<u>155</u>	<u>1.3</u>
TOTAL LAND	77,000	11,970	100.0

^aIncludes all sugar operations.

^bSuited for crops or pasture.

^cSuited for tree crops or pasture.

^dPrimarily in forest, capabilities for forest, tree crops or other.

^eIncludes waste, residential and other infrastructure land.

Source: Compiled by the Agency for International Development in collaboration with the Dominican Government. Based on the 1950 and 1960 census and other available data.

Table 16. Land use capability in the Dominican Republic

Class ^a	Qualifications	Area (has.) ^b	Percent of total
I. Arable	High productivity, irrigable	78,800	1.6
II. Arable	Median productivity, irrigable	930,000	19.2
III. Arable	Low productivity, nonirrigable	560,000	11.5
IV. Nonarable	Nonusable	3,200,000	66.2
	Other	<u>71,600</u>	<u>1.5</u>
Total		4,840,400	100.0

^aAccording to U. S. Bureau of Reclamation classification.

^bOne hectare is equal to 2.47 acres or 15.9 tareas.

Source: A. Obiols and R. Perdomo. Atlas de informacion basica existente y lineamientos para la planificacion del desarrollo integral de la Republica Dominicana, 1966.

Table 17. Dominican Republic: Harvested acreage, yield, and production of selected agricultural commodities, 1969

Commodity	Actual - 1969		
	Harvested area (Tareas ^a)	Yield (qq ^b /ta.)	Production (m.t.) ^b
Corn	483,146	2.0	43,000
Sorghum	44,444	4.0	8,000
Rice	1,743,362	2.5	197,000
Pigeon peas	161,971	3.15	23,000
Beans, all	545,535	1.25	30,000
Yautja	48,818	14.0	31,000
Potatoes	44,117	12.0	24,000
Yams	53,867	8.0	19,500
Sweet potatoes	185,430	10.0	84,000
Yucca	303,308	12.0	165,000
Plantains	1,366,067	7.87	486,320
Banana (export)	252	79.0	900
Garlic	14,024	5.5	3,492
Onions	14,173	14.0	9,000
Tomatoes	10,474	20.0	9,500
Cocoa, wet	1,195,555	0.60	32,280
Coffee, cherry	2,480,555	0.80	89,300
Tomatoes, for canning	28,137	25.0	31,880
Peanuts	1,296,964	1.25	72,630
Coconuts	125,211	3.15	17,780
Tobacco	307,246	1.5	21,200
Cotton	26,814	2.5	3,030

^aOne tarea equals .15543 acres, or 6.43 tareas equals one acre.

^bqq is abbreviation for quintal. One quintal (Dominican) equals 100 pounds. m.t. is abbreviation for metric ton. One metric ton equals 0.98 long ton.

Source: First National Development Plan (1970-1974), Preliminary Version.

Table 18. Number of livestock in the Dominican Republic, based upon 1966 estimates

Classification	Number of head
Cattle, total	1,000,000
Brood cows	380,000
Milk	150,000
Dual purpose	130,000
Beef	100,000
Breeding bulls	16,000
Calves (less than 1 year)	180,000
Heifers (1 year and up)	170,000
Steers and bulls (1-2 years)	85,000
Steers and bulls (2 years and up)	85,000
Oxen	84,000
Swine	550,000
Sows	100,000
Pigs under 10 months	300,000
Pigs over 10 months	150,000
Goats	280,000
Does	52,000
Bucks and kids	228,000
Equines	205,600
Horses	23,948
Mules	80,498
Donkeys	101,154

Source: Compiled by the United States Agency for International Development in collaboration with the Dominican Government. Based on the 1950 and 1960 census and other available data.

Table 19. Source of farm labor according to tenure, Dominican Republic, 1968

Farm labor source	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Farmer only	48	32	96	65	58	66	73	53
Farmer and family	42	46	2	29	29	27	27	36
Farmer, family, and hired workers	4	13	2	--	1	--	--	4
Hired workers	3	--	--	3	--	--	--	2
Farmer and partner	2	5	--	3	12	7	--	4
Farmer and hired workers	<u>1</u>	<u>4</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 20. Farmers' satisfaction relative to access to fertilizer, water, and good seeds according to tenure, Dominican Republic, 1968

Satisfaction	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	Percent							
	<u>Fertilizer</u>							
Not satisfied	72	55	98	82	92	79	92	77
Satisfied	<u>28</u>	<u>45</u>	<u>2</u>	<u>18</u>	<u>8</u>	<u>21</u>	<u>8</u>	<u>23</u>
Total	100	100	100	100	100	100	100	100
	<u>Water</u>							
Not satisfied	54	55	8	47	55	69	100	53
Satisfied	<u>46</u>	<u>45</u>	<u>92</u>	<u>53</u>	<u>45</u>	<u>31</u>	<u>--</u>	<u>47</u>
Total	100	100	100	100	100	100	100	100
	<u>Good seeds</u>							
Not satisfied	41	50	5	65	67	63	77	45
Satisfied	<u>59</u>	<u>50</u>	<u>95</u>	<u>35</u>	<u>33</u>	<u>37</u>	<u>23</u>	<u>55</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 21. Farmers' opinion of water needs according to tenure, Dominican Republic, 1968

Farmers' opinion	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Enough for home use but not for land use	33	27	10	46	41	47	50	34
Enough for home use only	26	18	86	12	20	14	--	27
Not enough for home use or for land use	17	14	--	20	15	22	14	16
Not enough for primary home needs	10	18	2	--	16	6	15	10
Enough for all purposes	6	23	2	19	6	7	7	7
Not enough for home use but enough for land use	<u>8</u>	<u>--</u>	<u>--</u>	<u>3</u>	<u>2</u>	<u>4</u>	<u>--</u>	<u>6</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 22. Current water sources for farm and home use according to tenure, Dominican Republic, 1968

Water sources	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	Percent							
Natural sources (rivers, lakes, ponds)	26	54	6	43	60	53	46	32
Aqueduct	28	5	3	3	2	--	--	20
Rain and from natural sources	19	18	4	25	14	24	27	18
Public fountains and tanks	10	--	84	6	1	9	13	12
Rain and from aqueduct	3	5	--	--	2	2	7	3
Other sources	<u>14</u>	<u>18</u>	<u>3</u>	<u>23</u>	<u>21</u>	<u>12</u>	<u>7</u>	<u>15</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,244	15,944	75,853	15,068	6,785	470,376

Table 23. Use of fertilizer and insecticide by farmers according to tenure, Dominican Republic, 1968

	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
	<u>Fertilizer</u>							
No	86	68	98	97	99	91	100	89
Yes	<u>14</u>	<u>32</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>9</u>	--	<u>11</u>
Total	100	100	100	100	100	100	100	100
	<u>Insecticides</u>							
No	89	86	98	97	97	87	93	91
Yes	<u>11</u>	<u>14</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>13</u>	<u>7</u>	<u>9</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,086	6,785	470,376

Table 24. Source of credit used by farmers according to tenure, Dominican Republic, ~~1968~~ 1964-1968

Source of credit	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Banco Agrícola de la República Dominicana	72	42	82	100	76	88	--	74
Commercial banks	25	57	18	--	24	12	100	24
Relatives and friends	2	1	--	--	--	--	--	1
Other governmental institutions	<u>1</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100
Number of farms	123,832	5,412	22,349	8,415	17,653	8,140	2,175	187,976
Percent of total farmers obtaining loans	38	57	96	53	23	54	32	40
Percent of total loans by tenure	66	3	12	5	9	4	1	100

Table 25. Farmers' knowledge on how to obtain credit according to tenure, Dominican Republic, 1968

Farmer's knowledge	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Complete lack of knowledge	57	38	5	52	65	51	80	55
Knows part of the procedures	24	29	86	36	17	9	--	26
Well informed	<u>19</u>	<u>33</u>	<u>9</u>	<u>12</u>	<u>18</u>	<u>40</u>	<u>20</u>	<u>19</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 26. Farmers' opinions regarding access to farm credit according to tenure, Dominican Republic, 1968

Farmer's opinion	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	Percent							
Don't know enough about how to obtain loans	40	30	1	35	49	26	67	39
Easy to obtain	22	60	10	45	31	49	17	25
Difficult to meet requirements	28	--	1	17	13	16	8	23
Not easy to obtain	1	5	86	--	3	6	--	5
Too much time is required	2	--	--	3	1	--	--	2
No easy access to credit institutions	* ^a	--	1	--	1	3	--	1
Other opinions	<u>7</u>	<u>5</u>	<u>1</u>	<u>--</u>	<u>2</u>	<u>--</u>	<u>8</u>	<u>5</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 27. Use farmers made of borrowed capital according to tenure, Dominican Republic, 1968

Use of credit	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Seeds	38	9	67	41	26	56	--	40
Improve house	17	8	22	20	45	44	--	21
Land improvements	20	33	--	39	19	--	100	19
Insecticides and fertilizer	2	--	11	--	--	--	--	2
Miscellaneous uses ^a	<u>23</u>	<u>50</u>	<u>--</u>	<u>--</u>	<u>10</u>	<u>--</u>	<u>--</u>	<u>18</u>
Total	100	100	100	100	100	100	100	100
Number of farms	123,832	5,412	22,349	8,415	17,653	8,140	2,175	187,976

^aMiscellaneous uses include credit for fencing materials, farm equipment, conservation practices, and in a few cases for family living expenses.

Table 28. Means of farm to market transportation for farm produce according to tenure, Dominican Republic, 1968

Means of transportation	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Pack animals	71	50	93	70	65	55	75	70
Motor vehicles	16	43	6	30	32	35	25	20
Handdrawn cart	7	7	1	--	1	5	--	5
Combination of above means	2	--	--	--	1	5	--	2
Other or none	<u>4</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>1</u>	<u>--</u>	<u>--</u>	<u>3</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 29. Farmers' opinions about major transportation problems according to tenure, Dominican Republic, 1968

Opinion	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Transportation, no problems	76	76	94	70	7	61	70	65
Lack of good roads	15	--	6	14	37	8	--	17
Prices too low to justify transporting produce to market	4	19	--	5	7	8	--	5
Lack of close markets	2	--	--	4	23	19	--	6
Did not know	1	--	--	4	22	4	30	5
Other	<u>2</u>	<u>5</u>	<u>--</u>	<u>3</u>	<u>4</u>	<u>--</u>	<u>--</u>	<u>2</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 30. Distance from farm to market according to tenure, Dominican Republic, 1968

Distance in kilometers	Tenure							All farms
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
0 (sells produce at farm or does not sell)	34	37	5	39	33	20	50	32
1 km. or less	16	5	--	7	2	4	--	12
1.1 - 3.0	12	37	5	3	6	4	30	11
3.1 - 15.0	24	16	86	16	23	16	10	26
15.1 km. or more	<u>14</u>	<u>5</u>	<u>4</u>	<u>35</u>	<u>36</u>	<u>56</u>	<u>10</u>	<u>19</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 31. Condition of farm homes as assessed by the interviewers according to tenure, Dominican Republic, 1968

Condition	Tenure							All farm homes
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Good	29	9	3	7	2	5	--	21
Average	46	57	10	51	46	60	53	45
Poor	23	29	85	36	33	35	40	29
Bad	<u>2</u>	<u>5</u>	<u>2</u>	<u>6</u>	<u>19</u>	<u>--</u>	<u>7</u>	<u>5</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 32. Primary construction material used in rural houses according to tenure, Dominican Republic, 1968

Material	Tenure						Colonato	All farm homes
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession		
	-----Percent-----							
<u>Tabla de palma</u>	56	82	1	80	66	62	53	56
Boards	25	14	1	--	4	9	--	19
Mixed construction materials	10	--	2	3	1	13	7	8
<u>Palo parado</u>	* ^a	--	85	5	5	3	--	5
Adobe	1	4	11	3	20	9	33	5
Block	5	--	--	--	--	1	--	4
Brick	3	--	--	--	--	--	--	2
Other	* ^a	--	--	9	4	3	7	1
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 33. Availability of water, electricity, and sanitary facilities in rural homes according to tenure, Dominican Republic, 1968

Service availability	Tenure							All farm homes
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
	<u>Water</u>							
Water	51	46	7	95	24	24	20	45
No water	49	54	93	5	76	76	80	55
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
	<u>Electricity</u>							
Electricity	24	14	3	14	2	7	0	15
No electricity	76	86	97	86	98	93	100	82
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
	<u>Sanitary facilities</u>							
Sanitary facilities	53	41	95	67	40	40	13	52
No sanitary facilities	47	59	5	33	60	60	87	48
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 34. Type of floor and number of rooms in rural homes according to tenure, Dominican Republic, 1968

Type of construction	Tenure						Occupied by concession	Colonato	All farm homes
	Owner	Part owner	Renter	Share-cropper	Squatter	Percent			
	<u>Type of floor</u>								
Dirt floor	54	50	95	83	79	84	87	63	
Other than dirt (primarily cement)	<u>46</u>	<u>50</u>	<u>5</u>	<u>17</u>	<u>21</u>	<u>16</u>	<u>13</u>	<u>37</u>	
Total	100	100	100	100	100	100	100	100	
	<u>Number of rooms</u>								
Single multi- purpose room	1	--	--	--	4	3	--	1	
1 bedroom	20	41	86	46	73	73	57	36	
2 bedrooms	58	32	10	39	22	21	36	47	
3 or more bedrooms	<u>21</u>	<u>27</u>	<u>4</u>	<u>15</u>	<u>1</u>	<u>3</u>	<u>7</u>	<u>16</u>	
Total	100	100	100	100	100	100	100	100	
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376	

Table 35. Number of persons per farm household according to tenure, Dominican Republic, 1968

Number of persons	Tenure							All farm households
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	Percent							
1	*a	--	--	--	11	--	--	2
2	2	9	--	3	1	3	--	2
3	4	5	11	14	4	3	--	4
4	34	9	--	7	9	18	7	26
5	9	5	23	15	8	3	13	10
6-11	40	27	66	46	50	57	53	44
11 or more	<u>11</u>	<u>45</u>	<u>--</u>	<u>15</u>	<u>17</u>	<u>16</u>	<u>27</u>	<u>12</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent.

Table 36. Reasons for out-migration from rural farm areas, Dominican Republic, 1964 through 1968

Motivating influence	Number of migrants	Percent
Economic reasons	98,986	62
Marriage	27,487	17
Education	19,219	12
Desire to live with relative	6,246	4
Other reasons	<u>8,167</u>	<u>5</u>
Total	160,105	100

Table 37. Age of migrants at time of out-migration from rural areas,
Dominican Republic, 1968

Age, years	Number of migrants	Percent
10 or under	6,765	4
11-15	22,550	14
16-20	63,140	39
21-25	32,923	21
26-30	17,138	11
31-35	4,510	3
36 or more	6,765	4
Age not available	<u>6,314</u>	<u>4</u>
Total	160,105	100

Table 38. Education of migrants at time of out-migration from rural farm areas, Dominican Republic, 1968

Years of education	Number of migrants	Percent
Not of school age	1,804	1
0	19,393	12
1	10,373	6
2	22,099	14
3	43,747	27
4	21,648	14
5	9,922	6
6	6,765	4
7	4,510	3
8	9,471	6
More than 8	9,471	6
Education data not available	<u>902</u>	<u>1</u>
Total	160,105	100

Table 39. Farmers' occupations other than agriculture according to tenure, Dominican Republic, 1968

Occupational category	Tenure					Occupied by concession	Colonato	All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter			
	-----Percent-----							
None	70	82	99	75	83	84	60	74
Skilled laborer	11	5	--	6	1	3	13	9
Chauffeur	7	--	--	16	1	--	--	5
<u>Jornalero</u>	2	--	1	3	8	2	27	3
Commercial activities	2	9	--	--	3	3	--	2
Other occupations	<u>8</u>	<u>4</u>	<u>--</u>	<u>--</u>	<u>4</u>	<u>8</u>	<u>--</u>	<u>7</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 40. Farmers' participation in social organizations according to tenure, Dominican Republic, 1968

Organization affiliation	Tenure					Occupied by concession	Colonato	All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter			
	Percent							
None	75	77	98	94	69	73	87	76
Local social club	15	5	--	3	1	9	--	11
Agrarian league	5	5	--	3	1	12	--	5
Political groups	2	13	2	--	20	6	--	5
P.T.A. (school organization)	1	--	--	--	9	--	13	2
Other organizations	<u>2</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>1</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

Table 41. Farmers' participation in religious services according to tenure, Dominican Republic, 1968

Frequency	Tenure							All farmers
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	-----Percent-----							
Once weekly ^a	42	55	96	25	30	18	34	37
Twice monthly	4	18	--	6	4	--	13	4
Once monthly	30	4	--	26	20	18	20	30
Seldom attends	19	23	4	20	21	43	13	20
Does not attend	<u>5</u>	<u>--</u>	<u>--</u>	<u>23</u>	<u>25</u>	<u>21</u>	<u>20</u>	<u>9</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376

^aLess than 1 percent attended religious services more than once a week.

Table 42. Distance from farmers' homes to the nearest medical facility according to tenure, Dominican Republic, 1968

Distance in kilometers	Tenure							All farm homes
	Owner	Part owner	Renter	Share-cropper	Squatter	Occupied by concession	Colonato	
	Percent							
Less than 1 kilometer	15	9	3	9	14	3	13	13
1 - 2.9	7	18	1	10	11	3	13	8
3 - 4.9	22	18	2	22	4	3	7	17
5 - 8.9	25	28	4	22	10	9	--	20
9 - 18.9	18	27	6	18	22	51	47	20
19 - 28.9	7	--	84	13	19	19	20	14
29 kilometers or more	<u>6</u>	<u>--</u>	<u>--</u>	<u>6</u>	<u>20</u>	<u>12</u>	<u>--</u>	<u>8</u>
Total	100	100	100	100	100	100	100	100
Number of farms	324,031	9,471	23,224	15,944	75,853	15,068	6,785	470,376