THE JAMAICAN LAND REFORM PROGRAM: SOME SOCIAL AND ECONOMIC ASPECTS

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ABSTRACT

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By

Jill Van Deusen

In those parts of the western world where the population is still predominately rural, land reform has become a factor in economic and social development. Focusing on Jamaica, this study analyzes the land reform program as it affects the social and economic status of the participants. The study includes 1) the historical background of agricultural reform in Jamaica, 2) the objectives of modern land reform on the island 3) an intensive study of one settlement within the reform program, and 4) an evaluation of the total program in terms of its potential for success.

Data for the study were obtained by interview, by field observation, and by a survey of literature both in Jamaica and at the Michigan State University Library. Interviews were conducted with appropriate government officials in Jamaica, with professors at the University of the West Indies, and with personnel of the American Embassy in Kingston. A survey was conducted of farmers on the Tremolesworth pilot project of the Jamaican land reform program, and another included farmers in a control area immediately adjacent to Tremolesworth.

Jill Van Deusen

The government of Jamaica has used agricultural settlement for over thirty years, mainly to keep people employed and to increase crop production. There has also been a recognized need to provide social amenities with the land, such as roads, water, schools, and electricity. Under land reform these goals persist, and two new ones have been added. The government is now more concerned that the farms should be economic units, not just a means of subsistence. Reform farms developed to their fullest potential should gross for the farmer U.S. $1,250, considered the threshold of Jamaican "middle class" income. The government also hopes to make farming more attractive as an occupation. It is believed that if the farmer reaches a middle-class income level and receives sufficient education to farm more scientifically, the occupation will have more appeal.

Short range operations seem quite successful; long-range goals appear less likely to materialize. The reform program is putting idle land into production, is providing land to farmers who never owned land before and is extending credit to farmers for the development of their land. Because of frequent contact with the agricultural agents, settlement farmers have greater prospects for learning scientific methods of cultivation.

Settlement farmers have experienced some increase of income, but they have not yet reached middle class. It appears that under the present program, participants will not reach that level of income without continued subsidization or

additional employment by the government. Although the land reform farmers have more potential for changing their methods than those not involved, only about half of the farmers interviewed are actually changing. They still tend to accept temporary jobs and hire someone else to work their land. Many consider farming an occupation of hard work and little pay. Only two children in the families interviewed want to become farmers.

To increase the income of farmers beyond what the land reform program has achieved, it will be necessary for the government to make larger farms and to encourage mechanization. To achieve these ends the government will have to exert effort on both a long and short-range basis. More extensive data concerning the agricultural sector are needed, as are research in rural sociology, and research to find better uses of available resources. The farmers need improved education to facilitate the application of information made available to them. An educational campaign is needed to convince the public that larger farms are needed within the agrarian settlements. However, the widespread desire for land ownership and the general problem of unemployment discourage elected officials from dividing public lands into larger farms. The reform program could be improved immediately if officials used a merit system to select participants who could make better use of the land. The government also needs to continue improvement of the marketing system for domestic crops.

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A THESIS

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DEDICATION

To the Tremolesworth farmers,
for the spirit with which they face their problems
and their faith in the future of Jamaica.

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PREFACE

We have passed the day when men believe that honest, hard work and a hope in Heaven (or Utopia) are enough. Whether reformers are decrying the "exploitation of the masses," "control of the establishment over the culturally deprived," or urging reform to improve the "dignity of man," they have all been caught up in a new idea: Poverty is no longer the sin of the poor, but of the rich, and it must be eradicted. Reformers today are demanding social and economic equality now.

The methods to achieve such goals are as varied as the vocabulary used to describe the problem. In our own Western Hemisphere, for example, where in many countries the people are still predominantly of rural background, land reform is one of the most common means being used to improve the condition of the poor. Some reform programs came as a result of an overthrow of the government, as was the case in Mexico and Cuba. In other countries, such as Jamaica, programs have been designed and implemented through the established system.

Focusing on Jamaica, this study examines pragmatically the effects of land reform. What is the Jamaican land reform program? Have the participants gained economically or socially? What are the likely long-range effects of the program?

The study would not have been possible without the aid and advice of many people, of whom only a few can be mentioned here. Professors contacted at Michigan State University and the University of the West Indies were very helpful, as were personnel of the Jamaican Government and of the American Embassy in Kingston. Sincere appreciation is expressed to my thesis advisor, Dr. Clarence W. Minkel, Associate Dean of Graduate Studies at M.S.U., for his guidance and time given during the entire study. I wish also to thank Miss Adel Wint, sociologist in the Ministry of Agriculture and Lands, Kingston, who helped prepare the questionnaires and who made all arrangements for administering them. Mr. Cecil Langford, Commissioner of Lands, provided useful information and maps and arranged my first tour of the Tremolesworth settlement. Mr. Hugh Shaw, Manager of the Land Development and Utilization Commission, and Dr. Irving Johnson, of Economic and Statistics Division, Ministry of Agriculture and Lands, provided realistic perspectives on the reform program and on Jamaican agricultural problems in general. I am also grateful to Dr. Barry Floyd, Chairman of the Geography and Geology Department at the University of the West Indies, and Mr. Floyd Davis, Food and Agriculture Officer at the American Embassy, for suggesting valuable contacts for the study. Mr. Floyd Davis also arranged for a tour of the Rhymesbury dairy farm schemes. I would also like to thank Virginia Forstot who drafted the maps.

LIST OF MAPS AND TABLES

CHAPTER I

INTRODUCTION

The use and administration of land is of vital significance to the welfare of a nation. Land use may determine how well people eat, and administration of the land influences the social and political status of the rural population. Together, these factors affect the present and potential standard of living in any given area of the world.

Man learned the importance of land administration long ago. "Land to the landless" is a political slogan at least 3,000 years old. Plutarch wrote that the Gracchi tried to restore the old order of society based upon a more equitable distribution of land.[1] In 560 B.C. the Greek Pisistratus attempted land reform to solve extreme social differences and to ease an economic crisis.[2] Since then men have used land reform to redistribute land, to ease unemployment, or to promote the diversification of crops.

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[1]Clarence Senior, Land Reform and Democracy, (Gainesville: University of Florida Press, 1958), p. 1.

[2]Elias H. Tuma, Twenty-Six Centuries of Agrarian Reform: A Comparative Analysis, (Berkeley: University of California Press, 1965), p. 25.

Land reform programs have received great emphasis during the past two decades. Due to the continued revolt against colonialism, the ideological struggle between East and West, and an increasing concern over world food production, land reform has become a prominent aspect of developmental programs. The United States government, the United Nations Food and Agriculture Organization, the International Labor Organization, and many non-governmental organizations now recognize the necessity of world-wide agrarian reform.

Problem

Most of the Latin American countries have established official land reform programs. Mexico initiated its program in 1915; Guatemala in 1952; Bolivia in 1953; and Chile, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, Honduras, Nicaragua, Panama, Paraguay, Peru, and Venezuela mostly within the past decade.

In addition to economic considerations are the social aspects of land reform. The United Nations urges countries to use programs that will encourage community development. The World Conference on Land Tenure stressed the development of programs that would promote the dignity of the individual and produce greater educational opportunities and a better standard of living.

Because of the new emphasis, land reform programs such as that in Jamaica are important in both agricultural planning and social development. They include not only land

distribution but also the construction of roads and schools, agricultural training, research, and low-interest loans to farmers.

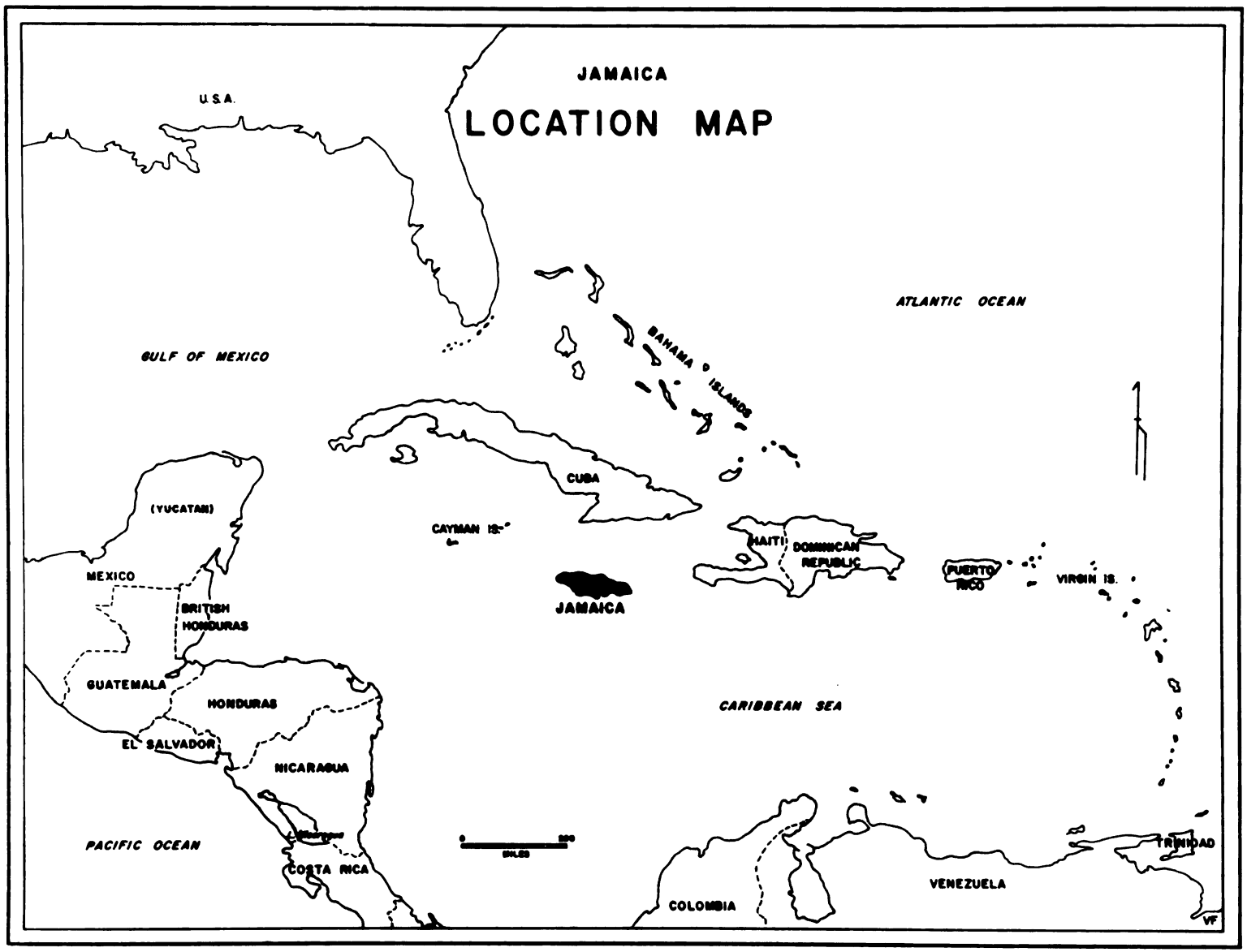
A complete study of land reform in Jamaica would include an analysis of land use, plus related economic, social, and political conditions of the country. Because of the wide scope of agricultural reform, this study is limited primarily to an examination of what the Jamaican government has been doing to raise the standard of living of the rural population through its program of land reform. What are the goals? What is being done to implement these objectives? What was the previous ownership of the distributed land, and how was the government's acquisition financed? Who is eligible to obtain land? What is the system of administrating the land, and what services are provided by the government for those participating in the reform program? How closely are the goals of the farmers aligned with those of the government? Finally, can the Jamaican government succeed, through land reform, in its efforts to establish a rural middle class?

The findings of the study are organized to include: 1) the historical background of agricultural reform in Jamaica, 2) the objectives of modern land reform policies, 3) the results of a pilot study on one settlement administered under the land reform program, and 4) an evaluation of the program in terms of potential for success.

Study Area

Ninety miles south of Cuba lies Jamaica, third largest island in the Greater Antilles (Map 1). It is approximately 150 miles long from east to west, and 50 miles across at its widest point from north to south. Much of the island is covered with limestone, and the soils are rich with bauxite deposits. There are two exceptions to the general limestone covering. One is a mountain chain of igneous and metamorphic rocks running north and south across the northeastern side of the island called the Blue Mountains. These mountains include the highest point on the island, about 7,200 feet. The second exception is the alluvial plains found around the coast, particularly the south coast, and in the limestone plateaus where solution basins have been filled with fertile terra rosa soil. The most productive farms and sugar plantations are located in these flatter areas, which unfortunately include only about 14 per cent of the surface of the island. The rest of the topography is mountainous.

The climate is very pleasant. Average monthly temperatures vary only about five degrees during the entire year. Kingston temperatures range from 76 to 81 degrees Fahrenheit. Differences in temperature are caused more by altitudinal variation than by seasonal change. Some 100 to 200 inches of rain per year falls on the windward side of the Blue Mountains. West of the Blue Mountains progressively less rain falls until in the southwestern part of the island irrigation is needed for dependable farm crops.


JAMAICA
LOCATION MAP
U.S.A.
ATLANTIC OCEAN
GULF OF MEXICO
BAHAMA ISLANDS
CUBA
(YUCATAN)
CAYMAN IS.
HAITI
DOMINICAN REPUBLIC
PUERTO RICO
VIRGIN IS.
MEXICO
BRITISH HONDURAS
JAMAICA
GUATEMALA
HONDURAS
CARIBBEAN SEA
EL SALVADOR
NICARAGUA
PACIFIC OCEAN
COSTA RICA
TRINIDAD
VENEZUELA
COLOMBIA
VF

Map 1

Vegetation on the island is as diverse as the topography. In a natural state the eastern side of the Blue Mountains produced great cloud-forests. Evergreen and deciduous limestone forests covered the central and western uplands, and herbacious swamp and marsh forests grew in the lower areas. Man, however, cut off much of the natural covering and most of the unused land is now covered with a second growth scrub called ruinate.[3]

A specific study area is Tremolesworth, the 1,200 acre site of the pilot project of the Jamaican land reform program. Located in the Blue Mountains in St. Mary parish, this settlement is characterized by clay soils, temperatures ranging between 75 and 80 degrees, and 50 inches or more of rainfall per year. The location is especially suitable for the cultivation of tree crops and vegetables.

The Lands Department, under the direction of the Ministry of Agriculture and Lands, purchased the Tremolesworth Estate from a private owner and divided most of it into 110 agricultural lots averaging seven acres in size. In 1966 and 1967 settlers began to work the land. Roads and water, provided by the Lands Department, were ready for the settlers' use. Electricity and schools were to be provided upon sufficient demand. Agricultural agents were available to

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[3]The Ministry of Agriculture and Lands defines the term "ruinate" as land covered with weed-growth, sometimes including shrubs and small trees. It is usually land which was previously cultivated, but then allowed to lie fallow.

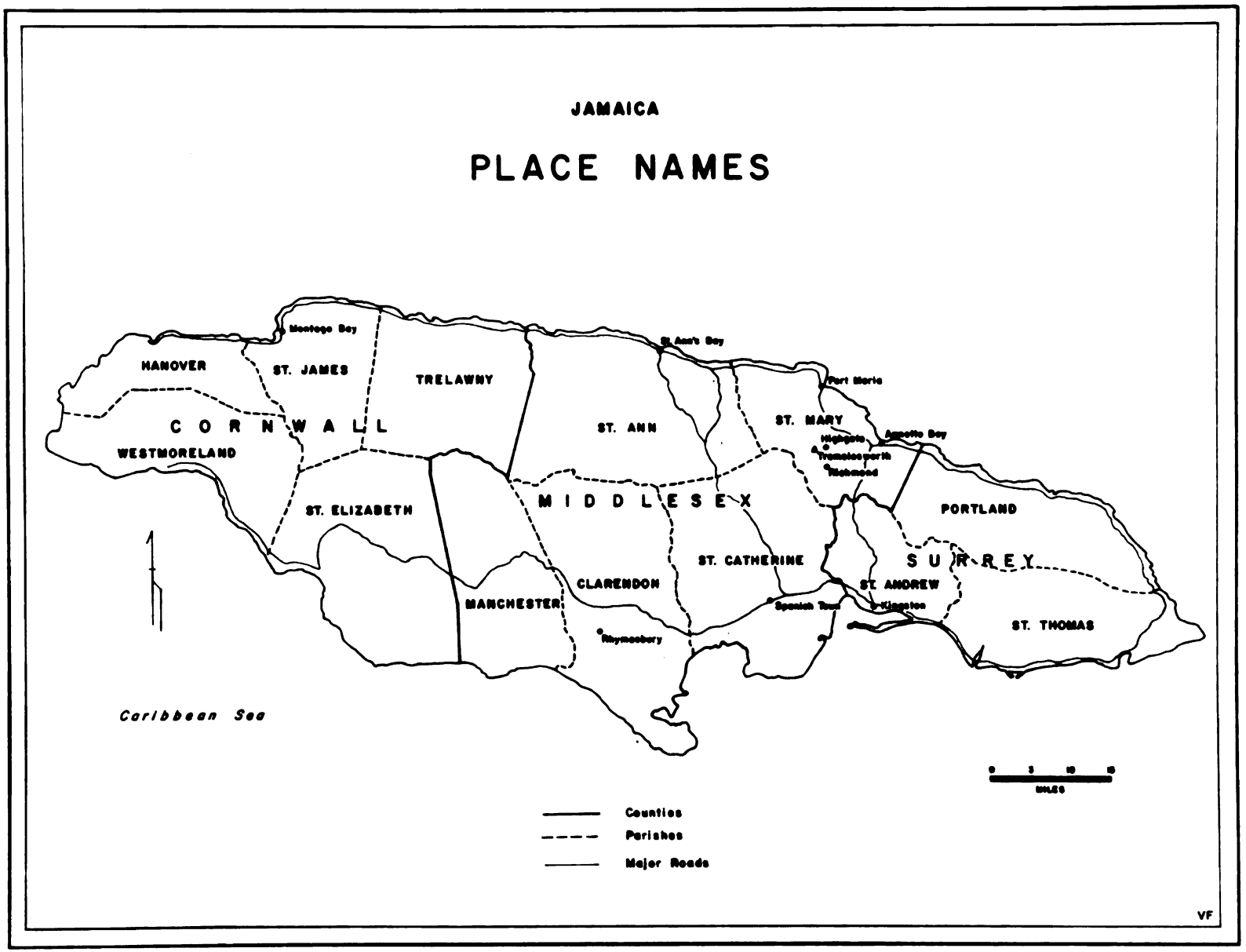
provide technical advice, and credit was made available. Government action was also underway to improve the marketing system. An objective of this study was to determine how the project is affecting the participants.

Procedure

Data for the study were obtained by interview, by field observation, and by a survey of literature both in Jamaica and at the Michigan State University Library. Sixteen interviews were conducted with government officials directly involved in the reform program, with men at the University of the West Indies, and with personnel of the American Embassy in Kingston.

The limited availability of statistics made it expedient to study an individual land reform project in operation, and Tremolesworth was the project recommended by officials in the Ministry of Agriculture and Lands. Started in 1964, Tremolesworth is currently in operation, almost completely settled, and unique in its local leadership.

Two of the ten weeks spent in Jamaica, from June 14 to September 3, 1968, were devoted to the Tremolesworth project located near Highgate in St. Mary parish (Map 2). To provide an overview of the settlement, Mr. Cecil Langford, Commissioner of Lands, arranged for a tour of Tremolesworth. The remainder of the two weeks was used to conduct personally a survey of farmers on the settlement. A random sample of thirty-one of the 110 Tremolesworth agricultural lots was


JAMAICA
PLACE NAMES
Montego Bay
St. Ann's Bay
Port Maria
Ocho Rios
Highgate
Oracabessa
Richmond
Annotto Bay
HANOVER
ST. JAMES
TRELAWNY
ST. ANN
ST. MARY
C O R N W A L L
WESTMORELAND
ST. ELIZABETH
M I D D L E S E X
PORTLAND
ST. CATHERINE
S U R R E Y
CLARENDON
ST. ANDREW
MANCHESTER
Spanish Town
Kingston
ST. THOMAS
Mayberry
Caribbean Sea
0 5 10 15
MILES
Counties
Parishes
Major Roads
VF

Map 2

drawn, and twenty-five interviews were completed. The remaining six could not be conducted because the respective farmers were not available during the survey period.

A third week was spent administering a control survey in Harmony Hall, an area immediately adjacent to the Tremolesworth settlement. The local extension agent of the Ministry of Agriculture and Lands helped select the sample. The survey of both groups was designed to test four hypotheses: 1) The land-reform farmer is more oriented towards commercial farming than is the small, private farmer. 2) The land-reform farmer is more receptive to government aid and advice than is the private farmer. 3) The land-reform farmer enjoys a standard of living approaching what can be considered middle class. 4) The land-reform farmer has a more favorable attitude towards the future of farming as an occupation than has the private farmer. Miss Adel Wint, a sociologist working for the Ministry of Agriculture and Lands, helped prepare the questionnaire and made the necessary arrangements for administering the survey.

A survey of literature was conducted in the Ministry of Agriculture library, the University of the West Indies library, and the Social and Economics Research library on the U.W.I. campus. Other sources were found at the Jamaican government printery, the American Embassy in Kingston, and the office of Mr. Hugh Shaw, Manager, Office of Land Development and Utilization.

Findings of the Study

Many of the short-range goals of the Jamaican land reform program have already been realized or appear likely to be achieved. The program has helped the under-employed rural population by providing jobs on public-works projects, has put formerly unused land under cultivation, has extended credit to some farmers who could not obtain it previously, and has increased the amount of land owned by small farmers. The program offers potential for advancement toward crop diversification and offers practical education to small farmers in managing their own cooperatives. Another encouraging feature concerns the Jamaicans who administer the program. Most officials interviewed were remarkably candid about the success and failures of the program and realistic concerning the limited resources available. They are constantly studying the program. A thorough economic analysis is needed, however, as is a rural study to help coordinate social endeavors.

The long-range goals have yet to be achieved. From the limited statistics available, it does not appear that production has increased. While the income of farmers has increased to some extent, it has been at great expense to the government and has not yet reached the level of "middle class." The Jamaican land reform program is an attempt at welfare government, not an instrument to alter the control of economic power.

Physical Setting

Columbus, sailing into St. Ann's Bay in 1494, described Jamaica as "the fairest island that eyes have beheld."[4] The island offers a variety of scenery and a pleasant climate. The Blue Mountains, rising over 7,000 feet in the eastern part of the island, and plateaus as high as 3,000 feet in the central and western territory, account for 86 per cent of the 4,411 square miles. The remaining area is rolling plains, mainly along the south coast.

Patterns of rainfall are influenced by the topography. The northeast trade winds drop as much as 200 inches of rain on the northeast slope of the Blue Mountains, fifty inches or less on the leeward side, and progressively less as they cross the island. The southwestern part of the island is subject to drought.

Lying between seventeen and nineteen degrees north latitude, the island is surrounded by warm waters and experiences only a modest range of temperature. Kingston averages 79 degrees Fahrenheit and varies only five degrees between winter and summer. The greatest variations in temperature are due to elevation, not seasons. The temperature drops about three degrees for every 1,000 feet of elevation above sea level.

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[4]Clinton Black, The Story of Jamaica, (London: Collins, 1965), p. 25.

Some of the features that make Jamaica so appealing to tourists, however, make work difficult for the 39 per cent of the Jamaican labor force engaged in agriculture.[5] Within an area nearly the size of Connecticut, only 1.7 million acres, about one acre per person, are suitable for agriculture. The beautiful Blue Mountains are composed of igneous, sedimentary and metamorphic rock. The central and western area is covered largely with limestone. Because of the limestone, soils are highly permeable and there is insufficient surface water. Land in the southwest must be irrigated to produce dependable crops. Over 80 per cent of the island surface is steep-sloped. Soils are shallow from natural erosion and abusive farm practices.

The Economy

Jamaica's economy is based largely on agriculture and mining. By value, bauxite accounts for 49.4 per cent of the exports, sugar for 26.7 per cent, bananas 8.5 per cent, citrus 4.3 per cent, spice 2 per cent, and other agrilcultural produce 4 per cent.[6] Tourism is also important to the economy. In 1966, some 345,300 tourists spent U.S. $67,000,000 in Jamaica.

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[5] Jamaica, Central Planning Unit, Five Year Independence Plan, 1963-1968, (Kingston: Government Printer, 1963) p. 34.

[6] A. J. Newman, Jamaica, the Island and Its People, (Kingston: Times, 1963), p. 105.

Manufacturing accounts for only 5 per cent of Jamaican exports, by value. Internally, however, manufacturing is of increasing importance. At present, most industry is located in the Greater Kingston area, but the government is trying to move industry to small towns throughout the island. Lack of a cheap fuel on the island limits the potential of the heavy industrial expansion needed to absorb the unemployed in the urban areas and the under-employed and seasonally unemployed in rural areas.

Historical Background

Approximately 1000 A.D., the Arawak Indians stepped from their dug-out canoes onto the island of Jamaica. It is believed that they migrated from Venezuela to Trinidad, and then to Jamaica and other islands. The occupants spread over the island, up to elevations of 2,000 feet. Most of the villages were located near the coast, however, to make use of the sea. Besides hunting and fishing, the Arawaks cultivated gardens of cassava, maize, sweet potatoes, cashews, and guava. It is also known that they cultivated cotton. The women wove cloth and hammocks for their own use and for trade with Indians on Cuba and Haiti.[7]

In 1494 Jamaica was discovered by the European world. Columbus, on his second voyage to the New World, approached

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[7]Black, op. cit., p. 16.

the north coast of Jamaica to replenish his supply of food and water. His immediate welcome was by canoes loaded with shouting, angry natives. On the following day the natives brought a peace offering.

No Spanish records survive in Jamaica, and Spanish history makes few references to the island. Clinton Black states that:

> Generally speaking the island as a Spanish colony was a failure from the start. It never prospered, was always poor, more of a burden than a benefit to Spain.[8]

The Spaniards were disappointed at not finding gold and subsequently used the island mainly as a base for Spanish ships to pick up supplies. A few colonists made their living from agriculture. They raised cattle and pigs and exported leather and lard to neighboring islands. They also cultivated cotton, cacao, tobacco, and grapes. All of the common fruits except grapefruit were introduced, plus coconuts, bananas, plantain, and sugar cane.

In the 150 years of Spanish rule, the Europeans managed to enslave and eliminate the entire native population. Some Arawaks died of white men's diseases, and some died of hunger after the Spanish pigs, goats, and cattle ruined their crops. Some died from abuse, and some, rather than face such a life, committed suicide.

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[8] Ibid. p. 32.

English rule of the island from 1655 to 1962 is dramatically divided by a single law, the emancipation of slaves in 1838. Before emancipation the English rule of the island was the story of sugar and slavery. The English Governor, Sir Thomas Modiford, started the sugar industry in Jamaica. From 1664 to 1673, fifty-seven sugar estates were established. By 1739 there were 430. The British West Indies sugar industry had more political influence on the English parliament than did the American mainland colonies.

The first slaves were shipped to Jamaica before 1517. After the development of the sugar industry, about 5,000 slaves per year were imported from West Africa. The British also tried to use forced white labor, but it proved unsuccessful.

Emancipation of the slaves in 1838 had immediate effect upon the sugar industry. Labor became more scarce and expensive. Despite the fact that wages were low, owners had a new problem in the need for a steady supply of money.

The increased labor cost came at the same time that production was declining. Too many plantation owners were absent, and hired managers were often inefficient. The land was becoming infertile from over-cropping, and the additional expense of purchasing equipment to replace manual labor drained away profits. Even low wages could not displace the total rise in costs.

The final problem came when England started equalizing the sugar tariff in 1846 and eventually stopped subsidies altogether. The entire British West Indies economy declined.

Many sugar estates were divided into small plots and sold; some were abandoned. Acres of land lay fallow.

Emancipation had social and economic effects that are still felt in Jamaica today. The ex-slaves saw land as a symbol of security and power. They remembered that landowners had privilege, power, and influence. After emancipation some slaves stayed on the estates to work for wages, but thousands left. Since the best agricultural land on the coastal plains was already owned, the ex-slaves either moved to the hilly and mountainous land, or squatted on crown land to start small subsistence farms. Today the island has serious economic problems, and the government must formulate an agricultural policy to accommodate both a latifundia and a minifundia farm structure.

Before emancipation, the slaves had never established family life. Children were born, but most of them never knew their father, and they never lived as a family. Too far removed from African culture, and not westernized, the free Negro had to suddenly develop a whole new social system. Such basic needs as family relations and land ownership had to be developed.

The year 1938 is significant in Jamaican social history. Riots broke out, and social unrest and economic depression mounted to explosive proportions. No longer able to continue under the status quo, the British government sent an investigating committee to the West Indies to determine the cause of riots and to recommend corrections. The riots

and action that followed started an evolutionary process which moved the Jamaican government from a colonial status in 1938 to independence in 1962.

Since independence the new government has strived to transform the island from a nineteenth century colonial economy to a twentieth century, world-wide competitive economy. The causes for such dedication are both idealistic and realistic. First, Jamaica is a paternalistic democracy, and leaders want to give the large class of poor people not just a subsistence living, but move them to an improved socio-economic status. Second, the stream of emigrants to North America and to the United Kingdom, once a safety valve for the increasing population, has been reduced. Jamaicans are no longer needed in such great numbers in those countries. The government must cope with an increasing population. The birth control program has still relatively little effect because the people who need it are neither willing nor well enough educated to use the information available. Children are still the only social security plan most Jamaicans have. The government, then, hopes to solve both its economic and social problems by improving the economy. It seeks to increase food production through better farming methods and to absorb the unemployed by expanding industry.

CHAPTER II

FROM LAND SETTLEMENT TO LAND REFORM, 1835-1962

The program of land reform in Jamaica has been evolutionary, rather than revolutionary as in Mexico or Cuba. Thus, while there have been modifications in goals and emphasis, basic policies remain essentially unchanged. The goal of the first government-sponsored settlements was to provide employment and security for tenants. By 1962, when land reform became an integral part of agricultural policy, the emphasis was to improve the agricultural economy and to aid social development in the rural areas.

Land Settlement from 1835 to 1938

Baptist missionaries started the first planned agricultural settlements in Jamaica.[9] In 1835, three years before emancipation, the first settlement village was founded in the vicinity of Spanish Town to help freed slaves. In 1838 another village was established, complete with church

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[9]Norma Walters in The Role of Land Settlements in Agricultural Development defines settlement as "a scheme into which people are organized for settlement on a designated area of land in order to engage in agriculture." The term "colonization" is sometimes used interchangeably.

and school, on a 500-acre site in St. Ann parish. When 311,000 slaves suddenly became citizens upon emancipation in 1838, settlements spread rapidly. By 1840 there were 800 peasant freeholders, and by 1845 there were 19,000 freeholders and some 200 settlement villages. The only new agricultural settlements on the island during the next several decades were those under the direction of missionaries.

The government has long given aid in some form to occupants of the land, if only through the sale of land to individuals by the Surveyor General's Department. Between 1929 and 1938, approximately 28,700 acres were allocated to 5,897 persons, with an average of 4.9 acres per sale.

Land Settlement from 1938 to 1962

The year 1938 can be considered the starting point of several important trends in the political and social history of Jamaica. The first was initiated when Lord C. C. Woolley began using land settlements as an instrument of government policy. The evolution from the land settlement policy of 1938 to land reform in 1962 occurred simultaneously with the movement of the government toward independence and the formation of a comprehensive agricultural policy for the island. As the government gained more control over its own affairs, it began to develop a more "national" outlook. One of the first and most urgent tasks was to develop a viable agricultural program, of which land settlements prior to 1962 and land reform thereafter were important features.

Two social forces met in 1938. At that time Jamaicans were struggling within the clutches of the world depression, and the uneasy populace had a growing desire to gain control over its own governmental affairs. Sugar prices were down. Wages were low for men fortunate enough to find work, and those without jobs were desperate. The population was mostly rural in background and, because agricultural produce found no market, farmers migrated to the cities in search of work. Most found only unemployment. The crown government's attempt to provide social amenities seemed only to make Jamaicans realize how much more they wanted. On May 3, 1938, nearly 1,000 workers on the Fromme Sugar Estate became irate when they learned that their daily wages had been cut. The following day armed police were called in to stop demonstrators from destroying estate property. Firing on the mob, the police killed four demonstrators and wounded nine. On May 20 a second riot broke out in Kingston during a dock strike. Police were armed and the militia was called in.

Great Britain, concerned about the riots spreading not just within Jamaica but throughout the West Indies, sent an investigating commission to the area. Before the commission arrived, however, Governor Edward Denham suddenly died. The Honorable C. C. Woolley took office and promised a "New Deal" for Jamaica. To alleviate the depression, the government under his direction, spent over one million dollars in the creation of land settlements. A Lands Department was established to administer the program.

The first Commissioner of Lands, Captain F. Burnett, suggested that settlement holdings should be no less than ten acres in size and that houses, roads, water supplies, and other facilities should be completed, or nearly so, by the time settlers moved to their allotments. These recommendations were largely ignored. During the first year, some 52,757 acres were allotted to 11,384 settlers. The settlers paid 10 per cent down and had ten years to complete payments for the land. The people settled were not necessarily suited for agricultural careers.

The Royal Commission to the West Indies arrived November 1, 1938, and was composed of leading politicians, sociologists, and economists. The Commission held public hearings, with a cross-section of the population in attendance, and inspected the island to analyze the prevailing conditions first-hand.

A summary of the Commission's report was published in 1940. It indicated that the answer to Jamaican problems lay in agriculture. The world depression had harmed Jamaican industry and caused widespread unemployment at the same time that the people were demanding a better life. The major relief had to come from a new agricultural policy, and under the agricultural section of the report the commission recommended:

1. That the island improve present farms and start new settlements.

2. That the island not limit itself to freehold tenure, but experiment with both freehold and leasehold[10]

3. That the government should assume the power of compulsory acquisition with regard to agricultural land needed for settlement.

4. That while credit might be needed in the early stages, the ultimate aim should be self-support.

The first aim of agriculture, the commission stressed, was to increase home production of foodstuffs. The need for mixed farming on settlements, instead of single export crops, was also emphasized.

Heading the Royal Commission to the West Indies was Lord Moyne. After returning to Britain and submitting his report, he was appointed Secretary of State for the Colonies. Moyne recognized the political aspirations in Jamaica. Since 1877 there had been some agitation for a change in the colonial government. Although Jamaicans rejected his famous dispatch of 1941, the Constitution of 1944 carried many of Moyne's ideas. The new Constitution ended the Crown Colonial period by expanding the elected House and granting universal adult suffrage.

Out of the 1938 riots, two labor parties with strong political ties evolved. During the first election under the 1944 Constitution, the two parties became recognized as definite political entities: 1) the People's National Party,

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[10]Leasehold farmers occupy the land but do not own it, whereas freehold farmers own the farm they operate.

and 2) the Jamaican Labor Party. These parties, for reasons of both political expediency and national interest, knew that it was necessary to aid the rural population and attack agricultural problems if the Jamaican economy were to improve. From the enactment of the 1944 Constitution to the present, a great amount of effort and money has been expended on agriculture.

In 1953 the Constitution was changed to give the elected House control over the Executive Council. Only the Colonial Secretary and the Attorney General retained much power. Under this Constitution the government established the Central Planning Unit of 1955. Planning for development was institutionalized under the CPU, and the government was ready to develop a national economy on an integral basis. Programs were replaced with "schemes."

The Executive Council was replaced in 1957 by a Council of Ministers and the Governor became a figurehead, and in 1959 the Council of Ministers was renamed as the Cabinet. The Ministry of Home Affairs assumed the responsibilities that previously pertained to the Colonial Secretary and Attorney General. Jamaica practiced home rule. The Agriculture Development Court, the Jamaican Agriculture Society, the Land Authority, the Agricultural Marketing Corporation, and the Watershed Protection Commission were all placed under the Ministry of Agriculture and Lands. In 1962 Jamaica became fully independent, managing its own international affairs but choosing to remain within the British Commonwealth.

As the Jamaican government assumed greater responsibility, the agricultural policy was further developed. In 1942 a committee investigating the land settlement program reported that the Lands Department had approximately 101,200 acres of land, exclusive of training centers, but that there was no money to help farmers develop their holdings or increase their production. The system allowed no control over farming practices. Settlers could grow crops for which there was no market or ruin land through poor agricultural practices. There was, likewise, no money to finance rural housing. Money obtained for this purpose came from loan banks and carried interest rates too high for most farmers.

The progress of the investigating committee was nearly paralyzed by the lack of reliable statistics with which to work. There was, for example, no date to indicate what should be considered a minimum economic unit under the varying conditions prevailing in Jamaica. The committee recommended that the government formulate an agricultural policy that would include not only land tenure, but the entire agrarian structure.

Following these recommendations, the Agricultural Policy Committee was created. One report published by the committee, in 1945, was the "Special Report on Land Settlement." The report summarized existing services as being inadequate and recommended that a long-term policy be developed. It further suggested that the main objectives of land settlement

programs were to conserve and develop the land, bring land into its fullest use while still serving to solve unemployment, and to redistribute property while providing adequate housing and rural amenities. The committee recommended that instead of the Lands Department being made fully responsible for roads, housing, and cooperatives, existing agricultural and rural services should be coordinated and used. The government should also organize farmer cooperatives and expand village development.

Agricultural reports, plans, and laws of recent decades have drawn heavily from the report of the Royal Commission to the West Indies and those of the 1945 Agricultural Policy Committee. The 1955 Farm Development Scheme proposed to promote the efficient use of land to increase production and lower unemployment. The Land Bond Laws passed in 1955 provided the means to finance land acquisition. The National Plan for Jamaica, published in 1957, emphasized optimal land use. The Agriculture Development Program of 1959 placed greater emphasis upon credit and the spread of agricultural knowledge. In 1960 the Agriculture Credit Board, replacing the 1944 Agricultural Loan Society, was created to promote loan societies which would lend money for agricultural development. The Five Year Independence Plan 1963-1968, which introduced land reform, emphasized loans and subsidies.

The Change to Land Reform, 1962

Under the Five Year Plan the government proposed to carry out its agriculture policy by means of two programs, land reform and the Farm Production Program. The objectives of land reform are basically to subsidize existing programs rather than to change the economic power structure of the country. The Inter-American Committee for Agricultural Development, appointed by the Organization of American States, would, therefore, call the Jamaican program "indirect land reform." "Direct land reform" occurs when there is a change in the economic power structure.[11]

The 1945 Report of the Agricultural Policy Committee recognized the need for a long-range settlement program and included both long and short range goals. The Report listed three main objectives: 1) to conserve and develop agricultural land, 2) to bring land into full use and still provide maximum employment, and 3) to procede with orderly plans for settlement, adequate housing, and rural amenities. The reform program aims for economic development and social equity, or equal distribution of earning opportunity. Its short-range objectives are to increase production by

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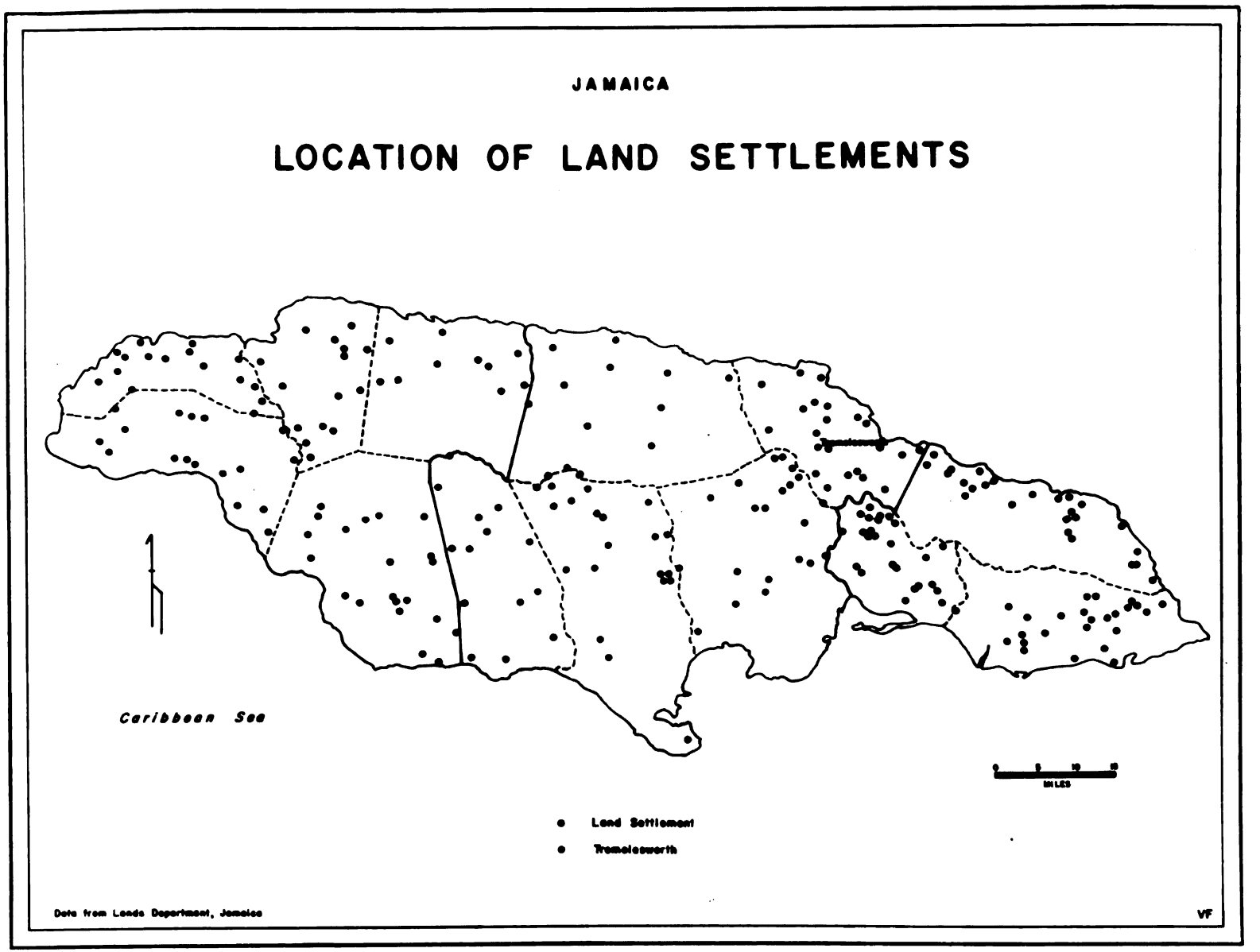
[11]Inter-American Committee for Agricultural Development, "Land Tenure Conditions and the Social-Economic Development of Agriculture in Latin America," (Washington: Organization of American States, April, 1966), p. 27.

organizing proper distribution, offering better services, using a larger portion of the land, and urging intensive land use. Success is to be measured by higher production and greater utilization of the land.

One development that has occurred since the 1945 Report is that the agricultural officials now have a better idea of the potential of the land being sold. The reform program ideally sells farms of more than five acres, instead of the two to five acres that were customarily sold under the settlement program. Based on the criterion of economic potential, land is subdivided so that the farmer's income, by optimal use of mixed farming and livestock, should average U.S. $17 to $22 per week. With optimal use, then, the farmer nearly reaches the $1200 per year income which is considered the threshold of "middle class" income in Jamaica.

Within the Ministry of Agriculture and Lands the single division having most influence over the reform program is the Lands Department, although the department works in co-operation with other government offices. The Lands Department purchases land, subdivides it, and is responsible for the settling and control of reform settlements. (Map 3).

Land used in the reform program is primarily that which was previously under-utilized land. Landowners who possess 100 acres or more and have unused or underdeveloped land are asked to submit to the government a program for development. And, they are to actually start development, or lease the land, or sell the land for agricultural purposes.


JAMAICA
LOCATION OF LAND SETTLEMENTS
Caribbean Sea
MILES
Land Settlement
Townlesworth
Data from Lands Department, Jamaica
VF

Map 3

If the owner does not comply, the government can acquire the land with a compulsory lease with option to buy, can purchase the land with bonds, or can purchase the land with cash.

There are two types of land bonds. One kind is redeemable in twenty years at the option of the owner. The other is generally redeemable in forty years, although some redemption can be made after five years for purposes of investment within the country. The bonds pay $4\frac{1}{2}$ to 5 per cent interest.

After acquiring the land, the Lands Department subdivides it and decides the price per acre. The price is determined by production potential and by the amount of investment made by the previous owner. The Department also engineers roads and water systems on the settlements. Settlers, however, are hired to do the manual labor. The wages provide the settlers with cash until the farms are in production.

Once the lots are ready the Lands Department advertises them for thirty days. Persons interested in the lots visit the settlement and choose the lot they wish. They then fill out a written application which outlines the rules by which they must abide. The Commissioner receiving the application understands that the applicant wants the lot, has the down payment equal to 5 per cent of the total value of the lot, and agrees to abide by the rules. The signed application also indicates that the applicant agrees to keep up his payments, will develop at least one-third of the lot within one year and three-fourths within four years, will

use good conservation practices, will live on the lot unless he had permission not to do so, and will not transfer title without permission of the Commissioner of Lands. If he fails to comply, he forfeits the property.

Once settlement is initiated both an economic and social community must be developed. Rural people, strongly loyal to kinsmen, may move only a few miles to the settlement but must build a new community and new loyalties. To develop such a community, the Lands Department and the Jamaican Social Welfare agency co-ordinate their efforts. The effort to develop a "We" feeling is promoted through the Settlers Association. The settlers select their own officers and pay dues to the Association. Recreational ground is provided in the subdivision of the settlement, and up to $500 in subsidy is provided for the materials to build a Community Center. The settlers must organize, request the subsidy, and build the Center. The entire effort requires organization, trust, and co-operation among settlers. Once the center is built, it is used for business meetings of the association, recreational purposes, home economics training for women, and for agricultural extension services.

The Lands Department has officers living on the settlements who serve as a link between the farmers and the government. They collect payments, distribute public works jobs, keep records, and inform the farmer of available government services.

The settlers receive aid for housing under the Farm Production Program. The applicant must pay $37 to $75 down, depending upon whether he wants a two or three room house. In signing the application he agrees to prepare the site, transport materials from the unloading site, and construct the house. The Housing Department supplies prefabricated units and delivers them to the nearest unloading site as soon as the application is approved. The Department also provides technical assistance, but the farmer provides the labor to build the house.

CHAPTER III

LAND REFORM: THE EXAMPLE OF TREMOLESWORTH

The concern of this chapter is the effect of the Jamaican land reform program upon the participating rural population. Investigation was limited to four topics: 1) change in the standard of living, 2) change in the methods of farming, 3) attitudes of the Jamaican farmers toward the reform program, and 4) attitudes about farming as an occupation.

At the time of the study no analysis of the reform program, either economic or social, had been completed. Officials interviewed in the Ministry of Agriculture and Lands suggested that an investigation of one settlement could be completed in the time available for research and offered generous assistance. Of the sixty properties included under the reform program, the one most often suggested for study was the pilot program, Tremolesworth, since it is the settlement longest in operation.

Information concerning Tremolesworth was gathered through a questionnaire administered to a random sample of twenty-five of the 110 farmers owning land on the settlement and by interviews with land officers there and in the Lands Department. A control questionnaire was administered in the

immediate area of Harmony Hall to eighteen farmers owning approximately the same size of farms as those on the settlement.

One of the purposes of studying Tremolesworth was to determine whether or not the land reform program is raising the participants' standard of living to a middle-class level. The minimum figure for middle-class income in Jamaica is about U.S. $1,200 a year. According to the Lands Department a farmer should earn about $1,250 a year from his lot, if it is put to maximum use. This means that the land must be farmed by scientific methods, planted to diversified crops, and include the raising of livestock.

Dr. David Edwards in an economic study of small farming concluded in 1961 that the small, traditional farmer raised about 12½ cents worth of produce for each hour of labor invested.[12] He also found that the traditional farmers do not adapt readily to change. Tremolesworth farmers will have to use scientific methods to raise their income. How capable and how receptive are they to new ways? The invisible drive of human motivation is the greatest unknown variable, but information obtained from this study provides some measurement of the farmers' potential for change.

The goals and machinery of the reform program have been outlined in Chapter II. The plan is to improve the farmers'

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[12]David Edwards, Report on an Economic Study of Small Farming in Jamaica, (Kingston: Institute of Social and Economic Research, 1961).

economic and social life, increase production, and maintain a high level of employment. This study was designed to discover whether the goals of the program are being achieved.

The Jamaican government is continually combating an unemployment problem. Official estimates for 1957 indicate that 18 percent of all persons wanting to work were actually unemployed.[13] A major cause of rural unemployment is seasonality in the production and processing of crops. Sugar workers, for example, are needed only about six months of the year. Another major cause of unemployment is the migration of people from rural to urban areas. The rate of this migration increased during the depression of the 1930's, when agricultural prices dropped, and again after natural disasters such as the five hurricanes between 1932 and 1945. The spread of sigatoka disease in the 1930's, which nearly wiped out banana production, had a similar effect. Migration was stimulated, too, by the fact that urban income increased much faster than that of the rural areas. To decrease unemployment and to slow rural-to-urban migration, the government relied on its settlement program. More recently, people in government have hoped that agricultural education and a higher standard of living would help to make the farmer content with his occupation.

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[13] Five Year Independence Plan, op. cit., p. 35.

Physical Characteristics of the Tremolesworth Area

Tremolesworth is a 1,257-acre settlement on the slopes of the Blue Mountains in St. Mary's parish. It lies ten miles by road from Port Maria, on the north coast, and is everywhere at least 800 feet above sea level. Rainfall averages 50 to 55 inches per year. Soils are clay loam or a dark brown silt clay. Temperatures average in the high 70's, with a seasonal variability of about five degrees. Land not being farmed is in ruinate.

The Tremolesworth area has a good transportation network. The railroad from Kingston to the north coast passes within three miles of the settlement and provides access to the major markets of the island. Also, a country bus can be hailed at any place on the highway which connects Kingston with the north coast. In addition to the main highway, there are numerous secondary and connecting roads. Trucks are now the most common means by which farmers transport their commercial crops to packaging or processing plants.

Economy of the Tremolesworth Area

The major occupation in the Tremolesworth area is agriculture. Bananas, coconuts, pimento, and citrus are the main export crops, while some vegetables are produced for local consumption. Most small farmers earn extra money by doing estate work, by working on the government experimental farm at Orange River, by accepting temporary government employment on public works projects, or by following a

second trade such as carpentry. There are only four factories in the area, including a cocoa fermentation plant in Richmond, banana packaging plants at Richmond and Albany, and a copra plant near Whitehall.

A common occupation for women is that of taking farm produce to market, or "higgling." The women may canvass the immediate neighborhood for produce in addition to their own. They walk to the nearest market, two miles away at Highgate, or pay to ride a truck. Only a few go to more distant markets. In any event, their margin of profit is very narrow. Other women, if they have no infants to care for, supplement the family income by dressmaking or working in one of the factories.

The marketing system for export crops contrasts strikingly with that for domestic trade. In the Tremolesworth area, as in most of Jamaica, the major cash crops are exported. Bananas, for example, are moved efficiently from the farm to packaging plants and refrigerated ships. With produce for the domestic market the story is different. Livestock is sold, for the most part, to provide a supply of meat only for the local neighborhood. While rural markets are relatively over-supplied with produce, merchants on the north coast and in Kingston must import vegetables, canned meat, cheese, butter, and even canned fruit to supply their supermarkets. The higglers and small farmers simply do not keep a steady and reliable supply flowing to the areas of demand.

The Agricultural Marketing Cooperation is trying to improve the domestic trade by buying and selling directly from the producers. A truck visits the Tremolesworth area every Monday, but the volume of produce obtained is highly variable. At the time of the investigation the biggest problem seemed to be in getting more farmers to make consistent use of the service.

Creation of the Settlement

Tremolesworth was originally a banana estate, and at the time the settlement was formed some land was still in bananas and coconuts. Most of the property, however, was ruinate. The Lands Department completed subdivision of the property in 1966 and lots were offered for sale during the same year. Over 1,200 people applied for the lots, and the Commissioner of Lands office was responsible for narrowing the selection to the 110 people who were to receive the agricultural lots. Awards were determined on the basis of need.[14] Prices, ranging from about $150 to $500 per acre, were determined by the existing stage of development of the land. Good land planted to bananas was valued at nearly $500 per acre, pasture land at around $200, and ruinate at $150. It cost the government about $3,400 per family to

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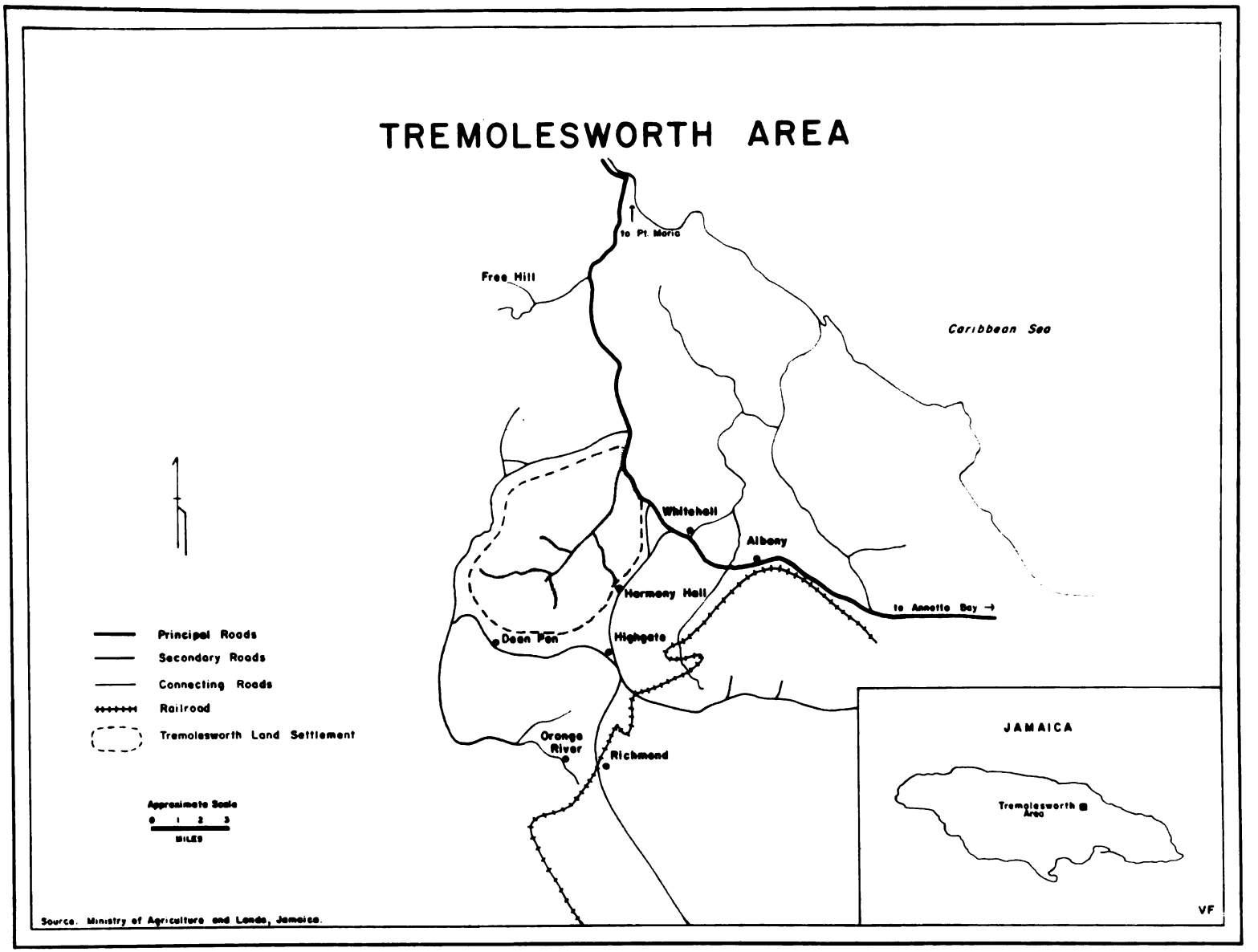
[14]William Charlton, personal interview held on Tremolesworth, August, 1968.

settle Tremolesworth. The total investment in the settlement will not be returned through the sale of land. Rather, officials believe the settlement will pay for itself indirectly by keeping Jamaicans employed, raising farm production on the island, and eventually providing a tax base.

At present the property is divided into 110 agricultural lots, of which 103 average about seven acres in size (Map 4). The remaining seven lots range from fourteen to thirty acres. On the southwest corner of the settlement is a 104-acre forest reserve, while near the center is an area reserved for the construction of a village. The latter will include a community center, school, shops, and civic buildings. Each farmer is entitled to one half-acre lot in the village and is urged to build his home there. The settlement office and some homes for farmers have already been constructed. Many settlers have expressed the hope that churches, a fire station, police station, medical center, and stores will also soon be located on the settlement. In the southeast corner of Tremolesworth, near Harmony Hall, are several additional half-acre lots for homes and commercial enterprises. There, lots are sold to non-agriculturalists or to settlers with farms nearer Harmony Hall than to the central village.

The Lands Department builds roads and installs utilities before farmers move to the settlement. As a result, two dirt roads cross Tremolesworth and connect with the paved highways leading to Highgate. These are usable the year round for cars, trucks, and heavy equipment. Branch roads, not yet fully developed but plotted by the Lands Department, will


TREMOLESWORTH AREA
to Pt. Maria
Free Hill
Caribbean Sea
Whitehall
Albany
Harmony Hall
to Annotto Bay →
Dean Pen
Highgate
Orange River
Richmond
Principal Roads
Secondary Roads
Connecting Roads
Railroad
Tremolesworth Land Settlement
Approximate Scale
0 1 2 3
MILES
JAMAICA
Tremolesworth Area
VF
Source. Ministry of Agriculture and Lands, Jamaica.

Map 4

be improved later when the demand has increased. Settlement farmers are now being employed to complete a pipeline to supply water from a temporary reservoir. Electric power lines have been extended to the edge of the settlement, but no farther. Government personnel will connect the homes with electricity only when 100 settlers have requested it.

Tremolesworth farmers are making good progress in putting their land under maximum cultivation. Five of the fourteen interviewed who started their farms in 1966 now have their land fully developed, as have four of the eleven who started in 1967. All but three of the twenty-five interviewed are meeting the conditions of their land contracts, namely to get one-third of the land developed within one year and one-half of it developed within two years.

Change in Level of Income

To determine whether or not the land-reform farmers are reaching an income of U.S. $1,200 per year, one must first decide what to include in the income figure. Of the twenty-five farmers interviewed on Tremolesworth, three have full-time jobs in addition to their farm work and fourteen work occasionally. Wives and older children add to the income by "higgling" or working away from home. Two families receive money from relatives in England. Because the land reform program is the focus of this study, income considered here refers only to that obtained directly from farming operations.

One must then determine a definite figure for the farm income. Records kept by Tremolesworth officers include data related to the production of export crops, but not to investments, and only one of the forty-three farmers interviewed at Tremolesworth and in the control group keeps records. The amount of income earned from local trade is variable. Many farmers do not know if they earn a net profit on their produce, but all feel they need to receive more money for what they sell. None figure their own labor as an input, but most know that they can make more money doing other kinds of work. It appears that only one man in the control survey grossed over $1,200 from his farm in 1968, and he cultivated twelve acres of citrus fruit and bananas. No farmer interviewed on Tremolesworth grossed over $1,200 from his farm.

Although most farmers experienced an increase in their income after obtaining land on Tremolesworth, they have not yet reached middle-class income. Furthermore, it appears unlikely that, under the present program, the participants will reach a middle-class income without continual subsidization or additional employment. The participants are about as financially sound as farmers in the adjacent area with properties of equal size. It seems that the greatest gains achieved in the program stem from the subjective benefits of land ownership. Increasing income from improved technology is proportional to the farmers' ability to apply scientific methods, the energy they invest in the farms, and the size of the farm itself.

Change in Agricultural Methods

The background of Tremolesworth farmers is similar to that of small farmers off the settlement. The age range of those interviewed extends from thirty-four years to seventy, slightly younger than the average in the control group. Most farmers are middle aged or above, which suggests that the farming methods they have learned are well established. Three-fifths learned farming from a relative, including one man who learned from his wife. One man received formal training from the Jamaican Agriculture Society. Two have participated at some time in courses and field demonstrations used by the government to teach agricultural education in short periods of time.

Tremolesworth farmers are also rather typical of Jamaican farmers in general in their marketing habits. Export crops are marketed on a modern commercial basis; domestic crops are marketed for consumption only within the local area. Livestock, if raised at all, is raised for home use or sold within the neighborhood. The scavenger eating habits and uncontrolled breeding of the animals produces a very poor quality of offspring. Higglers are common middlemen for marketing the domestic crops of Tremolesworth farms. Only one farmer reported that his wife takes produce as far as Kingston, and none mentioned using the service of the Agricultural Marketing Cooperative for selling their produce.

The Ministry of Agriculture and Lands sends an agent once a month to Tremolesworth to train interested farmers in how to form and operate a banana packaging cooperative. As a result, the farmers will soon have their own packaging plant. Once the farmers gain experience in conducting business affairs and keeping records, the knowledge can be applied to the domestic market. At present, however, there is no vocally expressed desire on the local level to develop the domestic trade. Farmers plan to continue raising bananas in spite of the low price of about one cent per pound, probably because they are a crop that brings in cash every two weeks. Other crops have a longer term between harvests and a less dependable market.

Most of the work done on small farms is manual. Only one farmer interviewed owns machinery of any kind, and she has a small gas-engine tractor that requires the operator to walk. Twelve farmers interviewed on Tremolesworth, and none in the control group, have successfully contracted a tractor and plow from the government farm machinery pool located in Richmond some four miles away. The rest of the work is done with forks, shovels, machetes, and some animal power. Under these conditions one man can care for about seven acres of land in diversified use. Hired labor costs U.S. $1.25 per day, which is about equal to its value in terms of production. Farm labor provides a low social status, and many farmers therefore prefer to engage in other types of work for cash and pay someone else to till their land.

To change their farming methods, farmers need information. The printed media is the cheapest channel through which the government can disseminate new ideas. Six of the Tremolesworth farmers interviewed cannot read, however, and only eight have an education comparable to the seventh grade level in the United States. Only one has ever been enrolled in a high school. About the only reading material in the homes is religious publications and, occasionally, newspapers. It is doubtful that most of the farmers can read a pamphlet well enough to use the information. A second relatively inexpensive media is radio. Only five farmers interviewed had no radio, and three of these went to neighbors' homes to listen. One noteworthy sight witnessed on Tremolesworth was that of a farmer walking to his field with a pitchfork and machete swung over his right shoulder and a transistor radio in his left hand.

The most effective, and expensive, way of getting information to the farmer is by face-to-face contact with agricultural agents. Like most rapidly-developing countries, Jamaica needs more trained personnel to transmit technological knowledge. The farmers in the control area need more help, but the territories of the agricultural agents are too large and the government aid too limited to provide greater service. Tremolesworth farmers, consequently, receive more visits from agents than do those in the control group.

The Community Center will be an important facility for building an esprit de corps among the settlers, but it will also aid in dispensing information. Tremolesworth families are all anxious to see the center built, but less sure as to how it will be done. Of those interviewed, twelve do not know what the community is doing to get it built, whereas nine correctly understand that the Settlers Association is initiating action to accomplish the task. Almost all settlers have ideas about how the center will be used. Fourteen think the center will be used for recreational purposes. Others see it as a place to hold business meetings for the Settlers Association, although what will happen at the meetings is still vague. One officer in the Ministry of Agriculture and Lands reports that even after a Community Center is built, the center is not always effective. There is a strong kinship loyalty in Jamaica, but the rural population has little community feeling for building together. Too often people wait for the government to innovate and subsidize programs. The government, in its reform program, is therefore particularly interested in developing responsibility and initiative at the local level. A few strong local leaders could contribute a great deal to the total program. In this respect Tremolesworth is unique, for it has good leaders at the local level.

One local leader is the President of the Settlers Association. It was reportedly he who suggested that the Tremolesworth estate be used for a reform project. He wants to see the project develop into a community complete with

schools, churches, and a thriving business district. He opened a small shop on his agricultural lot, but there was not yet enough demand to keep it in operation. Among the facilities he has built on his lot, with the aid of government subsidies, are a water storage tank and two pig pens. He has no pigs as yet, but expects to eventually.

The Secretary of the Settlers Association is involved in business in Kingston, in Montego Bay, and internationally. He is well-educated and welcomes ideas, if good, from outside the country. He feels, for example, that Peace Corps volunteers are generally helpful. He bought a lot with pig pens already built and is raising stock scientifically. He cleared the banana plants from his land and is putting in citrus trees to show other farmers that they can raise something besides bananas. Most settlers trust and respect his judgment. They look to him as a spokesman and organizer. When the settlers are iniating action or pleading a case with government officials, he often speaks for the group or coaches other men on how to approach the problem.

The Secretary of the Settlers Association is viewed by some outsiders as an altruistic "great white leader," and by others as a politically ambitious man. He denies having political objectives and claims involvement at Tremolesworth for economic reasons. He is a businessman and believes that the country cannot develop fully until the farmers take upon themselves the responsibility for improving their conditions, rather than waiting for the government to do it for them.

He also wants to see Tremolesworth become an economically viable community. He is more interested in the export market than in the domestic market. When asked what Tremolesworth people would do to get the citrus crop from field to consumer, he replied: "Do it ourselves, if necessary. Start our own co-operative in Kingston."

The Treasurer of the Settlers Association serves as Land Ranger on Tremolesworth for the Lands Department and is a farmer. He is a vital communication link between farmers and the lands officers. He helps gather information for official records and relays messages for the Lands Department or the Settlers Association to the farmers. This man is anxious to get the banana packaging plant started at Tremolesworth. He and others hope to get higher prices for bananas once enough of the island's farmers are organized into co-operatives, just as the potato cooperatives helped growers raise the price of their produce. When asked his opinion of the Farmers Production Programme selling middle-sized dairy farms of twenty-five acres, he stated that the land should be divided so that more people would benefit. Three families could use the twenty-five acres instead of one.

An encouraging fact at Tremolesworth is that some farmers are taking it upon themselves to get advice or aid. Nineteen of those interviewed have been to an agricultural office off the settlement to seek help. Ten of them went for financial help and nine to seek advice on planting. Twenty-two out of twenty-five found the agricultural officers

helpful. Ten would go to an extension officer for advice on a farm problem before going to anyone else, and seven would go first to a lands officer. Many farmers use government suppliers when buying fertilizer, seed, and banana suckers, or when renting farm machinery. The use of government suppliers assures the farmers of quality-controlled products, plus technical advice for using them.

Despite the contact that Tremolesworth farmers have with agricultural agents, nearly three-fifths can think of no changes they have made in any of their farming methods since moving to the settlement. Eleven of the twenty-five have made changes. Among these, four are now planting differently, two are using fertilizer, two are both planting differently and using fertilizer, one is using weed killer, one is buying plants from government sources, and one has become interested in growing different crops.

For the farmers who want to make changes and improvements, money is needed. Because their cash income is so low, it is nearly impossible for farmers to save enough to make improvements. The money must come from loans or government subsidy. Twenty-four farmers interviewed on Tremolesworth are members of the Peoples Cooperative Bank, a banking system backed by the government and run locally to lend money for agricultural development at lower interest rates than commercial banks offer. Eighteen have already received loans, and two more have applied. Seventeen borrowed money to develop their land, and one did so to add a farm building.

Eighteen have also received a government subsidy. Of these, five received a housing subsidy through the Farm Production Program, several received subsidies for raising vegetables such as peas and squash, and others were subsidized for storage bins and water tanks.

The farmers' attitudes towards credit are sometimes conflicting. Nineteen of those interviewed on Tremolesworth indicated that they would take more credit if they could get it. When asked whether they would borrow or save for specific improvements, however, they became more conservative about borrowing. All of the Tremolesworth farmers owe money on their land, and debt weighs heavily upon them. Many say they will borrow no more until their present loans are paid. Others worry about losing their land should they become unable to make payments. One-third say that the most important influence in making a decision about the farm is the desire to eventually own the farm free from debt.

Attitudes Toward the Reform Program

The reform program is well-liked by settlement farmers for very practical reasons. Eighteen of those interviewed moved to Tremolesworth because they wanted more land. Land fulfilled their desires for economic security and personal satisfaction. One stated that "A man must have a piece of his own land to get by." Some had never owned their own land before. Another said: "I put more labor in my own land, but I'm not so tired as working for someone else." Three

moved to the settlement for the technical advantages, and five saw the opportunity for opening shops some day. Others moved there because it was a convenient location or because relatives lived there.

The farmers in the control group also have definite, but conflicting, opinions about the reform program. Some hold the same reason for not wishing to live on a settlement that other farmers give for wanting to live on one. Of the ten interviewed who want to live on a settlement like Tremolesworth, four desire more land. As one man said, "I'll take it anywhere I can get it." Two thought the settlement offered better utilities. Four wanted a farm on the settlement because the payments are "easier." Of the eight who did not want to live on the settlement, three were afraid of missing payments and losing the land. One thought the land was too expensive, and another thought the settlement was too crowded.

Attitudes Toward Farming

One of the goals of the reform program is to make the farming occupation more attractive. Twenty-one settlers interviewed say there is no occupation they would rather have than farming, although eight say it is because there is nothing else they can do. One-half really want to farm, as do one-half in the control group. The desire to farm, however, does not necessarily mean a desire to farm full-time. Seventeen farmers interviewed on Tremolesworth and five in the control group have other sources of income to

supplement their earnings. They want the land. They will not sell their farms even if they get a better job. The land waits while they take temporary work. They believe the greatest obstacles in farming are inadequate remuneration and the shortage of labor to work the land. Only one-half would urge their children to go into farming. The reason given for not wanting their children in farming is that it does not pay enough for the hard work that goes into it.

Most parents perceive that their children do not want to go into farming. Only one Tremolesworth boy is talking about farming, as are only two children in the control group. The occupations most frequently mentioned by both groups are non-agricultural, such as teaching, nursing, auto mechanics, dressmaking, and truck driving. The hopes of the children, if fulfilled, are both a blessing and a curse in relation to the farm problem. Economists say there are already too many people on the land. Modern economies need more teachers, secretaries, and industrial laborers. Yet, there is not enough industry on the island at present to absorb the unneeded farm labor. It is also the young people with the best education who are leaving the farms. The old and the undereducated are left on the small farms, and these are the people least capable of changing and adapting to better methods.

In summary, the Tremolesworth farmers are putting more land under full cultivation, but they are not reaching middle class income from the produce of their land. Their investments rise along with their income. Because so much

work is done by hand, they must usually employ additional help. They must pay a wage about equal to what the hired help produces. The reform program provides more information and credit to its participants than the average farmer living off the settlement. Because of the farmers' age, education, and background, the government must send agricultural agents to disseminate information face-to-face to induce even moderate changes.

Tremolesworth settlers feel no great desire to be full-time farmers. Even when they like farming, they accept work off the farm. The reasons relate to economic and social factors, and the reform program has not yet changed these significantly.

CHAPTER IV

CONFLICTS OVER LAND REFORM

Any organization as large and sophisticated as the Jamaican government experiences conflicts of interest and goals as it tries to achieve its ends within the society. As the government translates the land reform program into reality, inconsistencies are becoming noticeable. Conflicts arising from the land reform program can be divided into three broad areas: 1) between social goals and physical reality, 2) between people and methods involved in agricultural planning and recipients of the help, and 3) within the agricultural policy itself.

Social Goals and Physical Reality

Rural Jamaicans feel a land hunger. Land was the symbol of freedom, wealth, power, and prestige to the Jamaican slave. After emancipation in 1838, the slave had two choices: he could remain on the plantation and work for the low wages offered by the landowner, or he could flee and obtain some land of his own on the missionary settlements or by simply squatting on government land. By selecting the former option he still perceived land as a source of wealth for the owner; by the latter, land represented true

independence. Either way, land remained socially important.

Natural disasters such as hurricanes and banana diseases created unemployment among the wage earners, and the world depression in the 1930's added to the suffering as foreign market prices for agricultural products declined. Land became more than a source of social independence--it became an economic security against starvation during hard times.

Traditional inheritance customs interfere with progressive farming practices. When the owner dies, all of the children inherit the land. They inherit not their individual percentages, but all inherit the land collectively.[15] They may all build on the land if they wish, and they may all farm. Should only one remain and work the land, all are technically entitled to a portion of the harvest. The system does not encourage remaining families to increase farm production, since they must invest their labor and money alone and then share the results achieved.

The government took precautions in the reform program to prevent fragmentation of settlement farms. Regulations stipulate that farms will be sold to only one farmer or left to the heir.

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[15]Edith Clark, "Land Tenure and the Family in Four Selected Communities in Jamaica," Social and Economic Studies, II (August, 1953), p. 111.

The demand for "land room," an expression commonly used in Jamaica, is almost an obsession. The demand is always for land that can be bought, not leased.[16] The farmers' experience with shoddy types of leasehold make them suspicious of any tenure system other than freehold.[17] Yet, the government is continually being urged to lease land. In 1938 the Royal Commission to the West Indies recommended that the government experiment with systems of tenure other than freehold. A Tenancy Reform Committee report in 1942 pointed out that the freehold has four shortcomings: 1) the independence of farming methods created by freehold is often misused, 2) freehold encourages speculation and the rapid and uncontrolled shift of property ownership, 3) freehold allows the farmers to subdivide and fragmentize, and 4) freehold places a mortgage and heavy debt upon the farmer.[18] Those who urge the government to lease land, rather than sell it, generally favor government regulation of agricultural practices.

Physically, the island is limited in the extent to which it can meet social demands. By 1962, government figures indicated that there were 1.7 million acres of farm land, or

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[16]Edith Clark, My Mother Who Fathered Me, (London: George Allen and Unwin, Ltd., 1957), p. 64.

[17]Economic Organization of Small-Scale Farming Based on Citrus, Ground Provisions, and Livestock, 1958-1961, (Kingston: Government Printing House, 1964), p. 14.

[18]Tenancy Reform Committee, Report, (Kingston: Government Printing House, 1942), p. 2.

about one acre per person, on the island. Yet, about 300,000 acres lie idle and a mere 351 people own approximately 40 per cent of the land.[19] Over 60 per cent of the population makes the major part of its living from the remaining land.

The desire to own land exerts political pressure in favor of fragmentation, while men involved in planning the economy recommend land consolidation among the very small farmers. An FAO report to the government of Jamaica in 1963 recommended that small farmers should become agricultural workers on larger estates and that the government should stop creating small farms.[20] Dr. T. Balough, an economist, also recommended that land settlements should be discontinued because they create "inefficient units."[21]

The desire for land is not likely to decline soon. The increasing pressure of population and the problem of unemployment continually reinforce the desire for security which the rural people equate with the ownership of land.

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[19]I. E. Johnson, personal interview held in the office of Economics and Statistics, Ministry of Agriculture and Lands, Kingston, June, 1968.

[20]United Nations, Food Agriculture Organization, Report to the Government of Jamaica, by Rene Dumont, (FAO Report No. 1717, 1963), pp. 75-76.

[21]Robert Kirkwood, A Farm Production Policy for Jamaica, (Kingston: Sugar Manufacturers' Association of Jamaica, Ltd., 1968), p. 22.

Agricultural Planning and the Rural Populace

Government officials investing large amounts of labor and money in elaborate agricultural plans are often disappointed with the results. The response of the farmers and the visible signs of improvement are not always what they were hoped to be. Part of the problem is the lack of co-ordination of goals and interests between the people making the plans and the farmers receiving the help. This is due largely to a lack of information, rather than to a lack of desire to help or be helped. Agricultural agents, for example, are equipped with technical data, but are not always familiar with the economics of farm management.[22] They also have had little training in rural sociology. An FAO report states that "A sensitiveness to social environment and to social needs of rural people may be just as important an attribute of a co-operative officer as administrative competence in the narrow sense."[23]

Farmers are greatly handicapped in the amount of information they can comprehend. E. L. Braithwaite said that "the basic knowledge requisite for rural population does not exist."[24] The greatest single weakness is in the poor quality of education that the farmer has received.

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[22]E. L. Braithwaite, "Rural Development in the West Indies," (International Sociological Conference, Mona, 1962), p. 10.

[23]FAO Report, "Co-operatives in the Caribbean," Caribbean Economic Review, (December, 1952), p. 33.

[24]Braithwaite, op. cit., p. 3.

Educational opportunities in rural areas are clearly not adequate. This can be measured by the much larger percentage of school-age population attending secondary schools in the urban parishes than in the rural.[25] Rural schools cannot adequately handle the number of students that should attend, and the best teachers avoid the rural areas in favor of the largest cities.

Rural life makes it difficult for children to take advantage of the opportunities they do have. Achievement is hindered by desultory attendance and high drop-out rates associated with distance of residence from the school, weak family organization, uncertain paternity, and other unfavorable social and economic conditions.[26] Many children go to school only three or four days per week because they are needed at home. Poor diet and poor health prevent them from working to the best of their ability. Also, their life outside of the classroom does not employ much of what they learn in the classroom.

Another problem with rural education is the system itself. The educational system of Jamaica was a copy of that existing in Great Britain, a product of the industrial revolution and not necessarily conducive to improving farmers' skills. Education provides a source of social mobility and

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[25]G. Edward Ebanks, "Differential International Migration in Jamaica," Social and Economic Studies, XVII, (June, 1968), p. 206.

[26]Clark, op. cit., p. vi.

escape, but it is not adapted to farming. Science, for instance, was introduced into secondary schools, but nowhere is the secondary education concerned with agriculture. Agricultural schools that do exist are not comparable in status with other educational institutions.[27]

Until the government has more information on how the Jamaican farmers think, plan and dream, and until the farmer is better educated to use the information the government does offer, results of the agricultural planning will continue to be disappointing.

Conflicts within the Agricultural Policy

The agricultural goals of the Jamaican government, as outlined by the Honorable J. P. Gyles, Minister of Agriculture and Lands, are listed in Table 1. A major part of government policy is concerned with improving the agricultural economy and agricultural production. Jamaica's gross national product increased 8 per cent per annum during the 1950's and 1960's, while the agricultural sector increased only 3 per cent. The agricultural labor force, 38 per cent of the total, contributed only 12 per cent of the gross national product.[28] There are also social goals in the policy, such as a more favorable public attitude toward agriculture as an occupation.

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[27]Braithwaite, op. cit., p. 10.

[28]Owen Jefferson, "Comments on Agricultural Development and Planning in Jamaica: Papers by Edwards, McFarland, Singham, Johnson," (Third West Indies Agriculture and Economics Conference, Mona, Jamaica, April, 1968), p. 1.

TABLE 1. GOALS OF THE AGRICULTURAL POLICY OF THE JAMAICAN GOVERNMENT

1. To ensure that agriculture makes its fullest contribution to the economic sector.
2. To attain a sound pattern of land use through full utilization and conservation of natural resources, taking into account economic as well as agronomic considerations.
3. To produce locally as much of the nation's food supply and raw materials as is economically sound, with special emphasis on high-protein commodities.
4. To produce for export those commodities that can be sold at a special advantage.
5. To achieve the widest possible distribution of opportunity for ownership to persons who are able and willing to make proper use thereof.
6. To establish and maintain favorable and efficient marketing arrangements for all the agricultural commodities which are of significance to the economy.
7. To remove the stigma attached to agricultural work by improving the status of farmers and farm workers, and to create an image for agriculture which is not inferior to that of other sectors.
8. To establish greater integration between agricultural production and other sectors of the economy, particularly through the use of agricultural materials in the further development of processing and manufacturing industries.
9. To make agriculture as attractive an investment as other sectors of the economy.
10. To help the farmer achieve an improved living standard, narrowing the gap in remuneration between the agricultural sector and other types of employment.

Source: J. P. Gyles, Opening Address, speech presented at the Third West Indies Agriculture Economics Conference, Mona, Jamaica, April 6, 1968.

From 1962 to 1968 the two instruments designed to carry out the agricultural goals were the Farmers' Production Programme (FPP) and the Land Reform Programme. The FPP succeeded the Agricultural Development Programme of 1960-1962 and the Farm Development Schemes of 1955. The latter two programs were designed to facilitate a rapid increase in production and an improvement in the rural standard of living. Despite heavy government investments in loans and subsidies, the programs had little impact upon total production.[29] The FPP continues to offer loans and subsidies, however, through the Marketing Cooperation which gives farmers an assured market. It also finances research on crops produced for local consumption and various other projects.

The newest innovation in the Farmers' Production Programme is the Dairy Industry Development Scheme. The island's condenseries need 30 million quarts of milk each year, of which the local industry supplies only 11 million quarts. The remainder must be imported. The FPP proposed creating 160 middle-sized dairy farms, between 15 and 30 acres each, to double the national milk production within ten years. The Lands Department subdivided the first groups of dairy farms in the Rhymesbury area and provided roads, electrical power, and irrigation. AID supported the program with loans and

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[29] Five Year Independence Plan, op. cit., p. 89.

technical advisors. When a dairy farmer begins, he has already received one year of intensive training for dairy farming. He moves onto the unit worth U.S. $25,000, covered by a mortgage payable in twenty-five years. The farm includes a house, out-buildings, and dairy equipment, including two electric milkers and a 150-gallon storage tank. The farmer is eligible for subsidies for pasture fertilizer and to hook up to the irrigation system. AID has also provided funds to loan to the farmer for subsistence until he receives his first milk check. Thereafter a small amount is deducted from each milk check to repay the loan.

The land around Rhymesbury is within the sugar cane zone and is relatively flat. A 25-acre farm can support twenty-five good milk cows, if they receive dry feed regularly in addition to grass. Each cow should yield about $300 per year in profit after the cost of dry feed is subtracted. A dairy farmer with twenty-five cows may gross well over U.S. $7,500 per year.

Considering both the Land Reform Programme and the FPP, it is evident that the government is working to fulfill both its social and economic goals. The middle-sized farms were designed for the economic purpose of raising milk production. Even though the dairy project is heavily subsidized, it will develop economically viable units. The smaller farms, such as those at Tremolesworth, seem designed more to meet existing social needs. The small farms are not as highly commercialized as are the dairy farms, but do

provide land to more people. In trying to serve both social and economic goals, the success of one effort often interferes with the success of others. One report on agricultural planning states that:

> Many feel agriculture should contribute not to the economy alone, but should have a heavy 'welfare' content. Conversely, if the agricultural sector is expected to increase its contribution to the total economy, then the slant will have to shift towards attaining economic goals.[30]

This statement implies an either-or emphasis. Both goals cannot be equally satisfied.

The social-economic conflict troubles the entire government. However, officials are now interested in developing a modern economy, which means that policy must be based on economic reality even it is sometimes conflicts with social customs and desires. To make the conflict even more difficult to resolve, it is precisely a modern economy that is needed to provide resources for social improvement.

In summary, although the goals of land reform are desirable, several factors within the society limit perfect execution of the program. More people want land than it is economically possible to supply. Agricultural agents have technical training, but often lack an understanding of the social factors prevailing in the area. Farmers, lacking

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[30]Rosley McFarlane, Nancy Singham, Irving Johnson, Agriculture Planning in Jamaica, (Third Agriculture and Economics Conference, Mona, Jamaica, April, 1968), p. 24.

useful education, are limited in how much government information they can absorb and apply. Government officials find it difficult to implement a modern economic policy and at the same time voice the will of the electorate.

CHAPTER V

EVALUATION AND RECOMMENDATIONS

This chapter presents an evaluation of the Jamaican land reform program and certain recommendations for change. Generally, criticism is directed not so much at the program's actions as at its perspective. Short range operations seem quite successful; long range goals appear less likely to be achieved.

Evaluation

The land reform program has succeeded in several areas. More people now own land as a result of the program. The reform program provides enough credit for the buyer to begin farming, and more land is going into production. Tremolesworth farmers have their own People's Co-operative Bank from which many have taken loans to finance the development of their land. After making the down payment on the settlement farm, the farmer's next payment comes one year later and then at six-month intervals. Settlers are eligible for a housing subsidy, through the Farmers' Production Programme, and government subsidies for water tanks and storage buildings, and crop subsidies under the Marketing

Co-operative. Although all farmers in Jamaica are eligible for subsidies, the reform-program farmers have at present a better chance of receiving such money than those living off the settlement.

Potentially, the land reform farmers have a better chance of improving their farming methods. They have constant contact with reform officers on the settlement who can offer advice or refer them to other sources of information. Because of the farmers' traditional background and limited education, face-to-face contact with technical advisors is the most effective way of implementing change. There are not enough agricultural agents to meet the needs of the country, and the reform farmers have more frequent contact than those off the settlement.

It has been noted that Jamaicans are traditionally more oriented towards kinship loyalty than to the community. The settlement is, by its very definition, an established community. This does not automatically make a community feeling, but the people can be called together for settlement business. Tremolesworth farmers, through the Settlers Association, called in a government agent and are taking instructions on the establishment of a banana packaging plant, which will help them in at least three ways. First, they will be learning good business practices, such as bookkeeping, the purchase of insurance, and learning organizational skills. Second, they will learn to trust each other, which is necessary in any cooperative effort. Third, they

will have another experience in receiving instructions. Every time they receive instructions and experience success, it will become that much easier to accept advice given by the agricultural agents on other topics. Some farmers, of course, are more involved than others.

While the land reform program does get land under production immediately, this is no guarantee of long-range production. The Lands Department investigated farms incorporating more than 100 acres, seeking idle land to divide and sell. David Edwards, however, in his study of small farms found that one-half of the idle farm land in Jamaica belongs to small farmers.[31] When small farmers find other work, they take it, but they do not sell the unused land or even rent it.

The small farmer tends to use poor conservation practices on his land. Although land reform farmers have a greater possibility of improving their methods, the present study found only about half of the farmers interviewed to be changing. The reform program has specific regulations controlling the use of reform land, but government officials have not yet demonstrated that they are willing to enforce the regulations. After the original farm is paid for, the government has no more control over the farming practices other than to prohibit farmers from further subdividing the land.

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[31]Robert Kirkwood, A Farm Production Policy for Jamaica, (Kingston: Sugar Manufacturers' Association, 1968), p. 14.

There is no evidence to indicate that the program has, or has not, increased farm production. Evidence is obscured because of the limited statistics available. There are accurate figures for the total of crops exported, but there is little data on crops raised for use on the island. The land officials on Tremolesworth keep records on total production of crops sold commercially, but there are few statistics on small-farm production off the reform settlement and no records of inputs and costs. It seems reasonable to assume that production has increased as a result of more land being brought under cultivation but there is no way of knowing whether or not production increased because of improved methods.

Although the availability of credit has increased for reform farmers, and their income has increased slightly from additional land use, there is little evidence to indicate that the reform program has significantly improved their standard of living. They are still small farmers. In addition to increasing farm income, the added land has increased costs. The margin of profit under traditional farming methods is still very narrow. It is even reasonable to predict that the inflation occurring on the island, and agricultural competition from other countries, will soon negate the increase achieved by receiving additional land.

Recommendations

Captain F. Burnett, the first Commissioner of Lands, recommended in 1938 that settlement farms should be no less than ten acres in size and that the government should provide certain amenities such as roads, water, electricity, and schools. In disregard of his recommendations, the settlement farms were made small, most under five acres. So much money was tied up in the purchase of land that little was left for development. In 1950 the practice of making small farms was still in vogue, not only in Jamaica but in the Caribbean as a whole. Professor Arthur Lewis, evaluating the situation, recommended that "the only way that agriculture in the West Indies can be made to yield its workers the standard of living they require is by greatly reducing the persons employed per hundred acres, and substituting mechanical power for human labor."[32] After achieving independence in 1962, the Jamaican government, before starting its reform program, asked FAO advisors to evaluate the existing agricultural situation. The economist Rene Dumont submitted to the government a report recommending "that the present policy of land settlement must be halted quickly as possible and reversed, for it creates mainly inefficient farms."[33]

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[32] Ibid. p. 15.

[33] Ibid. p. 23.

The reform program was planned in 1964 and the pilot program started at Tremolesworth in 1966. With the exception of the Dairy Farm schemes, the needs in 1968 are the same as they have been for thirty years: 1) to make bigger farms (over fifteen acres) instead of smaller ones, 2) to mechanize the farms, and 3) to remove excess labor from the agriculture sector and employ it in industry.

To progress from subsistence to commercial farming, Jamaicans must have larger farms. The only way one man can farm more than seven acres is to hire help or to mechanize. Dr. David Edwards figured that in 1961 one hour of manual labor grossed about U.S. 12½ cents worth of produce. Wages are about $1.25 per day, or about equal to what the man produces, and it is therefore not economical for a farmer to hire manual labor. Another labor source is a large family. Since one of the greatest problems on the island is a high birth rate, the government does not want to give the farmer an incentive for having a larger family. Ideally, larger farms and mechanization are the answers.

Government officials have known for thirty years that Jamaicans need larger and mechanized farms, and that excess agricultural labor must be absorbed by industry. Indirect influences outside the reform program, however, interfere with making the necessary changes. The widespread demand to own land puts pressure on elected officials to increase the number of landowners, rather than decrease it. Mechanization threatens unskilled Jamaicans with unemployment.

Machinery must also be imported, making it expensive and not always perfectly adaptable to Jamaican needs. The inadequate educational level of the farmers makes it difficult for agents to train them to use machinery and scientific methods or to receive training for industrial employment. Furthermore, the number of jobs available in industry is limited. Recommendations, then, must be made within the total scope of the economy and society if they are to be of any value.

At this point a second extreme must be avoided. It might be tempting to recommend reformation of the total economy and society to establish the ideal situation for the reform program. It would be easy to recommend that Jamaicans lower their birth rate, improve rural education, increase agents' training in agricultural economics and rural sociology, gather and analyze more sociological and economical data, increase industry to absorb rural labor, make only economic-sized farm units, regulate conservation practices, increase marketing efficiency and facilities, zone the production of crops, start a social security program that would include farmers, and maintain a democracy that values individual rights. Obviously, Jamaicans dedicated to building a modern economy want to do all of the above, but with the restriction of limited resources there must be a list of priorities. For success in the land reform program, three needs appear to merit primary attention: research, education, and larger farms.

Research is needed in at least three areas before the reform program can be significantly improved. More extensive data concerning the agriculture sector are needed, as are research in rural sociology and research to find better uses of the resources available. The government is involved in all of these, but to a very minor extent in relation to needs. Many agents keep records of total production, for example, but do not calculate inputs of labor and fertilizer, or depreciation of natural resources. Without such information it is extremely difficult to efficiently plan improvement of methods or alternate uses of resources. In most cases the problem is not one of establishing a system by which to ask questions and record information, but of simply using the system already organized to ask significant questions and record enough information.

Government officials know a great deal about how the farmers will react to programs, and they know that some traditional methods need to be changed. But until they have a better understanding of the sociological influences that prevail in the rural community, it will be a slow and difficult, if not impossible, process to change negative or indifferent behavior. Anthropologists, sociologists, economists, geographers, and their students pour over the island from Canada, Great Britain, and the United States. The University of the West Indies has an impressive faculty and 1,200 students on campus, many of whom are engaged in local research projects. The government is usually called upon for

assistance. It might be immediately useful for the government to analyze available research material and send useful data to the appropriate offices. More important, the government should increase its own personnel assigned to gather and analyze information.

If Jamaica is to achieve a modern economy, farm production must increase even as the agricultural labor force decreases. This means that Jamaican farmers must mechanize. The only machinery available at present is imported, which makes the cost prohibitive for small farmers. Machinery must either be imported and sold under subsidy at first or produced on the island. Studies are needed to determine what machinery, if any, can be produced locally more cheaply than imported. Economists already know that Jamaica cannot easily become a nation of heavy industry, because of the lack of basic resources and power. Light industry is possible if organized efficiently.

Alternate uses of resources should also be considered. Could the $3,400 per family used to settle Jamaicans on seven-acre farms have been used more effectively in some other endeavor? Could it have produced more jobs if it had been invested in industry, or if it had been used to train the farmers for a different occupation? Jamaicans need to have such information before they develop additional reform settlements.

The improvement of rural education should remain high on the priority list. The need is for both more and better education. First, the educational system must be evaluated to see what has been accomplished and then to determine where it can best be changed to meet the needs of the people. Generally, rural education must be more applicable to rural life. Yet, it must not be entirely pragmatically oriented towards farm life, because many children will not remain on the farm. To prepare them for a different life, or a better rural life, the system must start where the students are and move on from there. Specifically, the schools should at least teach students the technical vocabulary that they will hear government agents use on the farm.

Better education has far reaching effects. Birth control and health advice is more likely to be used in a better educated society. Therefore, in priority, education should come even ahead of some welfare programs. A combination of research and education will help the over-all economy. The better educated farmer can make more effective use of the information already available to him. Better educated farm children can be trained for industrial jobs. Research will help officials make more efficient use of the resources available.

Actually, the reform policy is doing what people are demanding be done. People are buying land, and the government is getting land into production. But this is not improving agriculture on a long-term basis. The land reform farms are

mainly carved out of mountainous land. Traditional farming techniques practiced on mountainous terrain soon ruin the land. The reform farms are too small to meet economically the rising expectations of the Jamaican farmer or to compete in the world agricultural market. Men in government have heard recommendations for bigger farms and mechanization for thirty years. Needed now is an educational campaign to convince the public that the recommendations for larger farms and mechanization are sound. Revision of a policy on paper is not enough. Men must have clear convictions before they dare act or care to change. The campaign must convince the general public that the remaining land should be divided into larger farms. This will necessitate replacing the Jamaican social goal of land ownership with another goal, money, since money is the easiest "reward" for a modern economy to supply.

Because it is not likely that the reform program will be ended, the government can meanwhile help by continuing subsidization and by placing increased emphasis in two areas.[34] First, it must devise a better method of selecting men most capable of using the land productively. Over 1,200 people applied for lots on Tremolesworth, and only 110 agricultural lots were available. Since the government cannot help

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[34]Hugh Shaw, Manager of the Land Development and Utilization Commission, mentioned these points in a personal interview, June, 1968, in Kingston. Subsequent field research produced data in support of his thesis.

everyone who needs help, it should employ a merit system for the selection of those who have the greatest potential for success. Second, the government must substantially improve the marketing system. No farmer will produce commercial crops unless he knows he has a market. No businessman will start a good processing plant unless he knows he has a reliable supply of produce. The government must increase its effort to correlate supply and demand.

If the above recommendations are undertaken, politicians will deserve much praise. Farmers are in need now. Many pressure groups are pleading for attention. Elected politicians must show something they have accomplished, and many of the recommendations would not bring immediate results. But a modern economy requires costly, long-range planning, elimination of waste and duplication, and the coordination of all economic sectors. It cannot be built simply by patching up the traditional economy.

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APPENDIX A

APPENDIX A

QUESTIONNAIRE - TREMOLESWORTH

LAND SETTLEMENT

Date of Visit.....

FARMER

1. Name of Farmer/Operator.....F ( ) M ( )
2. Place or Residence.....
3. Date of Birth.....
4. Date Started Present Farm.....
5. THE FARMER AND FAMILY COMPOSITION

Member of Family	Composition		Literate		Standard of Education	No. Assisting With Farm Work	
	M	F	Yes	No		Part Time	Full Time
Farmer							
Wife/ Husband							
Children 0 to under 15 years							
15 to under 21 yrs.							
Other Dependents (able-bodied)							
Other Dependent (infirm)							

6. A. FARMING EXPERIENCE AND TRAINING PRIOR TO SETTLEMENT

(a) Did you cultivate any land Yes ( ) No. ( )

If Yes, name crops

Crops	Acreage
.....	.....

(b) Did you own any animals Yes ( ) No ( )

Kind	Value (approximate)
.....	.....

(c) What major type of work were you engaged in other than farming?.....

(d) What was your total earning per week?.....

B. Did you participate in any of the following?

Farmers' Courses	( )
Demonstrations	( )
4-H Projects	( )
Others	( )

7. From whom did you learn most about farming?

Parent	( )
Relative	( )
School Teacher	( )
Farmer	( )
Others	( )

8. PRESENT FARM

(a) How many acres actually cultivated?.....

(b)

Crops	Where Marketed	Method of Transportation	Approximate Return Weekly
Bananas	_____	_____	_____
Coconuts	_____	_____	_____
Plantains	_____	_____	_____
Vegetables	_____	_____	_____
Others	_____	_____	_____
Livestock			
Pigs	_____	_____	_____
Goats	_____	_____	_____
Others	_____	_____	_____

(c) What other sources of income do you have?.....

.....

(d) Do you cultivate land elsewhere? If yes, how much time a week do you spend off your Tremolesworth farm?

.....

(e) Did you grow any crops you did not sell (list), why not?

.....

(f) Where do you obtain?

Fertilizers.....

Seeds.....

Breeding Stock.....

Farm Machinery.....

9. CAPITAL RISK

(a) Have you taken any loans? If yes

Source		Purpose	
Private (e.g. family)	( )	Purchase land	( )
Commercial Bank	( )	Farm Buildings	( )
P.C. Bank	( )	Improve Land	( )
Others	( )	House Amenities	( )
		Others	( )

If not, why?.....

(b) Have you received a Government-subsidy?

What for?.....

(c) If you could get more credit would you take it?

Yes ( ) No ( )

10. ATTITUDES TOWARDS THE USE OF CREDIT

(a) If you wanted to buy more land, would you

___ prefer to take a mortgage?

___ prefer to wait?

(b) If you needed more fertilizer, would you

___ borrow in order to get it?

___ get only what you could pay for?

(c) If you needed more livestock, would you

___ borrow in order to buy soon?

___ wait until you could pay cash?

11. OBSTACLES

What are the greatest difficulties you have as a farmer?

.....

12. ATTITUDES TOWARDS FARMING

(a) Is there any other job you would rather do than Farming? (name)

.....

(b) What do the children plan to do when they leave school?

.....

(c) Would you urge your sons/daughters to do farming? If not, why?.....

(d) If you needed advice on farm problem to whom would you go?

Members of family.....

Good farmer.....

Neighbour.....

Lands Officer.....

Extension Officer.....

Co-op. Officer.....

No one.....

13. VALUES AND GOALS OF THE FARMER

A. Here is a list of things some farmers think are important. Which do you think are most important to you in decisions you make about farming?

1. Owning a farm free from debt.

2. Having modern machinery and buildings.

3. Making a living at least average in the community.

4. Being recognized as one of the better farmers in the community.

5. Making the highest possible income from the farm.

B. What progress have you made in accomplishing the things you wanted from farming during the past 2 years?

.....

C. What changes have there been in the things you consider important in the last 2 years?

.....

D. What of these things give you the most satisfaction as a person?

1. Being active in organizations and the community.

2. Having modern conveniences in the home.

3. Providing the children with a good education.

4. Having influence in community affairs.

14. CONTACTS

(a) How often do you see an Agricultural Officer?

_____weekly _____monthly _____quarterly _____yearly

(b) Do you need more visits? Yes ( ) No ( )

(c) Have you been to see an officer? Yes ( ) No ( )

Where did you go?.....

(d) What was the type of problem? _____Financial

_____Legal _____Marketing _____Planting

_____Other

(e) How helpful do you find the officials?

_____Very helpful

_____Quite helpful

_____Helpful

_____Not very helpful

15. A. LIVING CONDITIONS

(a) Are your living conditions more satisfying than before? Yes ( ) No ( )
Check better or worse.

B ( ) W ( ) cooking facilities

B ( ) W ( ) water

B ( ) W ( ) lighting

B ( ) W ( ) room space

B ( ) W ( ) furniture

B ( ) W ( ) community services

(b) Where do you go for health services?.....

(c) What plans have you to improve home conditions?

.....

(d) What led to your decision to move to Tremolesworth?

.....

B. What is a usual meal?

Morning meal.....

Mid-day meal.....

Afternoon meal.....

If not mentioned enquire about eggs, fruits.

C. About how much is -

(a) the approximate cost for a day's food?

.....

(b) Where do you do most of your shopping?

(i) grocery.....

(ii) vegetable.....

D. How much does it cost to send one child to school?

Transportation (week) .....

Lunch (week) .....

Books/pencils (term) .....

Clothing (term) .....

School activities (term) .....

16. A. FAMILY PARTICIPATION IN ORGANIZATIONS

(a)

Group	Place Held	Attended by Adults	Attended by Children (12+)	Weekly or Monthly
J.A.S.				
P.C. Bank				
Home Economics				
Commodity Association				
Boys' Clubs				
Girls' Clubs				
PTA				
Church				
4-H				
Settlers' Association				
Other				

(b) What other activities would you like to see in the area?

.....

(c) Are you planning to join the Co-op. Buying Station?

.....

(d) Are you satisfied with the Settlers' Association? If not, how could it be more useful?

.....

B. How do you spend your leisure time?

(a) With family on farm

(b) Visiting neighbours

(c) Visiting friends/families outside Tremolesworth

(d) Attending cinemas

Where.....

(e) Other social functions

Where.....

C. Are you anxious to see the Community Centre built?

(a) What is the community doing towards taking responsibility for the Centre?

.....

(b) How best do you see the Centre used?

.....

COMMUNICATIONS

D. Do you receive any of the following?

Daily Gleaner

Farmers' Weekly (J.A.S.)

McDonald's Almanac

Others

E. Do you have a radio? If yes, what is your favourite programme?.....

If not, where do you go to listen to your programmes?

.....

17. GENERAL COMMENTS

APPENDIX B

APPENDIX B

QUESTIONNAIRE - HARMONY HALL

Date of Visit.....

FARMER

1. Name of Farmer/Operator.....F ( ) M ( )
2. Place of Residence.....
3. Date of Birth.....
4. THE FARMER AND FAMILY COMPOSITION

Member of Family	Composition		Literate		Standard of Education	No. Assisting With Farm Work	
	M	F	Yes	No		Part Time	Full Time
Farmer							
Wife/ Husband							
Children 0 to under 15 years							
15 to under 21 yrs.							
Other Dependents (able-bodied)							
Other Dependent (infirm)							

5. (a) Is your farm_____inherited _____rented _____purchased

(b) Date Started Present Farm.....

6. Do you participate in any of the following?

Farmers' Courses	( )
Demonstrations	( )
4-H Projects	( )
Others	( )

7. From whom did you learn most about farming?

Parent	( )
Relative	( )
School Teacher	( )
Farmer	( )
Others	( )

8. PRESENT FARM

(a) Where.....

(b) How many acres actually cultivated?.....

Crops	Where Marketed	Method of Transportation	Approximate Return Weekly	Distance
Bananas				
Coconuts				
Plantains				
Vegetables				
Others				
Livestock				
Pigs				
Goats				
Cows				
Others				

(c) What other sources of income do you have?

.....

(d) Do you cultivate land elsewhere? How far from present farm?.....

(e) Do you employ additional labour?

(i) Approximately how many man-hours per week?.....

(ii) Approximate labour bill per week (exclude family)

.....

(f) Did you grow any crops you did not sell (list), why not?.....

(g) Where do you obtain?

Fertilizers.....

Seeds.....

Breeding Stock.....

Farm Machinery.....

Suckers.....

(h) What major type of work are you engaged in other than farming?.....

9. CAPITAL RISK

(a) Have you taken any loans? If yes

Source		Purpose	
Private (e.g. family)	( )	Purchase Land	( )
Commercial Bank	( )	Farm Buildings	( )
P. C. Bank	( )	Improve Land	( )
Others	( )	House Amenities	( )
		Others	( )

If not, why?.....

(b) Have you received a Government-subsidy?

What for?.....

(c) If you could get more credit would you take it?

Yes ( ) No ( )

10. ATTITUDES TOWARDS THE USE OF CREDIT

(a) If you wanted to buy more land, would you

___ prefer to take a mortgage?

___ prefer to wait?

(b) If you needed more fertilizer, would you

___ borrow in order to get it?

___ get only what you could pay for?

(c) If you needed more livestock, would you

___ borrow in order to buy soon?

___ wait until you could pay cash?

11. OBSTACLES

What are the greatest difficulties you have as a farmer?

.....

12. ATTITUDES TOWARDS FARMING

(a) Is there any other job you would rather do than farming? (name).....

(b) What do the children plan to do when they leave school?.....

(c) Would you urge your sons/daughters to do farming? If not, why?.....

(d) If you needed advice on farm problem to whom would you go?

Member of family.....

Good farmer.....

Neighbour.....

Lands Officer.....

Extension Officer.....

Co-op. Officer.....

No one.....

13. VALUES AND GOALS OF THE FARMER

A. Here is a list of things some farmers think are important. Which do you think are most important to you in decisions you make about farming?

1. Owning a farm free from debt

2. Having modern machinery and buildings

3. Making a living at least average in the community

4. Being recognized as one of the better farmers in the community

5. Making the highest possible income from the farm

B. What progress have you made in accomplishing the things you wanted from farming during the past 2 years?

.....

C. What changes have there been in the things you consider important in the last 2 years?

.....

D. What of these things give you the most satisfaction as a person?

1. Being active in organizations and the community

2. Having modern conveniences in the home

3. Providing the children with a good education

4. Having influence in community affairs

14. CONTACTS

(a) How often do you see an Agricultural Officer?

_____weekly _____monthly _____quarterly _____yearly

(b) Do you need more visits? Yes ( ) No ( )

(c) Have you been to see an officer? Yes ( ) No ( )

Where did you go?.....

(d) What was the type of problem? _____Financial

_____Legal _____Marketing _____Planting _____Other

(e) How helpful do you find the officials?

_____Very helpful

_____Quite helpful

_____Helpful

_____Not very helpful

15. A. TYPE OF HOUSE

_____Brick

_____Cement block

_____Wooden

_____Wattle

Size _____rooms

Lighting .....gas .....oil .....electric

Water supply .....tank .....public standpipe ....Other

Cooking .....inside stove .....outside

(b) Where do you go for health services?_____

(c) What plans have you to improve home conditions?

.....

B. What is a usual meal?

Morning meal.....

Mid-day meal.....

Afternoon meal.....

If not mentioned enquire about eggs, fruits, milk.

C. About how much is -

(a) the approximate cost for a day's food?

.....

(b) Where do you do most of your shopping?

(i) grocery.....

(ii) vegetable.....

(iii) clothing, etc.....

D. How much does it cost to send one child to school?

.....

16. A. FAMILY PARTICIPATION IN ORGANIZATIONS

Group	Place Held	Attended by Adults	Attended by Children (12+)	Weekly or Monthly
J.A.S.				
P.C. Bank				
Home Economics				
Co-op.				
Commodity Association				
Boys' Clubs				
Girl's Clubs				
PTA				
Church				
4-H				
Other				

(b) What other activities would you like to see in the area?

.....

(c) Would you like to farm on a Government settlement, or do you prefer farming off the settlement?

_____ on settlement

_____ off the settlement

Why?.....

B. How do you spend your leisure time?

(a) With family on farm

(b) Visiting Neighbours

(c) Visiting friends/families outside Tremolesworth

(d) Attending cinemas

Where.....

(e) Other social functions

Where.....

COMMUNICATIONS

C. Do you receive any of the following?

Dairy Gleaner

Farmers' Weekly (J.A.S.)

McDonald's Almanac

Others

E. Do you have a radio? If yes, what is your favourite Programme?

.....

If not, where do you go to listen to your programmes?

.....

17. GENERAL COMMENTS