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Full Name of Author — Nom complet de l'auteur

PHILIP DOUGLAS JENSEN

Date of Birth — Date de naissance

FEB. 19, 1949

Country of Birth — Lieu de naissance

CANADA

Permanent Address — Résidence fixe

2528 HOPKINS RD
OTTAWA, ONTARIO.

Title of Thesis — Titre de la thèse

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Name of Supervisor — Nom du directeur de thèse

D.R.F. TAYLOR

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THE ROLE OF GOVERNMENT POLICY IN
AGRICULTURAL DEVELOPMENT IN JAMAICA
(1962-1982)

by
PHILIP DOUGLAS JENSEN
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A thesis submitted to the
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fulfillment of the requirements
for the degree of

Master of Arts
in International Affairs

The Norman Paterson School of International Affairs
Carleton University

Ottawa, Ontario
Canada
March 5, 1984

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INT'L AFFAIRS
Department of Student

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Studies and Research acceptance of the thesis

"The Role of Government Policy in
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submitted by Philip Jensen, B.Sc.
in partial fulfilment of the requirements for
the degree of Master of Arts.

D.R.F. Taylor, Thesis Supervisor

B.W. Tomlin, Director
The Norman Paterson School of International Affairs

Carleton University
March 5, 1984

Abstract

2 This thesis examines the effectiveness of government policies in a developing country. The research concludes that the general theories of development do not seem adequate to explain the Jamaican situation; that the agriculture sector has not developed in terms of attaining adequate economic growth, improved income distribution or increased participation; that the choice of policies and the manner of their implementation has often been inappropriate and ineffective; that the agriculture sector has not been a high enough priority with any Jamaican government; that economic factors such as security and availability of land, credit, adequate marketing, and appropriate research, are very important in providing the necessary framework for agricultural development; that the agricultural policy-making structures in Jamaica do not appear to represent the interests of the majority of the rural farmers; that external forces can exercise a significant degree of influence on Jamaican agriculture.

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INTRODUCTION

Development of the agricultural sector is of great importance in most developing countries and Jamaica is no exception to this general rule. The reasons behind the importance of agricultural development are many and varied but certainly include the most basic fact that in almost all developing countries a substantial portion of the populace (and usually a large majority) both live in rural areas and are actively employed in the production of agricultural products. These people are often at the bottom end of the income scale and are usually either deeply in poverty or only marginally above the poverty line. In addition, they may have little control over decisions affecting their lives, resulting in little hope for improvement in their situation.

Beyond this major and very important factor of widespread rural poverty, development of the agricultural sector is important for several other reasons. This sector is often one of the major earners of foreign exchange, which can be used as a source of funds to foster increased development; it provides a market for goods and services produced elsewhere in the country (e.g. machinery, farm inputs, transportation and marketing services); and finally, this sector usually (except in extreme cases) produces the food that feeds the population.

Even if the importance of agriculture has been recognized by most developing countries, it has not often been easy to translate this desire for agricultural development into actual fact. As a result, agriculture has often not developed to meet the needs of the country, and this is the case in Jamaica.

In addition, studies and reports on failing agriculture, by both domestic and international agencies, have often failed to take an inter-disciplinary

approach to development, often focusing mainly on a few economic factors. It is the viewpoint of this study that a more comprehensive approach is needed to determine how agricultural development (including policy-making) occurs and to explain why development succeeds or fails.

The main contention of this study is that, despite the efforts of several well-intentioned governments, agricultural development has not yet occurred in Jamaica, and to some extent this sector has actually stagnated. It is also this paper's hypothesis that this lack of development has occurred because of a number of internal and external forces and constraints that have so far shaped and influenced the development of the agricultural sector in Jamaica. These forces will be examined in some detail in the body of this paper.

First, however, it should be pointed out that development is a concept for which there is no single and ready definition. An attempt will be made to define development in Chapter 1 and to discuss the features of development that are considered to be important by many analysts. Briefly however, agricultural development for the purposes of this thesis will be (somewhat arbitrarily) defined as: steady increases in real economic growth (2% and above); improved income distribution so that wide disparities between rural and urban areas are narrowed; and finally, effective participation by rural families in decision-making that affects their material and physical well-being.

Chapter 1 (1.2) also attempts to assess the applicability of current development models in explaining agricultural development (or the lack thereof) in Jamaica. The literature on agriculture in development theory will be reviewed and the major theories analysed as to their limitations and potential effectiveness in explaining development. Strategies ranging from top-down to bottom-up development will be looked at as well as those

strategies involving the use of free-market mechanisms compared to those involving a high degree of state control. In addition to these specific theoretical discussions, a brief history of the post-war evolution of some relevant features of agricultural development theory will be detailed. Included in this review of the body of theory will be a discussion of the increasing recognition of the importance of participation as a key ingredient in the development process.

In order to provide perspective for the analysis presented in this paper, Chapter 2 will provide a brief historical overview on Jamaican agriculture. Analysis and detail will be limited to a discussion of those factors felt important in providing perspective on the state of agriculture by the start of the period under study (1962). In addition to this historical discussion a description of the salient features of Jamaican agriculture in 1962 will be provided. Jamaican agriculture was and is characterized by many features common to most Third World countries but has unique characteristics which have influenced agricultural development in this country.

Chapters 1 and 2 provide the background for the central theme of this thesis - an examination of the role and effectiveness of government policy in providing the framework for sustained agricultural development. Chapter 3 first provides a detailed description of the characteristics of agricultural policies introduced under the two main political parties that were in power during the period of study (1962-1982). This period was chosen because independence occurred in 1962, because policy-making involved two distinctive and contrasting political outlooks, and because at least a twenty-year period was considered necessary for this type of analysis. These policies are then analysed (with as much quantitative data as possible) in order to determine how effective they have been in maintaining economic growth, and in increasing

income distribution and rural participation in decision-making. The hypothesis that the three features of development as defined above have not been realized will be tested.

Chapters 4 and 5 examine the next major hypothesis of this paper - i.e. agricultural development has been shaped, influenced and constrained by both internal (domestic) and external (international) actors and forces. For the purposes of analysis the internal factors are categorized as economic, political and socio-cultural. These two chapters will draw heavily on descriptive and, where available, quantitative analysis in order to form the basis for formulating acceptable and relevant conclusions.

The economic factors to be discussed include: land ownership and tenure; pricing and the role of the marketing systems; provision or availability of necessary inputs and infrastructure; and the role and importance of appropriate research in agricultural development. These factors will be analysed to determine who benefits from the present system and the potential losses and gains that could accrue with changes in land tenure, the marketing system and in the type of research performed.

Although the economic factors that have influenced agricultural development in Jamaica are crucial to an understanding of the development process, at least as important is an adequate explanation of the political process. Who controls the state, who benefits, who loses and who does what to whom are all very relevant questions in an explanation of development. In order to provide some answers to these questions three areas will be examined in Chapter 4.2: which groups controlled policy formulation during the period under study, and how did this affect agricultural development in Jamaica; how effectively have general government policies been translated into specific and effective agricultural programs; and finally how extensive was

participation in decision-making in Jamaican agriculture from 1962 to 1982.

The third major internal influence on agricultural development in Jamaica - socio-cultural forces - is also considered to be of major importance in any explanation of the development process. In particular, attitudes towards risk, credit and land ownership; the social status of agriculture and the expectations of the rural populace; the role of the educational system; and the lack of well-defined rural communities (when compared to other countries) are factors that must be considered in explaining successes or failures in agricultural development policies.

In addition to these analyses of the internal forces that influenced agricultural development in the period under study, it is felt by the author that a brief examination of the role of external influences and actors can also shed considerable light on the situation.

Jamaica is a small island country, both limited in its economic power because of its size, and also unable to realize the economic benefits that countries with larger domestic markets (such as India and Brazil) have been able to achieve. As a result, Jamaica has been strongly influenced by trade decisions in developed countries as well as by the influence of transnational corporations with headquarters outside Jamaica. These influences will be discussed in Chapter 5, but time and space will not permit an analysis as detailed as that on internal constraints and forces.

In the final Chapter conclusions and implications from the data and analysis in the previous Chapters will be formulated. An attempt will be made to answer the question put forward earlier as to why agricultural policies in Jamaica from 1962-1982 have only achieved limited success. If the policies were wrong, it will be explained why they were wrong by examining the internal and external forces shaping agricultural development in Jamaica.

Another question that will be answered is the difference, if any, in the effectiveness of the two major governments in achieving agricultural development. An attempt will also be made to determine if the development model matters, i.e. can the state overcome external constraints, resource endowments and its historical legacy? Recommendations will then be made as to how agricultural development can best be achieved in Jamaica, keeping in mind the actors affecting and the constraints on this process. In doing so, conclusions can be formulated as to the explanatory power of both agricultural development theory and development theory in general. Finally, implications will be identified for those involved in agricultural and development policy formulation in Jamaica, and, hopefully, elsewhere in countries with similar circumstances.

Data used in this study are drawn from a combination of both primary and secondary research in Jamaica and Canada. Research in Jamaica consisted of interviews with staff in the National Planning Agency, the Ministry of Agriculture, the United States Agency for International Development; with Jamaican farmers; and with several foreign businessmen involved in agriculture in Jamaica. In addition, much written material, reports, and data produced by both international agencies such as the World Bank, FAO, and USAID as well as by the Jamaican government departments that was not available in Canada was collected as part of this study. The tables in this study have been prepared by the author (except where otherwise noted) and are from the most recent and authoritative source that could be found.

CHAPTER 1. AGRICULTURE AND DEVELOPMENT THEORY

1.1 Towards a Definition of Development

Historically, the development process has been shown numerous times to be a very complex one. This observation is now widely accepted simply because prescriptions for development initiated during the past 30-40 years often have not worked well or, in many cases, not worked at all. Many of these prescriptions were economic in origin and did not take due consideration of various political, social, cultural, and physical factors that could and did affect the development process. As a result of the inadequacies of any one body of theory (usually economic, but often political) in explaining development, the study of development is now considered to be an interdisciplinary one. In addition to the complexity of the development process, it is often country-specific and different peoples have sharply contrasting views as to what is and what is not development.

Development is generally considered to be of importance because it is a process that should ultimately lead to the fulfillment of human beings. O'Manique¹ has noted that this process should be one over which humans have both control and responsibility and it should be directed towards goals considered to be good by these humans. This process can and should lead to human beings' fulfillment in a physical, mental, social, and spiritual sense.

Goals considered to be good lead one into a discussion of what are human needs in a comprehensive sense. This subject is beyond the scope of this paper but it can be briefly noted that much research has been done on this subject in international bodies such as the United Nations. Most countries would probably agree with the definition proposed by International Labor

Organization in 1976 (and adopted by the World Employment Conference the same year):

First, they (basic needs) include certain minimum requirements of a family for private consumption: adequate food, shelter and clothing, as well as certain household equipment and furniture. Second, they include essential services provided by and for the community at large, such as safe drinking water, sanitation, public transport and health, educational and cultural facilities.

It is evident to date that satisfaction of these needs requires both a skilfull blending of public policies and a recognition of the importance of these needs. It is also evident that these needs have not always been fully considered by countries stressing development. In fact, the policy receiving by far the most attention in developing countries in the last 30-40 years has been economic growth. This policy is still recognized by virtually all development analysts as being of major importance in the development process but, as the development process has gradually been shown to be complex, and as development theory has evolved to be considered interdisciplinary, so have most analysts widened their definition of development. Policies beyond economic growth are now considered to be of equal (or in some cases greater) importance than economic growth.

In particular, two factors are considered by this author (and by many others) to be of major importance in an assessment of the development process in Jamaican agriculture. These two factors are: an improvement in income distribution so rural peoples are able to satisfy more of their basic needs, and a high degree of participation by these people in decisions which affect their well-being.

Economic growth is still required in the development process because the basic needs of a large segment of the population in most developing countries are currently not being satisfied and increased production of more goods and services is needed to meet even the basic needs of the present population, let

alone a growing one. For the purposes of this study, government policies in Jamaica will be considered to be effective in providing a good framework for the economic growth aspect of development when the rural economy has grown in real terms at an annual rate of 2% or greater.

Economic growth is not enough however, and the benefits of this growth must be diffused throughout the population in an equitable manner in order to provide the means for our goal of human fulfillment. This goal is often much more difficult to achieve and it has been shown that policies designed to achieve adequate income distribution are very difficult to administer and implement, and often cause major disruptions in society.

As one analyst³ notes, from a research standpoint, this second major feature of development is much harder to quantify than is economic growth. The use of statistical measures such as Gini coefficients can provide some help in determining skewness of incomes but often not enough studies (if any) have been done on the income levels of various segments and classes of the population and therefore there is often little data to apply advanced statistical techniques to. For the purposes of this study then, an attempt will be made to derive trends from statistical material that have been gathered on rural incomes and then an attempt will also be made to determine if these incomes have improved in the period under study. This will hopefully provide an indication of the effectiveness of government policies in increasing the equity of rural income distribution.

The final factor in our definition of development - participation - is important because development is unlikely to occur unless humans have had an input in deciding the goals of the development process and also have a high degree of control over how this process occurs. The process must have relevance to their values and social and cultural needs and this is often

forgotten by state planners and as a result many well-intentioned policies run aground.

Again, however, participation is very difficult to quantify, in fact even more so than income distribution. However, for the purposes of this study, participation will be deemed to occur if rural people in Jamaica either already had or have increased their control over the development policies affecting them in the period under study.

A final note on the definition of development is that factors such as basic human needs, economic growth, etc., are obviously state-centred goals versus human-centred goals. Some authors⁴ quarrel with this concept and wonder if governments are the best agents of development. This school seems to view both Liberal-Capitalist and Marxist viewpoints as having too narrow a vision in considering the unit of development as the country and feel these approaches cover an insufficient number of human dimensions important in the fulfillment of human beings. Some authors^{5,6} have gone to the extent of including transcendental values as a fourth dimension of development and note that these are probably the ultimate objectives of the development process. Although this author has no quarrel (and a good deal of sympathy) with transcendental objectives as a fourth dimension of development it is felt that for the purposes of this study, analysis be limited to a definition of development that is restricted to economic growth, equitable income distribution and effective participation. In addition, the level of analysis will centre on the state as this was (and is) a powerful force in the lives of rural Jamaicans and as such hopefully can be made more aware by realizing its limitations in dealing with human beings.

It should also be pointed out that research into comprehensive attempts at comparing the level of development in countries is constantly occurring⁷

and that various overall measures such as the Development Index, the Physical Quality of Life Index and the Equivalent Length of Life Index are available for inter-country comparisons. However, it is felt by this author that a detailed examination of three of the major components of development is a more fruitful method towards meaningful conclusions and relevant policy implications.

1.2 A Review of Agriculture Development Theory and Selected Development Models

A general theory of agricultural development that provides satisfactory and replicable mechanisms for alleviating rural poverty and for allowing rural peoples to reach their potential has not yet been formulated. In general, most theoretical work on agricultural development (in terms of numbers of studies, but debatably, perhaps not in importance or relevance) has been done by economists searching for ways to replicate the development situation that has occurred in agriculture in industrializing Europe and North America. Agriculture has usually been treated in two ways by these economic theorists. Agriculture has first been considered for its contribution to general economic development and the literature on this emphasizes the important contributions^{8,9} of agriculture to the economy including: the supply of food and raw materials; the supply of factors to the non-agricultural sector; the earning of foreign exchange; and the provision of a market for non-agricultural output. These theories are known as the "growth stage theories" and the "simplified mathematical models of the development process" and tend to emphasize the interrelationships between sectors of the economy (including agriculture). Major theorists in this area have included Rostow, Kuznets, and Lewis and more work continues to be done even today.¹⁰ These types of models have been criticized primarily because they often have little relevance to the structural pattern in developing countries and because they

are too simplified to explain what has been found to be a very complex process (in other words - they didn't work!). The other major (and from our standpoint, more important) group of economic theorists have considered development of the agriculture sector separately.

Those economic theories concerned with agricultural development per se have tended to focus on ways to improve traditional agriculture and have stressed various mechanisms to do this such as new agricultural technology, innovation, and marketing.¹¹ Divergencies between this group of theorists have developed as to whether farmers in developing countries are efficient with their available resources or whether a transfer of technology from the north to the south designed to improve efficiency is required. This later argument is typical of many theorists who have generally advocated the transference of techniques developed in industrialized countries to developing countries. This has not just been confined to technology but has included rural socio-economic ideas such as diffusion-processes for knowledge acquirement. These ideas have not generally worked in practice and have been opposed by other economic theorists such as Schultz¹² who argue that agricultural technology is location-specific and that peasant farmers were indeed efficient in the use of their resources. Although these findings are generally held to be of major importance in agricultural development theory,¹³ Schultz has been criticized by other authors such as Beckford¹⁴ who note that he does not go far enough in his analysis. Schultz argued that the peasant farmers needed economic opportunities to encourage them to adopt appropriate technology and that this would then result in agricultural development. However, most economic theorists such as Schultz do not consider political and social factors and Beckford argues that Schultz's analysis is inadequate for the Caribbean because he does not consider the matter of resource allocation

for society as a whole. In a dualistic agricultural economy (plantations and peasants) both sectors can allocate their resources efficiently but resources for the sector as a whole may not be allocated efficiently. Peasants tend to over-utilize their land and at the same time be under supplied with resources due to institutional and structural factors, while many plantations under-utilize their resources as it is economically efficient for them to do so.

The works of these economic theorists have also been supplemented by work done by many other social scientists such as sociologists, geographers and political scientists. Generally, however, each study restricted to one discipline has experienced the problem that development is a multi-disciplinary process and theories that concentrate solely on economics or politics (or one perspective of either) often end up with too much unexplained.

An example of this narrowness and the resulting problems is noted by Mouzelis¹⁵ in his discussion of the differences between the two major schools of thought on agriculture and rural development among sociologists. These two schools see development either as being thwarted by the values of traditional societies or by the power relationships that exist between various national and international interest groups. He criticizes both these schools to some extent for ignoring relevant concepts in the other camp but also for not examining the economic under-development caused by socialist countries rather than just capitalist.

One major attempt to bring the various economic hypotheses of agriculture development together was performed by Hayami and Ruttan whose "induced development model" brought together an economic high-payoff model, the diffusion of innovation and the conservation of natural resources. It

recognizes the importance of appropriate technology, appropriate product pricing, land tenure reform and stresses the development of credit institutions and an adequate infrastructure including extension services and education.¹⁶ However, even though it initially appears to be comprehensive in its inclusion of many forces affecting development, it is still criticized for not exploring capital saving techniques and for not sufficiently examining the spatial implications.

In addition to the evolution of thought that has occurred within the separate social services more general models of development have also been formulated during the last 30-40 years. Many of the strategies for agricultural development that have been used by states (such as Jamaica) have been adopted from broader economic and political ideologies and from more general theories of social and economic development. The three major state-oriented theories in use today are Liberal-Capitalist (or Neo Classical), Reformist (or Structuralist), and Socialist (or Marxist). Each of these three broad theories has numerous refinements in actual practice, and countries such as Israel and Yugoslavia are living proof that aspects of each theory can exist together. In addition, there have been refinements within each major category and the Cuban and Chinese¹⁷ models of agricultural development are examples that have distinct differences from the general socialist one. In recent years these three state-oriented models of development have been supplemented by a model based on bottom-up development or "participation". This model could probably coexist fairly well in the Liberal-Capitalist or Reformist societies and less well in most socialist countries but does draw on aspects of all three general theories. It is important to note however that the starting point of emphasis is the reverse of the other three in that development originates at the most disaggregated level of society rather than at the upper echelons of the power structure.¹⁸

Since the two major political powers in Jamaica adopted some aspects of all of these major theories at one time or another during the period under study, an examination of the aims and limitations of these theories is considered most appropriate to our study.

The neo-classical model encompasses many of the specific aspects of economic theory that were discussed at the start of this section. This model emphasizes the importance of the free-market and concentrates on ways to improve allocative efficiency including removing over-valued exchange rates and changing technology, labour inefficiency and other factors of an economic nature. Political factors such as land reform are generally not considered as essential to economic development.¹⁹ This model is important because it has focused on how governments have discriminated against agriculture and attempted to use it as a supplier of surplus for development in urban areas.

Policies such as high export taxes on agricultural products, high tariffs on agricultural inputs and a general lack of effective policies designed to assist rural peoples have all been part of the analysis that has occurred by neo-classical economists. As pointed out earlier, this body of theory is also important because it formulated the importance of appropriate technology as an important factor in agricultural development. In addition to these positive aspects the importance of research adapted to local conditions has been identified as another major factor important in agriculture development.

However the neo-classical model also has important limitations. This model of development has emphasized the need to transform and open up traditional communities to the domestic and international economic system and private firms and the free-market have played a large role in development. Peasants are seen as essentially "rational actors" in a "western" sense, and little emphasis has been given to social values. Farmers are often classified

according to how innovative they are,²⁰ in a modernization sense, and agriculture is considered to be very much an economic activity with little consideration of political or social-cultural factors. In addition, modernization is generally considered to be good per se and little thought is given to the effects on peoples and societies substantially different than those in industrialized countries. Morris has summarized the basic problems with neo-classical economic theory as a model for agricultural development:²¹ there is often insufficient attention given to the pricing of non-renewable resources; technology can often transform social systems with overall negative impacts; this model has a lack of concern with distribution; it is assumed integration into the national or international economic system and the use of comparative advantage is always economically advantageous; under high risk agriculture poor farmers can lose their land in a single season; this approach is insensitive to the negative impacts of high capitalization and large size; market forces which allocate industries to certain locations are not always consistent with social goals; and finally the trickle-down approach is assumed to provide benefits to the population but often does not. Many of these weaknesses have also been noted by other authors such as Cline.²²

Non-renewable resources (such as land) are very important to the long-term agricultural development of a society but neo-classical theory often ignores the emphasis that must be put on the physical environment and its interrelationship with and fundamental importance to agricultural development. The adverse effects of technology on societies which are markedly different than developed nations is also a factor often overlooked, but perhaps the major fault of the neo-classical model is that from a development standpoint it is inadequately concerned with the distribution of economic benefits. In developed countries this model works because there are effective and

countervailing political and social mechanisms in place to ensure distribution occurs. In many developing countries these mechanisms are not adequately developed and as a result incomes are often maldistributed under neo-classical models of development. In addition, because developing countries still have a very high proportion of the populace engaged in agriculture and use labour-intensive methods of production, the emphasis on capital-intensive methods is often inappropriate. In short, this model of development has limitations due to its undue attention to the political and socio-cultural aspects of developing nations. As such, while it can provide valuable insights into the economic factors important to development it cannot be taken as a successful model of development that can achieve growth, income distribution and participation.

The Reformist (or Structuralist) Models of development have a heavy emphasis on the state as the agent for development, but beyond this there are several variations in how agriculture is treated. The structuralist model was first developed in Latin America during the early 1950's by the Economic Commission for Latin America. At this time this model did not generally consider agricultural development to be of the same significance as was industrialization. Agriculture was to provide food and raw materials for the non-farm sector which was in the process of industrialization. However, this school did focus attention on an important problem affecting agriculture in Third World countries - the problem of land reform. The major landowners (lati-fundia) kept land as a hedge against inflation and as a result were not very productive. The small holders (mini-fundia) did not have enough land to make effective use of their resources. The proposed solution was land reform, but as one author²³ notes there were also problems with this model in the early 1950's. Technology was not considered as of importance nor was the

conflict between rural and urban pricing policies. The structuralist approach has evolved considerably since the 1950's and is now an integral part of the thinking in many international development agencies and in several developing countries with mixed economies. There is still a heavy emphasis on a "top-down" approach and development resources are allocated from the center as they are usually considered to be too scarce to be left to local officials.²⁴ Emphasis is generally given to a comprehensive approach to development and stress is put on the provision of inputs and infrastructure. The mechanism for development is often projects, which are seen as the tool for effective agricultural development. This model for development is best described as a state-centred technocratic model that does go beyond (but not too far beyond) neo-classical theory in its consideration of economics. The major weaknesses of this approach (again summarized by Moris) include: the bureaucracy ends up being high cost and out of touch with farmers; large "efficient" units are usually favoured; it assumes technology will not have adverse effects; little emphasis is given to maintaining the systems instead of just building them; the bureaucracies are not accountable within communities; it neglects local expertise; it quite often alienates local people by failing to tap their motivation; and it generally increases the dependency of local people on outside resources.

The high cost and alienation of the bureaucratic structures under reformist regimes is one of the major problems hindering this model's effectiveness. Another problem is that although the reformist model of development is often better able in intent to concern itself with income redistribution and equity, in actual fact this process is not always forthcoming. In addition, this model often works against people's desire to develop themselves and a malaise among the rural populace results.

A somewhat different model of development than the reformist model is the participation or "bottom-up" model of development. This model places heavy focus on rural communities as the starting place for the development process. It notes that the projects designed under top-down approaches often do not work as local peoples lack the means or interest to maintain them.²⁵ This model emphasizes that rural people will only change in directions they both understand and have a desire to move in. Outside experts are seen as facilitators for development based on the peoples' needs. The focus of development is the community and high emphasis is given to using local resources and initiative. This model of development is generally considered to be a "people-oriented" model and is concerned less with economic growth than with other social needs. Community development and the use of cooperatives are often mechanisms for development of the rural areas. In terms of agricultural development, the weaknesses of this model (when used as a predominant approach) include:²⁶ local organizations often run counter to the individualizing effects of socio-economic change; organization of communities requires financial support which often cannot be continued; some processes such as disease control often require mass compliance rather than just local support; allowing communities to define their own social services often results in more services than either the country or the community can maintain; and exploitative local elites often end up controlling the local programs and as a result only the rich benefit. To date these weaknesses of the participation process have not often been overcome. However, there is still general consensus among many analysts that participation is a key ingredient of the development process. It does appear that the bottom-up approach may work best when it can be combined with one of the other three models of development. Then, the best features of this model can be allowed to counterbalance many of the negative features of the others.

The final model of development to be discussed is the Socialist or Marxist Model (or Radical Dependency Model). This model of development derives its theoretical underpinnings from both refinements of Karl Marx's work and from later dependency analysis by authors such as A.G. Frank. These analyses focus on the "production relations" and on the historical context of underdevelopment. Underdevelopment is seen as a natural process caused by the development of industrialized countries and by the evolution of international capitalism.^{27,28} In agricultural development terms, this is perhaps best expressed by the major agricultural economist with Marxist viewpoints - Alain de Janvry:

...underdevelopment cannot be treated apart from development if backward areas or countries are related by the market to the advanced areas or countries. In fact, within the world capitalist system, a theory of underdevelopment and rural poverty needs to be a theory of economic space which can explain how the contradictions of development in certain areas transform, in other areas, traditional societies into underdeveloped ones.

For Latin America--and indeed for most less developed countries that have also been integrated into the world economic system through commercial exchange ever since the beginning of colonization--analysis of rural poverty cannot meaningfully be conducted in the framework of traditional societies. Instead, such analysis should be done against a background of historical events that is dominated by the nature of accumulation in the more developed countries....²⁹

As another author³⁰ notes, agricultural and rural poverty is seen as the result of a set of contradictions in the system. These contradictions have resulted in the marginalization of developing countries agricultural sectors and are caused by the exploitative forces of international capitalism. The basis of analysis for this model is often class and class interests are seen as important in explaining underdevelopment. Both land reform and rural development projects are seen as inadequate solutions for rural poverty and societies are only able to develop when radical solutions (such as revolutions) are forthcoming.

This solution is occasionally tempered somewhat by those dependency writers in the Caribbean but the analysis of the cause of the problem is usually similar. An additional problem noted by Caribbean writers³¹ is that the factor of small size (in the Caribbean) has compounded the dependent relationship, resulting in (in their view): the level of economic activity being externally determined; the export sector having no linkage with the domestic sector; domestic prices being determined outside the system; and the level of savings being determined more by the value system and distribution of income than by the average size of disposable incomes.

The peasants in this Model are seen as being exploited by both other rural and urban classes within the country and by international capitalism. The radical solution of revolution is often initiated by working from within communities in direct efforts to raise peasant "consciousness". Development is often defined in negative terms as the removal of exploitation.³²

Socialism (or Marxism) has also experienced problems in sustaining agricultural development:³³ class based strategies have tended to divide rural communities; peasants are often classified according to arbitrary criteria and local people are often alienated as a result; the emphasis on ideological purity often creates a top-controlled bureaucratic structure; rigid planning associated with this model is usually inappropriate for tropical (or any) agriculture; the abolition of market mechanisms before administrative capacity is built up often causes a collapse in productivity; the party often does not represent rural interests and as a result they are forced to bear the costs of mismanagement by others; and the emphasis on total disengagement from capitalism often does not recognize the peasants' lack of alternative markets. These weaknesses of Marxism in agriculture are well documented and have generally resulted in many countries not resorting to this solution until the

alternative' situation was unbearable. In terms of this study, at no time has Jamaica had a Marxist state but it has occasionally borrowed some of the ideas utilized in Marxist states such as Cuba, and therefore an analysis of this model of development is considered important to this study.

In conclusion, these general models of development all offer insights into the development process but none can be considered as complete successes in terms of development. In Chapter 3 it will be seen how successive Jamaican governments adopted aspects of all four models discussed and the results that occurred. In addition those important aspects of these models that have not been used, but still have potential, will be identified in later chapters.

FOOTNOTES

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- ⁴ Johan Galtung, Roy Preiswick, and Monica Wemegah, "A Concept of Development Centred on the Human Being - Some Western European Perspectives", Canadian Journal of Development Studies, Vol. II, No. 1, 1981.
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- ¹⁴ Beckford.
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- ²⁰Jon. R. Moris, Managing Induced Rural Development, Bloomington: International Development Institute, 1981, p. 91.
- ²¹Ibid., pp. 94-95.
- ²²William R. Cline, Interrelationships Between Agricultural Strategy and Rural Income Distribution, Food Research Institute Studies, Vol. 12, No. 2, 1973, pp. 139-157.
- ²³Brandao, pp. 347-348.
- ²⁴Moris, p. 91.
- ²⁵Ibid., p. 92.
- ²⁶Ibid., pp. 93-94.
- ²⁷Brandao, p. 351.
- ²⁸Norman Girvan, "The Development of Dependency Economies in the Caribbean and Latin America: Review and Comparison", Social and Economic Studies, 1973, pp. 1-33.
- ²⁹Alain de Janvry, "The Political Economy of Rural Development in Latin America: An Interpretation", American Journal of Agricultural Economics, August 1975, pp. 490-499.
- ³⁰Brandao, p. 351.
- ³¹Adlith Brown and Havelock Brewster, "A Review of the Study of Economics in the English-Speaking Caribbean", Social and Economic Studies, March 1974, Vol. 23, No. 1, pp. 52-53.
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CHAPTER 2: HISTORICAL PERSPECTIVE ON JAMAICAN AGRICULTURE

An examination of the historical pattern of development in Jamaica is important to any understanding of the agricultural development process in this country. Jamaica is a small country, both in size and in economic power and its agricultural sector even today bears the marks of influences by more powerful countries. It has been colonized by two major powers (England and Spain) and has been economically and socially influenced by other powerful nations such as the United States and Canada.

Jamaica was discovered, in a western sense, by Colombus during his second voyage to the New World in 1494. At this time, Jamaica was heavily forested and occupied by group of Indians known as the Arawaks, who had originally come from the north coast of South America.¹ These people depended on both the sea and the land for sustenance and grew crops such as cassava, maize, and sweet potato to supplement their fishing. As no pre-Arawak remains have been found it appears the island was probably uninhabited before 1,000 A.D. At the time of the arrival of the Spanish it is estimated there were about 60,000 Arawaks on Jamaica but the whole population was eventually destroyed by European diseases and by Spanish slave-labor within a 50-60 year period.² Jamaica was occupied and used by the Spanish from 1509 to 1655 as a forward base for their operations in the Americas. They only made meager attempts to colonize the island and after the Arawaks were exterminated slaves from Africa were imported to meet their labor needs. It is unfortunate that the Arawak culture was lost (beyond the obvious humanitarian reasons) because with the loss of this culture so was lost the knowledge of appropriate cultivation techniques for the indigenous

crops which are still grown in Jamaica today. It is argued by some that these techniques have never been fully regained.

Spanish rule lasted only until 1675 when, another colonizer, the British, drove them out. The British landed in Jamaica after having been beaten by the Spanish in a battle for Hispaniola and apparently considered Jamaica an easier prize to capture. The Spanish left and freed their slaves who took to the mountains. These former slaves, known as Maroons, waged a guerilla war against the British for the next 80 years and eventually signed a treaty with the British in 1737.

Colonization by the British was slow during the early years³ but the production of sugar soon developed to be the major influence on Jamaica's (and the rest of the Caribbeans') development. The European demand for sugar increased sharply during the seventeenth century and large estates were established in Jamaica. Slaves from Africa were imported to work on these plantations for about a 150 year period, until slavery was abolished in 1838. A large planter and merchant class developed during this same period and slaves were allowed to grow their own food on marginal estate lands and sell the surplus in urban markets. When emancipation occurred a huge number of people left the estates and the plantocracy suffered an economic decline. As a result indentured laborers were imported from India and this helped restore the plantations to their former prominence. In terms of export crops, sugar was soon supplemented by coffee which had been introduced in Jamaica in 1718⁴, and quickly became an important crop for many estates.

The fortunes of sugar (and of Jamaican agriculture) during the nineteenth century rose and fell depending on the demand

in Europe. The financial situation of Jamaica was also affected and worsened by Britain's adoption of free-trade in 1848 which meant Jamaican sugar could not compete with the cheaper sugar from Cuba (where slaves were still used). During the period after slavery the rural peasants had established small holdings of their own but most of these were on the very steep hillsides and valleys that dominate much of Jamaica's landscape. As sugar fell in importance, bananas gradually became more important and for a brief period during the late 1800's, overtook sugar as the main export.

During the 1800's political changes occurred in Jamaica that would later have important influences on this country's economic and social development. By the 1860's economic conditions for the peasants had deteriorated substantially and this had the effect of encouraging political dissent. Taxation was heavy, land was not widely available, a series of droughts had ruined crops, and the price of imported food had risen due to the civil war in the United States.⁵ The Morant Bay Rebellion in 1865 between peasants and planters was the culmination of many of these problems. Prior to this the peasants had protested in order to achieve some economic redress but the situation was eventually worsened by an unsympathetic governor and a small rebellion broke out. The governor responded with even more harsh measures and the rioting was put down both quickly and very forcefully (over 400 men executed and over 600 flogged). The governor was eventually dismissed but the harsh treatment at the hands of the whites had the effect of increasing the already present racial and class consciousness. During the next 60 years this tension was only held down by more favorable economic conditions and by the continued use of authoritarian measures. As a

result of the Morant Bay Rebellion the system of representative government in place at that time was surrendered and Crown Colony status was implemented.

During the 1930's economic conditions worsened dramatically again due to diseases in bananas, storms, and the depression, and these combined with increases in population brought the simmering tensions of the previous 60 years to the fore. In 1938 widespread riots occurred again and from this period two of the most important political leaders in Jamaica's history emerged - Sir Alexander Bustamante and Norman Manley. These two men were responsible for organizing the two main political parties in existence in Jamaica today. Mr. Manley formed the People's National Party in 1938 and five years later Mr. Bustamante organized the Jamaica Labour Party.⁶ Many of the policies and ideas formulated by these two parties as a response to conditions in Jamaica during this period were later introduced when they each in turn, formed governments after independence. In addition, this period in the middle 1930's saw the first real development of widespread trade unions (a type of economic participation). The Industrial Trade Union was formed by Bustamante and this later became associated with the Jamaican Labour Party. The second major trade union formed was the Trades Union Congress, itself associated with the People's National Party.

World War II also affected Jamaica directly and during the war Jamaica was placed under British defence regulations. The importation of food was limited due to the diversion of shipping for wartime uses. One offsetting factor to these hardships was the increased employment provided by the Americans who built several bases on the island. Politically, it was not until 1944 that the island regained

representative government and one author⁷ notes that this failure by Britain to institute a more representative government earlier is one of the major criticisms of its colonial administration.

From 1944, when universal suffrage was granted, until 1959 when full internal self-government was achieved, many small changes in terms of increased political powers were systematically granted by the British. From 1958 to 1962 Jamaica was a member (with full internal self-government) of the Federation of the West Indies, an association of ten British islands in the Caribbean. However, by 1961 dissatisfaction had arisen with the federation and in August 6, 1962, Jamaica became a fully independent country.

In economic terms little changed in the early twentieth century or by the time of independence from the pattern that had been established two hundred years earlier. By 1961-1962, Jamaica was still heavily dependent on sugar for export earnings and although bauxite had replaced it as the most important earner of foreign exchange, it was still the major agricultural export at this time. (Table 1)

Table 1

Major Exports (as a Percentage of Total Exports)

	<u>1950</u>	<u>1961</u>
Bauxite and Alumina	N/A	49.3
Sugar, Rum and Molasses	53.6	26.7
Bananas	14.2	8.1
Other Agricultural Exports	17.9	7.1
Manufactured Goods	5.2	5.9
Other Products	<u>9.1</u>	<u>2.9</u>
Total	100.0	100.0

Source: Economic and Social Surveys, and External Trade, Government of Jamaica

The major trading partner was still the United Kingdom but the United States and Canada also played increasingly important roles (Table 2) in Jamaica's trading patterns; and by 1961 the United States was Jamaica's largest market for its exports.

Table 2
Major Trading Partners
Jamaica, 1961

	<u>Value</u>	<u>% of Total</u>
United Kingdom		
Imports	49,782	33.0
Exports	32,370	26.3
United States		
Imports	36,794	24.4
Exports	44,220	36.2
Canada		
Imports	15,584	10.3
Exports	25,878	21.0
Others		
Imports	-	32.3
Exports	-	16.5
	<u>TOTAL</u>	<u>100.0</u>

Source: Economic and Social Surveys

In terms of the importance of agriculture to Jamaica's economy it had shrunk from the estimate of about 27% in 1950 by the World Bank Mission to about 12% in 1960.⁸

During this same period sectors such as mining (bauxite), manufacturing, and construction became more important. However agriculture was still the major employer (Table 3) by the time of independence in 1961.

Table 3
Labour Force, Jamaica, 1960

	<u>%</u>
Agriculture, Forestry & Fishing	30.0
Mining and Quarrying	.7
Manufacturing	14.7
Other	<u>45.6</u>
	<u>100.0</u>

Source: Adapted from I. Jainarian: Trade and Development: A study of the Small Caribbean Countries and Large Multi-National Corporations.

In addition to the continued heavy dependence on export agriculture (and especially sugar) the structural pattern of Jamaica agriculture by 1961-1962 was relatively unchanged from the nineteenth, and early twentieth century. The agriculture sector was characterized by two distinct facets left over from earlier days: plantations and peasants. The plantations still controlled the best land in large acreages, employed hired labor, were mainly foreign-owned and managed, and produced for export. The peasants had the poorest land on small plots (as a result of holdings acquired after emancipation - see Table 4),

used family labor and locally produced inputs and produced for both domestic and export markets. The farmland in general was widely under-utilized by both plantations and peasants; peasants because they lacked the necessary resources and infrastructure, and plantations because they had no incentive to utilize all of their vast acreages. Although precise data from the pre-independence period are generally unavailable, export production concentrated on sugar, bananas, citrus, coffee, cocoa, pimento and ginger.⁹ Domestic crops of importance apparently were yams, tubers, legumes, fruits, vegetables, cereals and plantains. There was also some production of livestock, although data here are also not widely available until the middle 1960's.

Table 4

Percentage Distribution of Number of Farms and
Acreage of Cultivated Land by Size Groups of Farms,
Jamaica, 1961

	<u>Percent of Farms</u>	<u>Percent of Cultivated Acreage</u>
Under 5 Acres	71.02	21.66
5-24 acres	25.89	27.99
25-99 acres	2.39	7.96
100-499 acres	.48	7.45
500 and over acres	.22	34.93
	<hr/> 100.00	<hr/> 100.00

Source: Census of Agriculture, 1968-69 Final Report Vol. 1 Part A.

In terms of wealth, the uneven ownership of land contributed to a situation where in 1962 it was estimated that 83 percent of the farmers accounted for less than 25 percent of the total income from agriculture.¹⁰ Table 5 also provides some indication of the relative difference between rural and urban annual incomes earned in 1960. Agricultural workers only received one-third of the average for all industries, and about one-eighth of the highest category.

Table 5
Average Earnings in Industrial Sectors,
Jamaica, 1960

	<u>\$J</u>
Agriculture	\$ 246
Mining, refining	1,624
Manufacturing	690
Construction	1,044
Transportation, Public Utilities	1,330
Distribution	1,752
General Government	1,146
Other Services	<u>494</u>
TOTAL AVERAGE	\$ 662

Source: Adapted from E. Ahirim, "Income Distribution in Jamaica", 1958

There were also distinct differences between the plantations and the peasants in the type of production carried on by each group. Table 6 shows the results of the Agricultural Census in 1961/62. Large farms

(over 500 acres) derived almost all their production from export crops and livestock production. Small farms were also dependent on export crops to a large degree, but also produced the bulk of Jamaica's domestic food products.

Table 6

Percentage Distribution of Farms by Main Source
of Agricultural Income, 1961

<u>Size Groups</u>	<u>Livestock</u>	<u>Export Crops</u>	<u>Other Crops</u>
Less than 5 acres	3.6	52.0	44.4
5-24 acres	6.4	61.5	32.1
25-99 acres	19.6	58.7	21.7
100-499 acres	29.6	61.8	8.6
Over 500 acres	33.6	63.5	2.9
All Farms	4.9	54.7	40.4

Source: Jefferson; The Post-war Economic Development of Jamaica

Mechanization by 1961 was also heavily skewed towards large farms. This was a factor not only caused by the greater use of capital by plantations (because of greater resources) but was also influenced by the fact that machinery could often not be used on the hilly areas owned by small farmers. Table 7 shows that small farms tended to own carts and drays, but very little machinery. The large farms owned the bulk of all machinery and were much more heavily mechanized.

Table 7

Units of Machinery and Equipment by Size Group of
Farm, 1961 (Number of Units)

Type	Size Groups				
	Less than 5 acres	5 acres to under 25 acres	25 acres to under 100 acres	100 acres to under 500 acres	Over 500 acres
	Number of Units				
<u>No. of Farms</u>	113,239	40,729	3,803	779	351
<u>Vehicles</u>					
Trucks, Station Wagons, etc.	-	165	275	169	594
Trailers	-	60	52	238	2,078
Carts & Drays	136	210	223	95	250
<u>Tractors</u>					
Rotary Hoes & Motor Scythes	-	-	53	62	270
Wheeled Tractors	-	124	97	163	638
Crawlers	-	64	32	48	392
<u>Implements</u>					
Ploughs.					
(Tractor drawn)	-	92	77	125	387
(Animal drawn)	-	30	44	29	57
Other Implements					
(Tractor drawn)	-	-	61	139	665
(Animal drawn)	-	-	48	24	69

Source: Jefferson; The Post-War
Economic Development of Jamaica

In terms of the use of inputs by farms, the 1961/62 Census found that fertilizers and irrigation were also used preponderantly by the larger farms. Small farms used almost no irrigation, except hand watering, and many (78.8%) used no fertilizer of any kind. About one-fifth of all farms over 500 acres used irrigation and over two-thirds of the large farms used purchased fertilizer as an input.

Table 8

Use of Irrigation and Fertilizer By Size of Farm 1961 (Percentage of Farms)

	Less than 5 acres	5 acres to under 25 acres	25 acres to under 100 acres	100 acres to under 500 acres	More than 500 acres	All Farms
<u>Irrigation</u>						
No Irrigation	97.7	96.5	92.0	88.4	79.7	97.2
Hand Watering	2.2	2.7	2.2	2.7	1.7	2.3
Irrigation	0.1	0.8	5.8	8.9	18.6	0.5
<u>Fertilizers</u>						
No fertilizer	78.8	65.1	60.1	45.5	30.3	74.6
Farmyard Manure	11.0	14.7	14.1	16.2	16.0	12.1
Inorganic Fertilizer	12.3	23.1	34.3	47.3	65.4	15.9

Note: The percentages relating to use of fertilizers add up to more than 100 since some farms reported use of both farmyard manure and inorganic fertilizers and were included under both headings.

Source: Jefferson; The Post-War Economic Development of Jamaica.

Jefferson¹¹ notes that these data suffer from the defect that the total acreage on which fertilizer was used was not recorded. Fertilizer use on wet tropical soils can produce significant increases in yields due to both high response rates and also the fact that large quantities of fertilizers are needed to replace minerals lost by soil erosion. He notes that the bulk of fertilizer at this time (1961) was used by the larger sugar cane and banana estates.

Another feature of agricultural production in 1961 (and earlier) was that small farmers tended to grow their crops in mixed stands and large farms grew their crops separately (Table 9). It has now been shown there are sound economic reasons behind the practice of mixed stands that are related to shading, moisture, soil differences and risk, and that these factors encourage small farmers to grow their crops in this way.

Table 9
Acreage in Pure and Mixed Stands,
Jamaica, 1961

	<u>% of Total</u>			
	<u>Pure</u>	<u>Mixed</u>	<u>Other</u>	<u>Total</u>
0-Under 5 Acres	30.3	60.9	8.8	100.0
5-24 acres	40.9	51.1	8.0	100.0
25-99 acres	61.0	31.8	7.2	100.0
100-499 acres	81.5	15.6	2.9	100.0
500 acres and over	90.2	8.3	1.5	100.0

Source: Derived from 1968/69 Agricultural Census

In terms of participation, or control over decisions affecting their lives and well-being, by 1962 rural peasants were still relatively low on any scale of development participation. Rural peasants in 1962 had some of the characteristics of both political and economic participation, but in substance, were still very much affected by dominant elites and by a centralized top-down approach to decision-making.

Jamaica was (and is) a parliamentary democracy with a high degree of participation in voting. The two main political parties each represent all of the major classes and groups in Jamaican society. In addition the two major trade union movements have broad support and membership from many agricultural workers.

Participation by rural peoples also occurred in the various commodity boards (in which membership was often compulsory) and in the Jamaican Agricultural Society, which represented a large number of the small holders in Jamaica. However in 1962 it is widely recognized by many analysts ^{12, 13, 14} that the types of policies formulated were still controlled by the same group of dominant merchants, professionals, and large farmers (and businesses) as was the case since the 1800's.

As a result, where the rural peasant's interests did not conflict with those goals and priorities sought by other more powerful groups they were able to be effective to some extent (e.g. gaining funds for subsidies etc.). However effective participation in setting policies designed to achieve major structural changes (such as a comprehensive land reform) did not exist and the structures were relatively the same as in the 1800's. In addition, in terms of development participation, it is important to note that in 1962 it was not generally considered

necessary to get the rural peasants' input into policies and programs affecting agriculture. Therefore, even reformist minded politicians did not recognize participation as a necessary ingredient for the development process. This facet of development in Jamaica will be examined in greater detail in Chapter 3.

Tables 1-9 indicate that by the time of independence (and of this study) Jamaica had a dualistic agricultural economy that was dominated by two distinctly different entities. Peasants and plantations were not only structurally very dissimilar in 1962, but were also very far apart in terms of wealth, income distribution, and power. The next chapter examines the policies designed and implemented for the agriculture sector as well as evaluating their effects on this distinctive pattern present in 1962. First however, another important force affecting agricultural development will be reviewed.

In addition to these external and historical influences on Jamaica's agriculture another important factor in understanding agricultural development in Jamaica is the physical environment. Jamaica is a hilly and mountainous country with flat land being the exception rather than the rule.¹⁵ Mountains and hills dominate the centre of the island and coastal plains surround these areas varying only in their width. Jamaica has numerous rivers and streams and water should not theoretically be a problem for agriculture. However the mountains affect rainfall to a large extent (as elsewhere) and while the north-eastern areas receive up to 7600 mm of rain annually the southern plains are quite dry and have to be irrigated in order to reach their production potential.¹⁶ Most of the island receives moderate amounts of rainfall (1250-2500 mm annually) but agriculture also appears to have

been affected by periodic droughts. These droughts appear to have occurred every 20-30 years and usually lasted 2-4 years.¹⁷ Another influence on agriculture has been hurricanes which have periodically destroyed large portions of several crops, bananas being one particular example. The predominant type of soil material in Jamaica is of limestone origin and this matter comprises more than 1/2 of the island's surface. This material is found mainly in the mountainous and hilly areas where deep valleys and gullies are present and these areas are very subject to soil erosion. The soil matter on the coastal plains is composed of alluvial sands, gravels and loams and because of this these are the best suited areas for larger-scale cultivation. Slightly less productive areas are the bottom of the interior valleys which have residual clays or alluvium soil, but are still quite well suited for crop production.¹⁸

Although the physical features of Jamaica obviously present a constraint on agricultural production, this country still has a wide variety of soil, climatic and topographic types that can produce large and varied types of agricultural products. As such, although the physical environment represents an obvious upper limit on the types and amounts of production possible, during the period of this study (and also today) there appear to be sufficient physical resources, which when properly managed, can produce amounts of food sufficient to make agriculture a strong sector of Jamaica's economy.

Notes, Chapter 2

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CHAPTER 3: THE ROLE OF GOVERNMENT POLICY IN AGRICULTURE DEVELOPMENT IN JAMAICA

3.1. Planning and Policies; 1962-1982

Jamaica became fully independent in 1962 and since then has had all the rights and responsibilities in terms of policy formulation that most independent countries have. The two major political parties that have formed governments in Jamaica during this period have both considered planning as integral to their function and many plans have been formulated to foster economic and social development during this period. These plans and policies have often drawn to some extent on earlier policies implemented by the colonial administrators.

Leslie¹ notes that in the post World War II and pre-independence era several plans designed specifically for the agricultural sector were implemented by colonial officials. These include: the Farm Improvement Scheme (1945-55), the Farm Recovery Scheme (1952-57) the Farm Development Scheme (1955-60) and the Agricultural Development Programme (1960-1965). The Farm Improvement Scheme was designed to improve conditions on the farm and grants and loans were made available to producers. The Farm Recovery Scheme was implemented as a result of extensive damage caused by hurricanes in 1951 and funds were made available to those suffering damage. The beneficiaries of both these programs were generally the commercial export sector of the agricultural industry.

The third program introduced before independence, the Farm Development Scheme, stressed increased agricultural productivity through capital development and individual farm holdings.² Funds were made

available for initial land clearing, soil conservation, water supply, pasture improvement and farm buildings. Some provision was also made for farmers to be adequately supplied with inputs.

The Agricultural Development Programme (1960-1965), introduced to correct the weaknesses of the Farm Development Scheme, only lasted three of the intended five years as independence was achieved during this period. This program emphasized education, research and cooperation,³ and concrete projects were funded for storage and handling and for infrastructure in the dairy industry. This programme was designed to have a somewhat broader scope than the others and emphasis was placed on providing financial aid to farmers on the lower ends of the income scales. Subsidies were available for proper land use, farm water and building, dairy, fish farming, some irrigation, and for fertilizer demonstrations.

Until the time of independence these programs were generally administered with input and funding by both the colonial authorities and the resident Jamaican authorities. After independence the various Jamaican governments assumed full control of programs as well as continuing to build on the earlier programs. However financial assistance for rural development projects (esp. during the 1970's) was often supplemented by aid from the major developed countries.

Since independence in 1962, Jamaica has been governed by two political parties, both of a populist nature and both concerned with providing a more widespread distribution of the benefits of economic growth. The two major parties in Jamaica that have formed governments are the Jamaican Labor Party (JLP) and the People's National Party (PNP). The JLP governed from 1962 to 1972 and was re-elected again

under Edward Seaga in 1980. The PNP under Michael Manley was in power from 1972 to 1980. Both of these parties have enjoyed support from urban and rural areas, although the JLP has had greater support from the upper classes and elites. The JLP has placed somewhat greater emphasis on the role of the private sector during its periods in office than the PNP which has stressed increased state control and a mixed economy.

The Jamaican Labor Party elected in April, 1962 wasted little time in devising an overall plan for the development of Jamaica. The plan, titled the Five-Year Independence Plan, had as its goals the provision of economic, social and cultural services for those segments of the community where the "need is the greatest".⁴ This plan also set out policies for the various areas of the economy. Policies in agriculture were designed to ensure unused arable land was brought into use, division of land into fragmented parcels was to be discouraged, and incentives, credit and technical assistance were to be provided to bring about an increase in productivity and output. Emphasis was to be given to both small farmers and to the promotion of more economic farm units. The dairy industry, export crops, and substitution of imports by the use of local produce were all singled out as areas for special emphasis.

The specific policy instruments designed to achieve success in the 5 Year Independence Plan were the Farmers Production Programme (1963-1968)⁵ and a programme of Land Reform. Marketing and prices for many crops (especially domestic) was to be handled by the Agricultural Marketing Corporation (set up in 1963). Credit was to be provided by the Agricultural Credit Board and extension was to be provided more by the government than by the commodity groups and the Agricultural Society, which had been the case in the past.

The Farmers Production Programme (1963-68) was designed to achieve rapid increases in production and to improve the living standards of farmers. Project assistance was to be made available for farm water supply facilities, farm buildings, fish farming, cooperative handling and storage facilities, soil conservation on hill farms, mechanization on flat land and for the provision of planting material. In addition, fertilizer demonstration plots were to be developed by the Ministry of Agriculture. Extensive subsidies to the dairy industry were also made available as part of this program and young farmers were to be trained to work on dairy farms.

Jamaica had had a system of land settlements in place since 1938. This system had allotted 137,000 acres to 26,325 settlers by 1963⁶ but the government at this time generally considered the plots to be too small to be economically viable. As a result, the 5 Year Independence Plan also emphasized Land Reform as one of its policies. The intention was to sub-divide and distribute lands currently owned by the government, acquire unused land from private owners and re-distribute them, and finally lease and re-distribute unused lands owned by the bauxite companies. Two type of farms were emphasized: medium (15-30 acres) and small (5-14 acres). The medium sized farms were to benefit mainly from land reform intended specifically at improving the dairy industry and were part of the overall effort to increase output from this industry. The small farms were to be made into economic units and the development of cooperatives was to be given high priority. These programs were implemented over the 5 year period (1963-1969) and were finally supplemented by one more programme (in 1969) before a new government with a somewhat different approach came to power in 1972.

This programme was called the Farmers Development Programme⁷ and was designed as a successor to the Farmers Production Programme. This programme was also to emphasize small (but not the smallest) farmers in an attempt to increase domestic food production. It proposed to continue many of the subsidy schemes from the Farmers Production Programme including the Hill Farming Subsidy, the Food Crops Subsidy, the Farm Water Supplies Scheme, and the Dairy Development Scheme. However attention was also to be given to increased training and a greater provision of credit to smallholders (but not those who owned less than 5 acres). Many of these policies were continuations of earlier policies established in the mid-1960's and did not represent any substantial change in attitude.

Overall, the policies advocated by the JLP from 1962 to 1972 stressed the free-market, emphasized efficient and economically viable farms and provided subsidies and assistance to specific areas designated as high priority (e.g. dairy). No major structural changes were planned or implemented nor were integrated rural development programs in fashion during this period.

The JLP was succeeded in 1972 by the Peoples National Party (PNP). Although both governments were generally populist in nature and neither party advocated complete state control of the means of production, there were major policy changes made in agriculture (and other sectors) by the PNP during the early 1970's.

One of the first actions by the new government was to commission an in-depth study of the agriculture sector. This study was carried out by a team of experts headed by Sir Arthur Lewis and with the assistance of the World Bank.⁸ Significant re-organization of the Ministry of Agriculture occurred as a

result of this study in a stated attempt to provide more effective support services to the sector.

The new government also set up one major program -- Operation GROW -- as a result of this study and this program had several important policy instruments contained in it. The purpose of Operation GROW (Growing and Reaping Our Wealth) was to stimulate food production, make maximum use of the land and people, promote local production, increase nutrition, and provide access to land for farmers. The intended beneficiaries of this program were small farmers and especially hillside farmers.⁹

The three major policy instruments in Operation GROW were Project Land Lease, Project Food Farms, and Project Self-Help.¹⁰ Project Land Lease was designed to lease land from private land owners and then release it to small farmers for 5-10 years. The size of the leased lots was to be 1-5 acres. Credit was to be made available not by cash disbursements but by the provision of services and materials. Project Food Farms was designed to produce food crops on large government owned properties. Cooperative activities were to be eventually encouraged on these farms in an attempt to develop a system of long-term leasehold for resident farmers, however the farms were initially set up to be state-run. Project Self-Help was a loan programme designed to assist credit-worthy farmers with projects that would eventually become self-supporting.

Project Land Lease was the most important of the projects in Operation GROW and three phases were envisaged. Phase I was to lease land from private individuals and re-lease it to farmers living within 2 miles of where the land is located. Phase II was to provide farmers

with land for up to 49 years (rather than 5-10). The eventual farms in Phase II had to be of such a size that they could generate \$J1500-J1700 per annum.¹¹ Phase II emphasized longer-term development and gave preference to younger farmers with the government providing some infrastructure for these farmers. Phase III was to sub-divide government-owned lands into fully economic units and then farm them on a cooperative basis, with the government providing even more substantial infrastructure. In addition to these new programs, the PNP continued several programs started earlier (such as the Food Crop Subsidies). They also attempted to use prices to some extent as a mechanism for increasing rural incomes and income distribution.

By 1977 Jamaica was experiencing severe economic problems (including a flight of domestic capital, a loss of external investments, and a decline in agricultural prices) caused by both internal and external factors and as a result of this the PNP introduced the "Emergency Production Plan". The government had by this time committed itself fully to "democratic socialism"¹² and this plan continued the greater emphasis on state participation in the economy. The objectives of this plan were similar to those outlined in Operation GROW but the emphasis was on greater organization of the production, marketing and input structures. Cooperatives and state-run farms were given greater emphasis than in 1972 and the emphasis was stronger on equity vs growth. Private-run farms over 100 acres were asked to put 10% of their lands not in other use into food production. Many other policies such as encouraging consumption of domestic products were also implemented, all in an attempt to decrease imports of food. Also in 1977 the First Integrated Rural Development project was established jointly with the

World Bank. It involved settlement housing, farm credit, and infrastructure was supplied with funding from the World Bank.¹³ A second Rural Development Project jointly financed with USAID was started in 1978. Although these projects were titled the 1st and 2nd rural development projects one other integrated project had started earlier. The Charlemont Development Project (started with assistance from CIDA) commenced in 1975-76. This project involved settlement as well as the provision of comprehensive services to the community.

In 1978 a second type of Land Reform project combining aspects of Phases II and III of Project Land Lease and now titled "Pioneer Farms" was instituted. This programme involves placing young farmers into a cooperative venture on land of sufficient economic size.

The Emergency Food Production plan was supplemented by one other major plan by the PNP in 1978. This plan, titled the Five-Year Development Plan (1978-1982) also emphasized a commitment to "democratic socialism" and to a mixed economy. The plan for agriculture was to be centred on an integrated rural development strategy.¹⁴ The major objectives were to develop rural infrastructure, to emphasize food production, to ensure efficient land use, and to increase farm incomes. The policies designed to achieve these objectives included: a continuous system of guaranteed prices for farm products requiring expansion, an acceleration of land reform and land use policies, improved irrigation and soil conservation, and more funds committed to research, credit and marketing facilities.

By the late 1970's the PNP government had created many new agencies to administer its policies and at this time approximately 75 agencies had responsibilities for implementing some aspects of agricultural policy.

The PNP was succeeded in November, 1980 by the JLP which again changed the emphasis and direction of agricultural policy, this time away from increased state control. During the first year in office efforts were devoted to increasing investor confidence and to courting international agencies such as the International Monetary Fund. As a result new policies were directed at removing barriers to "efficient" allocation of resources caused by previous policies and some of the 75 agencies lost their power. In addition, many other policies announced by the JLP appear to be very project-oriented.

The major policy initiatives outlined by the Minister of Agriculture in his 1981 budget involve:¹⁵ a comprehensive rural development programme, including land development and provision of infrastructure; farm prices designed to increase returns to farmers; measures to enhance security of tenure; improvements in soil conservation and irrigation; improvements in the marketing of domestic crops; an expansion of credit; and an emphasis on export crops and on deregulation of the commodity boards. In addition to this outline of objectives in the first budget, the JLP government has prepared a plan titled the "Structural Adjustment of the Jamaican Economy (1982-1987)". The objectives of this plan are to provide full employment and an increase in real incomes, a balanced distribution of incomes, development of human and natural resources, and the creation of opportunities for comprehensive development of rural areas. Although this plan has implications for the economy as a whole, agriculture is emphasized as being of great importance.¹⁶ The specific policy measures intended for domestic agriculture are: to improve the supply of inputs, to improve marketing, to set economically favorable prices, to control

praedial larceny (theft), and to rationalize land use and conservation. The external marketing organizations have been singled out as having monopolistic control over marketing and their powers are intended to be reduced. In addition, a new marketing division has been created within the Ministry of Agriculture.

The sugar cooperatives implemented under the PNP had become financially troubled by the late 1970's and the JLP has now moved to disband them all. In terms of export agriculture the emphasis is now on providing assistance for the expansion of non-traditional exports. This assistance is to be achieved through the same policies as enumerated above for domestic agriculture. Land tenure is again stressed as being of importance and policies are being implemented to provide security of tenure to small tenants. Land is also to be classified and zoned as to the most appropriate use.

In conclusion, many of the present day agricultural policies were identified or initiated by earlier governments. The major difference between the 1960's and the 1970's was the emphasis by the PNP on greater state involvement in planning and on re-distribution of incomes. In the 1980's the emphasis appears to be on implementing specific policies designed to remove existing bottlenecks to increased agricultural production and incomes.

3.2 Analysis of the Effectiveness of Policy Instruments on Economic Growth, Income Distribution and Participation

Part I of this chapter indicates that although many of the agricultural policies of the JLP and the PNP were broadly similar from 1962-1982, there were also substantive differences. These differences occurred mainly in the approach to planning and in the structures utilized to foster increased production and incomes in the agricultural sector. This section of Chapter 3 will attempt to provide as much quantitative insight as possible into the period from 1962 to 1981.

In terms of overall funding for agriculture, Table 10 indicates that the JLP appears to have spent more of its budget directly on agriculture than did the PNP. Funding for agriculture as a percentage of total government expenditure under the JLP ranged from a low of 8.2% in 1971 to a high of 11.3% in 1968. The PNP's expenditures ranged from a low of 4.9% in 1980 to a high of 7.8% in 1976 and 1977. However, government spending on social services generally increased in the 1970's under the PNP and rural farmers probably received some of the benefits from this increase in social services.

Table 10 shows the relative amount spent on agriculture, but more important is what was the effect of this spending and of government policies in general on the three major aspects of development.

Table 10
Current and Capital Government Expenditures on Agriculture,
Jamaica, 1962-1981 (Percent)

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
As a % of Total Government Current and Capital Expenditure	9.4	8.2	8.6	8.5	8.4	9.2	11.3	9.2	10.3	8.2	11.2	5.7	6.2	5.8	7.8	7.8	7.2	5.1	4.9	7.8
As a % of Agriculture GNP	15.7	12.0	14.9	16.1	15.7	20.2	28.7	26.1	33.6	24.4	37.9	22.6	28.6	29.6	44.8	38.8	42.4	29.6	29.5	50.0

Source: Calculated from Economic and Social Surveys, 1962-1981.

a) Economic Growth and Related Data

As pointed out in the introduction to this study, the somewhat arbitrary figure of 2% real annual growth in agriculture was chosen as the criterion for success in this part of the development process. A figure of 2 per cent real annual growth is considered to be the bare minimum necessary to have at least met the needs of the Jamaican population which grew at an average annual rate of 1.4% (net of migration) from 1960-1970 and 1.5% from 1970-1980¹⁷. From 1980 to the year 2000 the population is forecast to grow annually at 2%, so a 2% growth rate in the future will only hold things even.

The 2% figure is also considered to be a reasonable target for developing countries in general. Many countries in the Caribbean basin and South America (as well as elsewhere) achieved average annual growth rates in agriculture of between 3.0% and 7.0% during the same period as this study.¹⁸

Table 11 indicates that even this relatively low target for real economic growth was not achieved by the Jamaican agricultural sector for the period 1962 to 1981. From 1962 to 1972, average annual growth ranged from a high of 11.8% in 1971 to a low of -6.7% in 1970. The average annual rate during this period was only 1.3% and extreme variability occurred from year to year. This was partially due to weather but was also caused by sharp price fluctuations in the major agricultural export - sugar.

The period under PNP policies (1972-1980) experienced similar erratic growth, ranging from a low of - 9.7% in 1979 to a high of 9.6% in 1978. The agriculture sector during this period actually contracted,

Table 11
Real Growth Rates of Agriculture and Manufacturing Components of G.N.P.
Jamaica, 1962-1981

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Agriculture (including Forestry and Fishing)	-0.8	4.7	4.4	4.6	6.6	0.7	-6.3	-6.5	-6.7	11.8	1.5	-5.8	2.0	1.4	-4.1	3.2	9.6	-9.7	-7.4	4.2
Manufacturing	1.5	10.2	11.5	5.1	8.9	1.1	5.3	5.0	5.1	6.2	9.4	-1.3	1.7	-0.2	-5.1	-7.1	-6.0	-4.8	-11.7	0.4
Total Economy	1.7	3.1	7.7	7.7	6.4	3.1	4.1	8.1	7.9	7.9	8.2	-2.6	-0.7	-2.6	-8.3	-1.7	-0.3	-1.5	-5.4	2.0

Source: Economic and Social Surveys 1962-1981

Note: 1966-1970 calculated by author by deflating using CPI as GNP at current \$ not available.

with an annual average decrease of - 1.4%. It can also be seen from Table 11 that although the rest of the economy grew steadily in the 1960's, by the 1970's the economy as a whole often fared little better than the agricultural sector.

In terms of achieving our development target of 2 per cent average annual increase in economic growth, it then becomes obvious that even this marginal growth rate was not achieved under either government. It does appear that the period under the JLP from 1962 to 1972 was somewhat more favorable for this factor of development than was the period under the PNP.

In addition to the broad indicator of real economic growth, there are other important indicators of economic health that are appropriate to our analysis of how this facet of development occurred or did not occur from 1962 to 1981. Other factors that may provide insight include the change in the value of exports; the type and amount of production of domestic crops and livestock; the role of agriculture in the general economy; and the economic structure of agriculture. These aspects of economic growth will also be analysed over the twenty year period 1962-1981.

In terms of commodities produced for agricultural export, Table 12 indicates that the value of the major agricultural export, sugar, more than doubled from 1962 to 1981. However most of this increase occurred in the 1970's and was the result of general worldwide price increases. Table 13 provides a better indication of what actually occurred and it is evident from these data that although some growth occurred in sugar production in the mid-1960's, from 1969 on production of this commodity has stagnated.

Table 12
Value of Major Agricultural Exports, Jamaica, 1962-1981

\$ 000,000's

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Sugar	29.2	42.5	39.2	31.3	32.9	30.2	34.0	28.6	30.0	30.7	33.7	35.4	74.4	139.7	55.9	71.5	92.5	103.8	97.8	82.8
Bananas	9.0	10.6	12.1	12.2	12.6	13.3	13.8	12.5	11.8	11.7	11.9	16.4	11.5	14.7	11.9	16.7	24.9	32.2	16.3	7.6
Citrus	4.0	5.9	5.4	6.8	6.0	5.3	5.0	6.7	4.6	4.2	4.2	3.6	3.9	4.7	4.0	3.1	5.7	2.7	3.3	1.7
Pimento	2.5	3.1	2.8	2.0	3.6	2.9	3.0	4.3	3.1	2.3	3.2	4.1	5.0	4.3	4.6	5.0	8.1	7.2	6.9	7.9
Cocoa	1.0	0.9	0.6	0.8	0.7	0.5	1.0	1.0	1.2	1.3	2.1	2.7	2.9	3.5	3.6	3.2	8.3	11.6	8.0	9.0
Coffee	0.6	0.5	0.6	0.5	0.4	0.5	0.7	0.7	1.3	1.5	1.4	2.0	3.3	3.1	4.1	6.6	4.4	6.2	9.5	9.7
Ginger	0.3	0.6	0.7	0.5	0.4	0.3	0.2	0.3	0.6	0.5	0.6	0.7	0.6	0.3	0.7	0.5	0.8	1.2	0.8	0.5
Rum	2.1	2.2	2.8	3.2	2.6	2.4	1.4	1.8	1.5	2.4	2.9	2.5	5.7	5.8	6.0	6.4	7.7	13.7	17.1	19.8
Molasses	1.6	2.2	1.7	1.0	1.6	2.1	2.0	2.4	2.2	1.8	1.2	1.7	2.2	-	2.3	1.2	3.3	4.3	1.3	-
Root Crops	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2	1.2	0.9	0.8	0.9	3.0	4.4	6.4	9.4
Total	50.3	68.5	65.9	58.3	60.8	57.5	61.1	58.3	56.3	58.4	61.2	70.3	110.7	177.0	93.9	115.1	158.7	187.3	167.4	148.4

Source: National Planning Agency, Economic and Social Surveys 1962-1981
 Values for 1962-68 have been converted from £ to Jamaican \$ (1 £ = \$2J)

Table 13
Production of Major Export Crops, Jamaica, 1962-1981

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Sugar ('000 tons)	433	484	474	489	500	449	445	383	370	379	373	326	367	355	357	288	288	279	242	199
Bananas ('000 tons)	n/a	160	174	200	200	192	153	151	134	126	127	108	72	68	77	80	75	69	33	19
Citrus ('000 boxes)	1,518	1,615	1,570	1,678	1,808	1,232	1,404	1,258	1,067	1,366	1,102	1,062	1,007	1,028	946	666	866	703	1,112	808
Pimento (tons)	2,500	3,039	1,445	2,230	2,585	3,900	2,246	3,225	2,205	1,952	2,032	2,536	3,949	2,151	4,181	1,989	2,502	1,249	928	3,090
Cocoa (tons)	2,404	2,473	1,686	2,200	1,967	1,676	2,344	1,491	1,794	1,827	2,333	2,071	1,593	1,771	1,573	1,614	1,300	1,793	1,368	1,814
Coffee ('000 boxes)	201	243	229	281	211	312	207	253	248	299	214	308	240	380	230	312	179	451	250	282
Ginger ('000 lbs.)	1,019	1,281	1,427	1,941	1,844	1,600	1,020	614	671	618	766	1,056	739	630	995	423	687	680	438	449
Rum ('000 proof gal.)	1,754	2,466	3,145	4,818	4,447	3,162	2,155	2,853	3,046	3,296	4,792	5,100	5,735	6,455	4,475	5,005	4,278	5,040	5,532	5,388
Molasses (tons)	n/a	154	162	171	189	157	156	164	168	150	144	129	121	120	118	117	133	102	101	91
Copra (short tons)	15,324	15,032	16,337	17,195	17,186	18,392	18,475	17,217	17,290	21,205	17,936	15,137	9,411	6,856	5,624	3,406	2,124	2,023	1,738	887

Source: Economic and Social Survey, 1962-1981.

The same pattern exists for what was once the second most important agricultural export - bananas. Banana prices have not fluctuated as much as sugar (in fact they rose steadily and significantly in the 1970's) but output appears to have dropped to such an extent that pimento, cocoa, coffee and root crops are all threatening to become more important agricultural raw-product exports.

In terms of value, the only crops that have shown significant increases are the same four crops. The only two products that have shown both steady increases in production and value are coffee and rum, and both these crops are not of large enough economic value to provide benefit to a significant number of agricultural producers. It appears then that production of export crops, with a very few exceptions, has generally declined during the period from 1962 to 1981. These often major declines have frequently started in the late 1960's but appear to have worsened in the middle to late 1970's.

Fortunately for many small farmers (and many urban dwellers) the production of domestic crops has not suffered to the same extent as export crops. Table 14 indicates some significant achievements in growth for some types of domestic crops from 1962 to 1981. Fruits, vegetables, plantains, potatoes, yams, and other tubers have all increased sharply in output during this period. However with the exception of vegetables, legumes, and condiments, most of this increase had occurred by 1971-72 and much of the seventies saw little increase beyond this point. Indeed, Table 15 shows that, during the 1970's per capita food production (as compared to total agriculture) was below the level of 1969-71.

Table 14
Production of Major Domestic Food Crops, Jamaica, 1962-1981

	(tons)																			
Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Legumes	n/a	n/a	n/a	n/a	n/a	5.0	5.5	4.5	6.0	7.0	8.3	6.0	6.5	6.9	6.2	8.1	13.1	11.7	10.7	11.1
Vegetables	24.5	30.3	34.1	38.9	43.7	38.0	34.5	31.5	48.8	68.1	67.2	63.3	67.1	67.4	86.2	105.4	128.2	106.5	112.6	120.4
Condiments	2.5	2.5	2.5	3.9	3.2	2.5	2.0	2.0	2.0	3.4	3.7	3.7	5.0	6.0	7.7	9.9	15.7	9.7	9.0	11.5
Fruits	n/a	n/a	n/a	n/a	n/a	2.5	3.0	5.0	9.5	12.4	11.4	10.5	9.1	9.5	10.4	16.2	11.0	8.1	9.0	12.9
Cereals	n/a	n/a	n/a	n/a	n/a	2.6	2.7	5.0	4.9	5.8	4.7	10.9	12.5	12.5	12.3	12.9	10.3	8.6	7.4	7.1
Corn	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.3	4.9	5.8	4.7	10.9	12.5	12.5	12.3	10.3	8.7	7.3	4.9	5.0
Rice	n/a	n/a	3.5	2.5	1.6	1.2	1.0	0.7	-	-	-	-	-	-	-	2.6	1.6	1.3	2.5	2.1
Plantain	n/a	n/a	n/a	n/a	n/a	10.0	10.0	11.0	13.1	25.9	29.2	28.0	25.7	19.6	16.7	24.4	32.8	34.3	27.4	26.6
Potatoes	17.5	21.9	19.0	28.0	n/a	26.5	21.5	26.5	23.3	36.1	39.8	27.6	37.3	31.5	26.4	39.5	74.4	43.0	37.2	48.5
Yams	54.6	55.0	60.4	63.3	77.8	80.5	72.0	67.5	90.5	135.2	140.5	139.3	144.8	135.5	131.8	151.5	180.5	173.3	146.5	150.4
Other Tubers	18.8	19.5	20.8	27.5	31.5	30.5	20.5	25.0	44.8	48.9	55.9	45.1	48.1	55.4	56.3	75.1	84.2	69.6	58.2	55.2

Source: National Planning Agency, Economic and Social Survey, 1962-1981 and Production Statistics (1972); Ministry of Agriculture Data Bank 1970-1981.

Table 15

Per Capita Indices of Food Production, Jamaica, 1971-1980

Ave.	1961-71	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
	100	103	100	98	96	93	93	89	92	91	89

Source: Adapted from United States Dept. of Agriculture: "World Indices of Agriculture and Food Production"

Tables 16 and 17 indicate that a similar pattern occurred with the production of livestock and livestock products. Since the late 1960's production of all major animal products - meat, egg, and milk, with the exception of poultry meat, have either remained relatively stable or declined. Beef, goat, sheep, and egg output have all shown substantial declines during this period. Although production figures in pounds are not available for many items until the late 1960's (Table 16), Table 17 supplements this data by showing that slaughter of most types of meat was fairly steady during this period. Poultry processing in Jamaica is highly concentrated and the resulting increase in output appears to be an exception to the general decline in other meat, milk and egg categories.

In summary, it appears that although domestic production of many crops and livestock items have either increased or remained stable, these increases have not been able to keep up with the demand caused by an increasing population. The increases in domestic production have occurred during both the JLP and the PNP's reign although for some domestic crops, the PNP appears to have achieved markedly greater success.

Table 16
Production of Major Livestock, Dairy and Fish Products, Jamaica, 1962-1981

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Beef and Veal (000 lbs.)	n/a	n/a	n/a	n/a	n/a	n/a	28,600	30,250	27,400	25,775	27,117	29,063	28,128	31,169	28,049	27,233	25,574	25,177	26,525	25,917
Goats (000 lbs.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3,260	82	2,228	1,889	417	531	568	964	707	674	782	911
Pork (000 lbs.)	n/a	n/a	n/a	n/a	n/a	10,500	n/a	12,010	15,170	11,113	15,020	21,213	9,621	11,261	15,184	17,430	16,746	13,804	16,220	16,234
Mutton (000 lbs.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	52	60	41	40	38	25	52	50	64	38	42	n/a
Poultry (000 lbs.)	n/a	n/a	n/a	n/a	n/a	20,000	21,800	26,000	32,000	40,200	34,300	44,700	50,800	59,800	59,137	75,726	67,767	74,865	68,811	65,235
Fish (million lbs.)	n/a	n/a	n/a	n/a	n/a	35	35	31	32	38	40	38	36	36	36	37	37	36	37	32
Eggs (million)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	146	159	123	136	139	147	162	152	157	150	98	95
Milk (million qrts.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	38	43	42	41	41	43	43	42	41	43	40	n/a	n/a

Table 17
Livestock Slaughter, Jamaica, 1962-1981

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Cattle	n/a	n/a	n/a	61.2	61.6	61.1	61.3	61.5	55.8	55.6	56.9	64.1	66.9	89.7	66.4	67.5	57.7	58.0	64.4	60.9*
Hogs	n/a	n/a	n/a	79.1	72.0	85.5	105.9	129.0	124.0	94.8	115.3	150.9	99.7	87.9	125.1	130.8	126.3	109.7	123.1	135.3*
Goats	n/a	n/a	n/a	164.9	164.4	210.0	203.0	134.9	125.3	n/a	n/a	50.0	13.2	17.7	19.1	29.6	23.5	25.1	29.6	36.4*
Sheep	n/a	n/a	n/a	1.9	2.1	2.1	2.2	1.9	1.5	1.2	1.1	1.1	1.1	0.8	1.5	1.3	1.6	1.0	1.1	n/a*

*1981 Figures are Estimated

Source: National Planning Agency, Economic and Social Surveys 1962-1981; Ministry of Agriculture, Data Bank; 1970-1981.

Agriculture's role in the general economy has also changed during the period under study. The structure of Jamaica's total economy has changed towards less dependence on agriculture and greater dependence on mining and manufacturing during the period under study. As a result, there have been changes in Jamaica's exports and in its trading partners.

The two major agricultural exports (sugar and products, and bananas) together comprised 33.6 per cent of total exports in 1962. Their share had shrunk to 7-8% of the total in 1980-81. (Table 18). Although the manufacturing component of the economy had increased its share of exports by approximately 50%, the real growth occurred in mining. Exports of bauxite and alumina by 1981 were almost 80% of total exports and as such the export pattern for Jamaica was heavily dependent on the markets for this one commodity

During the same period, Jamaica's main trading partner shifted from Great Britain to the United States. Table 19 shows five year shifts in the main trading partners of Jamaica. In 1961 the United Kingdom took 26.3% of Jamaica's exports and provided 33.0% of its imports. The figures were almost the reverse for the United States (36.25% of exports and 24.4% of imports) but by 1980 the U.S. had increased its importance as a source of Jamaica's imports while the U.K. had shown a drastic decline as a source of imports and was also a less important market. During the same period, Canada declined in importance as both a source of imports, and as an export market. The CARICOM countries increased their relative importance as both markets and suppliers of goods and services to Jamaica.

Table 18
Major Exports as a Percentage of Total Exports, Jamaica, 1962-1981

	(\$ million)																			
Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Bauxite and Alumina % of Total	48.6	42.0	44.7	47.1	56.2	58.3	55.5	61.8	67.3	65.2	64.2	65.4	72.5	64.9	69.0	69.3	71.6	71.8	76.3	78.0
Sugar, Rum and Molasses % of Total	26.4	33.5	28.8	23.6	19.2	18.1	18.9	13.5	12.1	12.4	12.6	11.1	12.6	20.8	11.5	10.9	9.8	8.4	6.7	5.9
Bananas % of Total	7.2	7.5	7.9	8.1	6.5	6.8	6.8	5.3	4.3	4.2	4.0	4.7	1.7	2.1	2.1	2.4	2.5	2.3	1.1	0.4
Other Agr. Exports % of Total	6.6	7.5	6.3	6.8	5.5	4.7	4.6	4.8	3.7	3.1	3.1	2.6	2.1	1.5	1.8	2.7	2.4	4.5	2.0	2.1
Manufactured Goods % of Total	7.8	7.1	8.9	10.5	9.3	8.8	10.2	9.5	8.3	9.4	9.8	9.3	8.9	9.1	13.2	12.2	12.3	n/a	9.8	12.2
Other Products % of Total	3.4	2.4	3.4	3.9	3.3	3.3	4.0	5.1	4.3	5.7	6.3	6.9	5.1	1.6	2.4	2.5	1.4	n/a	4.1	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistical Yearbook 1979, Economic and Social Surveys, 1962-1981, Govt. of Jamaica.

Table 19

Main Trading Partners, Jamaica, 1961, 1966, 1971, 1976, 1980

(J \$ 000's)

	1961		1966		1971		1976		1980	
	Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total
United Kingdom										
Imports	49,782	33.0	51,818	20.5	90,230	19.7	90,331	10.9	140,490	6.7
Exports	32,370	26.3	43,288	26.9	55,276	20.0	99,414	17.3	331,595	20.6
United States										
Imports	36,794	24.4	85,284	33.7	181,781	39.6	308,332	37.2	658,764	31.4
Exports	44,220	36.2	61,722	38.4	128,693	46.6	231,850	40.3	616,051	36.3
Canada										
Imports	15,584	10.3	25,388	10.1	34,374	7.5	48,880	5.9	125,071	6.0
Exports	25,878	21.0	24,598	15.3	23,305	8.5	25,850	4.5	58,051	3.4
Caricom*										
Imports	n/a		n/a		10,579	2.3	57,931		198,423	7.6
Exports	n/a		n/a		10,795	3.9	37,873		122,043	7.0

*Figures for 1971 are for CARIFTA

Source: Economic and Social Surveys, External Trade Data

Table 20
Volume of Selected Major Food Imports, Jamaica, 1962-1981

	(000,000 lb.)																			
Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Beef and Veal	3.4	4.8	6.1	4.8	5.6	4.8	5.1	6.8	9.0	7.2	8.4	9.7	8.7	11.1	11.0	9.5	17.7	5.9	3.3	3.3
Poultry Meat	2.7	3.6	3.8	4.3	6.7	7.5	7.9	8.4	13.8	16.7	13.7	17.7	22.4	34.5	41.3	41.9	43.2	33.2	50.2	54.6
Milk and Cream	13.8	12.2	14.0	14.4	12.6	16.0	20.3	16.6	21.7	20.4	28.8	14.2	32.8	17.6	27.3	20.3	27.4	24.2	25.9	23.9
Codfish	n/a	19.7	17.0	14.6	16.9	18.4	18.0	21.5	12.6	12.5	16.2	9.5	6.2	5.8	6.6	4.0	2.0	0.8	3.8	7.5
Rice	41.9	49.7	60.6	73.9	60.5	73.3	52.0	58.4	71.0	79.0	80.2	69.7	87.0	108.6	101.0	63.2	100.2	48.5	114.6	93.4
Potatoes	12.0	10.8	7.0	3.1	11.3	5.5	6.4	11.2	11.4	7.0	6.3	6.4	13.1	7.1	7.1	7.8	3.5	-	3.3	2.4

Source: Economic and Social Surveys, 1962-1981.

In terms of imports of food, agricultural products and raw materials, Tables 20 and 21 provide an indication of what happened from 1962 to 1981. Table 20 shows the volume of selected major food imports.

Imports of beef and veal have been somewhat irregular over the twenty year period although they definitely appear to have increased by the middle 1970's. However, imports of all other major food items such as poultry meat, milk, and rice have all increased substantially since 1962. If this table is related to Tables 14, 15 and 16, on domestic crop and livestock production, and per capita food production, it is evident that food imports have made-up the shortfall in domestic food production.

Jamaica not only imported large amounts of food during the period under study, it also imported significant amounts of agricultural raw materials. Table 21 shows that from 1970 to 1976 (the only period for which data are readily available) imports of agricultural raw materials increased dramatically. If one compares this table to Table 12 (Value of Agricultural Exports) it is apparent that just agricultural raw material imports alone were often 50-90% of the total value of agricultural exports.

Table 21

Agricultural Raw Material Imports, Jamaica, 1970-1976

\$000,000

	1970	1971	1972	1973	1974	1975	1976
Value	20.8	23.5	26.9	39.3	68.0	65.6	87.8

Source: USDA/USAID: "The Small Farmer in Jamaica Agriculture"

This would seem to indicate that Jamaica's agricultural economy is weakened not only by poor export performance, but by the significant dependence on imports for food and raw materials. This in turn creates a lack of intersectoral linkages between segments of the economy and tends to weaken the whole Jamaican economy as well as having disruptive effects on society.

Table 18 (Major Exports as a Percent of Total Exports) indicated that the agriculture share of exports declined in relative importance from 1962 to 1981. Table 22 shows the importance of major industries in term of Gross National Product (G.N.P.). Here to, it is evident agriculture has declined in importance.

If this were part of the normal process that occurs in the overall process of general economic development, where other industries such as manufacturing greatly increase in importance, then little mention would be made of it. However, what is evident from Table 22 is that agriculture's decline has not generally been made up by the other goods producing industries. Therefore, agriculture's decline has not been a normal part of development but has actually hindered the process of economic growth in Jamaica. (Table 11 also confirms this).

Another "normal" process in developing countries is that as agriculture decreases as a percent of GNP, agricultural employment also decreases in size. Table 23 indicates that from 1968 to 1981 agricultural employment increased absolutely and remained constant relatively at approximately 37% of the labor force.

Table 22
Agriculture and Other Major Industries as a Percentage of GNP, Jamaica

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
Agriculture, Forestry and Fishing	12.0	13.5	12.6	11.6	11.0	10.8	9.9	7.8	6.7	7.8	7.6	7.5	7.1	7.7	8.4	8.8	8.3	7.6	8.4	7.9
Export Agriculture	-	-	-	4.8	4.4	4.4	4.0	3.1	2.3	2.3	2.1	1.5	1.6	1.8	2.0	1.4	1.4	1.2	1.1	1.1
Domestic Agriculture**	-	-	-	3.8	3.7	-	-	-	2.9	4.1	3.8	3.1	3.1	3.2	3.5	4.3	4.0	3.6	4.6	4.0
Mining	9.7	9.0	9.5	9.7	14.3	14.2	12.8	12.5	12.7	10.8	8.7	8.7	13.0	10.5	8.7	10.3	13.6	14.5	14.3	12.7
Manufacturing	13.8	15.5	15.5	15.0	14.5	14.3	14.7	16.0	15.4	15.8	16.4	16.4	16.0	16.1	18.7	18.2	16.9	16.0	15.5	14.8

* 1981 is Provisional

**Omits Livestock

Source: Economic and Social Surveys, 1962-1981.

Table 23

Employment by Major Industry, Jamaica, 1962, 1968, 1972, 1976, 1981

	1962	1968	1972	1976	1981
<u>Productive Sectors</u>					
Agriculture, Forestry, Fishing	n/a	220.5*	222.7*	243.9	273.1
Mining, Quarrying, Refining	n/a			7.8	8.0
Manufacturing	n/a	64.8	92.9	75.6	82.2
Construction	n/a	39.4	51.4	38.0	29.0
<u>Services Sectors</u>					
Transport, Communication and Public Utilities	n/a	25.7	29.0	31.5	33.2
Commerce	n/a	67.8	90.5	80.7	102.0
Public Administration	n/a	56.2	75.0	106.4	105.5
Other Services	n/a	106.9	160.0	98.5	115.8
Industry not Specified	n/a	1.0	1.0	3.5	3.6
Total		582.4	722.6	685.9	752.5

*Includes mining

Source: Labor Force 1973, Dept. of Statistics, Economic and Social Surveys, 1975-1981

This has implications for the remuneration of agriculture workers and will be covered more fully in the next section on income distribution.

One additional economic indicator for the economic health of an economy is the effect of prices on consumers. Table 24 (and the World Bank)¹⁹ indicate that although general and food price inflation were not as high in Jamaica as in some other Caribbean and South American countries, price increases for food were still significant and high when compared to other L.D.C.'s. Since rural people have to purchase some food products plus other consumer goods, this has a proportionally greater effect on their lifestyle when the industry they work in is stagnating economically, as it was in Jamaica during this period.

Table 24
Annual Percentage Change in Consumer Prices, Jamaica, 1962-1981*

Year	1962	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	1981
All Items	1.6	1.6	2.3	2.3	2.2	2.9	6.0	6.2	9.7	5.3	5.3	17.6	27.2	17.4	9.8	11.2	34.9	29.1	27.3	12.5
Food and Drinks	0.0	0.0	2.4	3.1	1.5	3.7	6.7	6.3	11.0	6.6	4.7	24.6	29.0	17.8	8.9	9.4	36.8	33.4	33.4	10.3

*1962-1971 are for Kingston only

Source: Economic and Social Surveys, 1962-1981.

In terms of the structure of agriculture itself, it appears there has been little change since 1961. A Census of Agriculture was conducted in both 1968/69 and 1978/79, and although at the time of writing only data on land distribution are available for 1978/79, it appears from this that farms may not have changed much in the twenty year period. Table 25 shows land distribution by per cent of farms and per cent of land. From this table it is obvious that land ownership was still highly concentrated in Jamaica in 1978/79. What this indicates is that Projects Land Lease and Pioneer Farms had little overall impact on many of the small producers (at least by 1978/79). Although by 1980 some 112,391 acres had been leased to 28,103 small farmers,²⁰ it appears this was not enough to make much of a change in land distribution patterns. In fact this represented only 8.5% of all farm land in Jamaica, and although a large number of farmers benefited, each may not have received enough to make an economic unit.

Table 25

Number and Size of Farms, 1968/69 and 1978/79, Jamaica

	0-4 Acres	5-24 Acres	25-99 Acres	100-499 Acres	Over 500 Acres
<u>1968/69</u>					
	Per Cent				
Farms	78.6	19.4	1.6	.4	.2
Acreage	14.9	22.1	8.3	9.9	44.9
<u>1978/79</u>					
Farms	81.9	16.2	1.3	.5	.2
Acreage	16.0	19.3	8.1	12.3	44.3

Source: 1968/69, and 1978/79 Agricultural Censuses

Pioneer Farms was even smaller and by 1980 only involved 132 farmers, 9 farms and 1,648 acres.

From the published 1968/69 Census it is also possible to analyse the major types of production, fertilizer use and degree of mechanization. Table 26 indicates that small farmers still depended primarily on both Other Crops (Domestic) and Export Crops for their income. Large farms were still dependent on export crops and on beef cattle as their primary source of incomes.

Table 26
Farmers Major Source of Income, 1968/69

	0-4 Acres	5-24 Acres	25-99 Acres	100-499 Acres	500-Over Acres
	%				
Export Crops	36.4	51.2	42.8	50.4	51.8
Other Crops	45.1	37.0	25.8	5.2	3.8
Beef Cattle	1.8	5.5	15.0	19.5	34.1
Other	16.7	6.3	16.4	24.9	10.3
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>

Source: Adopted from 1968/69 Census of Agriculture

This pattern was still the same as in 1961 and as described in Chapter 2.

Fertilizer use and machinery use were also relatively unchanged from 1961 to 1968/69. Tables 27 and 28 indicate that large farms used by far the most fertilizer and were much more heavily mechanized than were small farms.

Table 27Use of Artificial Fertilizer by Farm Size, 1968/69

	0-4 Acres	5-24 Acres	25-99 Acres	100-499 Acres	500 and Over Acres	Total
	Percent					
Percent of Total Tonnage	8.7	10.7	5.1	8.0	67.5	100

Source: Adapted from 1968/69 Census of Agriculture

Table 28Use of Tractors, Trucks and Animal Vehicles by Farm Size, 1968/69

	0-4 Acres	5-24 Acres	25-99 Acres	100-499 Acres	500 Acres Acres	Total
	Percent					
Tractors	1.5	4.1	6.0	17.4	71.0	100.0
Trucks and Vans	16.6	18.3	12.4	17.9	34.8	100.0
Animal Vehicles	28.9	28.7	9.0	13.7	19.7	100.0

Source: Adapted from 1968/69 Census of Agriculture

Although these types of data for 1978/79 were not available at the time of writing, it may be argued that because land ownership (and therefore assets) did not change appreciably from 1961 to 1978/79 it is probable the use of other factors of production did not change either.

In terms of economic growth and other factors related to economic health, it becomes apparent that little change occurred in the twenty year period under study. Some economic growth occurred from 1962-1972 but this was not accompanied by any structural changes benefiting smaller (and therefore most) farmers. From 1972-1980, economic growth even worse and it does not appear the PNP policies aimed at greater re-distribution of assets were comprehensive and substantial enough to have achieved any real change in the status quo at least by 1981.

b) Income Distribution

Data on income distribution in Jamaica are not widely available for any time period, including the one of this study. The last major study on income distribution was released in 1964 and contained data on the years 1958 and 1960. Since this time, no comprehensive study on income distribution has been published and as a result, quantitative analysis of this development indicator will require the use of other measures of income distribution.

Jamaica's average per capita income was \$1,080 U.S. in 1980²¹ which was high by many developing countries' standards. However, per capita income as a sole indicator of the level of well-being can be a very misleading statistic and this is the case in Jamaica.

The 1958 study on income distribution showed a highly unequal pattern in Jamaica. Although Jamaican rural incomes were not as skewed as in many other developing countries, distribution was still very unequal and the bottom deciles of the rural population received very small portions of the total income. Table 29 shows the income

distribution for rural dwellers and Table 30 shows the distribution of all households by income group.

Table 29

Percentage Income Shares of Deciles of Rural Households, Jamaica, 1958

Ordinal Group	Percentage Income Shares
0-20	2.5
21-40	6.4
41-60	11.2
61-80	19.0
81-90	17.4
91-95	13.9
96-100	29.6
	60.9
	100.0

Source: E. Ohisam "Income Distribution in Jamaica, 1958"

Table 30

Distribution of Households by Income Group, Jamaica, 1958

Income Group \$J	Percent of Households
Less than 100	20.6
100-199	20.2
200-299	14.7
300-399	10.0
400-599	13.5
600-1199	13.0
1200-1799	3.7
1800-2399	1.9
2400 and more	2.4
	100.0

Source: Same as Table 29

Although subsistence income was not included in Table 30, estimates at this time indicated that because subsistence income in Jamaica was of relatively low value, the percentages in each income category would not change significantly. It is evident from both Tables 29 and 30 that rural income distribution at the start of this study was very unequal and that rural incomes were low. The author of this study also found that urban groups received anywhere from 2.2 to 3.5 times as much income as their average rural counterparts. Table 5 in Chapter Two on Average Incomes by Industry also confirms this.

Tables 31 and 32 provide further indication of how incomes were spent at this time.

Not only were urban dwellers able to spend 55% more every week than rural dwellers but the pattern of expenditure was also different. Even though rural dwellers produced much of their own food they still had to spend a larger percentage of their weekly expenditures on this category than did urban dwellers.

This series of tables indicates that in the early 1960's income distribution was highly unequal both between rural and urban areas and within the rural community itself. In terms of this study, the question then becomes whether or not any of the policies of successive governments were able to change this highly unequal pattern. Both the JLP and the PNP stressed increased rural incomes as priorities although it appears the PNP may have instituted more comprehensive policies towards achievement of this facet of development. As noted earlier, there are no comprehensive published data on income distribution (rural or otherwise) in the late 1970's. However Tables 33-36 do provide some indication of what happened during the twenty year period 1962-1981.

Table 31

Distribution of Expenditure by Main Categories - Main Towns
1963/64

Categories	Expenditure in Shillings	
	Average Weekly Expenditure	% Distribution
1. Food (incl. meals away from home)	60.41	50.69
2. Household Supplies	7.16	6.01
3. Household Operational Expenses	11.29	9.47
4. Home Furnishings & Furniture, etc.	5.76	4.83
5. Personal Expenses	10.27	8.62
6. Personal Clothing and Accessories	12.98	10.89
7. Transportation	3.26	2.75
8. Recreational, Reading, Educational Expenses	3.63	3.05
9. Miscellaneous	4.41	3.70
TOTAL	119.17	100.00

Source: Household Expenditure Survey 1963-64.

Table 32

Distribution of Expenditure by Main Categories - Rural Areas

1963/64

Categories	Expenditure in Shillings	
	Average Weekly Expenditure	% Distribution
1. Food (incl. meals away from Home)	43.73	56.64
2. Household Supplies	4.64	6.01
3. Household Operational Expenses	2.87	3.72
4. Home Furnishings and Furniture, etc.	3.51	4.55
5. Personal Expense	5.23	6.77
6. Personal Clothing and Accessories	10.22	13.24
7. Transportation	2.66	3.44
8. Recreational Reading & Educational Expenses	1.51	1.95
9. Miscellaneous	2.84	3.68
TOTAL	77.21	100.00

Source: Household Expenditure Survey, 1963-64.

Table 33

Percentage Distribution of Labour Force By Selected Industry and Income
Group 1978 and 1980

	<u>1978*</u>	<u>1980*</u>
	<u>Percent</u>	
<u>Agriculture, Forestry, Fishing and Mining</u>		
No Income	13.9	11.2
Under \$20	40.7	25.2
20-49	25.0	31.2
50-99	4.7	11.6
100 and Over	1.5	3.0
Not Reported	14.2	17.8
<u>Manufacture</u>		
No Income	1.8	2.2
Under \$20	9.3	4.2
20-49	26.1	18.0
50-99	17.9	19.4
100 and Over	6.7	13.8
Not Reported	38.2	42.4
<u>Public Administration</u>		
No Income	.1	-
Under \$20	2.8	2.0
20-49	26.5	15.5
50-99	26.9	23.0
100 and Over	13.1	24.3
Not Reported	30.6	35.2

*Average of April and November Surveys

Source: Adapted from The Labour Force 1980; Jamaica Department of Statistics

Table 33 shows the distribution of incomes within certain industries. This table indicates that, even when mining is included in the agriculture category, the concentration of workers is much higher in the "no income", and "low income" categories than it is for other areas of employment. Another study, shown in Table 34 tends to confirm this finding of continued low incomes in agriculture.

Table 34

Average Weekly Income by Class Grouping, 1977

Average Weekly Income	Small Farmers	Lower Working Class	Working Class	Lower Middle Class	Middle Class	Capitalists
Less than \$30	84%	67%	5%	0%	0%	0%
\$30 - \$49	12%	27%	45%	3%	0%	0%
\$50 - \$69	4%	6%	20%	18%	0%	0%
\$70 - \$99			19%	29%	11%	0%
\$100 - \$149			5%	44%	28%	0%
\$150 - \$199			4%	3%	22%	0%
\$200 - \$499			2%	3%	24%	14%
\$500 or more					15%	86%
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Source: Carl Stone: "Democracy and Clientelism in Jamaica"

This survey, done in late 1977, as part of a larger political, economic and social study, sets out the income distribution for various social classes.

Although it can be argued that rural workers and farmers are present in both the middle classes and the capitalist classes, it is probable that the majority are still small farmers (Table 25 on land distribution would also tend to confirm this). Both Tables 33 and 34 would then lead one to conclude that income distribution has not improved, either relative to urban workers, nor within the rural sector.

There have also been recent estimates of average household incomes for small area locations within Jamaica. A United States Department of

Agriculture/U.S. AID study estimated incomes in the Buff Bay Valley and Rio Grande areas in 1977 as part of a larger study on the Jamaican small farmer:

Table 35

Income Estimates for Small Farmers and Dependents,
Buff Bay Valley and Rio Grande Valley, 1977

	<u>Buff Bay Valley</u>	<u>Rio Grande Valley</u>
Ave. Gross Income	\$1,341	\$1,596
Cash Expenses	440	620
Net Cash Income	901	976
Value of Home-Grown Food	402	395
Net Income	\$1,303	\$1,371

Source: USDA/USAID: The Small Farmer in Jamaica. Agriculture: An Assessment of Constraints and Opportunities

These estimates were for small farmers with 4 dependents so on a per capita basis the incomes are \$261 and \$274 respectively, which represents about 1/3 - 1/6 of the average per capita income for all residents of Jamaica.

In terms of social amenities it also appears small farmers and peasants were much more deprived than were their urban brethren.

Stone's findings in Table 36 indicate that amenities such as piped water and electricity were virtually non-existent on peasant farms, but were more widely available elsewhere.

Although this series of tables is not as comprehensive as one may wish, they do appear to provide enough data to indicate that the lot of the rural peasants in terms of substantive and real increases in income

Table 36

Social Deprivation in Access to Social Amenities, 1977

Metropo- politan area of Kingston & St. Andrew	% without piped water	% without electricity	% sharing toilet facilities	% with dwelling with more than 4 persons per room	% not owning dwelling	% living in one room dwellings
Lower class	12	21	84	30	88	65
Working class	3	9	60	13	80	42
Lower middle class	0	0	10	5	72	0
Middle class	0	0	0	0	45	0
Capitalists	0	0	0	0	40	0
Rural Parishes						
Peasantry	97	94	32	12	20	22
Working class & lower working class in towns	83	42	48	25	57	21

Source: Carl Stone, "Democracy and Clientelism in Jamaica".

has not improved to any extent from 1962 to 1981. In fact without more precise data to define what actually happened, it is possible his condition has worsened, vis-a-vis both urbanites and other larger farmers.

In any case, it does appear that income distribution did not improve over the study period, at least to any significant degree, and therefore this measure of development of the agriculture sector also indicates a lack of substantive progress.

c) Participation

This measure of social and economic development of the rural sector is even harder to quantify or find data on than is income distribution. One problem is that until the 1970's, participation was not widely recognized as a key ingredient of the development process. Another problem is that even when this had occurred, there was no common definition of what participation involved.

In comparison to other developing countries, Jamaica has always had a high level of political participation. This country is a parliamentary democracy with widespread concern over politics and the percentage of the population casting their votes has always been high.

Table 37

Participation of Registered Voters in General Elections
(Percent)

	<u>1962</u>	<u>1967</u>	<u>1972</u>	<u>1976</u>	<u>1980</u>
% Voting	73	82	79	84	80

Source: Adam Kuper, "Changing Jamaica" and Dept. of External Affairs, Gov't of Canada, Ottawa.

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In addition, economic participation occurs to a large degree in Jamaica through the trade union movement, which is very widespread throughout all segments of the economy. However, neither of these types of participation ensure that decisions affecting the well-being of rural peasants are being determined by them and this is a key factor in effective participation.

Participation in the early 1960's was thought of in terms of how farmers could participate in programs that were deemed important by the central authorities. Both the Agricultural Development Programme²² and the Farmers Production Programme²³ set out details as to how farmers could receive the appropriate subsidies and other assistance available under these programs. The main mechanism for information at that time was the Jamaican Agricultural Society and this is still one of the largest organizations of farmers in Jamaica.

Table 38 indicates the main farmers' organization and groups that have developed in Jamaica over the last 20-30 years.

Table 38

Agriculture Organizations, 1983

<u>Organization</u>	<u>Function</u>
Jamaica Agricultural Society	Multi Purpose
Coffee Cooperative Societies	Marketing
Cocoa Cooperative Societies	Marketing
All Island Cane Farmers Assoc.	Price Information and Marketing
All Island Banana Growers Assoc.	General Purpose
Jamaican Livestock Association	Multi Purpose

Citrus Growers Association

Marketing

Christiana Potato Growers
Cooperative

Marketing, Fertilize and Seeds

Cooperatives

Credit Unions, Thrift and Loans,
Housing, People's Cooperative
Banks etc.Source: FAO "Country Report on Progress in Agrarian Reform and Rural
Development - Jamaica"

The Jamaican Agricultural Society was established in 1895 to disseminate information, encourage better agricultural practices and to oversee the interests of the agricultural sector.²⁴ Its membership is very large, numbering approximately 80,000 in 1982. The JAS receives substantial government support annually in addition to membership fees. It has generally been successful in promoting and establishing many of the other boards and associations in Table 38. However, this society has been criticized for its failure to address the major problems facing many farmers. It has tended to be rather bureaucratic and discussion has often been favored over action. In terms of the major problems evident during the twenty-year study period this organization has not been effective in addressing the major issues of poor land distribution and inadequate incomes. Some authors²⁵ believe this is due to the dominance of this society by large farmers and note that small farmers cannot get their needs addressed. Since this organization is also dependent on the Government for financial support, it is probable that this has limited its advocacy power.

The other commodity and credit organizations have generally been involved in just one or two facets of agricultural development specifically related to their jurisdiction. Many of these agencies have

just dealt with marketing and perhaps provision of inputs, and little effort has been spent on other important factors such as credit and training. Little research has been done and quality control and market development have not generally been considered to be part of their function. In terms of development, virtually none of the agencies has evolved into a comprehensive supplier of the needs of most Jamaican farmers. As a result, participation by farmers is often not extensive nor active unless membership is mandatory. Table 39 provides data from a study of the Two Meetings and Pindars River areas of Jamaica. This table indicates that active members as a percentage of all farmers in the area was reasonably high for the Jamaica Agricultural Society and for the JAS Coffee Group. However, most organizations did not have a high percentage of active members and this tends to confirm the belief that many of these organizations do not provide effective participation for smaller farmers. These data and this study will also be examined more closely in Chapter 4.2.

Another factor inhibiting local participation has been the highly centralized government control over virtually all facets of decision-making for agriculture. Table 40 indicates the extent of government involvement in the Jamaica agriculture sector.

Table 39.

Active Members in Farmers Organizations,
Two Meetings and Pindars River

<u>Organization</u>	<u>Active Members¹ as Percent of:</u>	
	<u>All Respondents²</u>	<u>Total Membership</u>
Jamaica Agricultural Society	28%	41%
JAS/Coffee group	26	40
JAS/Cocoa group	15	37
All-Island Cane Farmers Assoc.	10	58
All-Island Banana Growers Assoc.	8	34
Citrus Growers Assoc.	n.a.	n.a.
Christiana Potato Growers Coop.	9	45
Peoples' Cooperative Bank	11	26

¹ Active membership defined as having attended a meeting of the organization within the last two years.

² In this table "respondent" refers not only to the individual surveyed, but to all members of his or her household.

Source: Arthur A. Goldsmith, Harvey S. Blustain, "Local Organization and Participation in Integrated Rural Development in Jamaica".

Table 40

Organizations Subordinate to or Owned by
the Government of Jamaica, 1981

<u>Ministry of Agriculture</u>	<u>% Owned by Government (where applicable)</u>
Agricultural Credit Board	
All-Island Banana Growers Assoc.	
Banana Insurance Fund	
Citrus Authority	
Coconut Control Authority	
Coconut Lethal Yellowing Ins. Fund	
Coconut Products Board	
Coconut Windstorm Insurance Fund	
Community Committees	
Land Authorities	
Land Development and Utilization Commission	
Pimento Advisory Board	
Sugar Industry Authority Funds	
Sugar Producers Federation	
Veterinary Board	
<u>Agricultural Development Corporation</u>	
Jamaica Meat Packers	100%
Jamaica National Meat Enterprises Ltd.	100%
Livestock Developments Ltd.	100%
<u>Coconut Industry Board</u>	
Brooklodge (1979) Ltd. (Coffee Training)	100%
Sepead Ltd. (soaps)	100%
Caribbean Products Ltd.	100%
Jamaica Detergents	100%
Jamaica Feeds	60%
Jamaica Grains and Cereal	84%
<u>Jamaica Agricultural Society</u>	
North Clarendon Processing Co.	78%

<u>Jamaica National Sugar Co. Ltd.</u>	100%
Clarendon Distillers Ltd.	51%
Duckenfield Sugar Ltd.	100%
Grays Inn Sugar Ltd.	100%
Iunswood Distillers Ltd.	24%
Iunswood Estate Ltd.	24%
Iuswood Vinegar Ltd.	24%
Jamaica Sugar Man. Ltd.	100%
Lung Pond Sugar Ltd.	100%
National Sugar Data Ltd.	100%
National Sugar Farms Ltd.	100%
Sugar Manufactures Corp.	33%
Sugar Shipping Ltd.	100%
Clarendan Sugar	100%
St. Elizabeth Sugar Ltd.	100%
West Indies Sugar Ltd.	100%

<u>Sugar Industry Authority</u>	
Sugar Industry Housing	100%

<u>No Parent Body</u>	
Banana Company of Jamaica Ltd.	100%
Banana Growing Projects	100%
Charlemont Development Co. Ltd. (Farming)	100%
Cocoa Industry Board	100%
Danks Savory Ltd. (Citrus Farming)	100%
Eagle Farm Co Ltd.	100%
Farmers Trading Co.	70%
Frome Momymusk Land Co. (sugar)	100%
Hanover Spices Ltd.	100%
Pimento Export Division	100%
Sugar Industry Authority Crop Account	100%
Tobacco Industry Control Authority	100%

Source: World Bank: "Report of the World Bank Mission, 1981 - Jamaican Agricultural Sector - Development Issues and Prospects".

Many of these agencies or companies were set up by the PNP in the 1970's to assist agricultural development, and one external agency (the World Bank) notes there has been a lack of qualified staff to run these agencies and their effectiveness has suffered as a result. In addition to this it is probable this plethora of agencies, boards and commissions has tended to dampen local initiative to some extent. The

decision-making for virtually every agricultural commodity is highly centralized and local authorities and small farmers appear to have little effect on the overall process.

One of the major attempts at increasing participation by the PNP was their creation of cooperative farming ventures. The sugar cooperatives formed in 1974 on former foreign-owned estates were the major example of their attempt to increase participation. It appears that some of the coops did have a degree of success in achieving greater participation of small farmers. Unfortunately this industry was hit by both low prices, and high production costs and as a result almost all the sugar cooperatives are bankrupt and have since been disbanded. This is probably an example of how the facets of development are interrelated and how increased participation must also occur within the framework of good management and an attention to the realities of export markets.

(This will also be examined more closely in Chapter 4.2) Other production cooperatives established by the PNP did not fare much better due to some of the same reasons. Since returning to office in 1980 the JLP has not stressed increased participation to the same extent as did the PNP during the 1974-1980 period.

In summary, there are generally not enough data available on participation to rigorously and quantitatively analyze this component of development. In qualitative and descriptive terms, it appears that although some types of participation are evident in Jamaican society, a large portion of the rural populace do not have effective mechanisms in place to ensure they have some degree of control over decisions affecting their well-being. Although some attempts at increasing participation were made by the PNP during the 1970's they were generally unsuccessful for other reasons which will be addressed in subsequent chapters.

This chapter has shown that our first hypothesis appears to be correct. Jamaican agriculture has not made any significant gains in the three components of development during the twenty-year period under study. In actual fact conditions may have worsened during this period, but this cannot be accurately determined. The second major hypothesis of this study - that both internal and external factors, forces and actors have shaped and constrained agricultural development during the study period will be examined in the next four chapters.

Notes, Chapter 3

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3. Ministry of Agriculture, The Agricultural Development Programme 1960-1965, Ministry Paper 42, Kingston, Jamaica, Nov. 7, 1960.
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11. Leslie.
12. Government of Jamaica, Emergency Production Plan, Kingston, Jamaica, 1977.
13. United Nations - Food and Agriculture Organization, p.19.
14. Government of Jamaica - The Five Year Independance Plan 1978-82, Kingston, Jamaica, 1978, p.25.
15. United Nations - Food and Agriculture Organization p.30.
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17. The World Bank, World Development Report 1982, Baltimore: The Johns Hoploins University Press, 1982, p.142.

18. Ibid, p.112.
19. Ibid, p.110.
20. United Nations - Food and Agriculture Organization p.157, 161
21. World Bank, p.110.
22. Government of Jamaica, Agriculture Development Programme, p.11.
23. Government of Jamaica, Farmers Production Programme, p.11.
24. United Nations - Food and Agriculture Organization p.116.
25. Ibid, p.117.

CHAPTER 4: DOMESTIC INFLUENCES ON AGRICULTURAL DEVELOPMENT

4.1 Economic Forces

The internal or domestic influences that have affected agricultural development in Jamaica can, for the sake of analysis, be broadly grouped into economic, political, and socio-cultural categories. The economic factors generally considered to have had a major constraining influence on Jamaica's agricultural development are: land use and tenure; agricultural marketing and pricing; the provision of inputs and infrastructure (including credit and extension); and the amount and types of agricultural research. These economic factors are all of major importance in any analysis of agricultural development in Jamaica and have all directly affected the development process during the period under study.

Chapter Two has shown that the historically skewed system of land ownership was still in existence by 1962. The results of the 1978/79 Census (Chapter 3) also indicate that this ownership pattern did not change appreciably in the twenty-year period under study. The historical pattern whereby a few farms occupy the best land in large acreages is still in evidence today. These farms coexist with tens of thousands of rural smallholders occupying land of poor quality that is usually on rugged terrain. Many authors have discussed the economic implications of this structural imbalance and its effect on agriculture. Two of these analysts¹ note that this system (common to most of the Caribbean) creates two serious distortions in an agricultural economy. On the small farms the relative scarcity of land and abundance of family labor has resulted in an overutilization of labor and a relatively low output per individual. In effect, low financial and technical resources have created an undercapitalization contributing to the

low output per individual. On the large farms the relative abundance of land has encouraged its waste and vast tracts are underutilized. This general observation is further complicated by the fact that in Jamaica the large farms usually produce crops such as sugar or bananas or concentrate on livestock production. Both sugar and bananas are presently in dire straits in Jamaica in terms of both yields and of profitable production. In addition, livestock production on the large farms can be considered to be extensive rather than intensive in terms of labor use. Small farmers can produce high yields of many intensive crops with high values such as vegetables and spices but this will not occur unless they have enough land to fully utilize their labor.

In terms of research there appears to be a sufficient body of knowledge stressing the merits of land reform policies. A comprehensive land reform has been found by many analysts to be one of the most effective mechanisms for increasing income distribution and improving the welfare of rural peasants. Cline² notes that land redistribution is the policy most likely to bring about both increases in output and an improvement in equity. In an analysis of the effects of several types of agricultural policies on rural income distribution he also found that these potential increases (in output and incomes) tended to be particularly large in Latin America. Land reform also had significant advantages over other types of policies such as improvements in seed varieties, the provision of fertilizer, farm mechanization, irrigation, credit and taxation and price policies.

Ip and Stahl³ took a slightly different approach in their analysis of the efficiency of resource allocation under alternative forms of land tenure, but their results are similar to Cline's. They found that land reform measures that re-distributed land to the peasants tended to improve agricultural production efficiency as well as the resource allocation between sectors. In

addition they found that land re-distribution policies were more favorable than leases or sharecropping and when implemented, tended to result in increases in the overall economic development.

Figueroa⁴ in his research on land reform, found that although land reform per se did not always increase income distribution and that it was not the only condition necessary for rural income distribution it did originate a new institutional framework within which complementary policies could be inserted. He further noted that after land reform the government must then design these complementary policies based on local conditions before rural development could occur. This cautionary note is also raised by Parsons⁵. He indicates that a land reform programme that still leaves the elites with control over access to credit, marketing and other resources will result in little overall change in the status quo.

It does appear however that there is sufficient research to state that although land reform does not guarantee increases in production and improvements in incomes for peasants, it is probably a pre-condition for these processes to occur. Although thousands of acres of land have been redistributed in the last forty years in Jamaica this re-distribution does not appear to have been effective in terms of creating new and viable agricultural units. Redistribution occurred fairly frequently up to 1968 and was increased sharply by the PNP under the various phases of Project Land Lease. In a very short period (5 years) Project Land Lease was able to redistribute about 8% of the total agricultural land in Jamaica. This is no small accomplishment, and it is probably too early to fully evaluate the effects of this program. However, land ownership and tenure in Jamaica for many small farmers is still uncertain. Even the land lease policies have tended to be piecemeal rather than comprehensive and as a result small farmers still have as much risk in

their lives as before Project Land Lease. Many small farmers still do not have clear title to their lands and the concept of family ownership often means it is unclear who can claim the harvest. In addition there are still vast acreages of government owned lands (some of which squatters have occupied) for which no clear land use or purpose has been defined⁶. Since small poor farmers above all wish to reduce their risk in an uncertain and unfriendly environment, this uncertainty regarding their most basic asset results in few being willing to make changes to their established practises.

This lack of a comprehensive implementation of land plans by various Jamaican governments has also been observed by others. The Food and Agriculture Organization of the United Nations (FAO)⁷ states that although a physical plan, stressing zoning to ensure proper land development, was prepared by the UNDP in 1971, this plan was never implemented. FAO notes (perhaps optimistically) that if it had been implemented along with other programs such as the Land Lease program many of the present problems with land might have been solved by the late 1970's.

Even with Project Land Lease the emphasis appeared to be on pleasing as many farmers as possible, and not with considering factors such as technical supervision and the use of conditions to ensure proper cultivation⁸. Tenants were not rigorously screened as to suitability, the land to be leased was not fully evaluated, land was often not leased in economic units, little credit supervision occurred, and the provision of supplies and inputs was inadequate. This inattention to details can severely constrain a program that at first sight appears to (and probably did) have a sound economic basis.

The new JLP government has moved to grant freehold tenure to many small farmers in an attempt to provide security of tenure. As well a restrictive clause has been entered into the agreements for sale which is designed to

prevent speculative use and also restrict land use to proper agricultural uses. In addition, a land classification study is being undertaken to provide information on optimal land use⁹. However, these are only part of the problem and it appears a very comprehensive land reform and land use policy is required in Jamaica before this constraint to improved incomes and output for rural peasants can be overcome. Unless new and major reforms are forthcoming this economic factor affecting agriculture will continue as a major constraint on development.

The second major economic constraint on improving rural welfare has been the pricing for farm products combined with an inefficient and occasionally ineffective marketing system - at both the domestic and export levels. The domestic marketing system in Jamaica has two components: private traders called "higglers" and a government organization - the Agricultural Marketing Corporation. Domestic food crops originate primarily from smallholders and the higglers' role is to gather small amounts of produce from each smallholder and then retail it at either urban traditional markets, directly to supermarkets or at roadside stalls. It is estimated that 75-80% of the domestic marketing is handled by higglers¹⁰ and the balance by the Agricultural Marketing Corporation. The higglers are mainly women and this system creates employment opportunities where few others would exist.

The higgler system has been criticized by several international agencies for its inefficiency and high costs. It is argued that higglers do not standardize their produce, food is wasted and the marketing charges for farmers are excessive. However, what is often ignored is that the system is quite effective. Collection of small amounts of produce from many smallholdings over difficult and often impassable terrain would be costly for any marketing system. In addition, the system is effective in that consumers do receive the produce (usually in quite sufficient quantities) and farmers

do get paid. These do not always occur with more organized marketing systems. The higgler system also has the obvious social benefit of creating employment for a large number of otherwise unemployable people. As such this system is presently the one bright spot in Jamaica's agricultural marketing system.

The Agricultural Marketing Corporation is the other major component of the domestic marketing system. This body has wide powers and duties and was originally set up to provide farmers with an assured market and reasonable prices. Other functions included keeping consumer prices low, providing nutritious food to low-income consumers, providing facilities for marketing, and functioning as an import-export agency.¹¹ Obviously some of these activities have potential conflicts inherent in them and this has affected the AMC's effectiveness. The AMC also sells food products through its own retail stores and to government institutions, other wholesalers, and supermarkets and hotels. It has increased its purchases from farmers (Table 41) for a few products but has lost ground for many others since the mid-70's. It is estimated today that it controls no more than 15-20% of the domestic food marketing.

For farmers, the AMC has had very mixed results. The AMC has attempted to reduce higgler margins by retailing direct to consumers but it faced the problem that it did not control enough of the market to be a price-setter. In addition it is not active in many rural markets and has had little retail effect in these areas. The AMC does operate approximately 200 buying stations in the country where products can be assembled, cooled, stored, graded and packaged. However, its relationships with farmers have not always been the best. The policy of keeping consumer prices low has often conflicted with reasonable producer prices. As well, when minimum prices have been set all farmers could not benefit because the AMC only had a small part of the market.

Table 41
Selected Items of A.M.C. Purchases From Growers, Jamaica, 1962-1981
('000 lbs.)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
Carrots	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	473	863	1,434	2,132	1,619	1,464	1,290	2,896	516	558	423	401	175
Cabbage	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	342	514	1,576	1,723	291	3,477	2,177	1,637	574	2,115	895	713	480
Yellow Yams	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1,868	1,322	2,232	2,318	943	1,011	1,927	2,617	2,687	2,426	2,040	2,162	1,914
Negro Yams	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	3,433	6,826	8,199	6,961	4,133	2,677	2,711	4,034	2,408	2,202	1,352	609	1,417
Irish Potatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	6,493	3,278	14,182	14,545	6,253	12,349	14,274	11,728	3,376	2,202	1,956	769	972
Plantains	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	845	866	916	1,117	344	1,117	1,174	669	386	850	649	306	179
Watermelons	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	328	1,106	1,179	469	773	2,185	564	317	1,141	323	250	232	145
Tomatoes	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	475	723	966	1,101	872	3,086	1,347	1,278	446	857	460	430	294
Pumpkins	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	914	1,060	1,373	1,988	1,527	1,388	3,679	4,916	1,339	1,562	1,070	1,606	1,022
Peanuts	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	180	631	631	78	369	474	438	112	106

Source: National Planning Agency, Economic and Social Surveys, 1961-1981.

Market signals to producers have often been ill-advised and some crops have been understimulated when demand was evident. The AMC has apparently also withdrawn from the market when prices go too low which has often aggravated the situation¹². In general, the mandate for the AMC appears to be too broad, with too many conflicting objectives. It did not have the manpower or expertise to be an "everyman" in terms of marketing. If it is to be an effective domestic marketing channel for producers, its duties and responsibilities need to be circumscribed and at the same time its capacity to carry out its primary functions needs to be strengthened.

The marketing of export crops is more rigid, and often more inefficient than that for domestic crops. Export crops are often controlled by monopolistic marketing boards which have tended to both squeeze farmer prices and demand subsidies from the government in their search for funds to finance their generally inefficient operations. This expensive export marketing system has been observed and commented on by many internal and external agencies. A working group on the citrus industry reporting its findings in 1978, recommended that there was an urgent need to reduce marketing charges as grower's incomes were suffering¹³. Another example of these inefficiencies is illustrated by the banana industry. Table 42 shows that banana producers received much less than the average export prices in each production year as the rest was required to finance marketing costs.

Table 42

Bananas: Price of Exports and Average Prices to Growers (Boxes), 1965-1976

	Export Price \$	Grower Price
1965	114.90 /ton.	57.80 /ton
1966	108.70	51.10
1967	115.06	50.00
1968	161.80	48.56
1969	155.81	50.50
1970	162.66	57.38
1971	173.50	58.20
1972	176.84	59.40
1973	246.65	62.40
1974	293.68	105.80
1975	359.08	N/A
1976	294.51	N/A

Source: USDA/USAID: "The Small Farmer in Western Portland and Eastern St. Mary (Jamaica)".

In fact, from 1965 to 1974 they also received proportionately less of the export value. In 1965, growers received about one-half of the export price. Although this would be considered low in many countries, this had shrunk to even less, or approximately one-quarter by the mid-1970's. In addition to these poor prices, many bananas are rejected because of poor quality and then are not diverted into the domestic market, but end up as waste, providing the producer with no income whatsoever. It appears that some boards may be more efficient (e.g., coffee) but it is generally believed that by far the majority of the export marketing boards are both inefficient and ineffective¹⁴.

Other criticisms of the export marketing system are that there is not enough emphasis on market analysis or on quality control. Jamaica can grow a wide variety of export crops but little analysis is performed as to the medium and long-term demands for agricultural products, and there is at present no really effective mechanism for communicating this information to farmers.

Market forecasts tend to be very short-term¹⁵ and rather piecemeal and are usually based on information sent back by overseas Trade Commissioners. Agencies such as USAID and the World Bank have also noted this shortcoming and under the new JLP government more emphasis is being given to improving marketing. A new marketing division in the Ministry of Agriculture has been created but it is too early to tell if it can effectively integrate foreign market intelligence into useful information for producers. Development of new exports such as winter vegetables for Canada and the U.S. presently tends to be performed by outside investors (such as the Israelis)¹⁶ or by the resident large farms. If small farmers cannot benefit from these markets then little change will occur in terms of increased incomes for these people.

Another change implemented by the JLP has been the de-regulation of commodity boards, thereby allowing private firms to offer an alternative market for export crops. This change has at least the potential of increasing producers incomes provided they can in turn produce consistent, quality products. This overlaps with other areas and will be discussed later in this section.

In summary, the marketing system in Jamaica has been asked to perform conflicting social and economic goals. Few clear and definitive policies have been formulated that worked to make the marketing system assist small farmers in marketing their produce and in increasing their incomes. The emphasis on marketing appears to have had too much reliance on one alternative and when this occurred major inefficiencies resulted. Marketing channels tend to work best when farmers have more than one buyer for their produce and when buyers are not all powerful in relation to the producers. In addition to increased marketing opportunities small farmers in Jamaica also needed to be better informed as to export market prospects and prices.

The third major economic factor influencing agricultural development in Jamaica is the provision of support services to agriculture. These include such things as credit and extension services, and may also include the provision of either subsidies or inputs for products such as fertilizer and seed. Of these services credit (or capital) appears to be one of the services most in demand by Jamaican smallholders¹⁷.

Credit in Jamaica was available from six different sources by 1981: the commercial banks, the Jamaica Development Bank, the Agriculture Credit Board (includes Peoples Cooperative Banks), Ministry of Agriculture (Crop Lien and Land Lease Programs), the commodity boards, and private sources¹⁸. Of these six sources the first three are the most important in terms of the amounts outstanding. Table 43 indicates the changes in Agricultural Credit from 1975 to 1981 (the only period for which data are readily available). Although some growth occurred in the Jamaica Development Bank loans during this period, the major increase in lending was from the commercial banks.

Table 44 analyses the major sources of credit by the type of farm receiving the funds, for the period 1971 to 1977. It is quite evident that during this period credit to small scale farmers barely increased in absolute terms and relatively their share of the total agricultural credit outstanding declined from 40.9% in 1971 to 15.2% in 1977. This difference was made up almost exclusively by increases in the amount of credit to large scale farms. Since smaller farmers constitute the vast majority of farms in Jamaica it is apparent that credit is relatively unavailable to this large segment of the agricultural community. Long-term and medium-term credit from banks is apparently not available at all to small farmers.¹⁹

The Agricultural Credit Board and the People's Cooperative Banks apparently both suffer very high rates of arrears on their loans (40-75% is

Table 43Agricultural Credit
(\$J000,000's)

Institution	1975	1976	1977	1978	1979	1980	1981
Agricultural Credit Board	17.9	19.1	20.7	22.3	23.4	24.1	24.7
Jamaica Development Bank	20.2	27.9	31.3	31.3	38.7	38.2	44.9
Commercial Banks	71.1	82.4	90.6	81.9	93.1	108.8	192.9

Source: Economic and Social Surveys.

Table 44

TOTAL LOANS OUTSTANDING BY FARM SIZE
AND LENDING INSTITUTIONS 1971, 1974, 1977

	1971		1974		1977	
	Loan Value '000 J\$	Percent	Loan Value '000 J\$	Percent	Loan Value '000 J\$	Percent
<u>Large-scale Farmers</u>						
(a) Commercial Banks	11,948	39.1	26,546	44.2	90,549	54.4
(b) ACD Direct Loans	1,436	4.7	2,523	4.2	4,827	2.9
(c) JDB	611	2.0	7,447	12.4	24,468	14.7
Subtotal	13,995	45.8	36,516	60.8	119,844	72.0
<u>Medium-scale Farmers</u>						
(a) SSRDP-JDB	4,064	13.3	9,790	16.3	21,306	12.8
<u>Small-scale Farmers</u>						
(a) ACB-PC Banks	12,497	40.9	13,754	22.9	15,813	9.5
(b) Crop Lien Program	-	-	-	-	9,488	5.7
Subtotal	12,497	40.9	13,754	22.9	25,301	15.2
TOTAL	30,556	100.0	60,060	100.0	166,451	100.0

Source: World Bank: "Report of the World Bank Mission, 1981 -
Jamaica, Agriculture Sector: Development Issues and
Prospects"

not uncommon). The loans have generally been poorly administered by these agencies and they do not have enough resources to maintain and administer effective loan appraisal and collection procedures. This lack of supervision and follow-up has contributed to an attitude among smallholders that they do not have to repay "government loans" and has in turn caused the high rate of arrears.

The new JLP government has attempted to rationalize agricultural credit by creating a new Agricultural Credit Bank. This agency is designed to wholesale credit to the PCB's as well as train their staff and provide support services for appraisals. However, it is highly unlikely the current situation or farmer attitudes can be turned around quickly and immediate results are unlikely. As well, since credit is only one part of the development process it can act as a constraint as well as a stimulus. If the new ACB is not integrated with other support services substantive change is unlikely.

The supply of inputs such as fertilizer, seed, and equipment was often a constraint on production during the period under study. The sources for these inputs are the Ministry of Agriculture, the Jamaica Agricultural Society, commodity boards, and some local cooperatives. The supply of these inputs is highly dependent on the availability of foreign exchange and as it dried up in the 1970's these products became increasingly harder to obtain. This situation improved in the early 1980's as foreign exchange increased but inputs are still not widely available, especially for smaller farmers. There have been numerous subsidies for fertilizer, planting materials etc. during the twenty year period under study. However, the supply of these subsidized inputs was often limited or not available due to only a limited stock being maintained by government agencies or due to other problems. One example of the extent of these problems was the fertilizer subsidy, which was

very generous from 1976 to 1978, but was largely unutilized during this period. In 1976, fertilizer was unavailable due to a local strike. In 1977 and 1978 it was again not available due to the foreign exchange conservation program.²⁰ As a result even though the intent of assisting agriculture was evident, the results did not materialize due to other bottlenecks in the system. Beyond the factor of unavailability of inputs, FAO notes that at present (1982/83) "there does not appear to be significant production effect, or distortion of incentives, or even a drain on the budget at the current level of input subsidies".²¹ In other words, even in recent years, not enough funds are being made available to really make much of a difference.

Another major input provided by government is extension and education services for farmers. The extension service in Jamaica for domestic production is provided by the Ministry of Agriculture. Most major commodity groups have their own extension officers who provide advice for export crops. In early 1978 there were over 450 district staff plus about 400 agricultural headmen employed by the Ministry of Agriculture.²² Each district had 350-400 farmers within it and this ratio of farmers/extension agents compares quite favorably with many developed countries. The district staff generally received about one week of training per year plus a 3 month induction course. These staff appear to be reasonably effective in keeping in contact with small farmers. Table 45 from the 1968/69 Census indicates that small farms did have a reasonably large number of contacts with district agricultural officers. Ministry staff also maintain contact with the Jamaican Agricultural Society, and have only in recent years, (since 1951) taken over the extension role from this society. Their duties include handling subsidies and applications as well as normal extension duties.

One criticism of the extension service has been that their methods do not

Table 45

SOURCES OF COMMUNICATION WITH THE FARMER BY SIZE GROUP OF FARMS 1968/69

ALL FARMS

SIZE GROUPS	Number Reporting	Daily Gleaner	J.A.S. Publications	M.O.A. Publications	Agricultural Officers	McDonald Almanac	Others
Under 5 acres	151,705	34,513	7,183	3,900	20,640	32,723	8,169
5-24 acres	37,607	10,920	4,078	2,303	10,124	12,503	2,789
25-99 acres	3,055	1,559	552	426	1,167	1,009	257
100-499 acres	699	580	292	228	392	181	150
500 acres and over	293	271	172	154	198	45	107
TOTAL	193,359	47,843	12,277	7,011	32,521	46,461	11,472

SOURCE: 1968/69 Census of Agriculture

lend themselves to reaching large numbers of farmers. In order to improve this, FAO has recently provided technical assistance to the extension service in order to improve their training, visiting and monitoring (T.V.M.) of farmers. The intent of this program is to provide on-farm demonstrations to small farmers about the use of appropriate technology. Appropriate technology was not always stressed or emphasized by extension officers (or others) in the past and this new direction will hopefully result in the introduction of more applicable methods for small farmers.

The education system in Jamaica has also come under occasional criticism. In the past it has tended to be elitist and many people never advanced beyond primary school. Agriculture is not treated as a subject of any importance, except in the agricultural schools. This has resulted in a lack of skills among many Jamaican farmers which has contributed to the difficulties faced by the extension service.

Agricultural research is the fourth major economic force that has affected agricultural development in Jamaica. This topic has generally not been studied by planners to the extent other economic forces have been and as a result this topic is not always emphasized in discussions of ways to improve Jamaican agriculture. However it is the view of this author that research also has a very important role to play in agricultural development and in agricultural policy formulation.

Agricultural research in Jamaica is carried out by a number of public and private agencies. Table 46 lists the major research agencies and provides an indication of their staff in 1978. As can be seen from this table, the Ministry of Agriculture maintains a fairly large research staff, although the commodity boards and agencies also employed a considerable number of researchers.

Table 46

Principal Agricultural Research Agencies in Jamaica¹

<u>Agency</u>	<u>Technical Staff</u>		
	<u>Professional</u>	<u>Sub-Professional</u>	<u>Total</u>
Ministry of Agriculture			
Crops	10	2	12
Soils and Land Use	9	--	9
Plant Protection	6	1	7
Veterinary Division	12	--	12
Livestock Division	12	6	18
Fisheries	7	--	7
Forestry	1	1	2
Soil Conservation Unit	4	13	17
Agricultural Planning and Policy Review Division	14	2	16
Banana Board	9 - 12	8	17 - 20
Coconut Board	3	3	6
Tobacco Industry Control Authority	1	1	2
Sugar Research Institute	11	12	23
Scientific Research Council			
Argo Industry	6	--	6
Food Science and Nutrition	4	1	5
CARDI (Jamaica)	4	--	4
U.W.I. (Jamaica)			
Inst. Soc. & Econ. Res. (ISER)			
Botany Department	7	--	7
Zoology Department			
Geography			
Ministry of Industry and Commerce			
Storage and Infestation Division	6	--	6
Pioneer Hybrid	1	1	2

In 1978, the Ministry tended to concentrate on research for a wide variety of crops and livestock while the commodity boards concentrated mainly on their principal export crop. In historical terms, research in Jamaica has tended to emphasize export crops at both public and private institutions, and it was not until the 1970's that more effort was placed on domestic crops and livestock. Table 47 shows data for papers published in the West Indies by the Institute of Tropical Agriculture and the University of the West Indies from 1922-1974.

Table 47

Papers published from ICTA/UWI, 1922-1974

<u>Classification</u>	<u>Number of Papers</u>	<u>Percentage</u>
Animal husbandry	245	10
Plantation crops	917	36
Cereals, legumes and oilseeds	181	7
Vegetables	58	2
Root crops	90	3
Timber and tree crops	28	1
Soils and climate	361	14
Economics and Management	164	6
Unclassified	529	21
Total	2573	100

Source: L.B. Coke and P.I. Gomes "Critical Analysis of Agricultural Research and Development Institutions and Their Activities".

Although these data are for all of the West Indies and not just Jamaica it is certain that the concentration on export crops was the same during this period. By the early 1970's, several studies had been done noting this undue concentration on export crops and the lack of production increases for both domestic and export agriculture. Some changes in emphasis then occurred at both the University of the West Indies and at the Ministry of Agriculture resulting in the current emphasis on both domestic and export crops. However

during this period and as a result of the criticism levelled at it, the Ministry of Agriculture was quick to point out that political decisions had circumscribed its ability to perform suitable research.²³ They indicated that as the political climate changed, so did the emphasis on the type of research required. Research is long-term in nature and does not operate well under changing rules-of-the-game. Other problems hurting agricultural research noted by the Ministry included: the diversion of staff and funds to manage land reform; slashing of funds for travelling, reducing supervision of field plots; and research receiving only 2% of the budget of the Ministry.

These problems have also been compounded by a lack of coordination of agricultural research. A FAO/IADB mission in 1974 identified this as a major problem with research in Jamaica and noted that farmers often receive conflicting research advice on crops. The Ministry of Agriculture does not have overall authority over research and farmers often receive differing opinions from different research bodies. An example of this is that during this period the Banana Board provided advice to farmers based on research on bananas in pure stands. Most bananas in Jamaica are not grown in pure stands, but the Ministry of Agriculture could do little to control the dissemination and production of what it considered to be inappropriate research. The type of research performed is also subject to the influence of diverse parties and small farmers are not well represented on research decision-making bodies. (This will be examined in more detail in the next chapter).

One analyst²⁴ believes that research in Jamaica has often placed too much emphasis on re-creating a Green Revolution (as in Mexico) rather than attempting to provide for a step-wise transformation of existing farm practices. Small farmers are often slow to adapt and many of their present practices are both logical and efficient for the physical resources they have.

Others²⁵ also note this problem and stress that research should concentrate on Jamaican crops rather than on adapting varieties from elsewhere. This stress on basic research for local requirements that can slowly introduce improved technology to smallholders appears to offer a solution that although long-term, has the potential to result in significant social benefits. If this research can also place emphasis on ways to adapt technology to the hilly areas small farmers occupy, it may also be possible to obtain some of the benefits that have occurred elsewhere in developing countries (e.g. cheap mechanical rototillers for rice paddies in Asia). Researchers have to face the everyday fact that the vast majority of small farmers live on hilly land of poor quality. If increased output and improved incomes are to come about for these people, the research has to be appropriate to their physical environment.

Although the historical concentration of Jamaican agricultural research has been on export crops as well as being somewhat inadequate and subject to conflicting policy objectives, there still have been bright spots. Examples of research that has been developed and is appropriate for the bulk of Jamaica's small farmers includes: research on new varieties of onions, the control of pests and diseases of Irish potatoes, applied research on various kinds of terraces and associated crops, and research on cocoa growing under Malayan Dwarf coconuts.²⁶ If other types of research similar to these successes can be encouraged research can play a very important role in Jamaica's agricultural development.

Besides the four major economic factors affecting agriculture (land, marketing, provision of government services, and research) there are also other important economic issues that have constrained agricultural development. Space does not permit a detailed analysis but suffice it to note

that factors such as seasonal shortages of agricultural labor at reasonable prices and improvements in irrigation and water are two other economic forces that also work against smallholders (although to a somewhat lesser degree than the factors already discussed). Wage rates in Jamaica are generally high when compared to other developing countries. This has occurred because of the political power of unions combined with two populist parties being in government. Although high wage rates have obvious social benefits, costs are also evident. Small farmers cannot afford to hire laborers so in peak periods smallholders can actually suffer a labor deficit. This has a corresponding effect on employment and it is debatable as to whether or not agricultural wage rates are at a level above what the country can afford.

Water is also a problem for many areas and irrigation is not widespread, especially for small farmers. This lack of sufficient water on many farms has been exacerbated by the periodic droughts that have occurred (the most recent was in the mid-70's) and production of crops has fluctuated significantly depending on rainfall. In addition, approximately 30% of the irrigated land is saline, resulting from overpumping and salt-water incursion into groundwater.²⁷ The long-term solution to this appears to be a better system of water management, including dams and more careful use of present irrigation facilities.

In summary, there are several important economic factors that have shaped and constrained agricultural development in Jamaica. These factors must be overcome, or at least reduced in significance, before we can expect any significant progress with agricultural development. The next section will examine some of the reasons why there has been a lack of progress to date.

4.2 Politics and Policy-Formulation

Equally as important as the economic issues affecting agricultural development, is the process of policy formulation and its affect on the development process. Which groups determine policies, who controls their implementation, who benefits and who loses are all important in an analysis of the development process. These questions are particularly relevant as the answers usually indicate the potential success for those policies designed to achieve greater economic equity and increased participation in decision-making. This section will examine three areas related to politics and policy-formulation: which groups controlled policy formulation during the period from 1962 to 1981, and how this affected agricultural development; how effectively have general government policies been translated into specific and effective agricultural programs; and following up on Chapter 3, a more detailed examination of the role of participation in Jamaican agricultural development will be made.

The approach taken for analysis of the first question will involve the use of a class analysis framework. Although class analysis has many drawbacks (such as problems identifying classes or even establishing their existence) it is still felt this approach is appropriate for analysis of Jamaican agricultural development. It is also the authors belief that this approach can offer valuable insights into the policy-formulation process in this country. Class influence is not seen as the sole reason agricultural development has not yet occurred but it is still felt that class analysis can offer part of the explanation why agricultural policies have been generally ineffective. No attempt will be made to delineate classes into sub-groups and the major criteria for class membership is considered to be economic or income-related.

A number of Jamaican analysts have looked at how policy formulation occurs and examined its relationship with effective agricultural development. One of the leading political observers in Jamaica, Carl Stone, is one member of a group which argues that the primary obstacles to agricultural development in Jamaica have been political. In his detailed analysis of agricultural policies since World War II²⁸ he writes that politics, not economic or administrative constraints, have controlled development and also that these political influences have prevented significant agricultural development from occurring. This phenomenon has also been identified by earlier writers such as George Beckford.²⁹ This group of analysts see governmental policies in Jamaica as representing the interests of different classes and broad groups (or classes) are identified in their analyses. Stone believes the planter class virtually always benefited at the expense of the peasants prior to World War II. After 1945 this changed to some extent (although not significantly) as "class disequilibrium" occurred. The dominant planter class became weaker while at the same time the state became stronger and peasants became more organized, resulting in greater demands by the peasants. The peasants' demands at this time were apparently relatively modest (e.g., better wages and greater access to land) and no radical changes were proposed.

At the same time these events occurred there were other forces working against any significant change occurring in the rural power structure. The rural protest of the peasants was weakened to a large extent by emigration to the cities in the 1960's and by the formation of strong urban-oriented trade unions as discussed earlier. As in many developing countries, the necessary structures for effective articulation of the rural peasants demands have never occurred. The commodity associations sponsored by the government and originally developed to assist peasants with marketing for export crops,

became something of a voice for rural demands but the associations were relatively conservative and tended to be dominated by the rural middle-class. Stone writing later,³⁰ believes these associations were co-opted by the state (perhaps in a corporatist manner) and this is one of several ways that class interests may affect and control policy-making. These bodies rarely lobby or try to use public pressure as a tactic, but instead prefer to deal privately with the bureaucrats in the appropriate regulatory agency (usually the Ministry of Agriculture). In addition, these bodies are usually dominated by leaders with strong personalities who remain in office for a long period of time and often come from either the rural elites or rural middle-class. The rural middle-class includes businessmen, bureaucrats, and landowners usually owning between 50 and 100 acres of land. The rural peasantry are almost never part of the top decision-makers in these associations.

The membership in the Jamaica Agricultural Society is much broader than that within the commodity associations. However control of this group still rests in the hands of the rural middle and upper classes. The top leadership is very conservative and their effect on policy formulation is the same as for the commodity associations.³¹

Stone found that agricultural policy formulation from 1945-1970 was generally controlled by those groups (merchants, planters, rural middle-class) in whose interest it was to preserve the status quo. Radical solutions such as land redistribution were not considered as policy options because of the classes involved in the decision-making and as a result the large number of poor smallholders did not receive any significant material benefits from government policies. Stone concludes from his analysis of class that the peasants have no effective political voice due to the influence of both urban and other rural classes. He further noted that because of the inappropriate

design of policies (i.e., only token measures were taken as a result of class pressures): a) vast sums of credit and subsidies were given to peasants who had unviable holdings in terms of size; b) the Ministry of Agriculture developed a technical expertise inappropriate for small farmers; and c) price and tax policies tended to concentrate on small farmers (to their detriment) rather than on the plantations.

This pattern did not appear to change to any degree in the 1970's. Although the PNP's policies were generally oriented more towards smallholders and towards increased equity and participation, it still had to deal with the political realities present in a democracy such as Jamaica. Jameson,³² in his study of general policy formulation in Cuba, Guyana and Jamaica, found that any Jamaican government must cater to existing groups (or classes) that have an effective political voice or risk defeat at the polls. He notes that the Manley PNP government had to balance the interests of the upper middle class and middle class even though its policies were designed to improve conditions for the lower class. In terms of agricultural policy this had the tendency to work against changes as groups did not wish to forego any of their present advantages. This was further aggravated by the condition of the lower class representing urban interests more than rural and of rural peasants lacking any effective political power. Although the PNP under Manley was able to break with some policies controlled by the upper middle class it was still not able to make any radical changes in policies of a type that went against their interests.

An example of this is provided by another analyst.³³ The JLP in the late 1960's had compiled a register of idle lands in order to later force large landowners to make greater and better use of the land. However, as the JLP lost power in 1972 they did not have time to legislate any policies of this

type. When the PNP took over in 1972 they followed up on the JLP plan and announced the implementation of a levy tax to encourage the proper cultivation of idle lands. At first sight this did not appear to be a controversial or radical policy but it touched on an area sensitive to those groups with influence over policymaking. The result was an uproar, both in the media and throughout the country. Meetings were organized by the Chamber of Commerce in protest and the opposition also entered the fray. Statements were made (by the opposition) such as "farmers would have to sell (their land) since they cannot pay the penal tax"³⁴ - which was a sharp reversal on earlier JLP policies and ludicrous from the standpoint of who the tax was aimed at. The pressure became so great that the government had to introduce numerous changes to the tax bill, removing all of its power. In effect what happened was that a policy generally backed by both parties and by all small farmers (i.e., by far the majority in a numerical sense) was defeated. One probable explanation for this occurrence was that the new policy was seen as an invasion of the rights of private property by the classes who controlled policy formulation.

The conclusions by these analysts tend to support the thesis that dominant classes can maintain the status quo through their political power and thus prevent weaker classes from achieving their goals. The question for a democracy like Jamaica then becomes how to best design policies to serve the groups that are in most need of government assistance (such as the peasants) without alienating the dominant groups. To date it appears that even Jamaican governments concerned with redistribution have not been able to overcome this problem.

It is the view of this author that until rural peasants develop the necessary structures to articulate their demands the situation will remain the same. It is interesting to note that where a substantive redistribution of

assets has occurred in non-Marxist developing countries, it has usually been the result of a social crisis. Examples include land reform in Taiwan and South Korea (after the wars) and in Kenya (after the Mau Mau uprising). No such major crisis has yet occurred in Jamaica but it is not totally beyond the realm of possibility. To forestall this type of crisis one alternative certainly seems to be the establishment of effective political structures for the peasants. It is important to note however that these structures have to be set up by the peasants themselves and not by the bureaucracy. Whether this occurs by a step-wise encouragement by benevolent governments or as the result of an upcoming social crisis remains to be seen.

In addition to the question of who controls agricultural policy formulation in Jamaica another constraint on development has been the implementation of policies.

One Jamaican analyst, Brown,³⁵ identifies some of the problems that have existed in Jamaica in terms of transforming general policies into plans. She notes that planning by the bureaucracy in Jamaica has developed into merely a technical exercise and is relatively unrelated to the political process. The process of economic planning has generally emphasized the selection from a choice of economic techniques, rather than emphasizing the aims and goals as defined by the current political process. The planning process is also very centralized and occurs only at the higher levels. Two of the problems identified with this are: there is a tendency to delay decisions, and secondly there is too much scope for interest groups with direct access to these high levels to influence and control policy decisions. This factor was already discussed in the first part of this chapter but a further problem that occurs with this type of development planning is that the policies tend to be ad hoc³⁶ or piecemeal. This was already noted earlier in Section 4.1

(Economic Forces) and this has been one of the major factors working against the establishment of effective policies and plans in Jamaica. Another problem with this "ad hoc" method of decision-making is that it tends to alienate the rural peasants as they do not see any continuity in programs. This has shown up in their attitude towards credit specifically in that they do not consider it necessary to repay government loans from an anonymous bureaucracy. It is also apparent that this attitude of alientation is fairly widespread elsewhere and this undoubtedly acts as a constraint on agricultural development.

The planning process in Jamaica has also been ineffective because of the tendency to adopt outside models of development rather than formulate plans based on internal realities. During the 1950's and 1960's import substitution was pursued to some degree by Jamaica (as in many developing countries). This strategy emphasized replacement of imports by domestic manufacturing and envisioned the mass movement of agricultural workers to more productive manufacturing areas. It is evident that this strategy was only partially successful during this period (i.e., manufacturing did increase, and agricultural employment did fall to some extent). Although some planners and policy makers³⁷ believe agriculture was emphasized during this period (and later by the PNP) the figures in Chapter 3 do not tend to bear this out. The rhetoric seemed to be evident and dollars were spent, but not in any large amounts, nor as part of an overall well thought out strategy designed specifically for the Jamaican agriculture sector. Policies such as the provision of subsidies (that worked in developed countries) were copied and generally failed because of conditions specific to Jamaica.

When the PNP took over in 1972 it seemed to be more receptive to agricultural development and several new and innovative ideas were tried. However, its rhetoric was also not matched with dollars and spending actually

was lower than in the 1960's. As well the planning ability did not appear to increase and many policies were implemented without their potential problems being considered. The PNP searched for various intellectually appealing policies but seldom considered their effect domestically. An example is provided by McBain³⁸ who notes that generally the reformist policies of the PNP in the early 1970's did not scare either foreign capital away (thereby limiting funds for purchase of agricultural inputs, etc.) or cause a flight of local capital (thereby limiting funds for agricultural development). These events occurred because the PNP launched a barrage of rhetoric against capitalism and at the same time implemented a "progressive" foreign policy. These in turn caused both foreign and local capital to flee resulting in extreme hardship for the agricultural sector. Although one can sympathize to some extent with the PNP's aims during this period (improved equity etc.) the PNP can be faulted for increasing its socialist rhetoric and implementing a "progressive" foreign policy without having first planned for an alternative capital source. This is one example of how policies can cause extreme hardship on the rural poor when not enough effort has been devoted to analysis of the domestic effects of adopting certain policies.

Other analysts^{39,40} have also observed the tendency of Jamaican planning to be relatively unorganized and not well thought out. Jefferson observed that there was a lack of clarity of objectives under various agricultural development programs and that at times different segments of the agricultural economy were being stimulated in different and conflicting directions. When public policy issues and proposals are vague and ill-defined, as has occurred in Jamaica, interest groups can then influence policy to the detriment of social welfare. This process is not only confined to a developing country such as Jamaica (the United States and Canada are also examples of this) but

when it does occur it can frustrate the ability of governments to achieve broader goals such as growth, income distribution and participation.

In summary, the planning process in Jamaica has not been effective in meeting the goals and needs expressed as desirable for agricultural development. More emphasis on cause and effect, and on both international and domestic realities need to be incorporated into this process if planning is to be an effective ingredient in agricultural development.

The role of participation in Jamaican agriculture has already been discussed both from the historical perspective and in regard to changes occurring during the period under study. It has been shown that participation in the decision-making process by the vast majority of agricultural producers is virtually non-existent. Commodity associations and the Jamaican Agricultural Society tend to be controlled by the middle and upper rural classes and as a result smallholders are often either not active nor even members unless membership is mandatory for marketing reasons. Participation is a process in Jamaica that if it exists at all, is initiated at the government rather than the grass roots level.

There has been one major study⁴¹ on participation in Jamaica - by Goldsmith and Blustain - and this study has also been supplemented by other analysts^{42,43} who have written on specific aspects of participation (such as cooperatives).

The Goldsmith and Blustain study was done as part of the Second Integrated Rural Development Project mentioned in Chapter 3.1. Their research was conducted in two main areas in Jamaica and involved the use of participant observations, interviews and a survey. Although the survey sample was non-random and not stratified it did involve 415 people in 15 communities in the two areas and was of a sufficient size to provide reasonably reliable data

(some of which are presented in Chapter 3). These authors examined both participation in local organizations, and in agricultural services (provided by the commodity associations and the government). The main conclusion they reached regarding participation in local organizations in Jamaica is that participation is closely tied to the benefits members can expect to receive. Membership is much higher in agricultural organizations which provide access to marketing than it is in voluntary non-agricultural organizations.

This study also confirmed what has been generally held elsewhere, that farmers view these commodity marketing agencies as external government-related and not their own. They consider themselves to be clients rather than participants and as a result although they often had to be members to market their goods, their participation was not active. Another problem identified was that since these organizations only provided one service (marketing) farmers did not consider it worth their time to participate and thereby control who received the benefits. In other words, participation was a function of benefits, and the average small farmer did not benefit enough from the local agricultural organizations in Jamaica. These organizations did not, nor have they in the period under study, meet his needs.

These authors also examined the participation of rural smallholders in four agricultural services - credit, marketing, farm inputs and extension - all available through government agencies. Their research showed that the provision of these services was inadequate (in 1979) and that only a minority of the small farmers benefited. As a result many small farmers relied on non-formal (extra-governmental) sources for these factors of production.

Money was borrowed from relatives, higglers bought the crops rather than the government and inputs and advice came from neighbors. Other small farmers tried to be as self-reliant as possible and did not participate in any formal

or informal network. (This occurrence is similar to Hyden's findings in Africa.) One of the major reasons identified by these researchers as to why these services are inadequate is that because these government agencies are not responsible to their clients (small farmers) they lack incentives to provide a high level and quality of services. These authors recommended more active and responsive local organizations as one means to remedy these problems. They also recommended building on these organizations in order to provide real benefits, meet local needs, and to ensure local control.

This study confirmed one of the major problems with an over-centralized bureaucratic style of decision-making (and also confirms some of the problems with the "top down" model discussed in Chapter 1). This is that this type of decision-making tends to discourage local initiative and tends to result in rural people withdrawing from the formal structure supposedly set up for their benefit. Only if people feel they have some control over the outcome, will they expend the time and effort required to design mechanisms to bring about agricultural development. In addition, only if they have control over these mechanisms will they participate in organizations and exercise responsibility in the use of the services. Centralized decision-making can ensure a balanced supply of services but it appears successive Jamaican governments have erred too far on the centralization side of decision-making.

During the period of this study cooperatives have been used as one mechanism to increase the participation of the rural poor. Cooperatives have a long history in Jamaica and have been implemented frequently by various governments and were a particular favorite of the PNP in the 1970's.

Cooperatives have experienced many of the same problems that have occurred with other agricultural organizations and generally have not been effective either as a political force or economically. Stone's analysis of

the implementation of rural production cooperatives in the sugar industry⁴⁴ provides a typical example of the problems experienced by cooperatives in Jamaica and also a lesson as to how they could succeed.

As part of the Manley government's policy of redistribution, twenty cooperative farms were established on three of the largest of Jamaica's sugar estates during 1973 and 1974. These estates were purchased from foreign interests and then resold to the cooperatives. Four years after the cooperatives had been established they represented a mixture of success and failures in terms of both growth and participation of members. Stone states that although an attention to economics was an important factor behind the successful cooperatives, the key seemed to be the participation of the cooperative members which in turn was dependent on an understanding by cooperative management of the important characteristics of Jamaica's small farmers.

Jamaican farmers are generally characterized by low levels of literacy which makes effective communication of complex problems difficult. It appeared that those cooperatives that took care in understanding these characteristics of the Jamaican small farmers achieved greater success in terms of the farmers being willing to reinvest their money in the co-ops, in greater support for management and in stronger commitment to the co-op movement generally.

Stone also noted that, considering the level of managerial skill and the tradition of Jamaican smallholders, the co-op farms were too large to receive the full benefits from work motivation, social solidarity and identification with the collective effort. He recommended that the co-ops of 170-200 members be subdivided into smaller units of 15-25 members which would be of a more appropriate size for achieving the contributions the Jamaican smallholders

could provide. This empirical illustration of sugar cooperatives provides an example of some of the factors that are necessary for the effective participation of rural smallholders and further illustrates the importance of this factor in determining the success or failure of policies for agricultural development. Participation is a key ingredient in the development process and has often been ignored by both policy-makers and planners in Jamaica. Even now it is generally not considered to be of importance by policy-makers and unless this attitude changes the outlook for agricultural development is dim.

In summary, the political forces affecting agricultural development have been very important in setting the framework for what can occur. The needs of the vast majority of farmers in Jamaica were not well represented in policy-making fora in the period under study and unless new mechanisms and structures designed to achieve this are forthcoming little change will result.

4.3 Socio-Cultural Factors

The third major category of forces that have influenced agricultural development in Jamaica is socio-cultural in origin. Socio-cultural forces can be important in development because of the effects they can have on otherwise well-planned policies. Policies and programs which do not take sufficient account of the socio-cultural environment in which they are to be introduced are often doomed to failure. This section will discuss and highlight those socio-cultural features of Jamaica that the author considers to be of importance when implementing agricultural development policies. No one school of sociological thought is considered to be superior in analysing this aspect of development in Jamaica and as a result, a broad descriptive approach will be used.

Jamaican society has been conditioned by over 300 years of contact with western influences. These western influences have had somewhat greater effects than for many other developing countries due to the proximity of Jamaica to both North America and Europe, and these influences at least partially explain some of the effects culture has had on agricultural development. In addition to these external influences on culture, Jamaican society and culture also has developed to be strong and vibrant in its own right and has many distinctive facets that do not fit into any standard generalizations.

One example of the external influences on society is the effect that the British colonial administration has had on expectations in Jamaican society. Braithwaite⁴⁵ notes that Jamaican society has been exposed to aspects of the centralized welfare state present in Britain. This has caused unrealistic expectations in many rural people as well as increasing the pressure on the state to provide solutions to problems. As discussed earlier, rural

development itself generally takes place in Jamaica within a highly centralized administration inherited from the colonial days. Braithwaite feels this highly centralized bureaucracy has hindered rural development as it hurts local initiative. This has also been discussed at length in the previous chapter but it should be noted that successive governments have even taken over volunteer organizations in their attempts to centralize decisions (which indicates the full extent of the top-down influence). Another example of centralized policy making is that wage levels (for administrative services) have been imposed on rural communities at a level much higher than they can afford. This centralization of decision-making has in turn resulted in an attitude among the rural populace that the government will solve all problems and as a result this appears to contribute to a lack of self-reliance in the rural communities.

In a broader sense Jamaican society generally has a bias against agriculture. Agriculture and rural work is thought of as demeaning and not as a suitable avenue for employment or success. This attitude is probably partly due to the nearness of North America and the resulting influence of both tourists and relatives emigrating or working there. It may also be left over from the slavery days when farming was "slave work" and not "white man's" work. However, it also appears this attitude has also been fostered by the Jamaican educational system. Several observers have noted that the educational system has had a bias against rural development and agriculture and as a result Jamaican students receive little practical education in these subjects.^{46,47} The Jamaican educational system can also be considered to be elitist and many children of the rural poor do not get beyond primary school. As well, training in agriculture is not generally provided in school and the emphasis is on less practical academic subjects. A new agricultural school

was built by the Cubans in the middle 1970's at the request of the PNP, but it is probably too early to determine its effects on agricultural education and on rural society in general. When jobs in manufacturing, government, and tourism are seen as avenues to success and agriculture is still seen as a road to poverty, it is difficult to change society's attitude. It appears most likely that Jamaican citizens will change their attitude about agriculture when agriculture itself is given more priority by those in power and when agriculture then becomes a road to economic and social well-being.

The Jamaican small farmers' attitudes toward risk are also an important socio-cultural feature of development. Small farmers in Jamaica are not necessarily risk-adverse when compared to smallholders in other developing countries but they have learned through hard experience that some type of insurance is required if they are to survive. The standard practice of mixed cropping is a typical example of risk-reduction. Several crops are grown so that the farmer will at least be able to feed himself. One study⁴⁸ also found a type of kinship among farmers was evident in many rural areas which in turn could be considered a type of insurance. Many small farmers in this study indicated that one of the values they believed in was getting along with the neighbors. If a neighbor was short of food they would supply food as needed. They would also ensure that livestock did not run loose and eat a neighbor's produce. These are two examples of how Jamaican farmers built a network of insurance with each other in order to reduce the risks of what is typically a very hostile environment.

However, Jamaican farmers do appear to be more sensitive to risk and less innovative than at least one other group of farmers in another Caribbean country, and this may have occurred because of a conditioning process. Edwards⁴⁹ found that Jamaican small farmers were generally less willing to

adopt new technology than were small farmers in Trinidad because of the experiences they had had. The small farmers in the Oranje area of Trinidad had learned through experience that innovation was profitable and a fierce competitiveness to adopt new innovation occurred as a result. Jamaican small farmers had not had this experience and as such were more reluctant to change their traditional patterns. The author noted that one of the reasons for this pattern was "community influence", including the pressure to conform. In Trinidad this had the effect of encouraging innovation because the farmers had become innovation-minded, whereas in Jamaica this process had not yet occurred. One of the reasons for this readiness to innovate in Trinidad was the proximity of the Oranje farmers to richer urban dwellers. There was constant social pressure to increase their incomes and as a result they became very competitive in terms of using new technology to increase their agricultural output. This is an example of how a social force has acted as a stimulus to one group of producers but not another, in countries where the conditions are otherwise fairly similar. This author did note that Jamaican small farmers had introduced innovation but usually only in situations of crisis or as a result of changes in the ecology. The Jamaican farmer's entrepreneurial ability was also constrained by both the amount of risk he could afford to take and his lack of knowledge as to how innovations could benefit him. It also appears there was considerable family pressure on individuals in Jamaica to not take too many chances with limited resources.

Other studies have also found evidence of how small farmers in Jamaica have learned that extra effort does not always pay off.⁵⁰ The failure of many small farmers to increase the amount of terracing on their hilly farms appears to be a result of the reaction to a social and economic environment which is generally hostile, i.e., he may not get enough income (because of other

economic constraints discussed in Chapter 4.1) to justify his hard work on terracing. This has conditioned his attitudes towards what appears on the surface to be an eminently logical idea. The same conditioning may have prevented increases in domestic production as this would just depress his prices in the local market (since the marketing system is poor and often cannot move his extra produce elsewhere). This conditioning of a social pattern is probably responsible for much of the malaise which appears to be present in the rural areas.

The land system has also been affected by social attitudes, including risk. Since land is often as much a symbol of status as a factor of production, farmers are very reluctant to take any risks which may imperil their ownership of land. This attitude among the small land holders has prevented some rural credit schemes from working as few farmers have wished to deposit their titles as security and risk losing their property. Jefferson⁵¹ notes that the Farm Development Scheme introduced in 1955 to provide credit for agricultural development largely failed because of this attitude, and other programs have also suffered in effectiveness. Fortunately, Jamaica's policy-makers seem to have learned from this process. The Crop Lien program introduced by the PNP and the JLP's recent attempts to ensure security of title are both recognition of how prevailing social attitudes can affect development and of how policy-makers must recognize this. The Crop Lien program does not require the title as security and as a result does not transfer as much risk to the farmers as have other credit programs. The attempts by the JLP to increase security of tenure are also recognition of the importance of land in Jamaican society.

Another aspect of rural society affecting agricultural development is the attitude towards theft of produce or "praedial larceny". It is generally

considered quite acceptable by some members of rural areas to steal produce from the medium to large farms.⁵² This same attitude would be considered wrong by these same individuals if the object was a car or other physical asset unrelated to eating. However this theft is still a serious drain on part of the agricultural community and has probably resulted from a lack of internal cohesiveness among groups in the rural community. The robbers often have little economic opportunity themselves and see the medium-sized farms as the ones who get all the government benefits and services. The new JLP government has recently appointed 68 more agricultural wardens in an attempt to reduce praedial larceny⁵³ and combat the estimated loss of 10% of all agricultural products. However this social problem appears unlikely to be solved so easily. The root of this problem is economic and it seems likely measures to increase rural well-being will be required rather than just increased police action.

The problem of imported food tastes is widely recognized as a constraint on the consumption of domestically produced products. Due to tourists, emigration and migrant workers, Jamaican society has food tastes which are more European and North American than indigenous. Innes⁵⁴ notes that many authors have recommended changing values and tastes of consumers more towards domestically produced foods. This policy was pursued by the PNP during the 1970's and appears to have met with some favorable results. However Jamaican society still appears to be enamoured with North America and imported food tastes are one aspect of a widespread belief that North American tastes are either superior, or at the very least, often preferable to Jamaican tastes. As a result, it would appear to be a difficult task to change these attitudes, but it certainly appears to be an alternative with significant potential benefits as promotion of domestic foodstuffs would benefit society as a whole

rather than foreign agricultural producers.

In summary, socio-cultural forces often condition and shape how new policies and programs will be accepted. Policy-makers ignore these factors at their peril and if policies are to be effective they must be shaped around society and its characteristics. It is also probable that historical agricultural policies have tended to condition and re-affirm the rural small farmers' belief in his vulnerability and lack of opportunity.

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CHAPTER 5: THE ROLE OF EXTERNAL ACTORS AND INFLUENCES

Jamaica is a small country, both in size and in economic power. As a result it is influenced by relations with more powerful trading partners and by decisions made by large and powerful multinational corporations. This study has concentrated more on the internal forces shaping agricultural development than on these external influences, but this is not to downplay their importance. Jamaica is still heavily dependent on foreign agricultural markets as well as requiring foreign investment and aid from the industrialized countries. Space does not permit a detailed discussion of all the external influences on agricultural development and therefore this chapter will only provide an overview of some of the important external influences on Jamaica's agricultural development.

Figure 1 is a pictorial model of how a country's domestic agricultural sector is linked into the international sector for agricultural products. This model is useful as an example of how Jamaica's small farmers are linked into and strongly affected by decisions made elsewhere.

Agricultural development in Jamaica was strongly influenced by political decisions relating to trade and development assistance made outside Jamaica from 1962 to 1981. Decisions were often made either in industrialized countries, or by agencies such as the International Monetary Fund (IMF) that affected trade, development assistance and credit for Jamaica. The PNP government particularly had problems in the 1970's with the IMF. The PNP's policies were considered by the IMF to be ill-founded and not based on sound economic principles. As a result the government was in continual conflict

Figure 1: Basic Likage Model - International Trade, the Agricultural Sector and all other Sectors

Source: OECD

with both this agency and with the United States (a controlling influence in the IMF) over its redistribution policies. Jamaica appears to have suffered in terms of both investment (direct foreign investment declined from plus \$23 million in 1974 to minus \$27 million in 1978 and minus \$26 in 1979)¹ and development assistance during this period.

The new JLP government under Edward Seaga is on much more friendly terms with both the IMF and the United States as its policies are more to their ideological liking. However the JLP is also finding it difficult to go along with all the IMF's conditions for lending. This new government is presently having trouble coming to an agreement with the IMF over its current economic program. Edward Seaga has stated that the IMF's recent recommendations² for fiscal policies in Jamaica would result in 10,000 more unemployed workers and this is a condition that appears to be politically (and socially) unacceptable in Jamaica.

Although Seaga's government is receiving more aid from the U.S. it is also still subject to the vagaries of a now supposedly friendly U.S. government. The U.S. sponsored "Caribbean Basin Initiative" announced in February of 1982, was later vetoed by President Reagan,³ apparently because it was part of a larger financial appropriations bill in the U.S. Congress that the President was uncomfortable with. Although Jamaica still expects to receive the promised aid, and foreign investment has picked up, little else has changed to Jamaica's benefit. Tariffs on agricultural crops that Jamaica could export to the United States are still in place and are not likely to be removed. In addition, the Caribbean Basin Initiative itself does not support the export of agricultural crops, which obviously could be of direct benefit to Jamaica.⁴

The trade barriers mentioned above are another example of an external

influence on agricultural development. The degree to which agricultural exports are allowed access to developed countries markets often represents an upper constraint on export volume. Sugar is an obvious illustration of this problem. Many developed countries subsidize their production of domestic beet sugar in an attempt to become self-sufficient, and at the same time restrict access to the much cheaper cane sugar. This then has had the effect of reducing developing countries' potential export revenue. Both the European Economic Community and the United States follow this practice and only allow in a small portion of their sugar requirements duty free. Another example of this practice was the recent attempt by the EEC's agricultural committee to apply a higher tariff on yam exports to the United Kingdom.⁵ Other possible agricultural exports for Jamaica which carry high tariffs in the U.S. are cucumbers, tomatoes and avocados. These external constraints on trade will continue to affect the prospects for increased export crop production in Jamaica.

Another major external influence on Jamaica is the effect of transnational or multi-national corporations. These large and powerful economic entities are very important in the world trade of virtually all agricultural products. Table 48 indicates the concentration of firms (by product) in world agricultural trade in the late 1970's. Jamaica exports a number of these products and all its major agricultural exports are included. It can be seen from this table that multinationals dominate the world trade for all of Jamaica's major agricultural exports. The result of this is that Jamaica is relatively powerless in controlling the export of its major agricultural products. In addition this country may also be relatively powerless in controlling them when they are involved in domestic food processing.

Table 48

Concentration of Trade by Transnational Firms During the Late 1970's

Commodity	Share of World Trade % (volume)	Number of firms involved
Cereals/soybeans	85-90	6
Sugar	60-65	4
Molasses	95	3
Bananas	80	3
Coffee	85-90	6
Cocoa	85	5
Tea	85	3
Tobacco	85-90	4
Cotton	85-90	8

Source: OECD Secretariat estimates based on unpublished material from UNCTAD and FAO in "Food Policy", Internal Document, 1982.

This observation was confirmed by a study performed in the 1970's on the Jamaican food processing industry by R.K. Girling,⁶ and this study has important implications for policymakers. To date this study appears to have been the only one of its type that concentrated on agricultural products.

In his study, Girling stated that foreign control over the food processing industry in Jamaica had retarded the socio-economic development of the country as a whole. He noted that the goals of the multinational corporations were often different and usually in conflict with the goals of the host country. Thus when Jamaica desired to achieve economic growth, income distribution and participation, and at the same time reduce unemployment and increase food self-sufficiency, the foreign dominated firms

in food processing wished mainly to maximize their profits. The achievement of profit maximization was made easier by the ability of vertically integrated firms to move income and expenses and adjust profits from country to country in order to achieve the maximum economic return.

In conducting his study, Girling surveyed a number of locally-owned and foreign dominated firms in food processing to determine their effect on the Jamaican economy, specifically in relation to the transfer of technology. He analysed variables such as percentage of local ownership, size of firm, location, management policies, and type and amount of research performed. The results were that local ownership was positively correlated to local research, amount spent on training, the use of labor versus capital, local reinvestment of earnings, location in rural areas and the use of locally produced inputs. Foreign-dominated firms tended not to fund local research or training, were more capital-intensive, repatriated earnings, were located near urban centres and imported many of their needs. Girling interpreted these results further by indicating the technology used by foreign-owned firms was oriented towards the industrialized countries and not Jamaica. He also stated that because of the factors noted above few linkages developed between the food manufacturing industry and primary agriculture. This conclusion would support the view that foreign domination of the food export industry is of little help to, and probably a constraint on, increasing domestic food production. This analysis by Girling is a pertinent example of how foreign-controlled firms can influence a countries economic and social well-being. In Jamaica, even though multinationals are no longer the large landowners they once were, they still control virtually all of the world export marketing, and as a result, exercise a substantial degree of control over Jamaica's agricultural economy.

Although space (and sometimes lack of data) has not permitted a more detailed analysis of this subject it is evident that external actors are very important in any discussion of the agricultural development process in Jamaica. At the very least these forces represent limits on the amount of exports, the type and amount of aid and investment and the types and amounts of loans available to Jamaica. Large foreign-owned multinationals control much of the trade in Jamaica's exports and may have had an overall negative effect on this country's agricultural development. These external forces are unlikely to change significantly in the future and must be recognized as being of importance when formulating policies for agricultural development.

Notes to Chapter 5

- ¹United Nations, Economic Commission for Latin America, Economic Activity in Caribbean Countries 1980, 1982.
- ²"Even Jamaica's Seaga Finds IMF Medicine Hard to Swallow", Caribbean Basin Report, Ottawa, June 1983, p. 9.
- ³Gail Lem, "Caribbean Economic Woes Hit Raw Political Nerve", The Globe and Mail, Toronto, September 27, 1982, p. B2.
- ⁴Globe and Mail, "Pass Caribbean Plan, U.S. Congress Urged", Toronto, December 7, 1982.
- ⁵"UK Resists Threat to Yam Imports", Daily Gleaner, Kingston, April 17, 1983.
- ⁶R.K. Girling, "Technology and Dependent Development in Jamaica: A Case Study", Social and Economic Studies, Vol. 26, No. 2, June 1977, pp. 169-189.

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CHAPTER 6. CONCLUSIONS AND IMPLICATIONS FOR AGRICULTURAL DEVELOPMENT THEORY
AND POLICY FORMULATION

The purpose of this study has been to analyse the effectiveness of government policies in either directly stimulating agricultural development in Jamaica, or in providing a framework within which agricultural development could occur. Agricultural development itself is widely recognized as being of importance in all countries because of several factors. It is often an important source of foreign exchange, it provides a market for goods and services produced elsewhere in the country, and it produces the food that feeds the population. In developing countries an additional area of great importance and concern is that it is often the sector where a major portion of the poor work and live. As a result of these factors there is often little argument that policies affecting agriculture are of great importance. Unfortunately in many developing countries' drive to achieve "development", agriculture is often neglected in favor of other sectors and the overall result is that this very important sector does not receive either sufficient attention or an appropriate mix of policies. This has been the case to some extent in Jamaica, but the development process there appears to have also been complicated by a number of forces and factors which require greater consideration when new policies for agricultural development are to be formulated.

Development theory in general, and agricultural development theory in particular, do not offer ready remedies for agricultural development. All of the four general theories of development currently in acceptance have major flaws when one attempts to utilize them as the basis for either analysing or implementing the development process.

The Neo-Classical development model has several advantages, including the importance it places on agricultural development, but is limited by the reliance it places on the free-market when this mechanism is often irrelevant to many peasants. This model also does not give sufficient consideration to long-term social goals that are of major importance in many countries. The Reformist model has highlighted the importance of land reform in many countries but is often limited by its emphasis on a top-down approach to development. This has resulted in an ineffectiveness in the large bureaucracies that are created, and an alienation in the people that are to be served.

The Participation model has many obvious advantages including the very important recognition of who does the actual development (i.e. the people). However, it too encounters problems, including the need for national coordination of some programs, and the tendency of local elites to control the spending of development funds. The Socialist model of development offers important insights into the development process but it also has major weaknesses. Rigid planning and an undue urban-industrial focus have often meant that countries using this model of development have very impoverished agricultural sectors.

During the period of this study, successive Jamaican governments adopted some aspects of the participation model and the Socialist model, but generally both governments in power relied on a mix of the Neo-Classical and the Reformist Models for development. The JLP tended to rely more on traditional neo-classical mechanisms but at the same time adopted a highly-centralized bureaucratic method of development as seen in the Reformist Model. The PNP was somewhat more innovative, and at least discussed implementing aspects of the Participation Model. This government also adopted aspects of the

Socialist model including the formation of state farms. However, the PNP too relied on a bureaucratic reformist approach as well as on free-market mechanisms seen under the Neo-Classical system. In reality, what this mix of policies has shown is that none of the general models of development lend themselves to complete adoption by a country such as Jamaica. Since Jamaica is a democracy governments have to rely on the electorate to stay in power and policies have to be constantly changed to meet the needs of the electorate. This in turn often means that general models of development have to be changed. In terms of implications for theory this plus points to be made later in this section, reinforce that general conclusion that all of these general models of development have major weaknesses for a country such as Jamaica. This point can probably be broadened to include developing countries in general as it appears certain the development process is much too complex to expect one theory to handle different historical situations, different political and economic structures, and different socio-cultural backgrounds.

Although this study was able to provide a definition for development based on previous work done by other analysts, a specific concept of development often appears to be alien to the political and economic process in a country like Jamaica. Development is often defined in broad and general terms and few if any quantitative mechanisms for measuring development are implemented. One example of this is the lack of readily available data on income distribution in Jamaica. Unfortunately what this means is that because of the lack of readily available indicators little political pressure occurs and the status quo is often maintained.

The history of Jamaica (as it does in all countries) set the stage for what the development prospects would be for agriculture. At the time of independence Jamaica still had some of the aspects of foreign domination and

control of much of the agricultural sector that had been in place for 300 years. This changed to some extent over the period under study as successive governments acquired large amounts of land, but what did not change appreciably was the pattern of land ownership and the use of other factors important to agricultural development. At the time of independence, Jamaica's rural sector was dualistic in terms of land ownership, rural workers earned much less than workers in other sectors, and rural smallholders had a much less capital-intensive and more labor intensive system of farming than did the large landowners.

Other important historical factors affecting Jamaica's development have been the importance of sugar as an agricultural export and the political consciousness that developed and resulted in the formation of two populist parties and of two major urban-oriented trade unions. These factors all affected the development process in the period under study and to some degree predicated what was possible in terms of agricultural development.

The plans and policies implemented by the JLP and the PNP during the 20 year period under study adopted aspects of mainly reformist and neo-classical approaches to policy-formulation. Many of these plans concentrated on economic growth as being of prime importance (especially under the JLP) but both parties did consider improved income distribution to be of importance in the rural sector. The PNP also stressed the importance of increased participation but few concrete policies emerged that could be considered to have directly fostered this goal.

Section 3.2 of Chapter 3 provided an analysis of the actual results that were forthcoming in terms of agricultural development during the twenty year period since independence. It was found that although the JLP generally spent more on agriculture than the PNP (although not appreciably more) neither party

could be considered to have favored the agriculture sector. In fact, in terms of government funding, several analysts have noted an inadequacy in this area and it is the view of this author that development of the agriculture sector, despite the rhetoric, has not been a priority with any government. It is also evident that this, at least in part, accounts for the results presented in Section 3.2.

As noted earlier, this study defined specific minimal quantitative goals for measuring the economic growth aspect of development. As well, minimum desirable goals were set for improvements in income distribution and in participation. It is important to note these goals were set by the author in order to set standards for this study. These goals were not set by the successive governments but probably most dispassionate observers would not consider them to be onerous for a country with Jamaica's physical and human resources.

Data on economic growth was more widely available than on the other two aspects of development and analysis of this factor was relatively easier. Tables prepared for this section indicated that economic growth was generally not adequate to meet the needs of the population under either government. From 1962 to 1972 (under JLP rule) growth averaged 1.3% annually and from 1972 to 1980 (PNP rule) the agriculture sector contracted at an average annual rate of -1.4%.

In terms of the production of export crops, all major and most minor crops declined in their output during the study period. Domestic crops fared somewhat better and production increases occurred for vegetables, legumes and condiments. Unfortunately these increases were not always enough to feed the growing population and per capita food production fell at the same time as food imports increased. The same pattern of declining production also

occurred with livestock production from 1962 to 1981.

Imports of agricultural raw materials also increased significantly during the 1970's illustrating both the dependence on outside sources for inputs and the significant lack of intersectoral linkages that are evident in the Jamaican economy.

While the agricultural sector has been weakened in terms of production and imports, it has also had to continue to employ approximately the same percentage of the workforce. This has in effect resulted in a sector that is both stagnant and at the same time affecting a significant portion of Jamaica's populace.

Data were also presented indicating that the structure of Jamaica's agriculture has remained relatively unchanged during the study period. Large farms are still few in number, are capital intensive and occupy the best land. Small farms are still numerous, labor-intensive and occupy poor hilly land. In short, in terms of economic growth, it can be said that little change occurred in the twenty year period under study. Some economic growth did occur from 1962 to 1972 but this was not accompanied by any structural changes benefiting the majority of small farmers.

Recent data on income distribution were not available but data were presented from several other sources and studies which tended to show that income mal-distribution was still widespread both within the rural sector and when this sector was compared to others. It is also possible, but because of the lack of rigorous data impossible to state accurately that income distribution in the rural sector worsened during the period under study.

The third major facet of development - participation - was the hardest variable to measure. There is no common definition of what constitutes participation nor were there any yardsticks available for measuring this

factor quantitatively from 1962 to 1981. In descriptive terms however it does appear that the vast majority of Jamaica's rural small farmers still have little influence on agricultural policy formulation or on any major decisions affecting their well-being.

The data and descriptive analysis in Section 3.2 tend to confirm the hypothesis that agriculture development as originally defined at the start of this study did not occur to any significant degree during the study period. The second major hypothesis - that this was the result of numerous internal and external factors was examined in Chapters 4 and 5.

The major internal factors considered to be of importance were categorized as economic, political, and socio-cultural and were analysed from this standpoint. From these chapters several important conclusions can be reached that potentially affect both policy formulation and agricultural development theory.

In terms of the economic factors that have affected and hindered agricultural development one of the major problems is the present system of land allocation and use. Historical land reform schemes have not yet provided smallholders with much more land. One problem has been that land reforms had the goal of providing a little bit to everybody (for political reasons) and this has slowed the development of viable farming units. There is still some difference of opinion as to whether to continue with this practice or whether to be more rigorous in screening applicants for land redistribution. It is the view of this author that the latter course should be followed and that this should be combined with a substantially increased research effort designed specifically to improve the output of all the small farms. In other words, since good agricultural land is relatively scarce in Jamaica, it should only be utilized by those who are willing to put it to its best use in terms

of society's goals. However at the same time there is substantive room for improvement in the output of many of the rural smallholders from their present landholdings and this is where a well-planned mix of policies (including research) is required. Too often in the past land reform programs have not been integrated with other development needs such as credit, inputs, research etc. The benefits of land reform are well-documented and although it is quite often a necessary precondition for development, it is not a guarantee of agricultural development.

The PNP's Project Land Lease made significant accomplishments in the 1970's in terms of land distribution but little overall change in development occurred because the small farmers external environment and risk were not substantially reduced or changed. Title ownership was often unclear and other obstacles discouraged farmers from making new and (to them) risky innovations. The new JLP government has moved to grant security of title but its other policies appear to be somewhat laissez-faire and this attitude is extremely unlikely to encourage small farmers to make major changes in their present farming practices.

The second major economic factor affecting development is the marketing system. The most effective marketing mechanism presently appears to be the higglers. This system has significant social benefits and is quite effective in getting the job done. As such, since it works it should probably not be tampered with. However, the other domestic marketing mechanism - the Agricultural Marketing Corporation - requires significant overhauls. Its mandate is too wide and at the same time it is not well-suited to meeting the smallholders needs. Its focus should be narrowed so its clients are only farmers, and not consumers (they already have sufficient political mechanisms in place) and it should strive to serve farmers better. If this cannot be

achieved then it should probably be scrapped, and the funds diverted elsewhere as presently it is not serving either farmers or consumers well. The export marketing agencies are generally considered to be both inefficient and ineffective and the limited data available appears to confirm this. The JLP government has moved to de-regulate these agencies and allow private traders to provide competition for farmers products. This appears to be a positive move although only time will determine if they can do a better job. The marketing system in Jamaica is complex and appears to work best where more than one alternative is provided and monopolistic control of any one marketing channel should be discouraged.

Smallholders also do not appear to have adequate information available to them on market opportunities, for either the short or medium-term. This appears to be a responsibility well-suited to the Ministry of Agriculture and should receive greater consideration.

The provision of inputs and credit also appears to be an economic factor that has limited the potential for development. The available data indicate that credit is virtually unavailable for many smallfarmers and when available, is often very poorly supervised. The attitude among many smallholders is so bad that they do not believe they have to ever repay government loans. This attitude will not be easily changed as long as governments continue to lack commitment to the agriculture sector. The supply of agricultural inputs was often a problem during the period under study due to shortages of foreign exchange. ~~This will~~ continue as a problem as long as the agricultural sector (as well as others) are in poor health and has probably resulted in a chicken and egg syndrome. It is the view of this author that one of the best ways to increase foreign exchange is to improve conditions in the agriculture sector. At least one outside agency (FAO) found as recently as 1982/83 that current

government subsidies for agriculture were neither a drain on the budget nor did they provide sufficient distortion of incentives to make any real difference to farmers. This apparent lack of recognition of the importance of agriculture to Jamaica must change before any change can be expected in the status quo. Thought should also be given to encouraging local production of some agricultural raw materials that are relatively easy to manufacture (such as machetes, hoes, rakes, forks, etc.) that would also have spinoff effects elsewhere in the economy.

Agricultural research is the fourth major economic force that has shaped development in Jamaica. Research before 1970 tended to emphasize ways to improve export crops and the domestic sector was largely neglected. This changed to some extent during the 1970's but there still may not be enough emphasis on designing improved technology for the vast majority of Jamaica's rural smallholders that exist on difficult terrain. This is probably the one area that really requires the most attention in Jamaica's agricultural research program. Remarkable increases in output from smallholder farms can be achieved provided the technology is appropriate to their needs and provided they believe it is in their best interests to do so. Again however, one must stress that research in this area will be ineffective unless other complementary policies designed to reduce smallholders risks are introduced. This may mean a type of insurance program for new crops and new techniques must be implemented in order for smallholders to accept change. Agricultural research and other government policies must also ensure that they do not encourage stimulation of capital intensive production when labor intensive methods are still more appropriate for much of Jamaica.

The reasons behind the general lack of commitment to agriculture and the specific lack of commitment to smallholders are to a large extent political.

Jamaica is a parliamentary democracy and as such is subject to the pressure groups and established political mechanisms that exist in such a state. The agriculture sector in those democracies that are developed countries tends to receive support due to the historical development of appropriate political structures designed to achieve benefits for this sector. This flow of benefits often does not occur in developing countries because these mechanisms are not developed to the same extent and Jamaica is an illustration of this problem. The vast majority of farmers in Jamaica are not well represented in policy-making fora and the groups controlling policy-making do not always represent the interests of the majority of farmers or arguably of society. This situation is potentially unstable and numerous countries have provided examples of social crises sparking political action. It seems probable that unless action is taken to foster the necessary political mechanisms and improvements for rural smallholders a social crisis in Jamaica is a possibility. If Jamaican policymakers ignore this problem they probably risk endangering the current political and social gains that have been made in Jamaica. A good deal of thought should be given as to how best to encourage and stimulate these political structures for rural smallholders as they are quite necessary if social progress and stability are to occur.

The problems with who controls policy formulation was also widely evident at the community level where participation was not widespread and where an integration of rural smallholders into Jamaican society needs to occur. The one major study on rural participation in Jamaica concluded that farmers only participate in those organizations which meet their needs and from which they can expect to benefit. This study also showed that current government services in credit, marketing, farm inputs and extension were only meeting the needs of a small portion of rural farmers. As a result, a withdrawing from

the formal system in favour of an informal network occurred. It is probable that these observations are the results of an excessive reliance on the top-down approach to development. These results would lead one to believe that a reform of the governments methods for delivery of its programs is also required. Perhaps what is to be delivered and how it is to be delivered should be decided with major input from the communities themselves.

This lack of power by the rural smallholders has also been complicated by the planning process in Jamaica. The bureaucracy in charge of planning has often tended to adopt outside models of development that have not all had complete relevance to Jamaica. Examples of this have occurred under both the JLP and the PNP and the results for agriculture have often been disastrous (eg. in terms of the effectiveness of government subsidies). More effort by the bureaucracy on analysing domestic cause and effect, and domestic and international realities could have perhaps prevented some of the problems that occurred in agriculture in the 1960's and 1970's. Both the JLP and the PNP can be complimented for the fact that they have encouraged comprehensive development plans to be formulated and for the thought they have given to new ideas. The PNP was especially innovative during the 1970's but often what prevented many ideas from working was their unsuitability to both Jamaica and the Jamaican people. As well ideas were changed regularly by the PNP and this in turn increased the alienation of farmers. Where policies were compatible with smallholders' needs results did occur as happened with domestic crop production in the 1970's.

Although this study devoted less time to the analysis of the socio-cultural forces affecting agricultural development than it did to economics or politics, these forces are also very important in determining both the effectiveness and the actual choice of policies. Section 4.3

provided a brief overview of some of the important socio-cultural features of Jamaica that have and are currently affecting agricultural development in this country. Specific recommendations for policy-makers are not easily made from this section other than to note that all policy-makers ignore these factors at their peril. This section provided numerous examples of policies that were not working because they did not fit the socio-cultural environment. Perhaps one recommendation is to call for flexible and open-minded policies that are both fair and have some chance of continuity. Small farmers in Jamaica generally view the economic, political and physical environment as harsh (with good reason) and are unlikely to respond immediately to any policies that increase their risk. A step-wise approach to innovation and progress that will be carried out by all governments probably has a far greater chance of succeeding than does an approach expecting great changes in short periods of time.

The final chapter in this study, Chapter 5, looked at some of the major external actors that affect agricultural development in Jamaica. This subject was not analysed in any depth and was included primarily to highlight the importance of these external factors on policy formulation. Jamaica has little influence on the world market for its agricultural products and at the same time, like many developing countries, must depend on the goodwill of organizations like the IMF, and the World Bank for aid and credit. In addition, trade policies in industrialized countries often affect Jamaica's present or potential agricultural exports. One obvious lesson from this chapter (and earlier ones) is that although countries can pursue "progressive" social policies such as initiated by the PNP, they cannot risk alienating either the very powerful international agencies or the industrialized nations. If they do so without first arranging for alternate sources, aid, credit and

investment soon dry up and a very expensive price is paid for an attempt at independence. It seems reasonable to suggest that some middle ground can be found whereby the international capital system is not alienated and at the same time progressive social policies can be implemented.

Finally, this study has reaffirmed and illustrated several important lessons about agricultural development. The first lesson is that agricultural development is a long-term and complex process and as such does not happen overnight. It can also be blocked and impeded by any number of economic, political and socio-cultural factors. Over the short-term the development model used probably doesn't matter as long as the stresses on farmers are kept to a minimum. Over the long-term none of the four current models in practice seem to offer the ideal solution for Jamaica. Some mixture of the free-market combined with aspects of the bureaucratic model and a strong emphasis on community oriented policies seems to offer the best solution for achieving development of Jamaica's agricultural sector. It is also important to note that the economic factors discussed, if solved, may yet be replaced by other yet undiscovered variables. The development process is complex in all countries and an open-minded and flexible approach to policy-formulation seems to be necessary.

At the same time more attention needs to be given to agriculture, in terms of funding and in terms of rural participation in decision-making. Social and economic progress can occur and will occur in Jamaica, but it depends on the willingness of the people to work hard for goals that are of importance to them. These goals must be defined by the rural populace and policies must be seen to be both equitable and desirable.

It is hoped that this study has provided some insight into what is a very complex problem affecting many Jamaican people. It is the view of this author

that although the problems facing agriculture are large they are by no means insurmountable. It is also evident that the potential rewards easily justify the necessary effort.

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