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**STRUCTURAL CONSTRAINTS TO DEVELOPMENT  
AND LAND USE IN RURAL JAMAICA:  
THE CASE OF LONG ROAD, ST MARY**

**By**

**Anthony John Weis**

**Honours Bachelor of Arts, Wilfrid Laurier University, 1996**

**THESIS**

Submitted to the Department of Geography and Environmental Studies  
in partial fulfilment of the requirements  
for the Master of Environmental Studies degree  
Wilfrid Laurier University  
1998

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## **Structural Constraints to Development and Land Use in Rural Jamaica: The Case of Long Road, St Mary**

Jamaica is currently experiencing the highest rate of deforestation in the world, with severe environmental consequences attendant to the loss of its ecologically significant forests. It also possesses extreme rural poverty and the intense need for development. In Jamaica, as throughout much of the tropics, peasant farmers are blamed as the primary agents of forest colonization. The purpose of this thesis, therefore, is to elucidate how the development and land use decisions of peasant farmers at a study site are constrained by external forces. The goal is to assess how progress towards environment and development (or 'sustainability') goals in rural Jamaica are affected by its political economy. The approach of the research is three-fold: employing an interview-based survey at a study site to reveal how farmers understand their constraints and rationalize their decisions, using a literary and statistical review to assess Jamaica's political economy, and progressively contextualizing the farmers' perceptions within the broader framework to which they are inevitably linked. It is concluded that in Jamaica, even in a very hopeful case study like Long Road, environmental goals will ultimately be subordinate to the development needs of an impoverished, underdeveloped people until there is a more equitable distribution of the nation's land and resources.

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## 1.0 Purpose and Outline

### Statement of Purpose

This thesis is based on the premise that macro-political economic forces must be examined in order to understand the dynamics of environmental degradation and development in the global South. Yet while the macro-level is deemed to be critical, the need to 'learn from below', from the agents of environmental change and subjects of development themselves, is equally important.<sup>1</sup> Thus, this thesis combines macro- and 'ground' level approaches in order to elucidate how political economic forces are affecting peasant land use and development in a poor, structurally dependent Southern nation with a severe deforestation problem, Jamaica. The case study occurs in a sub-region where the colonizing pressure levied by the peasant agriculturists is acute and the preservation of the forests ecologically critical, the Blue Mountains, and in a town where a significant rural development project has been established, Long Road, St Mary.<sup>2</sup>

Jamaica is an island of great ecological significance and has the highest rate of deforestation in the world (Eyre, 1996), with very serious environmental problems attendant to the loss of its forests. It also possesses extreme rural poverty and the profound need for rural development. In common with much of the tropics, these problems are tightly entwined as the rural poor in Jamaica are the leading agents of forest colonization. The goal of the case study, therefore, was to examine how a community of hillside farmers perceives their challenges, constraints and development priorities, and relate these to the broader political economy. As the *National Report on the Environment* (1992) notes, Jamaica provides an opportune setting for a study of the environment-development interface in a dependent economy.<sup>3</sup>

*Jamaica's economic and environmental experiences demonstrate the vulnerabilities of a Caribbean island state grappling with internal and external natural, social, economic and technological factors...The fact is however, that in attainment of the present, admittedly inadequately level of development, there have been mishaps in environmental transformations and distinct deterioration in environmental quality.*

---

<sup>1</sup> This need is highlighted by Edwards (1989) and discussed in section 1.4. When this change deteriorates the environmental health of an area, these agents become also the victims.

<sup>2</sup> Long Road is also located on the northwest periphery of a newly established protected area, the Blue and John Crow Mountains National Park. As well as being an area of particular ecological significance, the Blue Mountains region was chosen as a study site because it reveals how conservation efforts (like other resource management initiatives) in the exploited South are inevitably constrained by the operation of the global economy and the internal configuration of the national economy. Protected areas in the South have, according to eminent tropical ecologist Thomas Lovejoy, "traditionally been a static, defensive affair. The idea has been to put a fence around it and it'll stay that way." Yet in the context of intensifying peripheral pressures and the need for expanded buffer zones outside tropical forest patches, protected areas are inevitably just buying time, and can only realistically fulfil long-term conservation needs if the pressures outside them are contained.

<sup>3</sup> Svennson (1991) notes that "the impact of external, world-market factors on a domestic economy and, consequently, society, can always be well illustrated in the Caribbean, for so long dependent on its external slave-labour supply as well as on distant markets for its exports." Klak (1996) similarly argues that the modern structural problems and distributional inequities characteristic throughout the global South are "well illustrated in Latin America and the Caribbean, a region committed to a path towards international economic integration, and in Jamaica, one of its most debt-burdened countries, and one taking major strides towards reorienting the role of government and generating new exports." As well, in terms of ecology, Lewis (1994) suggests that small island states can serve as both a warning - the ecological equivalent of a miner's canary - and as a potential model for operationalizing the pursuit of sustainable development.

In short, it is believed that the exploitative actions of the rural poor are but a symptom of the broader structural problems, and as such must be contextualized within a macro-political economic framework to be properly understood.<sup>4</sup> It will be argued that Jamaica is a nation where the environmental challenges are inevitably linked to the scars of its colonial history, its structural dependence, and the resultant massive and pervasive inequities in land and society. Far from being merely an academic task of levying (or, in the case of the peasantry, alleviating) blame, the argument is that underlying causes must be understood for remedies to be directed at the root causes rather than merely at the symptoms.

Better understanding the pressures behind the exploitative behaviour of the peasantry is of value not only for prescriptive purposes, but as a theoretical contribution. With respect to finding solutions, this research is also very much concerned with understanding how alternative development paths can be forged in Jamaica, as elsewhere in the global South. How this development can be brought into harmony with environmental protection, however, remains a particularly vexing question, and one that requires continued pursuit. As Singh (1994) remarks:

*Analysis abound of the environmental health situation in small islands and other developing countries and so do prescriptions for its amelioration. Yet improvements remain largely elusive. There are also myriad general recommendations for solving environmental problems. There can be no guarantee that another set of recommendations will be any more successful, but if we are genuinely concerned with the issues at hand, we must continue to ponder alternative approaches - and articulate them for consideration.*

## Outline

### Chapter 1: Literature Review

The first chapter is highly interdisciplinary, bringing together research from a range of disciplines to provide the necessary context and justify the relevance of this thesis. Section 1.1 will establish the political economic framework which is seen to overarch environmental and development problems in the South, and is a critical foundation for what follows. Section 1.2 reviews the environmental context of the deforestation crisis in the tropics and in Jamaica, examining the ecological significance of the forests and the problems associated with their loss, in the process establishing the conservation imperative in Jamaica. Section 1.3 addresses agroecological issues of land use efficiency, which relate very much to (and challenge fundamentally) the perception of the peasantry as agents of deforestation. This section also includes a review of how poverty and the peasantry relate to Jamaican deforestation, as well as briefly examining other causes of deforestation.

---

<sup>4</sup> This is in accordance with Bowler's (1995) suggestion that research on sustainable rural systems should contextualize "the impact of macro social, economic and political processes on an existing rural system or sub-systems" and identify the unsustainable elements within them.

Section 1.4 reviews the challenges to traditional development theory presented by dependency theorists, the Plantation School and other elements of critical thought. These are vital to understanding why the rationale which explains peasant-driven deforestation in terms of ‘poverty’ and a ‘lack of development’, and hence equates sustainability with the need for northern-prescribed development, is deeply flawed, and why a distinction must be made between the poverty of *undevelopment* and the poverty of *underdevelopment*. Section 1.5 discusses the history of Jamaican political economy and the marginalization of the peasantry in space and economic function. This is very relevant to understanding not only the current economic malaise, but in illustrating how Jamaica’s development experience was unique and how it is relevant to other Southern nations. Section 1.6 ties together the diverse elements of the literature review, reflecting on the main points to be drawn from each and how they interrelate. In the process, the relevance of the inquiry and the suitability of the emphasis and approach will be re-iterated.

## Chapter 2: Methods

Vayda (1983) deems it necessary to employ ‘methods with a fluidity or flexibility’ in correspondence with the processes one is seeking to understand. The research design was set out to be similarly flexible, comprising a three-fold process which is outlined in section 2.0. The first step in the process is the participatory fieldwork, the relevance and setting of which are introduced in section 2.1. Long Road, the site of the case study, is introduced together with the St Mary Rural Development Project (SMRDP). It is impossible to understand the community and its evolution without understanding the role of the SMRDP. The regional plantation economy is also introduced briefly here. Section 2.2 outlines the methods of the fieldwork, with emphasis on the questionnaire which is at the core of the fieldwork.

The second step in the research is to establish the macro-framework, theoretically and empirically. The design for the macro-framework is laid out in 2.3. It is aimed at developing a national economic profile with an historical lens in the same manner as is cast in section 1.1, with an emphasis on the agricultural sector. The third step in the research is linking the macro- and micro- results, which is approached through ‘progressive contextualization’, a method discussed in theory and practice in section 2.4 with the aid of a few examples.

## Chapter 3: Results

The results of the fieldwork are discussed in section 3.0, which is broken into four main parts: current land use, land use decision making, perceptions of farming and well-being, and cognizance of environmental issues. The results are based largely upon the interviews, but also weave together a variety of other experiences from the field work. The first part deals with aspects relating to the current land use in Long Road, including tenancy, size of holdings, clearance history and cropping systems. The second

part deals with land use decision-making of the farmers, looking such things as their subsistence versus market orientation, their motivations for growing a specific crop mixture (most notable in the discussion being the role of coffee), and their experience with credit, extension and marketing. The third part describes the farmers' perceptions of farming, its challenges, and their well-being as they were revealed in the interviews, with the goal being to gain insight into the factors which influence the farmers' decisions and their development priorities. Some pertinent issues include whether marketing and well-being are seen to have improved, the marketing co-operative's production-price dilemma (related in the discussion to issues of co-op education and empowerment), the challenge of farming over time, and most importantly, the identification of challenges or obstacles by the farmers - which are taken as development priorities. A case of land reform and how it relates to the Annotto Bay region is also discussed. Finally, how farmers perceive issues of land crowding, deforestation and soil erosion are each reviewed.

The macro political economic analysis occurs in section 3.1, examining the Jamaican experience as it relates to the structural forces laid out in section 1.1. Jamaica's historical experience with colonialism and its legacy in the post-independence period, the growth of a commodity dependent economy, and the reliance on foreign investment and abusive Transnational Corporations are all massive subjects on which books have been written, and will thus necessarily lose much depth in this analysis. However, section 1.5 provides the necessary background and a more detailed review of these historical political economic issues. The historical impact of forces such as the deregulation of world money markets, rising interest rates, and the oil shock are also noted, as is the increasing governance of the economy by foreign financial institutions. However, the crux of the macroeconomic analysis is on what impact these various forces have had in terms of Jamaica's commodities production and pricing, its massive indebtedness, the lack of diversification in the export sector, its trade imbalances and external payments problems, and the reinforced commodities dependence.

After a discussion of how Jamaica's recent economic growth relates to the spiral, the implications for the use and management of resources are reviewed. This is done by looking at how the spiral has generated massive societal inequities in wealth and access to resources, left rural areas impoverished and forced the state to retreat in various key sectors. The ultimate result is massive environmental change and damage - although the ecological ramifications are not developed beyond section 1.2.

#### Chapter 4: Analysis

Chapter 4 includes the analysis and progressive contextualization of the results from chapter 3. The intent is to explain how the land use decisions of the small farmers in Long Road are affected at a

variety of levels, including how they are connected to the macro-level forces described in section 3.1. This discussion is centred on the perspective of the individual farmer and a decision-making model whereby various sources of influence are 'traced outwards', from very local causes to global commodity markets. Farmers are seen to be 'pulled' by certain market conditions and 'pushed' by other forces - each occurring at a variety of levels. This decision-making model is a generalized way of looking at how the various forces impact on the individual farmer and how they relate to the land use decisions made, but it should not be seen as imposing values or judgements upon the subjects. Rather, it is an attempt to rationalize according to their perspectives evident from the survey. Explanation is thus conjunctive as various elements are connected to their impact on an individual farmer, with the forces affecting land use being of particular interest to this thesis.

#### Chapter 5: Summary and Conclusions

Chapter 5 provides a summary of the research and its conclusions. While there are many hopeful lessons to be learned from Long Road, this case study illustrates a fundamental barrier for the concurrent pursuit of development and environment goals when such persistent inequities remain unaddressed in land and society as in Jamaica. It is concluded that for development to ultimately be sustainable or 'de-pressurizing', equity goals must be linked to environmental ones. The recommendations will focus on the national implications rather than on international ones, and much emphasis will be given to the lessons which can be taken from the SMRDP's success and to the issue of land reform.



## 1.1 The Dependency Spiral and Sustainability in the Global South<sup>5</sup>

### PART 1: The International Level: The Dependency Spiral

In those exploited countries euphemistically called 'developing nations', the pursuit of sustainability - in human and environmental terms - is inevitably constrained by inequities historically ingrained and perpetuated by the operation of the global political economy. Environmental crises and massive and pervasive social inequities are wound closely together in the global South, and the movement from colonial status to nationhood has actually reduced the capacity of most Southern nations to meet the basic needs of their people (Ignatieff, 1984). Colonial legacies and globalization have together fostered a reinforcing spiral of Southern dependence on Northern (industrialized nations) terms, resulting in debilitating structural problems which are inseparable from their challenges of resource management.

Sustainable resource use cannot gain momentum when the global South is burdened with massive land inequities, the growing power of transnational corporations, decreasing prices for the primary commodities on which they are dependent, depressed terms of trade, staggering external debts, rising interest rates and western protectionism, amongst an array of forces which form a complex mosaic driving dependence on commodities and exploitative resource use and which exacerbate social inequities.

The major forces at work in the global political economy have fostered a reinforcing spiral of Southern dependence on Northern terms, a spiral which is inseparable from the environmental crises and resource management challenges in the South. The model is employed in an attempt to frame the basic elements of this spiral, but not to obscure the complexity of their interaction or the obvious relativity of the various elements with respect to specific cases. Of course reality is less systemic than the apparent rigidity may suggest, but the purpose is to highlight and synthesize major historical and current dynamics facing Southern nations. The ensuing discussion will expand on Figure 1.10.

#### The Impact of Colonialism

It is impossible to understate the role that colonialism has had on the Southern condition. The colonial era incorporated the global South into the world economy in a subservient role, and the reinforcing nature of the resultant development has meant that the majority of southern nations have never escaped this long-embedded path. A small ruling class and 'auxiliary bourgeois' elite emerged from the colonial era whose wealth and power were intimately tied to foreign interests (Sandbrook, 1982) and who have been characterized as weak, fragmented, and non-dynamic (Pantin, 1990). Cardoso and Faletto (1979) dub this the *comprador class*, and importantly point out that this class has benefited from the continued underdevelopment and dependency of their nations. With a comprador elite and trade

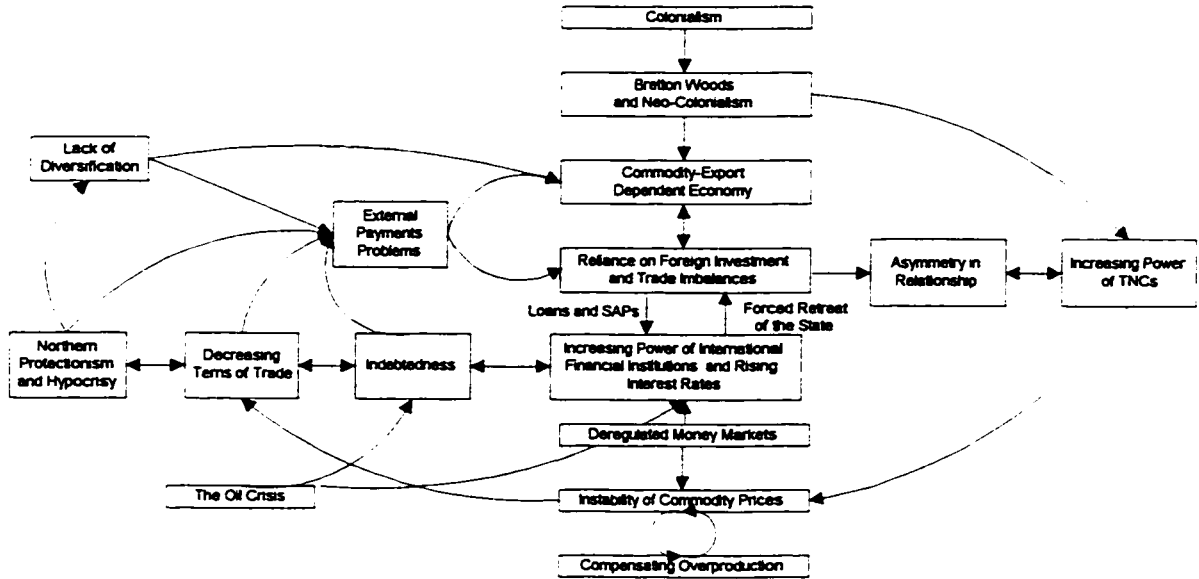
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<sup>5</sup> This section is taken primarily from an earlier paper, Weis (1997).

relationships dictated by colonial powers, Southern economies invariably grew to rely upon a narrow base of commodities. The massive inequities in land distribution that pervade the global South were a critical consequence of this foreign control and resource export orientation (Colchester, 1993).

Figure 1.10

The Dependency Spiral



Bretton Woods and Neo-Colonialism

The end of the colonial era saw foreign dominance over the liberated colonies take a different guise - a neo-imperialistic order masked as a universal quest for Northern-style economic development, grounded in the 19th-Century Ricardian theory of 'comparative advantage' and guided by the Bretton Woods institutions. GATT and its fortified successor, the WTO, set out the rules of world trade with the intent of increasing world trade and shrinking tariff barriers. The influence of the World Bank and the International Monetary Fund (IMF) have been fed by, and have in turn served to heighten, the Southern reliance on foreign investment and control (Korten, 1995).

Growth of Commodity-Export Dependent Economy

The result of the colonial era and the pattern of globalized trade paved by the Bretton Woods institutions was that despite formal independence, most of the post-colonial South has remained bound economically into colonial trade patterns (albeit with somewhat more diversified partners) - that is, heavily dependent on the export of commodities and at the dictates of Northern advisors (commonly from the World Bank or IMF). Unfortunately, for most Southern nations these trade patterns and the inequities

inherent in the national economies have tended to be self-perpetuating, in that they tend to re-enforce structural weaknesses and social disparities.<sup>6</sup>

While the green revolution has been widely hailed as a miracle for the South in allowing their exploding populations to be fed, it also brought structural changes in agriculture to the detriment of self-sufficiency. The chemical age, increasing commercialization, and export orientation of agriculture have eroded traditional cultural practices, and cash crop production has tended to dominate the best lands and marginalized subsistence and local market-oriented agriculture (Luzar, 1994).

### **Reliance on Foreign Investment and Trade Imbalances**

Massive trade imbalances arose as Southern nations were subsumed in the global economy and oriented their development policies around foreign capital and expertise, imbalances which were amplified by western protectionism. Trade imbalances induced Southern nations to rely on loans from foreign financial institutions, who have in turn utilized the terms of their loans to subsequently shape economic policy - most notoriously IMF Structural Adjustment Policies (SAPs) (Samatar, 1993; Danaher, 1994).

### **Asymmetry in Relationship**

The reliance on foreign capital has fed an asymmetrical relationship between Southern nations, which covet investment and technological know-how (Jacobs, 1991), and Transnational Corporations (TNCs), which seek weak environmental controls (Tester, 1991) cheap access to resources (Munro and Holdgate, 1991), and possess enormous leverage owing to their capital mobility and the array of desperate suitors (Griffith, 1990). While national governments remain the chief arbitrator between their people and TNCs, southern governments have consistently undersold their people and resources.<sup>7</sup>

### **Increasing Power of TNCs**

The role of TNCs on a global scale has grown consistently and dramatically since WW2 as the ability to internalize markets without respect to national borders has "naturally reinforced the tendency for capital to concentrate" (Hobsbawm, 1994). The increasing control over the entire production process has an enormous impact on commodities pricing, obvious considering that 40% of all world trade is now 'intra-firm' (Chomsky, 1996) and that by the mid-1980s, between 80 and 90% of the world trade in ten

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<sup>6</sup> Although the East Asian 'tigers' are generally celebrated as the models of international development for southern nations to aspire to, having experienced significant growth and diversification, a loud and raging debate surrounds the extent to which this development has benefited the poor majority of these nations. It is argued forcefully that in east Asia, the benefits of development have accrued to a small percentage of society, and that the associated increasing social stratification necessarily entails the entrenchment of poverty and the decreasing access of opportunity for those left behind (New Internationalist, 1995). This will be discussed in greater length in section 1.5 on development.

<sup>7</sup> Already submissive nation-states were threatening to swing the pendulum even further towards TNCs in the form of the Multilateral Agreement on Investment (MAI), which would have given unprecedented rights to capital over people (Barlow and Clarke, 1997; McMurtry, 1997). Fortunately, widespread public pressure has recently stalled its progress, providing much hope for grassroots coalitions fighting the corporate agenda.

major commodities was controlled in each case by only 3 to 6 TNCs (WCED, 1987). Many TNCs are now bigger than entire national economies (Korten, 1995; New Internationalist, 1997).

### **Instability of Commodities Pricing and Compensating Overproduction**

While commodity prices are by their nature cyclical (often dramatically so), the dominant trend since the 1970s has been downward (abetted by the rising power of TNCs and the global surge in speculative activity), decreasing the terms of trade for commodity-dependent southern nations. By the 1990s, agricultural exports from the South were earning roughly half what they did in 1973, according to their adjusted per unit value in international trade (New Internationalist, 1992) and UNCTAD (1997) reports that the prices of the non-oil exports of the least developed countries again fell sharply in 1996.

Relegated to positions of price-takers in a volatile pricing system, with price-manipulating strategies largely beyond their means (Logan and Mengistaeb, 1993), and faced with declining commodity prices, southern nations have often been forced into the perverse action of overproducing to compensate. This compensatory overproduction has the general and undesirable impact of further frustrating prices - and increasing the gap between price and the actual environmental cost of production (Jacobs, 1991).

### **Decreasing Terms of Trade**

Falling commodity prices together with an increase in Northern protectionism and high dependence on a wide range of imports have led to declining terms of trade for much of the South. Culpepper (1991) has found that the timing of any southern country's export crisis and its ability to rebound is dependant on how its principal primary product has performed in international markets. Further, low commodity prices generally do not reflect their environmental costs, so commodity-exporting Southern nations are essentially subsidizing Northern importers in the form of internalized environmental costs (Munro and Holdgate, 1991; WCED, 1987).

### **The Deregulation of World Money Markets**

The deregulation of world money markets in the 1970s led to the explosion of gambling in national currencies, commodities and interest rates (Prock, 1988). As vast amounts of capital have moved from the real economy (investment and trade) to unproductive financial manipulations, the burden has been heaviest in Southern economies and the wealth dominated by Northern traders (Felix, 1996; Chomsky, 1993). Interest rates driven up by the surge in currency trading have impacted the debt crisis, and speculative trading has created shocks to the international trading order which have depressed commodity prices (Kennedy, 1993).

## **The Role of International Financial Institutions and Interest Rates**

The growth of the world economy has been accompanied by the concurrent rise in importance of international financial institutions - both a consequence of and driving force behind the growing internationalization of economic relationships. International financial institutions, most notably the World Bank and the IMF, have played an enormous role in charting the development path of the South. The World Bank and the IMF extend credit only under austere, liberalizing terms, which has the effect of fostering Southern dependence on the global economy. The freeing of global trade has led to massive imbalances, and the compensating financial transfers have often exceeded the repayment capacity of the receiving nation, especially when compounded by rising interest rates (Daly and Cobb Jr., 1989). This has led to an imposing debt crisis in many nations, and Klak (1996) argues that SAPs "have irreversibly reduced and redirected the power, scope, and role of government and organized labour, and substantially opened economies to foreign capital" making them a virtual "hegemonic development project." Budhoo (1994), a former IMF economist, goes further, calling SAPs "anti-people, even genocidal."

### **The Oil Shock**

For those Southern nations without energy resources, the crisis of indebtedness was compounded by the oil shock of the 1970s. Luzar (1994) notes that the impact was two-fold. Firstly, the entrance of oil exporting nations into international capital markets increasing the volume and accessibility of loans. Secondly, because much economic development was, whether in agriculture or industry, largely petroleum-based, the increased oil prices created a growing need for borrowed capital.

### **The Debt Problem**

Debt quickly became unsustainable in the South as global interest rates soared in the 1970s (WCED, 1987), and increasing oil prices further squeezed those nations dependent on oil imports. The total external debt of developing countries grew sevenfold between 1970 and 1993, exploding from \$247 billion to over \$1.7 trillion. By 1992, Southern nations were paying two-and-a-half times more in debt repayment than they received in official aid (French, 1995), and this staggering debt load has led to an increased pressure on commodities. Luzar (1994) suggests that among other forces, it is the international debt squeeze which most severely limits conservation adoption in agricultural sectors throughout the South. After three decades of mounting debt, the question of how loans will be repaid still has not been answered (Korten, 1995). The standard World Bank response, Korten notes, is to the effect that 'loans will be repaid out of returns from the economic growth they stimulate' when the reality is that:

*...most borrowing countries have been able to service international debt only by increasing their international borrowing. The more they borrow, the more they become dependent on international borrowing and the more their attention is focused not on their own development but on obtaining more loans...like a drug addiction.*

### **Northern Protectionism and Hypocrisy and the Lack of Diversification**

Globalization has also been characterized by the increasing protectionism of Northern nations against processed commodities and industrial goods from the South, a hypocritical stance given that Southern nations are forced to open their borders to Northern imports through North-based institutions like the World Bank and the IMF (Chomsky, 1993). This hypocrisy suppresses the processing of or diversification away from a commodity-dependent economy (WCED, 1987), and inhibits the development of backward and forward linkages in the national economies of the South (Samatar, 1993). The *1992 UN Development Report* estimates that protectionist measures in the North deprived 'developing' nations of \$1/2 trillion a year, or twelve times total aid (Chomsky, 1996).

As well, Northern governments generally subsidize their commodity sectors, most notably in agriculture, resulting in the cheap export, or 'dumping', of agricultural commodities like grain to the South. This subsidized export undercuts small farmers in the South and discourages the national self-sufficiency and diversification in agriculture (and hence impetus for land reform) in favour of a reliance on cash crops (Kneen, 1995).

### **External Payments Problems and Reinforcing Commodities Dependence**

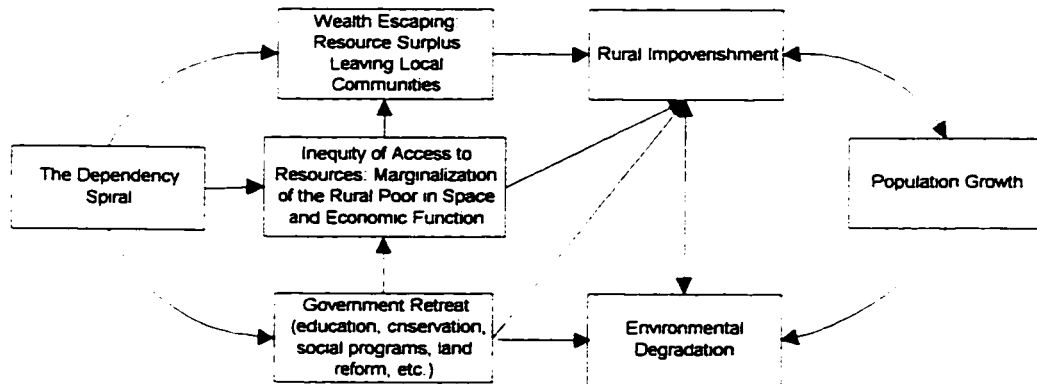
Northern protectionism, deteriorating terms of trade, and soaring debts are mutually reinforcing dynamics, and together create a massive payments problem. The payments problem, in turn, entails increasing pressure on the resource base as southern nations are forced into continuing on an economic path over-reliant on primary commodities. The dependence on the natural resource base is such that most Southern nations earn over three-quarters of their export incomes from primary commodities (Munro and Holdgate, 1991), and remain unable to reap an equitable share of the benefits from this production.

Through this spiral, developing nations become dependent on a system of trade that they have little influence over, and thus their economical survival depends on tailoring national policies to the operation of the international marketplace (Daly and Cobb Jr., 1989). Shrestha and Patterson (1990) note how the active presence of foreign development agencies has tended to foster a dependent growth pattern in the South rather than encouraging development attuned to the needs of the people.

## PART 2: The National Level: Implications for the Use and Management of Resources

The international dynamics highlighted in the dependency spiral have led to a national climate inhibiting sustainability in a number of ways (see Figure 1.11). The implications on a national level will now be discussed.

Figure 1.11 The Dependency Spiral and Environmental Degradation at the National Level



### Wealth Escaping

Income inequality between the North and South is increasing. This is especially disturbing when we realize that the poorest billion people in the world account for only 1.4% of total global wealth, the next billion 1.9%, and the next billion 2.3%, when the richest billion now possess an astonishing 83% (UNCTAD, 1997). As a percentage of the industrialized world, Africa's per capita GDP (minus South Africa) declined by about 50% from 1960 to 1987. Latin America's decline was almost as great (Chomsky, 1993). Clearly, the South has not reaped an equitable share of the benefits from the exploitation of its resources.

### Inequity of Access to and Control of Resources

The South Commission (1990) argued that "the most powerful countries in the North have become a de facto board of management for the world economy, protecting their interests and imposing their will on the South." There is great danger in the degree of power concentrated in such anti-democratic agents as TNCs, the Group of Seven (G7), the World Bank, the IMF and the WTO, whose governance of the global economy is pervasive and who have a great deal of immunity from popular influence, especially Southern voices (Chomsky, 1996). The result is a neo-imperialistic order in which local sovereignty over the resource base is not only lost, but in which the massive land inequities are

entrenched by neoliberal norms which set distribution and equity goals beyond the realm of reform or intervention.

### **The Retreat of the State**

As discussed earlier, economic contractions and onerous debt servicing have placed many southern governments at the mercy of World Bank- and IMF-prescribed structural adjustment. On the one hand, as noted, this has meant deregulation and the forced opening of economies to greater foreign investment and control, the result of which has been the general deterioration of social conditions for the poor masses burdened with profoundly uneven playing fields and who are ill-prepared to compete in global markets. On the other hand, the forced austerity has meant that governments throughout the south have been compelled to retreat dramatically from domestic spending, meaning that concern for social and environmental programs have increasingly been subordinate to the 'pressures of the market'.

Structurally adjusted nations have faced a consistent pattern of declining social expenditures in public health, education, infrastructure (which disproportionately impact on the poor), as well as a complacency with uneven income distribution and the de-emphasis of environmental programs (various cases are vividly discussed in Danaher, 1994). SAP-inspired devaluations spawn inflation that has combined with the elimination of domestic price controls to increase the cost of imported foodstuffs (Budhoo, 1994) - which the global food economy has made the Southern poor (apart from subsistence farmers) dependent upon.

### **Rural Impoverishment**

Compounding the problem of resource wealth escaping national borders is the fact that what wealth is generated by commodity production, or in rare cases from processing and industrial development, tends to be distributed very unequally and is often concentrated in the urban elite. Income inequality is severe and increasing in the South, and 'development' has often benefited a nation's elite but not its poorest members (Korten, 1995). Latin America is a good example, as recent economic growth has been monopolized in the small upper class, while poverty levels have remained entrenched at 40% and among indigenous peoples and subsistence farmers who are still habitually displaced from their lands onto marginal ones (French, 1995; Shrestha and Patterson, 1990).

The good lands in the south are used primarily to grow food for export, making them unavailable to the poor to meet their own basic needs. Those displaced (land-less peasants, indigenous peoples, etc.) by export-oriented agriculture add to the urban overcrowding and blight characteristic of southern metropolises, or are forced onto more fragile and less productive land which can quickly become overstressed. As Korten (1995) notes: "The only certain beneficiaries of this shift of the food economy to



trade dependence have been the TN agribusiness corporations that control global commodities trade.” Additionally, Timberlake (1988) has shown that the demands and political power of urban populations in the South have led to price fixing in domestic markets to the detriment of the agrarian poor who produce for domestic consumption.

Momsen (1991) importantly points out the differential impact that economic crisis and the retreat of the state has on women, and by consequence, children. Women invariably end up bearing the greatest burden as increasing responsibilities are ‘passed on’ (i.e. abandoned) to the household.

### **Population Growth**

Population growth has continually exceeded economic growth in the South, and neo-Malthusians have argued persuasively that the population ‘explosion’ is inseparable from any discussion of environmental degradation and sustainability (most famously Erlich, 1968). The Southern population ‘explosion’ is both a cause and a result (in both cases, among many) of the rural impoverishment, as peasants often maintain the need to have large families for both labour and old age security.

However, others have vigorously debated the dominance commonly attributed to population as a determinant of the Southern condition, and would no doubt question its placement here. Lohmann (1993) presents a particularly strong case that the real problem in tropical deforestation is not the growing local populations but rather the distant elites who control, distribute and consume its products. The ‘population myth’ he asserts, has been fostered by the global elite to assuage their responsibility in the matter. Erlich (1994), probably the seminal thinker on population, has recently pointed out that the greatest population problem is one-fifth of humanity in the North, where 83% of global wealth is now concentrated.

While a more detailed examination of this debate is beyond discussion here, and although such critiques demonstrate that the North must rethink the relative importance of population in the equation of sustainability, population was nevertheless included because it has exacerbated Southern poverty (whatever its more fundamental roots) to the degree that the limited wealth must be spread across an ever expanding population. This has necessarily affected the declining relative condition in the South, with consequent impacts on the sustainability of both human and environmental systems. Korten (1995) offers needed perspective:

*We have endured far too many debates in which the representatives of rich countries condemn the population growth of the poor and refuse to discuss overconsumption and inequality, and the representatives of poor countries condemn overconsumption and inequality and refuse to discuss population growth. In a full world, consumption, population and equity are inseparably linked and we must deal with them holistically.*

## **Environmental Degradation and the Challenge of Sustainability**

The combination of an economic base dependent on commodity exports, the inequitable access to resources, the forced government retreat from social and environmental programs, rural impoverishment and population growth, together imply that human-environment relations in the South cannot approach sustainability until dramatic structural changes occur. It is the local populations who have the most stake in the long-term sustainability of the resource base, not foreign-based TNCs who can shift capital upon resource depletion. However, the ability of local people to manage their land is often eliminated or severely compromised by external forces.

Natural resources in this context are used, often *overused*, not for long-term qualitative (not necessarily economic) development or for enhancing standards of living, both requisites for sustainability, but to meet foreign creditor payments, current subsistence levels, and to accommodate population growth. In the case of agriculture, the FAO (1996a) notes that the 1980s saw the accelerated expansion of export cash crops throughout the South, expansion which was “often prompted by the need to restore external imbalances under SAPs.” This has, in turn, frequently led to reduced fallow periods and consequent dryland degradation and soil damage, especially when agricultural machinery has been involved. The FAO goes on to point out that accelerated market liberalization has also led to cutbacks in fertilizer credit and subsidies, reducing the capacity of farmers to improve their productivity and thus contributing to their continued movement on to marginal lands.

As the Brundtland Report (1987) made clear, environment and development are inter-linked priorities, and reducing poverty is a necessary precondition for environmentally sound development. While we must be careful not to define poverty and development from ethnocentric and growth-oriented perspectives, the forces at work in the global economy, as simplified in the model, appear to be entrenching and increasing poverty, however defined, with consequent impacts on social and environmental deterioration. Of course this is not to deny that there exist many encouraging examples of community-driven co-operatives, workers unions, and other grassroots initiatives which have taken hold in Southern nations which provide hope for local peoples and environments - it is only to imply that the overarching political economic framework tends to impede such progress.

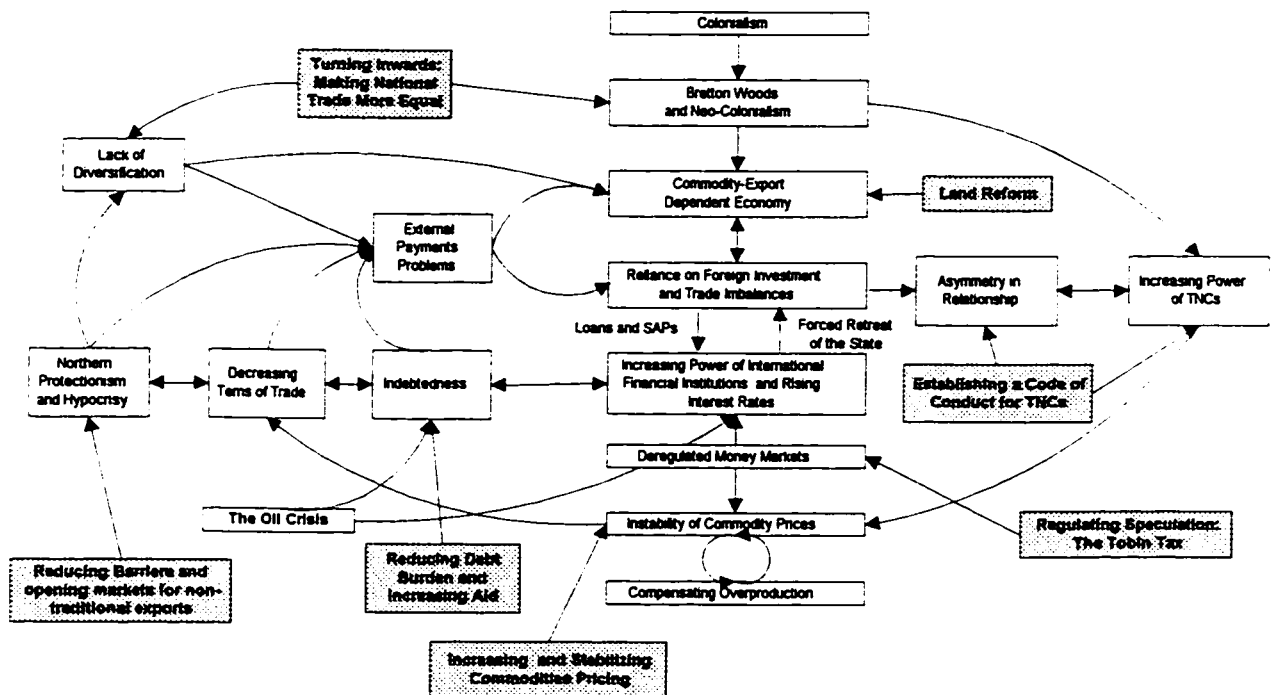
### **PART 3: A Selection of Prospects for Reform**

The purpose of this two-part model is to provide a framework for the discussion of how powerful international forces exist beyond the realm of national control and inhibit the sustainable use and management of resources in many Southern nations. The implication is that action on an international level is required to allow local people a chance to forge a more sustainable future. As

French (1995) has argued, the task of international governance “is not to micro-manage these actions, which depend on the genius, commitment, and ingenuity of individuals world-wide, but to ensure that the climate is favourable to them.”

Although the selection here was necessarily subjective, the following ideas are presented in this vein of improving the climate for sustainability in the South, and should be taken as different battles in the same war. Figure 1.12 shows where different solutions would address the dependency spiral. Only two of the seven proposals discussed are within the realm of national policy - land reform and orienting economic production towards greater self-reliance. However, as is evidenced by the Jamaican experience (discussed in section 1.5), even these changes cannot occur in isolation from external global pressures.

Figure 1.12 Breaking the Spiral: Selected Ideas for Reform



### The International Level

#### Increasing and Stabilizing Commodities Pricing

Tester (1991) asserts that “the chief culprit undermining the viability of world ecosystems are the low prices developing countries receive for their commodities.” These low prices are not reflective of their environmental costs, meaning that there are inadequate incentives for the sustainable consumption of these resources, and signalling the need to develop accounting methods which value the real environmental costs of resource use so that the burden is shifted to the resource consumer (Sitarz, 1993).

Methods must clearly be found to increase and stabilize the prices of commodities for sustainable levels of production (Jacobs, 1991), and some ideas include commodity agreements, stabilization funds, assistance to diversify commodity sectors (Munro and Holdgate, 1991), and mandatory environmental export tariffs (French, 1993). However, it would be remiss not to note that increasing commodities prices could have the undesirable effect of encouraging production to take advantage of 'when the going is good' (Tester, 1991), highlighting the need for stability in the commodity market and other concurrent changes.

#### **Regulating Speculation: Tobin Tax**

Means of controlling the destabilizing effect of currency speculation must also be found. The most famous of these was proposed by Nobel laureate economist James Tobin, who proposed that a 0.5% (or less) tax be placed on all foreign-exchange transactions so as to discourage short-term speculation without interfering with long-term investment. By deterring the uncontrolled currency trading which now dominates financial markets, the Tobin Tax could stabilize the global economy in a relatively unintrusive manner (Felix, 1996), as well as providing a source of funding for environmental and social programs in the South (French, 1995).

#### **A TNC Code of Conduct**

It has been argued that "corporations can only behave morally, and can only consider the environment, to the extent that it is profitable for them to do so" (Tester, 1991). Given the asymmetry of bargaining power between TNCs and developing nations and the fact that their governance is increasingly through undemocratic and secretive international trade organizations (French, 1992; Chomsky, 1996), there is a need to develop strict regulations for the conduct of TNCs. This should involve the sharing of information, managerial skills and technological know-how with the host-country, the pursuit of objectives within a long-term framework of sustainable development, and restricted access to Northern markets conditional on the respect for predefined environmental standards (Jacobs, 1991).

While efforts to ensure the responsible behaviour of TNCs are needed at national and local levels, Beladi and Frasca (1996) suggest that a nation which attempts to unilaterally impose stricter environmental policies on foreign capital will likely suffer a decline in national income because of the mobility of capital. Thus, the issue of a strict TNC Code of Conduct needs to be rejuvenated by the UN to create a more even international playing field.

#### **Reducing the Debt Burden and Increasing (and Reformulating) Aid**

Debt reduction and increased aid are crucial prerequisites for sustainability, as the condition where debt service payments exceed aid is utterly unacceptable. The bleak economic situation in the

South has been seen as both a cause and a result of the debt burden, and there are powerful arguments which suggest that dramatic debt alleviation - even outright cancellation - is not only necessary but just. It has been suggested that all of the official debt of developing nations should be written off, and much of the commercial debt retired (Munro and Holdgate, 1991), as the massive amounts now owed are widely seen to be illegitimate - the product of soaring interest rates which Northern nations themselves caused. Unconditional debt reduction and increased aid can also be justified in light of the environmental costs that Southern nations have internalized in the form of low commodity prices, as "it seems much more appropriate to regard transfers to the South as compensation for environmental damage" (Jacobs, 1991).

The problems inherent in traditional aid - stoking dependent development (Shrestha and Patterson, 1990), skewed towards security interests (Chomsky, 1996, French 1995) and used to buy equipment and consultants from the donating nation (Munro and Holdgate, 1991) - combined with the fact that levels are falling well short of the international target of 0.7% of GDP for Northern nations,<sup>8</sup> mean that aid levels must not only to be increased to compensate for the injustice of debt service, but must also be better targeted. A good, simple requisite should be that aid is "demand-driven, rather than imposed above" (French, 1995). This implies that the initiative and design must be passed from the Northern agencies and Southern bureaucracies to the communities themselves.

### **Reducing Northern Protectionism Against Non-Traditional Exports**

In order for Southern nations to reconcile their need for export growth to meet payments with the need to conserve their resource base, it is critical that they be permitted access to Northern markets for non-traditional exports (WCED, 1987). Increasing Northern protectionism has stifled diversification in the South, and Northern nations must reduce tariffs and non-tariff barriers to trade (like domestic subsidies) and expand access to processed or manufactured goods from the South (Sitarz, 1993). Because southern nations need diversification to reduce their dependence and pressure on their resource base, diversification must be seen as an ecological necessity as well as an economic one (French, 1993). Southern nations must be allowed to build backward and forward linkages in their national and regional economies.

### **The National Level**

#### **A Complete Break: Turning Inwards**

Throughout history, there have been no successful purely laissez-faire transitions to modern economic growth, as the state has always been involved through import substitution and other interventionary measures to create a national capitalist class. The impetus for development has not

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<sup>8</sup> Canada's aid in 1998, for instance, was a meagre 0.03% of GDP.

historically come from a bourgeoisie subordinate to external powers. The US and Japan are famous examples of how infant industries have been protected within their borders, protection which has been fundamental to getting them 'on their feet'. Nevertheless, these and other Northern nations now preach 'openness' to Southern nations which they never practised themselves, even as they continue to subsidize and favour home-based corporations (Chomsky, 1993). Having at once been forced to open their borders and face crippling protectionism, the diversification of Southern nations has been stifled.

Daly and Cobb Jr. (1989) argue that there is a misplaced faith in completely open markets and comparative advantage as a global panacea. They argue persuasively that cosmopolitan money managers and TNCs, having escaped the morality conferred on them by ties to community and nation, now exist in the recesses *between* communities and nations "where individualism has a free reign." As a result, international trade is no longer between nations, but between individual entities and, as Daly and Cobb Jr. point out, "mutual advantage between individuals does not guarantee mutual advantage for the two countries." At its most basic, they argue that trade should be between national entities, and this trade must be balanced - a fundamental break with the present system which would inhibit capital mobility by eliminating the need for the lending and borrowing which has led to unrepayable debts. While they acknowledge complete autotarky is unrealistic, Daly and Cobb Jr. present a compelling case that current policies "err on the side of too much free trade because of misplaced concreteness in the argument of comparative advantage."

### **Land Reform**

The need for local people to have a role in the management of resources for the sake of equity and sustainability is obvious, and the inequitable distribution of land throughout much of the South means that land reform is essential. Without reform, subsistence farmers, pastoralists and indigenous peoples of the South will continue to pressure the marginal resource bases they have been forced onto, but which cannot support their rising numbers (WCED, 1987). Thus, protection of the environment demands not only "challenging market-based ownership rights over natural resources" (Jacobs, 1991), but patterns rooted in historical distortions. The issue of who controls resources in regions of refuge is at the heart of indigenous survival (Durning, 1993), as it is for all marginalized rural populations. However, Colchester (1993), points out the dismal reality that most attempts at land reform have failed and he argues that new models demand a devolution of power not only from North to South, but within Southern nations themselves.

The push for agrarian reform was strongest between the 1950s and the early 1970s, but serious failures, most notably in Latin America, stalled the momentum. Plant (1993) argues that work toward

land reform “has become apathetic, defeatist, and essentially retrospective” in the face of seemingly insurmountable political and technical obstacles. Nevertheless, he asserts, efforts must be rekindled as a fundamental issue of human rights, especially considering that in 1985 nearly one-fifth of the world’s population were landless or near landless rural workers. Additionally, Plant argues that for land reform to be successful in the long term it must be accompanied with “credit, infrastructure and marketing facilities, and access to technological inputs and services.”

#### **PART 4: The Dependency Spiral and Research Design**

The framework presented in this section implies that sustainability in the exploited South, however defined, is ultimately constrained by global political economic forces which drive dependence on commodities and exploitative resource use. So what is one then to make of Watts’ (1985) admonition “that environmental degradation is ultimately a local, site-specific process and is very difficult to compare and correlate globally”? (from Eyre, 1987a). Is the framework outlined in ‘the dependency spiral’ too deterministic?

While we must, of course, acknowledge that the resource and cultural endowments of southern nations vary widely, and that there are no doubt a myriad of intricacies in the specific context of each nation’s, region’s, and community’s experience, to suggest these differences constitute a reason to ignore the global correlations is a highly contentious, even dangerous, idea. To ignore these parallel, albeit contextually modified trends, is to ignore the “rapid, profound, and, on balance, downward transformation of many basic dimensions of countries of the South, trends that research is only beginning to unravel” (Klak, 1996). And to do so is to ignore the need to ‘unstructurally adjust’ international political economy.

There is unquestionably a consistency of experience and obstacles facing the exploited South in what Korten (1995) terms the “3-fold crisis of deepening poverty, environmental destruction and social disintegration” - a consistency which demands attention be given to the study of their roots in global processes. So while the discussion of ‘the dependency spiral’ may not have given due attention to the internal problems of the South, which demand, as noted by Logan and Mengistaeb (1993), significant domestic structural transformation, the point has been to show that the international economic system is inherently one-sided. Thus, it is deemed critical to consider the interaction between global, national and local systems when looking at the challenges of resource management and conservation in Southern nations, and the macro-framework presented here will be tested in section 3.1 as it applies to Jamaica (for which section 1.5 provides the necessary historical context).

It is clear that the devastating structural processes facing nations like Jamaica demand that development, equity and the environment, inter-linked priorities, be integrated at the level of international political and economic relations. A prerequisite for sustainability must be to find ways to “increase the capacity of poor countries to satisfy their own basic needs, instead of launching into development strategies which subordinate the local economy to the international market” (Sandbrook, 1982). Unfortunately though, “the processes of economic globalization are not only spreading mass poverty, environmental devastation and social disintegration, they are also weakening our capacity for constructive social and cultural innovation at a time when such innovation is needed as never before” (Korten, 1995). Yet while highlighting the ominous overarching framework and the consequent need for international action, this section does not imply that southern nations and communities are impotent in the struggle to sustain their people and their environment. Rather, innovation in defining and realizing alternative paths must also come from southern nations and communities, as resistance against the debilitating spiral of dependence and environmental and social deterioration must proceed at various levels including from the bottom-up.



## 1.2 Jamaica's Ecological Crisis and the Conservation Imperative

*Scientists world-wide are crying: the large scale destruction of tropical rainforest is one of the major conservation issues of the world today...What is needed is a greater appreciation of the value of what is being so rapidly lost, and a greater motivation to conserve and put to optimum utilization this precious and irreplaceable terrestrial environment.*

-L.A. Eyre (1996)

### The Urgency of Tropical Rainforest Destruction and Fragmentation

The tropical rain forests have been called "the world's greatest expression of life" by eminent ecologist Thomas Lovejoy (Page, 1988), and together possess more species than the rest of the world combined. Although they occupy less than 7% of the earth's land mass, in terms of their aggregate biodiversity, tropical rainforests are home to between half and two-thirds of the earth's species (Bierregaard, 1992). At the end of 1990, Latin America and the Caribbean together possessed 28% of the world's total forests, and 52% of its tropical forests (UNEP, 1997). While Jamaica possesses less than 0.02% of the world's 6.4 million km<sup>2</sup> of tropical rainforest, Eyre (1996) notes that what Jamaica does possess "is both a unique and a precious commodity."

Documentations and projections of tropical rainforest biodiversity are staggering. For instance, the central area of the La Selva Forest Reserve in Costa Rica, totalling only 13.7 km<sup>2</sup>, contains almost 1500 plant species, more than the whole of Great Britain which is over 1700 times its size. Ecuador contains far more species than does Canada and the United States combined (Myers, 1988). Jamaica, as will be seen later, is also a tremendous storehouse of biodiversity.

Sadly, development, human population growth, and an array of forces discussed in the previous section now threaten the enormous biological wealth of the tropical rainforests with massive and unprecedented destruction. From bioclimatic data it has been estimated that almost half of the tropical rainforests have already been lost, and while there is uncertainty as to exactly how rapidly they are currently vanishing, it is generally acknowledged that it is at a rate of about 2% a year (Myers, 1993).<sup>9</sup> With this loss "we face the possibility of an extinction spasm as dramatic and far-reaching as anything in the history of life on Earth" (Robinson, 1995), and Myers (1988) has estimated the world could well average almost two extinctions per day in the tropics alone, which amounts to almost 20 000 times the 'background' rate.

Although it has received less attention than what is occurring in larger areas, the tropical deforestation crisis is proportionately most acute on islands. Tropical islands possess particularly fragile

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<sup>9</sup> In comparison, the rate of tropical deforestation for the decade of the 1960s was 5.6% (0.6% per year), while in the 1980s it was 7.4% (0.8% per year) (UNEP, 1997). Latin America and the Caribbean region are now seen to have the second highest regional rate (behind Asia) for land degraded by deforestation - one of the primary causes of desertification in these areas (FAO, 1996a).

ecosystems, both on land and in the sea, as the small feedback loops in ecological processes mean that disturbances are accelerated and magnified beyond what would occur in larger systems (Cropper, 1994). Islands have been especially afflicted by the ongoing biodiversity holocaust - it is estimated that three-quarters of all mammalian and bird species driven to extinction were island dwellers (Ramphal, 1994).

Lugo et al. (1981) note the precarious state of Caribbean forests in relation to intense competition for land, and over a decade ago the FAO (1986) noted that there were hardly any forests left in the insular Caribbean. Hispaniola is the most distressing example: once a lush, forested island, now less than 13% of the Dominican Republic and less than 2% of Haiti remain forested - Haiti being perhaps the most devastating case of environmental degradation in the western hemisphere. However, it is Jamaica which ignominiously possesses the highest rate of deforestation in the world, and the desertification of Haiti is being pointed to as an urgent warning for Jamaica (Eyre, 1987a; Girvan, 1991). This section will profile Jamaican ecology, discussing its deforestation-related ecological problems as well as reviewing the progress on key tropical ecosystem responses to deforestation of relevance to Jamaica. This discussion will establish, from an ecological perspective, the conservation imperative for protecting Jamaica's forests.

### **The 'Land of Wood and Water'**

When Columbus 'discovered' Jamaica in 1494<sup>10</sup> it was an island covered almost entirely by forests. Calling it "the fairest island that eyes have beheld: mountainous and the land seems to touch the sky...all full of valleys and fields and plains," Jamaica took its name from the Arawak word 'Xamayca', meaning 'land of wood and water'. Though far better known for its beaches, the rainforests of Jamaica are very unique and rich in species, and have been described as 'an ecological wonder' (Eyre, 1996).

Jamaica is the third largest island in the Caribbean, covering 10 990 km<sup>2</sup> (1 099 000 ha) in the greater Antillean biogeographical province of the Neotropical realm (see Figure 1.20). de Graaff and Sheng (1994) suggest that Jamaica contains "a greater variety of landscape than any other island or country of comparable size." Jamaica's forests house a tremendous diversity of species, including over 3000 flowering plants, 550 ferns, 300 mosses and many fungi (USAID et al., 1987).

A mountain range runs across the island from east to west and 80% of Jamaica is hilly or mountainous. Jamaica's two greatest refuges of biodiversity exist in the rainforests covering its most rugged terrain - the Blue Mountains and the Cockpit Country (Eyre, 1996). Named for the dense

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<sup>10</sup> Discovery of course being a pejorative term: Jamaica, like the rest of the New World, was already inhabited. Its native inhabitants - the Arawaks - provide a very sad historical footnote to this discovery. The Arawak population, estimated at 60 000 at the time of European contact, first settled the island around the first century AD (Government of Jamaica, 1994). The Arawak were concentrated along the coasts and were seen to have had little impact on the forests (Lugo et al., 1981), existing in reasonable equilibrium with the environment (Eyre, 1989). However, the Arawaks were gone completely by 1655, annihilated by disease and brutal treatment at the hands of the Spanish (who first 'settled' Jamaica in 1510) and later the British (who officially took over in 1655).

rainforest which once covered their steep slopes, the Blue Mountains range for 16km along a northwest-southeast axis in eastern Jamaica, with a peak of 2256m.<sup>11</sup> The Blue Mountains and the Northeast coast are in the path of trade winds, and consequently receive the highest annual rainfall in the country - over 330 cm/yr (USAID et al., 1987).

Figure 1.20

Jamaica in the Caribbean



Today the Blue Mountains are characterized as much by their severely-eroded valleys as by their dense blue forests - providing a quick visual testament to the severity of Jamaica's deforestation problems. Indeed, few areas of what could be termed virgin forest exist there or elsewhere in Jamaica, and it is only in the most remote and inaccessible areas that the forests have not been radically altered by human activities such as clearing, fire, and the introduction of species (Government of Jamaica, 1994).<sup>12</sup>

<sup>11</sup> In Jamaica, where temperature is affected by altitude rather than latitude, the general boundary for tropical rainforest is below 1250m asl. Above 1250m is considered subtropical montane forest (Eyre, 1996).

<sup>12</sup> Government of Jamaica documents will subsequently be cited as GoJ or by their title.

The *National Report on the Environment* (1992) notes that only 7% (77 000 ha)<sup>13</sup> of Jamaica's total land area is considered 'undisturbed natural forest'.<sup>14</sup> There is another 17% (190 070 ha) covered by various forms of forest which have been cut over and are not considered to be developed forests. Most of these (63%) are considered to be 'ruinate' forests (GoJ, 1990).

The *National Forestry Action Plan* (1990) classes Jamaica's forests according to 4 main types. The first, the limestone forests of the John Crow Mountains, central and western Jamaica, are considered to be the most common and the most disturbed. The second are the predominantly shale forests of Blue Mountains and Port Royal Mountains, also very disturbed. The third class are the alluvial and wetland forests of coastal plains, which are basically extinct, and the fourth are the broad class of anthropogenic forests which include artificial savannahs, ruinate forests, food forests, mixed agroforests and plantation forests. There are around 21 000 ha of plantation forests, 74% of which are under pine (GoJ, 1990).

The *Jamaica Country Environmental Profile* (1987) was highly regarded for having provided the most thorough assessment of the Jamaican environment and its current problems (Berke and Beatley, 1995). It revealed and brought attention to the fact that the decline of Jamaica's forests was causing serious declines in biological diversity, massive and accelerating soil erosion, declining agricultural productivity, and severe water quality problems such as streams drying up and increasing downstream sedimentation. These problems were all echoed in the *National Forestry Action Plan* (1990). Yet in the wake of this heightened awareness, the deforestation rate continued to climb, placing Jamaica at the top of the world in rates of forest loss (Wade, 1996). Although some still purport Jamaica to be the 'land of wood and water', as their sarcasm makes clear and as the *Status Report on the National Environmental Action Plan* (1997) admits, "it is now debatable whether the island can be so characterized today."

### **Endemism and Extinctions**

Jamaica's natural history makes it an island of high endemism, great ecological significance, and high vulnerability to extinctions. Jamaica has never been connected to any other island or continental land mass, having emerged from the ocean between 10 and 15 million years ago. In addition to this isolation, the evolutionary processes which fostered Jamaica's unique forest ecosystems include the diversity of geological formations, topography and microclimates, and the quick transitions between the different zones (Berke and Beatley, 1995; GoJ, 1990). The result is that many unique biota have evolved (see

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<sup>13</sup> Eyre (1996) quotes the World Resources Institute's 1991 findings as the authoritative account on the extent of Jamaica's remaining rainforests. The WRI stated that there were 122 000 ha of rainforest in Jamaica, a figure which includes high altitude sub-tropical montane forests (225km<sup>2</sup> of which is found in the Blue Mountains). It is unlikely, however, that this is all natural forest, and Eyre consistently uses the figure of 7% natural forest remaining, as do all of the government sources.

<sup>14</sup> Eyre (1996) shows that by 1991 only 12 km<sup>2</sup> (1200 ha) of natural forest remained in St Mary (the parish of the case study). This is only 3% of the original cover, the lowest percentage in Jamaica.

Figure 1.20), and Jamaica's forest ecosystems are among the most diverse in the world, ranking fifth in endemic plant species among world islands (NRCA, 1997). The Blue and John Crow Mountains region in particular possesses one of the highest levels of endemism in the world (Berke and Beatley, 1995).

Figure 1.21

Rates of Endemism

	Endemic	Total	Percentage
Birds	27	256	10.5%
Bats	4	23	17.4%
Lizards	20	24	83.3%
Frogs/toads	15	19	78.9%
Orchids	46	200	23.0%
Ferns	82	579	14.2%
Flowering Plants	784	3000	26.1%

source: USAID et al. (1987)

Tropical island ecosystems, while generally without large fauna, are naturally rich in smaller endemics such as birds, bats, reptiles, butterflies, moths, and other insects (Eyre, 1989). A significant proportion of Jamaica's wildlife is found nowhere else in the world (See Figure 1.21). More than a quarter of Jamaica's 3000 plants, and more than three-quarters of its frogs, toads and lizards are endemic. The endemic Jamaican Hutia or Coney (*Geocapromys brownii*) is the only terrestrial mammal left in Jamaica (USAID et al., 1987). Jamaican avifauna are world renowned, and the island possesses more endemic bird species than any other Caribbean island and more than most comparably-sized islands around the world (Eyre, 1996). In the Blue and John Crow Mountains region over 40% of the higher plant species are endemic (Berke and Beatley, 1995).

Jamaica's biodiversity is today greatly imperilled, the primary cause of which is habitat destruction (USAID et al., 1987), as it is for most species lost or at risk throughout the world. Since the species most vulnerable to extinction are generally rare and localized,<sup>15</sup> regions rich in endemics have dominated global patterns of extinction and the localization of endemics has been cited as "the key variable in understanding global patterns of recent and future extinctions" (Coblentz, 1990). Oceanic islands tend to be particularly rich in endemics, and they also tend to be the most fragile and disrupted ecosystems (Myers, 1988; 1993). The most famous example of this is Madagascar.<sup>16</sup>

<sup>15</sup> The increased vulnerability of endemics occurs not only when there is a direct loss of localized habitat, but also because "the ecological specialisations of many tropical-forest species, such as sensitive positions in complex food webs, leave them subject to summary demise when their support ecosystems are merely destabilized through forest disturbance and degradation." For example, tropical-forest plants tend to outbreed when they are reduced to small populations, making them especially susceptible to sudden extinction (Myers, 1988).

<sup>16</sup> Madagascar provides the worst-case scenario for the looming extinction crisis. Possessing the highest ratio of endemic plant and animal species anywhere in the world, Madagascar has already lost between 90 and 95% of its original vegetation, and much of its high-diversity rainforest remains only on steep slopes. This ruination is perhaps most evident in the fate of the lemurs - 14 of species of which are extinct, the remaining 22 endangered (Jackson, 1988; Myers 1988; 1993).

Caribbean islands have “suffered a disproportionate decline of mammalian extinctions over the past century” (Pimm et al., 1995). Lugo et al. (1981) note that Caribbean islands have experienced the highest historical rates of animal species extinction of all world regions. They also note, however, that while the condition of island fauna is very fragile, there have been proportionately much less plant extinctions. Nevertheless, the resiliency of the flora is being tested by the chronic soil loss in the region (discussed later in the section).

While there are serious voids in information regarding the status, ecology and distribution of most species in Jamaica (USAID et al., 1987),<sup>17</sup> the fact that the remaining natural areas - which provide the crucial refuge for the mass of Jamaican endemics (Eyre, 1996) - are being rapidly deforested, means that the future of endemic species is consequently very precarious. Berke and Beatley (1995) note how future extinction trends are ominous if deforestation rates continue. At present, around forty bird species and sub-species (Eyre, 1996) and at least a third of Jamaica’s plant species are threatened (GoJ, 1990), their survival very much dependent on the survival of the primary rainforest.

Fjeldsa (1991) suggests that the generation of high levels of endemic species may reflect the inherent long term stability of ecosystems that house many endemics (apart from human disturbance of course, where their limited spatial extent makes them very vulnerable), giving further urgency to their protection. Their long term stability, in addition to their place as extinction ‘hot spots’,<sup>18</sup> is seen to make areas of high endemism have even greater priority because of their superior ability to perform such ecological services as protecting water catchments. Smith et al. (1993) go further and suggest that future biodiversity conservation efforts, to be effective in the long run, must move beyond a focus on primarily species richness and protect the ecological and evolutionary processes that generated the genetic diversity and enabled the speciation to occur. This contention about the need to conserve the areas which abetted unique speciation, applies with particular force in Jamaica to the Blue and John Crow Mountains and to the Cockpit Country. Yet while projections of extinction rates provide fertile grounds for philosophical

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<sup>17</sup> It has been noted that a great majority of the species lost in the tropics in the coming decades will be largely (i.e. known in name only) or completely unknown when they disappear (Jackson, 1988). This lack of knowledge of what is there and what will be lost is also evident in Jamaica, as even the most accredited survey of Jamaica’s environment maintains that “many areas are essentially undescribed” (USAID et al., 1987). The *National Forestry Action Plan* (1990) states that “little is known of the social and ecological dynamics of Jamaica’s forests. Knowledge of them is very patchy in terms of subject matter and geographic location.” Eyre (1996) notes that there has not been a single comprehensive study of Jamaican rainforests, that there are few studies of how the forest operates as an ecosystem, and that after years of management the Forestry and Soil Conservation Department admitted “there is a severe lack of information on Jamaica’s forests.” The net result, as the *National Forestry Action Plan* admits, is that there is not enough information to understand and assess what Jamaica is losing in terms of species, ecosystems, lost opportunities (economic and otherwise), environmental damages, and reduced quality of life since “the natural resource base of Jamaica is decreasing at an unknown rate.”

<sup>18</sup> Myers (1988, 1993) has famously highlighted ‘hot spots’ of the world’s most urgent conservation needs, all of which are located in tropical forests. These ‘hot spots’ are defined by their exceptional levels of biodiversity, high levels of endemism, and the fact that they face a severe threat of destruction. Jamaica is not considered to be among the 10 most urgent areas of conservation by Myers.

commiserations about the failing planetary stewardship of our species, the need to conserve natural areas - and particularly those high in endemics - extends beyond the spiritual or aesthetic, as will be discussed.

### **Primary Forest and Deforestation**

Primary forest is especially critical in the tropics because only it contains the high species diversity characteristic of the biome, and its loss is generally unalterable except on a very long temporal scale. Indeed, Winograd (1995) argues that the accelerated conversion of tropical and other forests is so critical an environmental problem for Latin America and the Caribbean region because the "effects on ecosystems are practically irreversible" (UNEP, 1997). There is usually very little secondary forest cover in the tropics for ecological reasons as well as land use decisions, and even where there is secondary forest regrowth, there is little overlap between the new species composition and that which existed in the primary forest (Myers, 1988). Lugo et al. (1981) note that "succession is very slow in very wet exposed ridge forests" as are common in Jamaica.

While a portion of the forest area cleared may experience some regrowth if allowed to regenerate or if it is replanted commercially, it is estimated that at most a third of the land cleared for peasant agriculture in Jamaica will ever revert to forest (Eyre, 1987a). This is largely attributable to the impact of fire, the dominant method of forest clearance used by the peasantry, and when improperly or habitually used "is a disaster of the worst order" - causing the rapid deterioration of the biotic community. Uncontrolled or frequent burning accelerates the process of *savanization* - in effect reducing forests to seasonal woodlands, scrubs, or degraded grasslands (Eyre, 1987b). Eyre (1987a) also notes that some land in commercially logged areas will revert to forests, but argues that none of the lands converted to pasture will ever regenerate. The result is that "an ever smaller area is actually available for regeneration."

Roads also compound the deforestation problem in that they increase access to forest resources. Jamaica possesses 1.6 km of paved road for every square km (World Bank, 1993a),<sup>19</sup> a figure which nevertheless understates the total amount since unpaved roads predominate over the more rugged terrain. Eyre (1996) notes the insidious effect that road development has had on Jamaican deforestation, quoting George Proctor (the pre-eminent botanist to have studied Jamaica) who wrote in 1986: "So long as roads continue to be cut...the destruction of the forest will proceed accordingly." The *National Forestry Action Plan* (1990) asserts that "the single most damaging aspect of harvesting to the environment is the construction of forest roads," because, in addition to exacerbating soil erosion, new roads "permit the access of illegal settlers on land which for the most part is not suitable for farming."

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<sup>19</sup> World Bank documents will subsequently be cited as WB.

Although 131 500 ha of forest were in the process of being converted to other uses, a further 300 000 ha were 'seriously degraded' during the 1980s (Eyre, 1991), and scientists at the time were revealing how deforestation in some regions was reaching 'crisis proportions' (Barker and McGregor, 1988), Eyre (1987a) notes how Jamaica leaders were in denial of the problem. It took the FAO to shock the Jamaican political directorate and its business allies into awareness in 1987 when it announced that the annual rate of deforestation in Jamaica was 3.3% - one of the highest in the world. Eyre was subsequently commissioned to assess the figures, and confirmed the FAO results. Yet while the government was moved from denial to an acceptance of the extent of the deforestation problem (the 3.3% figure is now standard in government documents), Eyre (1996) notes disgustedly that nothing has been done to arrest the trend - even as the *National Forestry Action Plan* (1990) admonishes that at this rate, all of Jamaica's forests will be gone in 30 years "unless steps are taken now to prevent this from happening."

In fact, rather than improving in response to heightened awareness, things have become worse. The World Bank (1993b) recently estimated that Jamaica's forests were being cleared at a rate of about 37 acres (15 hectares) per day, and the World Resources Institute reported that by 1994 the annual rate of deforestation (both total and natural rainforest specific) had increased to a frightening 5.3%. In contrast, Latin America had an annual deforestation rate of 0.8% for the 1980s (UNEP, 1997). The 5.3% figure implies, as Eyre (1996) bluntly puts it, "we are hacking our rainforests to death at a rate more than twice that of Costa Rica, and more than four times that of Mozambique, the highest in Africa."

All of the remaining forests of Jamaica are currently seen to be under severe threat. The lowland forests which once covered the coastal plains have been totally lost, and it is likely that many important gene pools were also lost in the process of clearance for agriculture (Berke and Beatley, 1995). The mid- and upper-level forests are currently under unprecedented pressure, and what forest remains is largely now in biogeographical islands in the middle and upper slopes of mountains (Eyre, 1987a; 1996).

The loss of Jamaica's forests has many serious environmental implications. On the non-human level, Jamaica's unique biotic communities are declining rapidly and this represents an unquantifiable loss. But beyond any debates over intrinsic worth and moral responsibilities to conserve biodiversity (an unquestionably less alluring argument to an impoverished people), accelerating deforestation has very serious and direct implications for the health of human communities with regards to climatic disruptions, soil and water conservation and watershed degradation.



As deforestation continues to fragment natural forests throughout the tropics, these ecological problems must increasingly be understood with respect to the patch dynamics created. However, there are huge voids in understanding species interrelationships and their potential responses to habitat reduction, modification and fragmentation, which research is only beginning to fill in (Davis, 1995).

### **The Fragmentation of Forests and Patch Dynamics in the Tropics**

Deforestation inevitably causes the fragmentation of natural areas, with the typical result being a human-dominated landscape possessing forest islands (Robinson, 1996).<sup>20</sup> Understanding the dynamics of fragmentation is relevant to a review of Jamaica's ecological problems because Jamaican deforestation is occurring predominantly "in small parcels" (Eyre, 1987a). However, the lack of Jamaica-specific research on fragmentation means that the discussion will be necessarily based on research from other areas.

As a result of the need to better understand the ecological dynamics of habitat loss and fragmentation and the value that variously sized forest patches have in conserving biodiversity, the application of MacArthur and Wilson's (1967) famous island biogeography theory has been prominent in research on tropical forests (Bierregaard et al., 1992). According to the well-established theory, the number of species on an island is seen to exist at the equilibrium of immigration and extinction rates, both of which are a function of island size. It is forecast that the loss or fragmentation of habitat will lead to a decrease in the immigration rate and an increase in the extinction rate, resulting in the reduction of diversity and a new and lower equilibrium. Thus, generally and with all else equal, the theory holds that larger islands possess more species than do smaller ones and a 90% reduction in habitat size will lead to the loss of half of the areas' original species.

The most famous case study for this theory was the accidental experiment of Barro Colorado Island, created when the inadvertent flooding of the Panama Canal isolated a 1500 ha (15 km<sup>2</sup>) patch of forest from its surroundings. There Terborgh (1974) found that the number of bird species lost between 1914, when the island was created, and 1971, was almost exactly what would be predicted by island biogeography. As a result of this and other findings and challenges to such conclusions,<sup>21</sup> island biogeography theory led to the famous 'single-large or several small' (SLOSS) debate regarding the array of protected areas which would best preserve biodiversity.

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<sup>20</sup> The issue of natural islands embedded within a human-dominated agricultural matrix will be discussed in greater depth in section 1.3.

<sup>21</sup> The application of island biogeography theory has been challenged on a number of fronts, including arguments that oceanic islands provide inadequate analogs of habitat fragments for terrestrial application (Robinson, 1996), that tropical forests are not "species saturated and closed to further enrichment" as much ecological theory suggests (Kellman et al., 1996), and that the theory cannot account for the dynamics of exotic species (Coblentz, 1990).

While theoretical progress remains complex and inconclusive about whether biodiversity would be conserved in its greatest species volume with a range of smaller reserves rather than with one large reserve, in practice there is growing concordance with the need to secure large reserve areas (Fjeldsa, 1991).<sup>22</sup> Given this general inclination for establishing a single large reserve, the question that naturally remains is how to determine what size is large enough to maintain the essential ecological processes. Because most protected areas are ecological islands, nations bent on creating lasting nature preserves may still “be wasting their time if the preserves are simply too small to retain their character” (Page, 1988).

Terborgh’s (1974) study of Barro Colorado Island highlighted this issue of island size and extinction rates over two decades ago, and his conclusion that the newly isolated island was too small to retain the characteristic avifauna of the larger forest prompted several researchers to seek out answers regarding “how big is big enough for the reduced ecosystem to function without causing a substantial reduction in the diversity of the original ecosystem” (Zakaria-Ismail, 1988). At the forefront of these efforts is the Minimum Critical Size of Ecosystem (MCSE) Project in Brazil,<sup>23</sup> from which a great deal of the recent progress in understanding the ecological dynamics of tropical forest fragmentation has arisen.

### Edge Effects

One of the earliest and most dramatic results to come out of the MCSE project was an enhanced appreciation of the edge effects that ensue as a result of the fragmentation of tropical forests. Edge effects have been found to have a dramatic impact on tropical forest communities, which normally possess weak internal spatial structure (Kellman et al., 1996). However, fragmentation causes increased tree mortality and leaf-fall around the edges of forest patches, which in turn affects the amount of light received by understory biota (Zakaria-Ismail, 1988). The intrusion of light into the microenvironment, where it was rarely seen before, is perhaps the most threatening impact of fragmentation. Humidity levels are changed and floral composition is affected because “the seedlings of most tropical forest plants are sensitive to light variability” (Kellman et al., 1996).

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<sup>22</sup> Fjeldsa (1991) notes that many endemic plants “have been found to maintain viable populations in geological formations of only a few hectares extension.” Similarly, endemic arthropods and land-snails may exist in small pockets of unique habitats, as can other small-bodied species, suggesting that an array of small reserves may best protect the widest possible range of biodiversity. However, this is rarely how biodiversity conservation goals are set. As Soule (1987) notes, the reality is that notions of broader biodiversity often pale in popular and political appeal to ‘sexy species’ such as tropical felids, which demand larger spaces (Terborgh, 1992).

<sup>23</sup> Masterminded by Thomas Lovejoy in the 1970s, the MCSE Project was designed to study the relationship between the size of a forest fragment and its stability and species carrying capacity, examining such things as edge effects and peripheral forest regeneration. The project has involved the ecological monitoring of newly created ‘island’ patches of various sizes, ranging from 1 to 1000 ha, before and after clearcuts in the Brazilian Amazon. The intention was to learn from watching the process of degradation and monitoring what, and in what order, species leave or die out. From this unique ability to survey pre- and post-isolation species inventories, the ultimate goal was to be able to discover the minimum critical sizes reserves have to be for specific species to survive and for forests to retain its essential dynamics (Bierregaard et al., 1992).

MCSE researchers have been surprised at how quickly and how far-reaching edge effects have extended into forest patches. One- and ten-hectare plots were found to be essentially edge in a matter of months. Tree-fall on the edge has been found to increase rapidly, owing largely to the exposure of shallow rooted trees to higher winds and to the rapid degradation of the soils (Page, 1988). The effect of edges in temperate forests has often been found to increase those species that are related to both, but the early results from the MCSE project suggested the reverse is true in the tropics (Zakaria-Ismail, 1988).

Thus, the conservation mandate that has arisen from the MCSE research on edge effects of relevance to Jamaica is that primary forest areas in the tropics must have extensive buffer zones to ensure patch integrity. Buffer zones in the range of hundreds of metres are seen to be critical “so that the edge effect can take place and still leave a sufficient core of virgin rain forest” (Page, 1988). The role of edge effects must also be taken into consideration when maintaining corridors, which are necessary to prevent edge effects from inhibiting their utility.

### **Critique and Anti-Critique**

Some have, however, argued that the study of the fragmentation of forests from the MCSE project is just beginning, and demands a much longer temporal perspective to understand fully the ecological dynamics of response. Kellman et al. (1996) proclaim that their research is cause for “cautious optimism” in the conservation of highly fragmented forests. They suggest that a “loss of plant diversity is not an inevitable consequence of fragmentation,” but rather that “diverse forest patches can form stable components of tropical landscapes.” It is noted that while animal populations often undergo rapid local extinctions, perennial plants generally last much longer in fragmented landscapes, offering the potential for plant dispersal and establishment elsewhere. They have also suggested that in contrast to the destructive impact that is frequently attributed to edge effects, in stabilized tropical forest patches edge effects can have very limited physical extension and can actually promote tree species diversity in these patches.

This argument holds that while studies from the MCSE project may provide insight into the short-term adjustment processes of these new islands, they cannot possibly reveal the long-term consequences of fragmentation. It has been suggested that because most tropical forest fragments are very recent in origin and most populations will require several generations to adjust to new habitat conditions, the full impact of fragmentation on the native species demands a time frame of centuries. This is because most forest fragments are unlikely “to be in equilibrium with their new biogeographic context, and they are more likely to be dominated by transient, rather than be equilibria, conditions” (Robinson, 1996).

Studies like those of Kellman et al. (1996) which profess the notion that the success of floral species in fragmented landscapes can alone be cause for cautious optimism (and by implication, for setting conservation priorities), even while acknowledging the loss of animal species, inevitably open the debate on how biodiversity should be defined for the sake of conservation. Gaston (1994) has described how the term biodiversity is often used with the assumption "that everyone shares the same intuitive definition. At times one might be forgiven for observing some synonymy between 'biodiversity' and 'all of biology'." In reality, however, there is enormous difficulty in arriving at a 'useable' definition of biodiversity, and a better approach might include a range of measures. Nevertheless, it seems unlikely that future measures will link success in biodiversity conservation to floral species alone.

In light of the urgency and irreversibility of tropical rainforest loss, critiques demanding a time frame of centuries to better understand the equilibrium process within fragments are essentially trivial. That sort of temporal perspective is simply not possible, especially given that human-induced pressures continue to magnify, making any sort of natural equilibrium process seemingly doomed without a proactive conservation response. The MCSE project has provided valuable insight into understanding the immediate and delayed (though obviously not as long as some deem necessary) ecological responses of forest fragmentation. While an exact determination of what is the necessary size for natural areas in the tropics has yet to be determined (and may never be completely transferable), the findings of the MCSE project implies that small reserves must have considerable extension in size and that securing and maintaining increased buffer zones and corridors will be necessary to protect biodiversity in the future.

While there are no studies on the edge effects as they relate to the deforestation of Jamaican rainforests, in the context of the Yallahs Valley (on the southern slopes of the Blue Mountains) Barker and McGregor (1988) point to the removal of vegetative cover as "a critical component in the process of land degradation." Given the predominance attributed to the peasantry as a cause of deforestation (to be discussed in the next section) and the earlier noted assessment that Jamaican deforestation is occurring mainly in small parcels, the ecological findings regarding the invasiveness of edge effects are of great concern if extrapolated from the MCSE Project to Jamaica.<sup>24</sup>

### **Delayed Fallout**

The short-term impact of fragmentation obviously varies with the habitat requirements of different species.<sup>25</sup> Recently island biogeographers have focused not only on this initial loss of species,

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<sup>24</sup> Welcomme and Berkowitz (1991) note how there have been relatively few comparative studies between tropical ecosystems.

<sup>25</sup> One of the first questions that needed to be explored to understand fragmentation was how far a fragment needs to be from a continuous forest to be considered isolated. Research has shown that "a break of as little as 80 m is a strong barrier to movement by some insects and mammals and the vast majority of understory birds" (Bierregaard et al., 1992).

but on the delayed fallout that occurs after a primary forest is reduced in size. The unfortunate reality of fragmentation is that even if all deforestation was arrested immediately, many primary forest species are already condemned to extinction because of the processes of ecological equilibrium prescribed by island biogeography (Myers, 1988; Varclay, 1993).

Terborgh (1992) has shown that one of the main reasons for this delayed fallout is the fact that the initial loss of key species can have a significant and negative impact on community structure and species diversity, a Jamaican example being the critical role that doves and pigeons play as seed vectors abetting forest regeneration. Because certain species affect the functioning of ecosystems in essential, though often obscure ways, their loss represents a "permanent loss of biological capital which can also cause severe disturbances in the entire ecosystem" (GoJ, 1990).<sup>26</sup> Research on the role of tropical corridors with some bird species has, however, shown that viable corridors may help prevent delayed fallout as a corridor may allow certain species to persist in a patch that would otherwise be too small (Page, 1988).

### **Climatic Disruptions**

Another very important element in the delayed fallout of species is the impact of macroclimatic disruptions (Bierregaard et al., 1992). Fjeldsa (1991) argues that "the climatic consequences of deforestation mean that the question of nature conservation is inextricably bound to that of regional development in its fullest sense."<sup>27</sup> For example, work on the Amazonian hydrological cycle has shown that tropical deforestation is intricately linked to regional climate, as it may "influence regional evapotranspiration budgets and their contributions to rainfall" (Bierregaard et al., 1992). Because at least half of the rainfall returns to the atmosphere through the transpiration and evaporation of the forest, the loss of large amounts of forest means that a hydrological feedback could develop which allows much of the region's moisture to escape and leading to a steady desiccatory process (Salati, 1985; Myers, 1988).

Because Caribbean forests are relatively small in area and are embedded in a warm sea with high rates of evaporation, it would appear at first glance that the disruption of rainfall patterns from deforestation would be very minor. While this is no doubt a problem of greater magnitude with regards to

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<sup>26</sup> This sentence was concluded: "with possible long-term impacts on the land-based economy." That the government in the *National Forestry Action Plan* (1990) felt compelled to frame the importance of the loss of biodiversity through its potential economic ramifications is perhaps quite telling. This economic valuation of the environment will be dealt with at a later point.

<sup>27</sup> Of course, without question the greatest potential threat to biodiversity conservation (and indeed overarching all discussions about potential ecological responses to forest loss and fragmentation) is that presented by unnatural climate change (which is forecast to manifest itself in the tropics primarily through rising sea levels and altered moisture patterns). Climate change would likely "work in amplicatory accord with other factors" such as fragmentation (Myers, 1988), and the threat is no where more perilous than on oceanic islands. Because rates of change are projected to be much faster than plant or animal species could adapt, and those capable of migrating will be constrained in an increasingly human-dominated environment, Lovejoy (1992) projects the result "to be a holocaust of species extinction without parallel in tens of millions of years." In addition, although small in a relative perspective, the burning of Jamaica's forests emits 409 000 tonnes of carbon every year into the atmosphere (Girvan, 1991)

large land masses like Amazonia, studies in Jamaica suggest this desiccation problem is also of concern for the Caribbean. Wade (1996) notes that deforestation and watershed degradation appear to have reduced rainfall island-wide, causing severe water supply shortages in certain areas, and Eyre (1990) points out that the average rainfall in 10 selected Jamaican watersheds has decreased by 28% over the past 30 years, and “ [hu]man induced changes in the surface micro-climate are suspected.”

As well, because the rainforest cover breaks the fall of rain, water arrives at the floor over a much longer period allowing more water to percolate into the soil. When this cover is removed, run off increases markedly and less water is returned to the atmosphere through the vegetation (Salati, 1985).

### **Tropical Soils and the Erosion Problem**

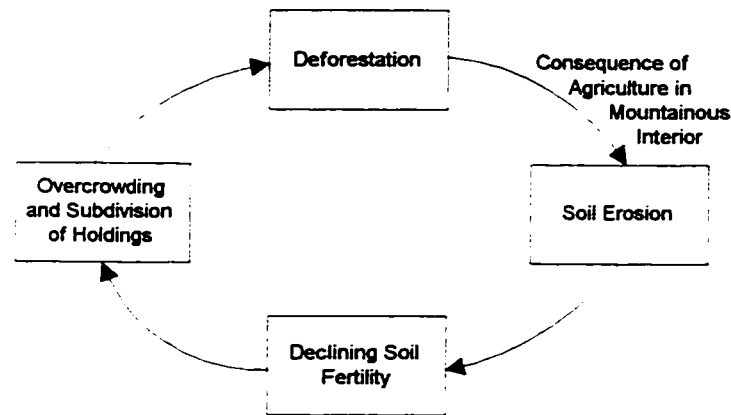
The problems associated with deforestation that impact most directly on the local human populations are related to the entwined challenges of soil and water conservation. Eyre (1989) notes that soil is the most important resource in the Caribbean since the majority of the region’s population depend upon it for their livelihood. However, the soil in the tropics is generally of poor quality and subject to quick and massive erosion once the forest cover is removed, which in turn has very serious ramifications with respect to watershed degradation. Further, Lugo et al. (1981) note how chronic soil loss in the Caribbean is often irreversible for generations.

Despite the vulnerability of exposed soil, historically soil conservation techniques have been noticeably lacking in Jamaican hillside agriculture (Barker and McGregor, 1988). The World Bank (1993b) suggests that while small farmers tend to make efforts towards soil conservation on their own land, their lack of resources (implying a low level of input use and primarily manual cultivation) and the insufficient technical support received from extension services means that important measures are often either not applied or *mis*applied. de Graaff and Sheng (1994) contend that if the soil protection measures used by most small farmers are not improved, soil erosion may well destroy hillside agriculture in Jamaica.

The deforestation and consequent soil erosion problem have a spiralling effect, inevitably compounding the pressure on the forests. Deforestation leads to soil erosion, which leads to declines in soil fertility and productivity, which in turn causes overcrowding and the subdivision of holdings as there is less land available to support the population. The result is increasing pressure on the land base and further deforestation (WB, 1993b; Girvan, 1991), a cycle which Girvan dubs the ‘Haitian syndrome’ and simplified in Figure 1.22.

Figure 1.22

'The Haitian Syndrome'



*developed from WB (1993b) and Girvan (1991)*

Miller (1992) argues that erosion has been especially problematic where vegetation has been removed indiscriminately by fire, which is the most common method of peasant clearance. Fire exposes topsoil to rainsplash until grasses can recolonize the burnt areas, during which times the bare soil is particularly vulnerable to the torrential rains Jamaica frequently receives. There is much evidence of major land slides and unstable and highly eroded river banks caused by deforestation in Jamaica (GoJ, 1990).

Despite their appearance, tropical soils are often of poor quality and highly erodible. This is because in the tropics, unlike in temperate forests, the biomass and energy are quickly recycled in the vegetation and are stored in the trees themselves. This rapid decomposition of leaves and organic material and the quick reabsorption of nutrients into the trees means that tropical soils are generally thin and sandy (Page, 1988). In addition, Eyre (1989) notes how the symbiotic relationship between soil fungi and trees mean that they are co-dependent on each other for survival, such that the removal of the vegetation breaks the cycle. Thus, while slash-and-burn agriculture may yield a quick crop or two from the forest ashes, "yields soon fall and abandonment is swift."

Jamaica, a very mountainous island, is particularly susceptible to deforestation-related soil and water problems. Around 80% of Jamaica is considered to be hilly or mountainous, with over half of the island having slopes in excess of 20 degrees. The result is that soils are often unstable, instability which is magnified by the fact that certain regions experience very high rainfall (Miller, 1992; GoJ, 1992) which

causes both chemical and physical disruptions.<sup>28</sup> Heavy rainfall combined with steep slopes means that much soil is lost through surface erosion, channelization, and mass wasting (de Graaff and Sheng, 1994). While the lower slopes are generally less susceptible to erosion, Blue Mountain soils are highly porous, subject to severe leaching, and very susceptible to erosion. The implication, which the *Jamaica Country Environmental Profile* (1987) points out, is that the steep mountain lands “are best kept under forest cover.” Most specifically, Sheng (1986) suggests that there is a need to maintain a protective vegetative cover on all hillsides slopes greater than 25 degrees.

The steepness of slope and the consequent erosion problem has also meant that the natural soil development is poor (McDonald et al., 1992), and de Graaff and Sheng (1994) argue that many of the Jamaican hillsides are unsuitable for cultivation because they are either too steep or have soil too thin. The NRCA (1997) considers the clearing of steep, unstable slopes for squatting and cultivation to be one of the most serious aspects of deforestation, and this is especially problematic when clear stripping and slash and burn methods are used. Where this is the case, the *National Forestry Action Plan* (1990) makes clear: “Invariably, the benefits obtained last only a few years and the consequences are very long term.”

While estimates of annual soil loss vary and the reliability of the related data has been called into question,<sup>29</sup> and areas on moderately sloped hillsides have proven productive over the long term, a distressing picture nevertheless emerges from the literature. The *Jamaica Country Environmental Profile* (1987) reports that in the mid-1980s Jamaica was losing approximately 80 million tonnes of soil per annum, largely as a consequence of deforestation, while Eyre (1991) reports that 400 million tonnes of soil were lost from the surface watersheds of the island from between 1981 and 1990. Eyre’s more conservative estimate still amounts to an annual soil loss of approximately 50 tonnes per acre (20.2t/ha). To put this in perspective, Lugo et al. (1981) report the estimated maximum sustainable rate of erosion for the Caribbean to be 1-3t/ha, and Haiti - widely regarded as having the worst case of soil erosion in the Western Hemisphere - has an average annual soil loss estimated at 13.5 t/ha (WB, 1993b).

In Jamaica, more than 400 000 acres are now considered to have been seriously eroded (Berke and Beatley, 1995), 19 of the 26 newly defined Watershed Management Units have been classed as

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<sup>28</sup> Heavy rainfall causes hydrogen ions to supplant those of more important chemicals in the soils. As well, rainfall also tends to move the nutrients away from the root zone, where they are most needed (Eyre, 1989).

<sup>29</sup> Barker and McGregor (1988) suggest that there is little reliable data on rates of soil erosion, and McDonald et al. (1992) note that the plan for the Blue and John Crow Mountains National Park stated that there was a “paucity of basic empirical data on rates of erosion under different land uses in mountainous regions.” McDonald et al. also note that in addition to the uncertain rates of erosion, there are still many uncertainties regarding the effects of forest clearance on the soil fertility in the Blue Mountains.



critical,<sup>30</sup> and topsoil loss has reduced agricultural production in watershed areas (NRCA, 1997). In the past three decades alone, the amount of land classed as arable has decreased by about 10%, as has the area in forests (WB, 1993a). There is an obvious link between sustainable land use in Jamaica and the need to conserve its forests, as forest vegetation plays a critical role in soil conservation, particularly on steep slopes.

### **Altered Water Regimes**

While the loss of soil nutrients for cultivation is probably the most obvious impact of erosion, the forest conservation imperative for protecting soil extends beyond the loss of fertility and land productivity. Jamaica's soil erosion problem is directly linked to its water conservation challenges, which the World Bank (1993a) considers to be by far Jamaica's "most serious" environmental problem in terms of what affects the greatest number of people. Altered water regimes and reduced water capacity have potentially enormous impacts not only on human health - as water for domestic purposes is frequently in short supply across the island (NRCA, 1997) - but on industrial, agricultural, and tourism sectors.<sup>31</sup>

As noted, Jamaica's rugged terrain makes it very susceptible to soil erosion and hence watershed degradation, and the result is that the modification of river regimes is an unavoidable consequence of deforestation. Deforestation and the ensuing soil erosion reduces the moisture retention capacity of the land, increasing the speed of runoff. Because of the reduced retention of rainwater and resulting decline of its infiltration into the groundwater, the seasonality of water yields is also increased (WB, 1993a). When watershed forests are eliminated, what used to be perennially flowing waters become seasonal and erratic as surface flow is reduced or eliminated in dry season. As well, flash flood hazards are heightened in the coastal lowlands and the increased silt loads block watercourses, which increases the cost of water infrastructure and treatment (USAID et al., 1987; WB, 1993a).

While the hydrological and erosional impacts of deforestation related land-use changes are complex, studies have shown that water yields have increased by between 110-825mm in the year following the replacement of a tropical rain forest canopy with an agricultural crop. However, the reduced water infiltration into the soil that soon follows deforestation increases overland flow and results in greater flood peaks and diminished dry season flows. Jamaica's two governmental bodies responsible

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<sup>30</sup> The NRCA (1997) defines critical land as: "very degraded and in need of urgent remedial work to return to an acceptable state of health." According to the NRCA, the critically damaged Water Management Units are the result of the clearance of land "that should have remained under forest cover" for uses such as coffee production which "are not compatible with soil and water conservation."

<sup>31</sup> Persuad (1994) notes that dependence on tourism compounds the water shortage problem in small island nation states, as it greatly increases the demand for water. The overuse not only depletes fresh-water supplies, but can draw in salt water to contaminate coastal aquifers.

for water management have both implied that deforestation and the consequent erosion have reduced the water yields during the dry season, increased the amount and frequency of downstream flooding, and increased turbidity of the river water (McDonald et al., 1992). The increased turbidity caused by higher silt loads means that not only is water quantity reduced, but so also is the quality.<sup>32</sup>

Various estimates of river desiccation paint a stark picture. The World Bank (1993a) suggests that over 60 rivers have ceased to flow year round in the past century, while Eyre (1996) claims that 100 perennial rivers have ceased flowing year round during the last 50 years, the figure used by Berke and Beatley (1995). In the parish of St. Mary alone (where the case study site, Long Road, is located), 20 rivers which used to provide a year-round water supply are no longer perennial (Eyre, 1996).

Finally, it should be noted that the increased siltation of stream channels can also affect the surrounding ocean environment.<sup>33</sup> Small island ecosystems possess small feedback loops between terrestrial and marine environments, meaning that disturbances can move quickly from interior hills to coastal ecosystems (Wilken, 1992). Indeed, Singh (1994) suggests that the priority symptoms of environmental degradation are often most evident in the coastal zone, and the NRCA (1997) notes how "land degradation in the hills is quickly manifested on marine resources." Much of the eroded soil is deposited in the Caribbean Sea, where the higher stream sediment loads suffocates coral reefs and damages nearshore marine life and fisheries (USAID et al., 1987; Eyre, 1990; WB, 1993b). The coral reefs which fringe the north shoreline are particularly significant for their role in providing habitat for numerous species (GoJ, 1992), and in recent years not only has terrestrial biological diversity been diminished by deforestation, but so also has the biological diversity of marine ecosystems (NRCA, 1997).

## Conclusion

Although this section has highlighted the ecological problems associated with Jamaica's deforestation crisis, in the process pointing out significant areas of uncertainty, it has done so not because this thesis will fill in any ecological gaps. These voids remain huge. The uncertainty has nevertheless been emphasized because compounding the obvious and known problems, there is tremendous danger in the fact that what is being damaged or lost with the forests is often not fully even understood, nor are the regenerative capacities of these disturbed ecosystems. Yet given all the uncertainties, the environmental

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<sup>32</sup> One of the most serious water quality problems that has arisen in the Blue Mountains results from the fact that coffee has commonly replaced natural forests, and modern coffee plantations have employed environmentally problematic technologies (such as the intense use of pesticides). This is of particular concern as chemical spraying has occurred widely on catchment slopes of 30 degrees, despite the fact that research has shed little light on the full impacts of these chemicals (Berke and Beatley, 1995).

<sup>33</sup> Increased siltation also stems from poorly planned infrastructure development, such as roads, which "disrupt the natural drainage systems and affect the patterns of siltation and aquifer recharge" (WB, 1993a).

implications of the deforestation trend in Jamaica are ominous and myriad - geomorphologically, climatologically, and with respect to biodiversity. Deforestation in Jamaica has reduced biodiversity, altered microclimates, increased runoff and soil erosion, reduced land fertility, clogged and dried up rivers and streams, and choked coastal reefs. Even if one is to set aside 'aesthetic' or 'spiritual' arguments for conservation - which, as noted are far less powerful amidst human suffering and impoverishment - the impact of deforestation on human health and economic activity alone makes this a critical issue.

The attempt of this section has been to assess Jamaica's conservation imperative by discussing the ecological significance of its forests relative to the deforestation crisis and the crisis throughout the tropical region. In the process, the intent was to provide the ecological justification for this thesis' inquiry into the examination of root socio-political economic causes.

### 1.3 Agriculture, Land Use, and the Causes of Jamaica's Deforestation Crisis

#### Tropical Agriculture and Land Use

The agricultural use of land is a fundamental human need, and is particularly critical in 'developing nations' where rural populations are large and growing and where the political economy has fostered commodity-export dependent economies (Hettne, 1991; Luzar, 1994). While agriculture has been in a prolonged decline in Jamaica, it still dominates both the landscape and rural employment picture, occupying nearly half of the land and accounting for around 30% of the work force (WB, 1993a). The coastal plains, limited in spatial extent, remain dominated by large plantations and pastures, while the great majority of the rural population cultivates small hillside farms in the rugged interior.

In Jamaica as in much of the global South, there is enormous colonizing pressure associated with agricultural development to meet increasing subsistence and external payments pressures. For instance, Action 51 of Jamaica's *Environmental Action Plan* recommends that "all arable lands will be preserved for agricultural purposes as far as it is viable and possible" and notes that the government will "endeavour to bring about a significant decrease in the amount of under-utilized arable land" (NRCA, 1997).

The "expansion and indiscriminate modernization of agriculture" that has routinely occurred in the global South has heavily impacted natural and social systems (Smith and Forno, 1996).<sup>34</sup> In Latin America and the Caribbean, the expansion of the agricultural frontier is the primary cause of deforestation and land degradation (UNEP, 1997), as it is throughout most of the global South (FAO, 1996a). Given the consequences of this transformation (as discussed in section 1.2) and the predominance of agriculture as the agent of transformation, it is a particularly urgent challenge to identify and implement sustainable uses of agricultural land, scientifically and economically. Haiti provides the most tragic case in the Western Hemisphere of how economic and population pressures have driven the agricultural over-expansion of land to its ecological and social devastation (White and Jicking, 1995), and serves as a stern warning for Jamaica about the impact of rapid deforestation and soil loss in a similar physical setting.

The first part of this section will be more theoretical, reviewing how sustainability in agriculture is being approached in the tropics, while briefly introducing Jamaica's agricultural land use system. The second part will discuss the particular role of the peasantry in agricultural expansion and deforestation - combining both a theoretical and contextually-based discussion. Other causes of Jamaica's deforestation crisis will be briefly reviewed in the third part, after which conclusions will then be drawn.

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<sup>34</sup> While they identify this reality, Smith and Forno fail to note that the 'indiscriminate modernization' of agriculture is owing in many instances to the dictates of the World Bank, for whom they are writing.

## PART 1: The Challenge of Defining Sustainable Agriculture

Agroecology has recently emerged in response to the failure of economic, through-flow systems to account for the true ecological costs associated with their production and the need to define more sustainable systems.<sup>35</sup> Agroecologists argue that agricultural systems must be studied as ecosystems rather than as purely economic and engineered systems (Swift and Anderson, 1993), and the discipline has been defined by Gleissman (1990, 1992) as being “the application of ecological concepts and principles to the design and management of sustainable agroecosystems.”<sup>36</sup>

The goals of agroecological development are to decrease the need for external inputs, employ locally available and renewable resources, and build upon the knowledge and culture of the local inhabitants - or basically to ‘work with nature rather than against it’. Local and traditional agroecosystems have increasingly been a focus of research in tropic agroecology, as the selectivity of farmers over generations has led to the evolution of crop associations in multiple cropping patterns which have proved to be ecologically advantageous (Gleissman, 1990).

Altieri (1989) usefully extends the conceptualization of an agroecological approach to be one which examines agricultural systems from a socio-economic, as well as an ecological perspective. Although it cannot be objectively measured, socio-economic sustainability addresses the ability of land uses to provide sufficient and sustained economic returns to allow people to maintain their lifestyles over a long term (Schelhas, 1994), to which some ecologists have importantly added equity and fairness issues as fundamental priorities (Altieri et al., 1983; Altieri, 1989; Gleissman, 1990; 1992). Schelhas (1994) suggests that while these issues may be seen to be “peripheral to the environmental context in which sustainability is usually discussed, it is important to acknowledge their link to environmental degradation and ultimate importance to sustainability.” This is a significant point which will be developed later.

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<sup>35</sup> Economic models of agriculture have long predominated. Indeed, agricultural systems are inherently linked to economics because they involve a deliberate reduction in species richness to serve a human end. This has often meant the neglect or absence of ecological concerns, as agriculture has been seen as a through-flow system in which inputs are added to increase harvest, losses replaced with further inputs, and success defined in terms of immediate profit margins (Gleissman, 1990). Scientific research in this context has often been site-specific biology to serve engineering ends, and the economic orientation of agriculture has generally meant a denial of ecological limits in the faith that technological progress will allow ever-increasing yields.

Most traditional research and management of agricultural land was centered on maintaining or increasing soil fertility - which alone defined sustainable land use (Updegraff, 1994). This meant concern for such things as determining the plant nutrient requirements under different soil conditions and cropping systems (York, 1988). However, agroecologists are now insisting that development must consider not only “overall agricultural supply capacity, but also the rising ecological costs associated with supply expansion” (Harris, 1996), and Updegraff (1994) notes that “physical and social scientists around the world now realize that sustainable land use has many more dimensions than the soil itself.”

<sup>36</sup> This implies that material flow must be understood not only in terms of inputs and outputs, but also in terms of retention and recycling within the system. For instance, the diversity of micro-organisms and decomposition rates may have an important role in stabilizing the nutrient cycling within agricultural systems and in abetting the long-term productivity of agriculture (Swift and Anderson, 1993; Smith and Forno, 1996). Such a closed or looped-flow model for agroecosystems means that productivity should be viewed as a process rather than purely an ends, and human impact can be understood and managed with respect to such things as nutrient cycling, energy flow, and the dynamics of plant and animal populations within the system.

Sustainability in agriculture, however defined, remains intensely intertwined between ecological and economic goals, as well as cultural ones. So while defining sustainable agriculture implies retreating from an economically *centred* perspective of production and moving towards a more holistic view, economics remains inseparable from any definition of sustainable agricultural land use. The motivations “underlying farmers’ choices for crops and technologies rest in socio-economic conditions and constraints often unrelated to ecological situations...And so, farmers may not grow the *most* suitable crop, but will grow the *least unsuitable* within their constraints” [italics added] (Oram, 1988). As a result, Gleissman (1990) has found that “arguments for change in our approach to evaluating agricultural projects based purely on environmental issues has not been enough,” and ecologically-sound farming strategies are of little relevance if farmers cannot afford the inputs or if crop mixtures are not profitable. To be relevant, prescriptions for sustainable land use must be responsive to the economic imperatives driving farmers.

A sustainable agricultural system is often defined as one which satisfies a balance of several goals, including the protection of the natural environment, provision of food needs, economic viability and social welfare (Hansen, 1996). Hansen, however, argues that researchers have often used the term sustainability too “loosely as a general purpose code word encompassing all of the aspects of agricultural policy” they consider desirable, and Izac and Swift (1994) similarly suggest that such broad definitions “are attractively holistic, but too vague and ambiguous to lead to clear cut measurements of the sustainability of specific agroecosystems.” The ambiguity of the notion of sustainability has clouded its application to agricultural systems, most evident in the debate over intensification as a conservation measure or a destructive force.

### **The Intensification Debate**

While agroecology has added much to the cognizance of ‘on farm’ conservation, understanding agriculture’s contribution to the broader landscape sustainability remains very challenging. While disagreement about the importance of the various dimensions of sustainability - ecological, economic, social, cultural, etc. - is unavoidable, the ultimate question that remains for environmental conservation is whether low-input agroecological systems can contribute to sustainable ecological systems off the farm as well as on? In other words, is the pursuit of low-input agroecological goals consistent with the need to de-pressurize the impact of agriculture on natural habitats, unquestionably a critical conservation need?

For instance, do we define a sustainable agricultural system to be one which best conserves the biodiversity and ecological processes of the land and soil on which they are situated, or do we exempt the agricultural system from such an assessment and understand its contribution to sustainability purely in terms of its ‘off-farm’ impact. That is, if an intensified, high-input, species-poor system could reduce the

total amount of land needed for agriculture by increasing the efficiency of output and, by implication, decrease the need for further colonization, is it more advantageous to overall landscape sustainability than a system with greater species diversity and low external inputs, but which requires more land to be modified from natural conditions to meet food needs? This debate is further complicated by adding the issue of the temporal sustainability of various approaches to agriculture (Hansen, 1996). In short, there is a major point of contention over how agriculture can best contribute to landscape sustainability, a debate which will be reflected on following a brief review of Jamaica's agricultural land distribution.

### **Agriculture in the Jamaican Landscape**

There are three principle types of agricultural land use in Jamaica: plantation crops, primarily for export; mixed farming, for domestic consumption and export; and pasture for beef and dairy cattle largely for local consumption (USAID et al., 1987). In estates averaging 900 ha, the plantation sector occupies almost half of Jamaica's agricultural land (Rickard and Carmichael, 1995) and prevails over most of the best land (McBain, 1992). Having survived various land reform attempts (of varying degrees of vigour), this sector clings precariously to its traditional export-oriented monoculture production of sugar and bananas.<sup>37</sup> Coffee is increasingly being grown in the Blue Mountains in large, modern plantations which socio-economically resemble the lowland ones.

While the plantations produce primarily for export, small farmers supply predominantly national markets.<sup>38</sup> With two-third's to four-fifth's of the nation's farmers marginalized to 15-20% of the poorer quality farmland,<sup>39</sup> the small farm sector has attracted much study and debate over what Rickard and Carmichael (1995) term its "seemingly intractable condition of poverty." The role of pasture and animal agriculture will be briefly reviewed in Part 3 of this section.

### **Pro-Intensification: Reducing Colonization Pressures**

Containing the spread of agriculture is a major environmental concern in Jamaica and in the tropics for numerous reasons discussed in section 1.2. As a result, there are many who contend that an agroecological focus on low-inputs is misguided with respect to this goal of agricultural containment. Smith and Forno (1996), writing for the World Bank, argue that the transcending need in research on

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<sup>37</sup> While plantation agriculture is itself very entrenched, sugar and particularly bananas face a highly uncertain future (discussed later).

<sup>38</sup> Barker and McGregor (1988) note that in the nineteenth century, peasant cultivation was primarily subsistence oriented. However, as the practice of marketing surplus continued over time, gradually the peasants became more involved in the production of cash crops.

<sup>39</sup> The *Jamaica Country Environmental Profile* (1987) notes that 67% of the farmers operate 19% of all farm land, most in farms under 2 ha (4.94 acres). de Graaff and Sheng (1994) suggest that 70% of farms are under 2 ha and 95% are under 4 ha (9.9 acres), while Rickard and Carmichael (1995) state that more than 75% of the nation's farms are less than 2 ha, occupying only 15% of the farm land. The *National Report on the Environment* (1992) states that while 97% of all farmers own or occupy land of less than 25 acres, they control only 38% of all farmland. The World Bank (1993b) suggests that 80% of the farmers have access to less than 20% of the agricultural land. In contrast, 59% of Haiti's farmers control 22% of the land, and 82% of the Dominican Republic's farmers control 12.2% of the land.

tropical agricultural systems is how to intensify production,<sup>40</sup> arguing that the intensification of agriculture is essential to decrease colonizing pressure and thereby preserve species-diverse natural areas.

Similarly, Wood (1996) holds that “specialized high-input, high-output<sup>41</sup> agriculture on high quality land could be the best hope to maintain national crop production,” in the process decreasing the need for agricultural extension onto marginal lands. Citing a recent report which suggests environmentalists have neglected the intensification of agriculture when it should be a fundamental issue. Wood turns the agroecological premise of reducing external inputs on its head arguing that to “promote low-external-input farming on marginal lands could be both environmentally and socially irresponsible.”

Traditional farming systems in the tropics could maintain relatively low population densities and sustain the resource base over millennia, but are now degrading the land and failing to meet human needs because of their marginalization in space and extent, compounded by the weight of massive and increasing human and livestock populations. Given this reality, Smith (1990) suggests that there are three primary options to meet expanding food needs in the developing world (the most obvious, of course, reducing population pressure - both human and livestock - being left to another discussion): to expand the cultivated area, restore degraded land, or intensify production on existing farms. Expanding the land under cultivation is obviously not consistent with conservation goals, and restoration is generally a long and costly process. Thus, he suggests that intensification is the only hope to feed the growing populations in the developing world. Here, however, he mistakenly groups capital intensive methods with organic and labour intensive methods under the same rubric of high-input agriculture.

While some agroecologists would agree with Smith’s argument that “sustainability is not synonymous with low-input agriculture” and concur that intensification is indeed necessary, the idea that we need not distinguish between *how* intensification occurs is contentious, ecologically and socially (the social implications will be drawn later). For instance, Altieri (1989), a leading agroecological scholar, asserts that there is indeed a need to destroy the ‘myth’ that all low-input technologies will equally serve sustainable agriculture. However, he argues that for technologies to be ecologically sound, they must not radically modify or transform the ecosystem.

### **Biodiversity and Intensification**

Modern intensification of agroecosystems essentially consists of two types of change: the more frequent use of the same area of land,<sup>42</sup> and the increasing specialization of productive species. Thus, it is

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<sup>40</sup> Although their potential institutional bias puts the objectivity of such a claim on precarious ground, given the legacy of World Bank agricultural development programmes and their export orientation.

<sup>41</sup> Presumably a green revolution, high-yielding and bioengineered cultivated crop (rather than a tree crop).

<sup>42</sup> Intensification is generally reflected in fertilizer use (Harris, 1996).



a truism that modern, capital-intensive agriculture purposefully homogenizes landscapes. The reliance on a few crops and a limited range of varieties of each crop inhibits both species diversity and genetic variation down to the soil organism communities (Smith and Forno, 1996).<sup>43</sup> This reduction in the diversity and genetic pool of an area may in turn cause a consequent increase in the instability of the ecological system and eventually undermine the productivity of the crop itself (Harris, 1996).

### Multi-Cropping Stability

In contrast, traditional multi-cropping patterns have been found to be more stable over the long term, stability which has been connected (though not definitively) to the role that plant diversity has in regulating the decomposer subsystem of soil and better protecting against pests and hostile environmental factors (Swift and Anderson, 1993). It has been suggested that integrated systems tend to be more stable because they have more of the “different structural and functional elements common to natural ecosystems in the tropics” (Gleissman, 1990).<sup>44</sup> The importance of agroforestry in diversification has also been widely noted, not only for its role in protecting and enriching the soil, but for the various products (most notably wood for cooking fuel) that it can provide for small producers (Smith, 1990).

Small-scale agroforestry is common in Jamaica and throughout the Caribbean, and entails a land-use system in which trees or shrubs are grown together with cultivated crops in order to sustain the productivity of the land.<sup>45</sup> McDonald et al. (1992) note that agroforestry in Jamaica has a centuries-long history, albeit “not in any disciplined manner, and not to any great extent on mountainous, steeply-sloping agricultural lands.”<sup>46</sup> Barker and McGregor (1988) argue that while agroforestry remains an under-appreciated art, it is a valuable soil conservation tool and a commercially viable hillside farming technique. The NRCA (1997) suggests that “there is considerable scope for the expansion of agroforestry among hillside farmers since these practices could reduce the rate of erosion and increase overall productivity.”

The diversification of agricultural systems can also lead to greater income stability for small producers (Serrao et al., 1996; Schelhas, 1994) by offering a very important hedge against volatile

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<sup>43</sup> The modern intensification of agriculture has enormous significance for the role of biodiversity in regulating ecosystem function, as it drastically decreases the diversity of invertebrates, herbivores, and their associated predators. In contrast to natural ecosystems where the “internal regulation of function is substantially a product of plant biodiversity through flows of energy, nutrients and information,” increasing intensification involves the progressive reduction of this form of control. Ultimately, “the only integrated ecosystem function is invested in the below-ground subsystem, regulated predominantly by chemical inputs of industrial origin” (Swift and Anderson, 1993). Ploughing further reduces the diversity of soil invertebrate species and the amount of biomass, so that intensive monoculture reduces detritivores (ex. earthworms) in terms of species number and biomass (Paoletti et al., 1992).

<sup>44</sup> For example, in some Central American home gardens the diversity is similar from cultivated to natural systems (Paoletti et al., 1992).

<sup>45</sup> Also referred to as ‘kitchen gardens’ or ‘food forests’, as they are often employed in the area adjoining the house, successful agroforestry involves intercropping two or more (sometimes as many as fifty) commercially useful tree or shrub species in a multi-tiered, polyculture system (trees, bushes, and ground level plants) (Barker and McGregor, 1988).

<sup>46</sup> This is unfortunate given Sheng’s (1986) admonition that land sloping more than 25 degrees have permanent tree cover.

commodity pricing in the global marketplace (Nestel, 1995). Schelhas (1994) has found that small farmers in Costa Rica diversify their land use to manage risks, including the use of intensive cash crops which can enable them to meet their needs on less land. He concludes that while permanent cash crops are of little direct value to biological conservation, their high returns to land can decrease the conversion of forest to agricultural land, thus becoming an important element of sustainable land use. Similarly, small farmers in Jamaica are quite conservative<sup>47</sup> and tend to spread risk by cultivating a combination of annual and semi-annual crops, with coffee an especially important cash crop in the Blue Mountains (WB, 1993a).

### **The 'Benign Effects of Intensification'**

Proponents of agricultural intensification and the need for plantation agriculture argue that it is entirely inappropriate to compare the species diversity in agricultural systems to the species diversity that is found in natural ecosystems and suggest that this implies the inherent instability of monocultures. While agriculture obviously reduces species diversity, it is argued that agricultural systems should be removed from the debate on the relationship between diversity and stability, as "modern, uniform varieties, under stable, high-input conditions, are both high-yielding and yield-stable" (Wood, 1996). Smith (1990) points to the consistent productivity of intensively-managed paddy rice monocultures in Asia as evidence that ecological diversity is not necessarily needed to achieve more stable farm systems. After centuries of intensive cultivation, the ongoing productivity of sugar in Caribbean plantations is another example.

Additionally, Wood (1996) highlights the fact that there are "many homogenized (species poor) natural ecosystems that appear to be both productive and stable (including mangrove, papyrus, bamboo, water hyacinth, Gilbertiodendron stands and Dipterocarp forests)." Dipterocarp, in particular, destroyed the conviction that "diversity is mandatory for ecosystem stability in highly equitable climates."

### **Other Ecological Problems Associated with Intensified Agriculture**

There are, however, numerous other ecological problems embedded in large-scale, intensive agriculture in the tropics aside from the obvious loss of biodiversity, with its debated links to instability. These problems are associated with year-round high rainfall, heavy erosion and leaching of the soils, the rapid growth of pests including monospecific pest populations, pesticide poisoning and resistance,<sup>48</sup> the need for ongoing fossil-fuel based inputs, fertilizer run-off, and water overdraft and pollution (Johnstone,

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<sup>47</sup> McDonald et al. (1992) argue that bitter experience has made small farmers in Jamaica very conservative and resistant to change, with neither the time nor the resources to take risks. Similarly, Newman and Le Franc (1994) suggest that Jamaican small farmers prefer to plant multiple crops because there is no government social safety net to fall back on if their speculations fail. Their response to proposed changes is seen to be strongly conditioned by "family needs and local market conditions" (GoJ, 1990).

<sup>48</sup> Banana plantations are particularly notorious for their use biocides, which pollute water and encroach on forest lands (WB, 1993b).

1995; Gleissman, 1992). While the ensuing productivity losses can be masked temporarily with the use of chemical inputs, it is argued that technological limits will ultimately be breached (Johnstone, 1995) and that the long term yield potential for high-input agriculture in the tropics is very negative (Harris, 1996).

This suggests that the proponents of intensive agriculture may be lacking on a most fundamental point: the further intensification of tropical lands to create increased yields may not only be ecologically impossible, but continuing plantation land use may prove increasingly destructive. Oram (1988) argues that "many areas are simply not suited to the introduction of green revolution, input-intensive technology," offering the telling statistic given by the FAO that "of 92 million hectares of irrigated land in developing countries, 45 million require reclamation because of salinity and poor drainage." Saline intrusion has proven difficult to reverse in other countries, and the overpumping of irrigation water for agriculture in Jamaica has forced the abandonment of some sugar estate land (WB, 1993a).<sup>49</sup>

While technology-based intensification has paid significant dividends in terms of aggregate production in some populous Asian countries with good soils and irrigable land,<sup>50</sup> even that region has witnessed a decline in the growth rates of productivity since the late 1970s, raising further questions about the viability of 'technological fixes' in tropic agriculture (Oram, 1988).

#### **The Economic Question: Efficiency and Land Use**

Agroecologists have generally found that monocropping can't be justified ecologically, and is based largely on short-term economic assessments or historical entrenchment. However, by comparing the relative yield efficiency of multi-cropped systems with that of monocrops, research is now questioning whether monocropping is necessarily even a more productive system economically (see footnote 15). Studies have shown that most inter-cropped systems yield in a similar way to the sums of same crops if they were grown in a monoculture, often outyielding them and providing the greater yield stability that was noted earlier (Swift and Anderson, 1993).

The relative efficiency of plantation versus small farm agriculture in Jamaica is provocative. Although de Graaff and Sheng (1994) suggest that the "productivity in hillside agriculture is already low and is declining," the *Jamaica Country Environmental Profile* (1987) argues that the "overall productivity per acre is higher on the small subsistence farms [than on plantations],"<sup>51</sup> and Newman and

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<sup>49</sup> The amount of land abandoned to saline intrusion was not given.

<sup>50</sup> Although this notion of 'significant dividends' does not imply there have not been distinct 'winners' and 'losers' in the intensification process.

<sup>51</sup> The report does, however, acknowledge that it is difficult to determine yields from the mixed and multicropped systems of the small farm sector because reaping takes place throughout the year and the farm families may consume a significant percentage of the output (USAID et al., 1987).

Le Franc (1994) comment that the multicropping of the small farm sector “actually increases the total production of the land; more than would be possible if the same crops were grown in pure stands.”

When efficiency is defined by caloric input and output, Rao (1990) has found that the Jamaican small farm sector is much more efficient than are plantations with small farm domestic crops yielding an economic return nearly thirteen times greater, per acre, than did export crops in the early 1980s.<sup>52</sup> They also contributed more to the agricultural GDP than did plantation exports. The fact that the small farm sector possesses higher relative efficiency on poorer quality land than does the plantation sector raises fundamental questions, especially in light of the deficit in the balance of food trade and with respect to the current land use matrix (to be discussed in Chapter 5).

### **The Need for Equity Considerations**

The fact that plantation monocultures are not even necessarily more efficient than are intercropped small farms further undercuts the grounds for arguing that intensive agriculture (as it has traditionally been practised) is essential to reduce the colonizing pressure on the remaining forests. But even more damaging to this argument attempting to justify plantation style agriculture is the fact that it neglects who controls the production and looks only at aggregates. By neglecting equity considerations - and the argument can be put forward that intensification involving capital and technological inputs is inherently dichotomous with equity in ‘developing nations’ - intensive agriculture can have the effect of increasing agricultural expansion by those left behind.

History has shown that regardless of whether sustainable technologies are used, increasing agricultural productivity does not solve the problems of rural poverty in the absence of equity considerations (Altieri, 1989). In Latin America, for instance, inequitable land ownership is at the crux of colonizing pressures (Plant, 1993), and if the inequities in land distribution are not addressed then efforts to intensify agriculture will only exacerbate colonizing pressures, rather than decrease them.

### **PART 2: The Peasantry, Agricultural Expansion and Deforestation in Jamaica**

As noted earlier, the expansion of the agricultural frontier is the primary cause of deforestation and land degradation in Latin America and the Caribbean, and one of the key factors cited by UNEP (1997) as causing this expansion is the displacement of poor peasant farmers. Similarly, various studies of Jamaica have suggested that it is the peasant agriculturists who are the primary agents of deforestation.

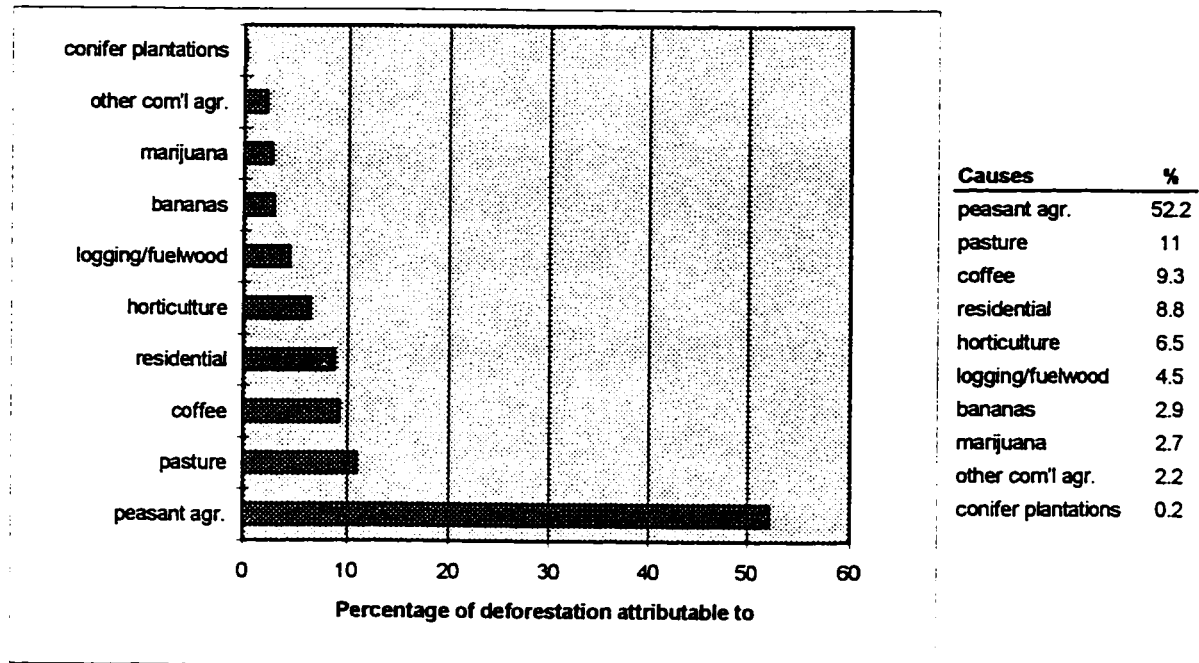
The *Status Report on the National Environmental Plan* (1997) suggests that the land degradation problem is “caused primarily by the activities of hillside farmers and squatters.” The World

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<sup>52</sup> Rao (1990) found domestic crops to earn an average of \$480/acre as compared to the \$37/acre average for export crops.

Bank (1993a) notes that “clearing of new plots now comes mostly through encroachment onto public lands by illegal cultivators, who do not have incentives to conserve the land, and who are amongst the poorest and least educated of the rural population.”<sup>53</sup> Berke and Beatley (1995) contend that “most modification of the forest is due to expansion of small-scale farming.” Finally, Eyre (1987) found that 52.2% of Jamaica’s deforestation in the mid-1980s was attributable to peasant agriculturists (see figure 1.30).

**Figure 1.30 Causes of Deforestation (1987)**



from: Eyre (1987a)

### The Peasantry as Poor Land Stewards

The role of the peasantry as agents of deforestation in Jamaica, as throughout much of the global South, has attracted justifiable scrutiny into their behaviour as land stewards, and there is much to suggest that action and underlying responsibility diverge widely. Swader (1994), for instance, suggests that many poor peasants, guided by instantaneous needs and dire circumstances, have day-to-day planning horizons. For those with such immediate survival needs, there are much more pressing problems and economic concerns than soil and water conservation, much less for seemingly abstract notions of biodiversity.

<sup>53</sup> Income distribution in Jamaica is highly inequitable (discussed in section 3.1), and small farmers and agricultural wage workers tend to be among the poorest of Jamaica’s poor (UNICEF/PIOJ, 1991).

While comprehensive land rehabilitation programmes since the 1950s have emphasized soil conservation methods, the high cost to construct and maintain such measures has meant that poor farmers have had neither the time nor the money to invest in them (Barker and McGregor, 1988). The result is that these schemes have had very little success (NRCA, 1997)<sup>54</sup> and soil conservation strategies - such as mulching, cultivating along contours, and constructing contour drains or trenches - remain very under-used by small farmers (Berke and Beatley, 1995).

Similarly, questionable land stewardship by the peasantry is evident in the use of fire. Fire is the principal method used by Jamaican peasants to clear land in preparation for planting, and a "major factor in the progressive deterioration of the Caribbean environment" (Eyre, 1987b). While some small farmers abhor its use, fire provides a cheap and quick method for most who desperately need, yet cannot afford, additional labour. Government education campaigns have proven incapable of discouraging the use of fire, perhaps because farmers are already aware of the dangers inherent in its use but have little other choice.<sup>55</sup> Barker and McGregor (1988) remark that "agronomic techniques like burning are symptomatic of low incomes and labour constraints rather than 'bad farming' *per se*." The consequence, they suggest, is that banning its use is impractical and efforts would be better targeted by strengthening the controls used.

As Eyre (1989) asserts, it is "almost impossible to expect a small farmer eking out a living from one steep hillside hectare to have any plan at all but for survival from one crop season to the next." Nevertheless, he suggests that in the 'folk wisdom' of the peasantry there is a reasonable understanding of how land should be utilized, and points encouragingly to Blaut (1959; 1979) as having found that a surprising amount of peasants do manage their farms with long-term conservation strategies in mind. However, the essential point Blaut (1979) intends to make is quite different, and in fact offers very little encouragement. Blaut argues that awareness about technical farming issues and strategies, such as soil erosion and conservation measures, are essentially trivial when coupled with the real causes of peasant poverty.<sup>56</sup> Blaut is harshly critical of an earlier work in which he and others (1959) "concluded, quite wrongly, that cognitive limitations were an important cause of the farmers' poverty" after having

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<sup>54</sup> Miller (1992) argues that comprehensive land rehabilitation strategies have largely failed for a variety of reasons in addition to the inadequate direct funding provided to small farmers to install and maintain soil erosion control structures. These factors include the small size of land holdings, poor extension support, and the inherent "difficulty in attempting any form of agriculture on such steep and environmentally fragile hillsides."

<sup>55</sup> Small farmers are generally aware of the danger of uncontrolled fires and employ methods reflective of this caution. One common method is the clearance of vegetation by machete, after which it is piled and burned. Another method is the clearance of a fire break along a hill contour, upon which fire is directed up the hillside. Nevertheless, such traditional methods are not always effective and fires do get out of control (due to such things as a lack of supervision, dry, highly combustible vegetation, strong mountain breezes, and a community ethos which lets the fires burn out rather than fighting them) with the potential for great damage to crops, timber, and topsoil (Barker and McGregor, 1988).

<sup>56</sup> The analogy he uses is that to give peasants technical advice is "like teaching arithmetic to Einstein."

“discovered that Jamaican peasants’ knowledge of soil erosion was less than omniscient (though better than that of colonial agronomists).” Rather, he asserts on reflection, the poverty of the peasantry is not a function of microgeographic issues like soil conservation measures but is “the result of colonialism and its attendant forces of economic exploitation.”<sup>57</sup> In short, it has been suggested that Jamaica’s small farmers are better land stewards than they are generally given credit for and that it is their poverty rather than their ignorance which impedes more careful stewardship.<sup>58</sup>

### **Attitudes Towards the Environment**

In addition to creating the material reality which impedes the conservation-minded use of land, the economic exploitation and poverty attendant to the plantation economy also shapes the way the Caribbean people perceive their relationship to land. Eyre (1989) contends that a ‘frontier mentality’ has prevailed throughout the Caribbean centuries after the frontier itself disappeared. The result has been the ‘unbridled exploitation’ of the environment “for short-term gain” - by rich and poor alike, albeit for very different reasons. While Eyre does not distinguish this from prevailing attitudes throughout the Western Hemisphere, Potter (1992) evokes an argument by Lowenthal (1961) which examines Caribbean attitudes towards land through a more distinctive regional lens. Lowenthal argues that in the Caribbean, the relationship between humans and land is ‘entirely commercial,’ as land is rarely seen as anything but a commodity - void of philosophical or intrinsic value. He attributes this economic conceptualization of nature largely to the fact that slavery and colonialism created “a place but not a people,” a heterogeneous population without attachment to land and country.<sup>59</sup>

From research in the eastern Caribbean, Potter (1992) confirms Lowenthal’s basic assessment that ‘pure environmental matters’ have very little importance in the way most Caribbean people view land. He does, however, challenge Lowenthal’s blanket assessment as to why this is so, suggesting that Lowenthal ignores the particular culpability of the region’s elite in fostering this mind-set. In reality, Potter argues, “it has been the colonial administrations and the plantocracy, together with post-independence governments and local elites that have been the prime agents in promoting the view that land is largely to be considered as an economic entity.” Similarly, Wade (1996) notes how the historical predominance of sugar cane plantations created economic and cultural norms which profoundly shaped

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<sup>57</sup> This discussion brings to mind a study on soil erosion and conservation as they relate to cropping activities in rural Jamaica by de Graaff and Sheng (1994) who conclude that “the most important factor determining land use appeared to be the slope of the land.” This conclusion resounds with the technicality that Blaut so harshly condemns as causing researchers to miss the bigger, non-technical issues.

<sup>58</sup> The nature of this poverty is very significant, and the difference between *underdeveloped* poverty and *undeveloped* poverty will be taken up in section 1.4. Suffice it to say for now, it would be very ethnocentric to classify some of the world’s isolated, undeveloped, subsistence farmers to be ‘poor’ or ‘unhappy’ based on their limited material means. However, this sort of condition is not the case in Jamaica as will be shown.

<sup>59</sup> In contrast, he suggests, with more homogeneous places like China, Indonesia, and even Latin America. This idea that heterogeneity breeds disassociation from the land is quite contentious.

the way people understood their rights of ownership over land and resources, instilling a 'right to use' mentality. The reality, Potter (1992) contends, is that local resource users have much stronger ties to the land.

Yet while Potter is no doubt well-founded to charge Jamaica's plantocracy-elite driven state as the primary cause of the predominating utilitarian view of the environment, the fact remains that survival on the oppressed margins has also left the peasantry with a needs-based conceptualization of nature. As Beckford and Witter (1981) contend, "the majority of our people (nearly all of us of African descent) are too poor to enjoy what Jah (nature) provides for Man [sic]." Thus, for completely different reasons - accumulation for the elite and survival for the poor - environmental concerns have generally been ignored in Jamaica's development. The *National Report on the Environment* (1992) provides appropriate balance, noting that while the peasants "attitude to the 'bush' [the forest] is generally predatory,...at the upper end of the economic ladder, land is viewed as an economic commodity."

Concurrent with this view of land, there is very little awareness about the environmental problems Jamaica now faces. The *Jamaica Country Environmental Profile* (1987) observes that in spite of the precarious state of the environment and the direct ways various crises often impact on people, there is a very low level of public awareness regarding environmental issues. Indeed, a public opinion poll conducted in the early 1990s found that only about 20 per cent of Jamaicans saw the environment to be "a major public issue" (Wade, 1996).<sup>60</sup> Further, there is a lack of widespread concern about the importance of Jamaica's biological diversity and its forest ecosystems (GoJ, 1990).

This lack of awareness and concern is not only a significant impediment to bringing about change in individual behaviour, but disempowers the government to take action towards improved environmental regulation and management (USAID et al., 1987). Affecting environmentally destructive behavioural patterns ultimately demands that there be a greater linkage between the cause and effect of behaviour - suggesting the need for improved environmental education<sup>61</sup> - and that alternative economic opportunities are established (GoJ, 1992). One of the most critical issues for the rural poor is that of land tenure. As noted earlier, poverty and insecurity invariably shrink time horizons and inhibit long-term oriented husbandry, making issues of land tenure and reform very much related to conservation.

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<sup>60</sup> However, Wade (1996) does go on to suggest that "we may be witnessing in Jamaica the beginning of a ground swell of public opinion with regard to protection of the environment."

<sup>61</sup> Although it is widely understood that the values of natural ecosystems and their linkages to economic development must be emphasized as an important part of biodiversity and ecosystem conservation, there has been very little work done in Jamaica in this regard. Compounding the problem is the fact that what has been done in the way of public information has generally been geared towards the urban middle class (GoJ, 1990), rather than at the rural poor who are the primary 'front line' agents of forest colonization.



## The Significance of Land Tenure Issues

Jamaican small farmers either own, lease or illegally squat on land (GoJ, 1994).<sup>62</sup> It is estimated that 70 000 small farmers - a staggering 36.4% of all farmers<sup>63</sup> - do not hold title to the land they occupy (GoJ, 1990). Squatter lands can, however, sometimes be converted into freeholdings after "peaceful and undisturbed occupation for certain statutory periods" (GoJ, 1994). Farmers who own land do so under either under a formal legal framework or a system of customary use, also known as 'family land'. Inadequate legal titling often leads to a feeling of insecurity of land tenure, which in turn bodes negatively for the environment because it discourages on-farm investment (WB, 1993b).

Jamaica contains an estimated 600 000 land parcels of varying sizes, of which less than 45% are titled (despite possessing a well-developed land registration system since 1889). The government, through more than 20 different entities, controls over 45 000 of these parcels and acknowledges that some "are under-utilized and poorly managed" (GoJ, 1994). The World Bank (1993b) suggests that inadequate legal land titling is a major factor in rural poverty because much land is held by the government in large estates.

It is obvious that farmers will tend to employ better farming methods on land they expect to use over the long term than on land they lease or illegally inhabit. Newman and Le Franc (1994) assert that "short-term land is used harshly," often intentionally, as farmers seek to maximize profits with a minimum of inputs.<sup>64</sup> Thus, they will generally not invest in soil conservation measures or permanent tree crops when they do not own the land. The *National Forestry Action Plan* (1990) similarly explains that while conservation practices are evident on some land that is owned outright, they are generally ignored on non-owned land. The consequence of the careless cultivation techniques practised on non-owned land is declining yields, which in turn precipitates the need to clear new areas (i.e. the 'Haitian syndrome' again).

Newman and Le Franc (1994) also note a more subtle significance of land tenure beyond its effect on land utilization. Land ownership carries an immense socio-psychological value, a sense of prestige and pride, that often exceeds its commercial value. This is particularly true where land is scarce

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<sup>62</sup> The 1990 *National Forestry Action Plan* identifies six primary user groups affecting the forests: owners, renters, displaced farmers, migrants, landless rural dwellers, land grabbers. The difference between subsistence, subsistence-market crop mixture, specialized small farms and plantations no doubt relates to tenancy issues (i.e. subsistence farmers have the most serious tenancy problems), but there are no statistics linking the two.

<sup>63</sup> Based on the Ministry of Agriculture Data Bank's (August 1997) figure of 192 500 farmers.

<sup>64</sup> When the price of a crop is high or when crops are known to deplete the soil, farmers generally prefer to lease land extra land. This is because leasing is often cheaper than the expense of buying a lot of fertilizer, and when the soil is depleted the land can be abandoned and new land leased or captured (Newman and Le Franc, 1994).

and where plantations have dominated the arable land. The collective effect on the psyche of those oppressed can be profound, and relates back to affecting how people perceive their relationship with land.

### Land Tenure and Reform

As the inequality of land distribution, the fragmented and small holdings of many peasants, and the inadequate land titling have been linked to the soil erosion and deforestation cycle (Girvan, 1991), the extreme deprivation of rural families, and feelings of social inferiority (UNICEF/PIOJ, 1991), land tenure reform is clearly an urgent matter. The *National Forestry Action Plan* (1990) admonishes: "It is clear that the land tenure issue is a fundamental constraint to the conservation and sustainable use of tropical forests." The report also highlights how the development of rural institutions, farmer organizations and co-operative land management efforts have concurrent roles to play in stabilizing land use, an important point to be discussed in later chapters which reference to the case study in Long Road.

Unfortunately, land tenure reform has had an unsuccessful history in Jamaica. Colonial land reform was very ineffective, with predominantly marginal land redistributed into small holdings<sup>65</sup> - for which nearly half of the recipients fell into arrears of payment over (McBain, 1992). The second major land reform movement came in the form of *Project Land Lease* in the 1970s, through which government land was leased (rather than sold) to small farmers. While larger in scope than earlier schemes, McBain notes that *Land Lease* experienced some of the same problems, including the fact that it was still generally poor land that was leased and there was a high arrears rate in the repayment of loans by the participants. In the end, she suggests, rather than increasing the size and viability of farms, holdings were increasing fragmented. Nevertheless, this program still provided increased access to those peasants desperately seeking more land until it was "slashed by IMF demands" (Beckford and Witter, 1981).

The new JLP government,<sup>66</sup> at the IMF's urging, decided to sell rather than lease 'idle or under-utilized' government lands, and in 1982 the Ministry of Agriculture established a program to sell this public land in units of 1-4 hectares (GoJ, 1990). However, the *Green Paper on Land Policy* (1994) acknowledged that the land tenure problems remained 'critical', as did their social and economic implications, and as a result cites a continuing commitment "to accelerate its land divestment

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<sup>65</sup> In 1962, the Land Reform Sub-Committee of the Agricultural Planning Committee wrote:

*The problem in regard to land for agricultural production can be viewed from 2 angles. One concerns the question of how land is used, and the other deals with how the rights in land are distributed...Although the second is probably of equal importance, it can only be dealt with at this time as being incidental to the first, since the general question of land distribution and its effect on the level and distribution of rural incomes is regarded as secondary to the immediate concern for bringing about the fullest use of land irrespective of how such land is distributed in ownership* (Ministry of Agriculture and Lands, 1962).

This is a curious perspective, perhaps suggestive of the mind-set which denied the need for more fundamental land reforms (either that, or it is a frail justification for ignoring the redistribution of good lands). Given that relative efficiency must necessarily relate to the ownership of the means of production, clearly land distribution cannot be 'incidental' or 'secondary' to attempts to use the land to its fullest capacity.

<sup>66</sup> The significance of the change in governing parties will become apparent in section 1.5, as this was a period of intense ideological swings.

programme”intended “to alleviate the problems associated with landlessness, while motivating the nation to realize higher levels of productivity.”It is evident to most, including the government, that encouraging agricultural conservation-oriented strategies is very dependent on the security of land tenure.

However, the question of what land tenure system would best protect natural forests remains a vexing one. It is estimated that 78% of Jamaica’s remaining natural forest and 83% of the plantation forests are still owned by the government, while the ruinate is predominantly privately owned (GoJ, 1992). The *Green Paper on Land Policy* (1994) claims that “all lands of environmental importance will unless decided otherwise by Cabinet, remain vested in Government.”It does however, also note that such lands could nevertheless “be leased for approved uses or management with relevant conditions.”<sup>67</sup> While the inclination to protect natural forests is to keep them state-owned, the widespread problem with illegal squatting on and clearing of government forest land (WB, 1993a), combined with the lack of regulation and enforcement capacity of the government suggests the issue is not as plain as it might appear.

### Assessing Action and Responsibility

Because of the role of the rural poor in the conversion of forests, the World Bank (1993b) argues that “poverty can be both a cause and effect of environmental degradation,” citing Haiti and Jamaica together as notable examples of “where relative poverty is a factor of rapid deforestation.” Poverty is also identified as “the single most serious threat to wildlife resources” in the *Jamaica Country Environmental Profile* (1987) for its role in causing the conversion of forest to agriculture.

Nevertheless, it should be evident from the preceding discussion that while the peasants are the primary agents of deforestation in Jamaica, understanding their ultimate responsibility for deforestation, as well as their capacity to be good land stewards, demands a deeper inquiry than that of poverty equals degradation. However, some prefer not to stray too far from the obvious. The World Bank attributes population growth and the associated increase in demand for land, timber, food and energy (1993ab)<sup>68</sup> together with inadequate property rights to be the most fundamental roots of Jamaica’s deforestation, also highlighting the lack of enforcement of existing regulations (1993b). de Graaff and Sheng (1994) suggest that more farmers are getting pushed to higher and steeper hillsides due to ‘demographic pressures’.

While overpopulation is no doubt a factor in deforestation, as was noted in section 1.1, ascribing to it the central role in the environmental degradation of poor Southern nations is very contentious, and

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<sup>67</sup> This notion of keeping lands of environmental importance in the government’s possession is evident in the recent drive to establish National Parks (the first National Park was not established until the 1990s). That the government is also willing to have these land managed by others is apparent in the fact that an NGO is now managing the Blue and John Crow National Park.

<sup>68</sup> Jamaica’s rising deforestation rate has also being linked to its urban population growth, which, as with Haiti, has risen concurrently (WB, 1993b).

serves very distinct interests (Lohmann, 1993). As well, defining poverty as the ultimate cause of environmental degradation is an important issue which warrants attention (discussed in section 1.4), for unless distinguished, such an interpretation generally gives way to vague prescriptions of economic growth as the cure for both poverty and the environment.

A brief review of the formation of the peasant class suggests that poverty as a causative force in deforestation and land degradation must be seen within a historical context. It also implies that solutions demand deeper changes than standard efforts at economic growth and technical measures such as better titling, enforcement and population control.

### **The Formation of the Peasant Class and the Roots of Inequity**

Lugo et al. (1981) note that the disturbance of forests in the Caribbean began with the establishment of intensive monocultures.<sup>69</sup> During the early colonial period, much of Jamaica's inland remained forested with European activity concentrated on the coastal plains. However, by the eighteenth century the European settler economy began clearing interior forests for such things as coffee, cinchona and tea. The plantation economy, through its human oppression and monopolization of coastal land, also inadvertently set in motion a more significant dynamic shaping Jamaica's interior. Escaped and (after Emancipation in 1838) freed slaves were forced to seek refuge in the rugged hillsides, and have had a dramatic impact on the landscape (McDonald et al., 1992). Although highly erodible, the interior does possess favourable climatic conditions for growing a variety of crops, which has allowed and encouraged their increased settlement (de Graaff and Sheng, 1994).

Modern Jamaica exhibits a land use system typical of colonial areas, the unequal competition between different socio-racial classes having determined its geographical structure and the inequities compounded by the very limited extent of the land base. Beckford and Witter (1981) note that in the contest for Jamaica's limited land base from plantations, and later from foreign mining and tourism interests, "naturally the peasant fared worse in this competition."

The sad consequence, as Richardson (1992) laments, is that while "the active quest for Jamaican lands by Jamaican peoples dates back to the Maroons" (who first escaped to the interior in 1655), the good coastal lands remain today monopolized away from the mass of the people (as are, increasingly, some of the good high mountain lands in coffee plantations). Given the entrenched colonial inequities, it is not surprising that land hunger in Jamaica is intense among the peasantry.

The attribution of blame towards the peasantry as the agents of deforestation, whether through overpopulation, ignorance, failure to accept regulation or adopt conservation measures, or an array of

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<sup>69</sup> The cultivation of the interior began with escaped slaves, as the original Arawak population lived in small numbers in coastal areas (see footnote #10).

other charges, as in their poverty and land hunger they pressure the land base amounts to what Witter (1997a) dubs 'a blame the victim mentality'. Not only are the peasants the victims in the historically ingrained land use system, but ironically they are also the primary victims of the deforestation-related environmental consequences - as such things as accelerated erosion and clogged rivers inevitably impoverishes further the rural communities (Eyre, 1987a).

Eyre (1987a) frames the responsibility of the Jamaican peasantry as such: "Under the pressure of survival, poor peasants strapped by Lilliputian holdings and limited income-earning possibilities have little alternative but to exploit their fragile environment whatever the cost."<sup>70</sup> He goes on to suggest that this is largely attributable to broader forces at work in the Jamaican economy and which are widespread in the global South. As notable examples, he cites international credit-driven efforts to increase agricultural export earnings, the decline of the urban economy, the fact that population growth has exceeded economic growth, and the debt crisis. Similarly, the *Jamaica Country Environmental Profile* (1987) refines its assessment of how poverty causes deforestation by suggesting that "clearance patterns are the result of distribution of land ownership and the pressures of market forces, both national and international" - recalling section 1.1 and giving support for the nature of this thesis' inquiry. More recently, as the pressure on the land base has intensified, the *Status Report on the National Environmental Action Plan* (1997) still gives primary responsibility for deforestation to 'hillside farmers and squatters'.

### **PART 3: Other Causes of Deforestation**

While the consensus from the literature is that the expansion of the agricultural frontier for peasant cultivation is the primary cause of Jamaica's deforestation, pasture, charcoal production and the establishment of coffee and pine plantations are also noted as having significant roles (Eyre, 1987a; USAID et al., 1987; WB, 1993b).

#### Pasture

While not as significant as in Latin America where ranching is the leading cause of rainforest destruction (Durning and Brough, 1991; Serrao et al., 1996) and one of the most critical environmental problems in the region (Winograd, 1995), pasture expansion is nevertheless a significant cause of deforestation and environmental concern in Jamaica. Eyre (1987a) found that conversion to pasture was

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<sup>70</sup> While Eyre links this argument to Bernstein (1979), in actuality Bernstein does not identify the causes of African desertification (which Eyre suggests parallel the causes of Jamaica's deforestation). The closest Bernstein comes is in a description of the process whereby the African peasant is forced to seek out new land: "as techniques of land use in many cases exhaust the soil after a certain period (the traditional solution - that of various rotational and fallow patterns of land use - being increasingly inhibited as commoditization develops), the intensification of production occurs. This involves a greater expenditure of labour-time on poorer or more distant soils to produce the same output of crops." Bernstein's (1979) self-described task was to demonstrate how African peasantry's have been subsumed into a system of commodity production to their great detriment, and this argument was intended to demonstrate one way production costs are increased and returns to labour decreased for the peasants. Nevertheless, while this analogy may have been ill-chosen it should not detract from Eyre's insight about land hunger and exploitation.

the second leading cause of Jamaica's deforestation, responsible for 11% of the forest loss between 1980 and 1986. This change is especially worrisome given that while some land converted for peasant agricultural and marijuana will revert to forest, Eyre maintains that virtually no land in pasture ever will.

However, UNEP (1991) suggests that land in pasture decreased by 18% from 1966-68 to 1986-88, while the *National Report on the Environment* (1992) notes that permanent pasture acreage decreased by 25% from 1962 to 1992. In 1946 it was estimated that there were 265 000 ha devoted to animal production (primarily beef) (Richards et al., 1995), while today there are approximately 196 920 ha in permanent pasture (Ministry of Agriculture, 1997) - which represents a decrease of 26%. As well, Rickard and Carmichael (1995) assert that the conversion of lands from beef cattle pasture to irrigated papaya and citrus is "a noticeable landscape change of the 1990s." Thus, the aggregate trends paint a contradictory trend to Eyre's argument.

Nevertheless, pasture still accounts for nearly one-fifth of all land. There was originally very little natural grassland in Jamaica, so much of the grazing land was created through the introduction of grass species (GoJ. 1990).<sup>71</sup> While the overall area in pasture has declined over the past half century and evidence of pasture being converted to other agricultural uses together may suggest a decline in the prominence of animal agriculture in the Jamaican landscape, the increasing emphasis placed on livestock production by the Ministry of Agriculture (discussed in section 3.1) suggests that animal agriculture will remain a significant agent of landscape change. This is increasingly evident in the hillsides.

Many small farmers employ a commons approach to grazing, and McBain (1992) notes that all social classes, including the landless, own livestock, with goats, swine, poultry and sheep being the primary animals raised by small farmers. This accessibility and the perceived security provided by livestock<sup>72</sup> means that the impacts of animal agriculture are not only prominent on the good coastal lands, but could increasingly encroach into the more rugged terrain. However, the World Bank (1993a) argues that the raising of livestock is not compatible with hillside agriculture and suggests that "government efforts to encourage livestock production by small farmers may have contributed to soil erosion."

#### Logging and Fuelwood

Household energy needs are often cited as another important and poverty-related cause of Jamaica's deforestation. Charcoal is estimated to provide 37% of all household energy, and high levels of poverty (both rural and urban) are linked to the strong demand for cheap fuel. Trees are generally taken

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<sup>71</sup> Richards et al. (1995) note that the carrying capacity in 1946 was assessed to be 2 hectares to the mature animal, it having "become apparent that productivity of native grasses was inadequate to support a viable cattle industry."

<sup>72</sup> Livestock are seen to be an investment by small farmers, although Rao (1990) found the sector yield of \$256/acre for livestock and poultry to be little more half what it was for domestic crops (\$480/acre) in the early 1980s - albeit still much higher than the \$37/acre average for export crops.

from poorly defended land unsuited for agriculture, and it is estimated that 84% of wood harvested annually is used for fuelwood and to make charcoal. The *National Forestry Action Plan* (1990) estimated this annual harvest at 725 000 m<sup>3</sup> and warns that it “cannot be sustained in the long run.” The World Bank (1993a) estimates that charcoal use tripled in the 1980s and continued to increase significantly between 1990-92 as a result of inflation and the rising cost of petroleum. Not surprisingly, the Bank fails to mention how SAP-dictated devaluation’s have disproportionately impacted the poor and inhibited their ability to purchase kerosene.

The relatively small role attributed to logging as a cause of Jamaica’s deforestation (4.5% to logging and fuelwood) by Eyre (1987a) is notable in that the activities of foreign logging companies are not a significant factor in the decline of the forests in Jamaica as they are in many other tropical nations. Unfortunately, though, Eyre notes that there are many problems concerning national “middle- and upper-income entrepreneurs, large landholders and quasi-government corporations such as the Coffee Industry Development Company (CIDCO) [and the Forest Industries Development Company (FIDCO)]” who each “affect the large-scale clearance and conversion of forests.”<sup>73</sup>

### Coffee

Coffee has had a long history and an often very negative environmental legacy in the Blue Mountains region (Barker and McGregor, 1988). It is estimated that between 1980-89, 2024 hectares of coffee were planted in the Blue Mountains with a significant amount having replaced natural forests and pine plantations (GoJ, 1990).<sup>74</sup> Blue Mountain coffee commands an extremely strong and consistent price. A premium, it has proven immune to falling coffee prices on the world market and the World Bank (1993a) notes how this extraordinary profitability has encouraged small farmers to clear land on excessively steep slopes with thin soils and which often degrade quickly. It has also encouraged the government to promote coffee growing (the strength of Jamaican coffee in the commodity market is discussed in section 3.1). Berke and Beatley (1995) point out that CIDCO and concurrent government policies have encouraged, even subsidized, foreign investment in private and large land holdings so as to increase the export of “brown gold”.

Barker and McGregor (1988) maintain that there are many examples totalling hundreds of hectares of high forest (over 1500m) clear-felled and re-planted with coffee seedlings. Yet while coffee

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<sup>73</sup> CIDCO and FIDCO are government-owned corporate bodies which act at an arms length from government, essentially as investment organizations. They were established with the intention of generating mass production in order to reduce Jamaica's import of timber in the case of FIDCO, and to improve Jamaica's export picture in the case of CIDCO - tasks which each have pursued zealously. Berke and Beatley (1995) note that “as recently as 1989, FIDCO was competing with CIDCO to provide financial subsidies for private land owners to use lands that were classified as natural forests along the north slopes of the Blue and John Crow Mountains Forest Reserve.”

<sup>74</sup> Berke and Beatley (1995) estimate this figure to be 890 ha.

has routinely been criticized for its environmental impact it must be understood, as the *National Forestry Action Report* (1990) points out, that “in appropriate areas, coffee cultivation utilizing proper soil conservation measures might be one of the best alternatives for the improvement of the living conditions of a segment of the rural populations.” With this in mind, coffee presents a vexing environment and development issue to be explored in Chapter 4.

#### Conifer Plantations and FIDCO

FIDCO was created in 1978-79, mandated to develop and manage Jamaica’s industrial pine plantations and harvest and manufacture its forest products (GoJ, 1990). The clearance of natural forests and the conversion into commercial conifer monocultures - largely quick growing Caribbean (pitch) pine - was initiated in an effort to achieve self-sufficiency in timber production (Berke and Beatley, 1995).

FIDCO and CIDCO are often discussed together, and the *National Forestry Action Plan* (1990) notes that each has met increasing scrutiny and pressure for their oft-times environmentally insensitive behaviour.<sup>75</sup> Environmental concern attendant to commercial logging is understandable given that the NRCA (1997) estimates that because of the steepness and inaccessibility of the terrain, only 26% of Jamaica’s natural forests can contribute to sustained timber production (NRCA, 1997).

However, at the same time as concern for their environmental behaviour has mounted, so also has the pressure to produce more timber and coffee (GoJ, 1990) as FIDCO and CIDCO represented part of the government’s “effort to solve Jamaica’s national economic malaise” through increased exports (Barker and McGregor, 1988).<sup>76</sup> Similarly, Eyre (1987a) notes that while environmentalists were enraged about the planned conversion of 46% of the area over 1000m to commercial conifers, it was an action “deemed essential by government economic planners.”

#### **PART 4: Conclusion**

In order to review the complex of issues generating Jamaica’s deforestation crisis, one is drawn into a discussion of agriculture and land use. The agroecological discussion of Part 1 was seen as necessary to incorporate matters of land use efficiency, which are in turn deemed to be central to understanding how agriculture affects deforestation and how its impacts can be de-pressurized.

Forman (1995), a pre-eminent landscape ecologist, postulates “that an optimum landscape has large patches of natural vegetation” and contends that there is no known substitute for the array of ecological benefits they provide. This primacy given to the preservation of large natural-vegetation patches is the prevailing theme in the SLOSS debate, and implies that the most important conservation

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<sup>75</sup> In the case of FIDCO, by the mid-1990s, no programs had yet been conducted to monitor the long-term environmental impacts of the massive tree planting schemes and monoculture conversions (Berke and Beatley, 1995).

<sup>76</sup> Berke and Beatley (1995) point out that both FIDCO and CIDCO saw their budget rise by 50% or more between 1986 and 1990.



need associated with tropical agriculture is the reduction of its 'off-farm' or colonizing pressures. This notion signals a return to the intensification debate, with its equity ramifications, as one of the most critical issues facing tropical agriculture today.

For intensive agriculture to have any ecological validity, the distinction must be made between intensifying indigenous, labour intensive, multicropped agriculture and industrial, capital intensive, monocropped agriculture - a strong ecological argument being possible for the former. For intensive agriculture to have social validity, the issue of who owns the means of production is central. Labour intensive plantation agriculture throughout the global South is synonymous with rampant inequities and social unsustainability.

Gleissman (1992) suggests that traditional mixed cropping systems may allow for the greater intensification of the land, both temporally and spatially. Serrao et al. (1996) contend that the intensification of land use in Amazonia, including the use of cash crops, is a land and forest conserving measure because increased efficiency and earnings necessarily reduce the need for agricultural expansion - of tremendous relevance to the case study. They also importantly suggest that "resource conservation is maximized by intensification based on *human* as opposed to *physical* capital," and that equity considerations are essential. While it is doubtful that intensification through increased capital and industrialized input to produce for foreign markets can do anything but exacerbate colonization pressures, sustainability may indeed benefit from the intensification of traditional land uses like agroforestry and the addition of cash crops into multicropped systems.

In Jamaica's Blue Mountains, coffee appears to have an integral role to play in increasing the economic productivity of the land, with careful measures being needed so that it is ecologically stable and can produce a crop over the long term. Yet while these sort of production gains are widely deemed necessary in order to reduce off-farm pressures, in Jamaica they appear to have heightened the conversion of forests. The role of coffee in rural development and its consequent implications for conservation are key points to be discussed in later chapters.

However well ecological processes are understood they remain, in the end, subservient to the decisions of landowners, tenants and squatters. This implies the primacy of land stewardship by small farmers, which in turn signifies the critical need to understanding the barriers they face in making their land use decisions. Thus, as Serrao et al. (1996) suggest, that the achievement of sustainability in the tropics cannot be a merely a technical question - it is a highly politicized and economic one as well. The ecological disaster that is the ceaseless colonization of the tropical rainforest has arisen out a dynamic series of stages, driven by "structural necessities in the aggregate political economy and involving the

activities of many economic agents, some macro-, and some micro-level, as well as social, cultural, historical.”

The inescapable fact remains that “an important driving force in the current landscape and environmental change [caused by tropical agriculture] is the ongoing globalization of the economy” (Nestel, 1995). Thus, to return to an earlier remark about the complexity, and the oft-times competing goals of various elements associated with sustainability in tropical agriculture, perhaps what is necessary is to take a step back from the immersion in the technical problems and understand the limits of agroecology as a discipline dominated by powerful political-economic forces in the developing world. Altieri (1989) suggests that “by perceiving the problem of sustainability solely as a technological problem of production,” most agroecological research can neither understand nor address “the fundamental reasons why agricultural systems become non-sustainable.” He argues that “new sustainable agroecosystems cannot be implemented without modifying the socio-economic determinants that govern what is produced, how it is produced, and for whom it is produced.”

Altieri (1989) argues that “as an agricultural development approach, agroecology cannot confront the structural and economic factors that are the cause of rural poverty.” Similarly Blaut (1979) contends that research on the microgeography of peasant agriculture in Jamaica (such as erosion-inducing farming techniques), while a necessary venture, has little diagnostic or prescriptive value in terms of understanding the fundamental causes of poverty, or by implication, the ensuing environmental problems. This is because the real underlying causes are not apparent at the farm level: they rest in the exclusion of an impoverished majority from control of society’s resources. This argument still has loud resonance in Jamaica.

## 1.4 Development and Underdevelopment

*Development is a process by which the members of a society increase their personal and institutional capacities to mobilize and manage resources to produce sustainable and justly distributed improvements in their quality of life consistent with their own aspirations.*

-David Korten (1990)

### Introduction

Theories of development have played a pivotal role in shaping economic policies for the global South since the end of the Second World War. Yet while much of the literature about the benefits of the global economy and the need for economic development focuses upon the rewards for, and reflects the ideals of the industrialized West, less is mentioned about the devastating effect that the global economy has had upon most of the 'developing' South (Kennedy, 1993). As discussed in section 1.1, Northern-prescribed and guided development in the South has largely been a dismal failure, and the era of post-colonial development has actually seen a reduction in the relative well-being of the poor Southern masses.

While some social indicators, such as life expectancy and literacy rates, have improved in most Southern countries, other important trends are spiralling downward. For instance, income inequality is rising, debt is mounting, and the absolute number of poor people is increasing. Keeping in mind the inherent problems associated with culturally-defined poverty and development, the inequities of the global economy remain staggering. As noted earlier, the richest fifth of humanity now consumes over four-fifths (around 83%) of the earth's resources, and what modern economic development that has occurred in the South has often been dominated by the national elite but not reached society's poorest members. Clearly globalization and the rewards of development have not benefited the mass of humanity, and the implications of the failed development project have been manifest not only in the plight of the suffering Southern masses, but in the rapidly degrading Southern environment. In Jamaica, for instance, Eyre (1987a) suggests that the extent of the deforestation crisis "warrants a redirection of government policy...away from straightforward 'development' regardless of environmental consequences."

As a result of the mounting planetary ecological crisis, the issue of development has garnered renewed attention in recent years with its linkage to environmental sustainability, most famously in *The Brundtland Report* (1987). Yet while environmental crises and worsening social inequities are clearly interdependent, the causal links between poverty and environmental degradation, and between economic development and sustainability, remain very challenging. Because a 'lack of development' is commonly cited as the reason the peasantry and other marginalized classes exploit their resource base, the consequence is that sustainability has been equated by some with the need for Northern-prescribed economic development. The World Bank (1993b) provides a case in point of this bias, noting that "as

survival is the highest priority of the impoverished, environmental concerns become secondary,” concluding that “therefore, promoting economic growth, alleviating poverty, and protecting the environment are mutually supportive objectives in the longer term.” Thus, through a manipulation of cause-and-effect, growth and development have been labelled as a cure for the very environmental problems their standard process has exacerbated.

As discussed in section 1.1, poverty, land use, and sustainability (in a human and an environmental sense) in Southern nations are seen to be inextricably bound to the operation of global economic forces and the historical process of development and underdevelopment. Similarly, Korten (1995) argues that development “models that made growth the goal and...treated people as mere means” are at the root of the 3-fold human crisis of deepening poverty, social disintegration, and environmental destruction throughout the South. As a result, and in accordance with the nature of this thesis, a review of how development has been traditionally guided, critiqued, and can be re-formulated is warranted from an environmental, as well as a social perspective. Until this framework is challenged and redefined on the basis of distributive equity, social justice and empowerment of the marginalized, the sort of qualitative development needed for sustainability will be elusive. It is argued that for development to occur in harmony with environmental goals, there must be a reformulation away from orthodox development paradigms in the defining Southern problems and approaching political and economic policies.

This argument will be presented through three primary steps. Firstly, traditional development strategies are presented through the work of their most famous proponent, W.W. Rostow. Secondly, various critical challenges to traditional development theory are reviewed, focusing on dependency theory (as expounded by A.G. Frank) and the Plantation School, after which the critical lens will be expanded to encompass a wider range of epistemological thought so as to provide a more holistic cognizance of, and challenge to, orthodox development theory. The third part will bring together a review of how poverty and development relate to the environment.

### **PART 1: Orthodox Development Theories**

Orthodox theories grounded in neoliberal economic principles have dominated the practice of development in the South since the Second World War. Rostow’s theory on the history of development and economic growth, as presented in *The Stages of Economic Growth* (1960), is perhaps the most famous and explicit formulation of this perspective and came to play a definitive role in mythologizing the neoliberal perspective and in shaping what has become orthodox development theory (Frank, 1984; Goulet, 1988; Wilber and Jameson, 1988; Svensson, 1991).

Based on a dynamic theory of production, Rostow's theory puts forward that all nations, at various times in their history, progress through the same essential stages of growth. The starting point for all nations is the 'traditional society', through which a nation progresses to the 'take-off' phase (characterized by increased investment, savings and industrialization), before 'maturing' into societies of 'high mass consumption'. The process of growth is centred around the development and flow of innovative technologies which revolutionize the production process.

The ontology guiding neoliberal theorists such as Rostow is that humans are all rational economic people who, acting in their own self-interest, provide the driving force for historical progress and material betterment. From the collective action of self-interested behaviour is seen to emerge societal innovation, technological progress and increased efficiency and consumption - all of which are inevitable given the universal nature of humankind. As Rostow (1971) wrote in the second edition of *The Stages*. "we have arrayed, then, psychological, political, institutional, and technical factors which, taken together, tended to make growth, once begun, automatic."

Development is thus a teleological process as all nations, given free market conditions, are seen to progress through the same succession of capitalistic stages towards their inevitable consummation in a high mass consumptive society. Such a progressive and linear approach to history not so implicitly links idealized development to the model of a western industrialized nation, and implies that wealthy 'developed' nations were once in the same stage that the poor 'underdeveloped' nations are currently in. Such faith in the inevitability of Northern-style capitalistic development and progress, grounded in this evolutionary diagnosis, offers optimism that the only distance separating rich and poor nations is a temporal one. Current income inequality is less a problem than it is a necessary condition to provide incentives for growth and investment, which are in turn seen to be necessary to meet the rising aspirations of the poor. Thus, consolation for the plight of the South can be taken in the fact that Southern nations are merely awaiting the same process of development that occurred in the North some time ago.

Rostow and others of his neoliberal ilk were given such prominence by Northern policy-makers perhaps because their theories harmonized with and championed Northern capitalistic norms. Perhaps also, their popularity was owing in part to the fact that the evolutionary stages are grounded in very deterministic thinking characteristic of the time. More cynically though, the popularity of such neoliberal ideas may be a product of their utility as they could conveniently assuage the capitalist North from responsibility for the pillage of the colonial era and the continuing neo-colonial expansionism which originally levied, and was continuing to impose, so heavy a burden on the South.

## **Rostow's Policy Implications and a Reflection on Universality**

The implied policy response of Rostowian, neoliberal thinking is to open economies as much as possible to market forces so that Northern influence and Adam Smith's famous 'invisible hand' can lead 'backward nations' towards affluence and modernity. This clouds concerns for a suffering present in a foggy vision of a rewarding future and blames the South for their 'failure to modernize', ignoring cultural differences and justifying Northern dominion of the world economy as something inherent. Thus, it infers a retreat from responsibility and a legitimization of the status quo. A facile response of orthodox theorists to any perceived failure of development is that it may be merely a case of examining the situation too early, since there was no definitive time frame for the evolution. Nevertheless, temporal answers are by no means sufficient to explain the 'lack of development' in the South, and Rostow has acknowledged this. But because he believed his economic history to be an empirical, positivistic inquiry, the attribution of failure has been to non-economic factors.

The grasping at a sciential and objective foundation is apparent in Rostow's mechanistic conception of evolutionary stages, which has the insidious effect of portraying his work as an objective, value-free inquiry. Yet development strategies centred on economic growth are anything but value-free, witnessed by the bias attendant in the fundamental building block of the theory: the definition of an economic man. The notion that self-interested, competitive behaviour is and should be the rational norm of society is a value-laden, Eurocentric concept, and to suggest that sharing, communal, egalitarian regimes are in some way non-rational and a barrier to development implies a profound cultural arrogance.

In short, Rostow provided a beguiling concept for Northern elites and his work became not only a foundation for orthodox development theory but significantly influenced the way people in the North viewed poverty and development problems in the South. As a result of both their influence and their errors, Rostow's ideas have been subject to devastating critique from numerous and various epistemological perspectives. The idea that every country will at some point follow a uni-directional development pattern culminating in Northern-style capitalistic development has been confronted with a particular vengeance by Marxist, and later, dependency theorists, and in the Caribbean by the Plantation School, as well as an array of other critical thinkers.

## **PART 2: Critical Challenges to Orthodox Theory**

As a result of the massive and pervasive social inequities associated with capitalistic development in the South, the dominating American presence in many Southern nations (especially Latin

America), and the blatant anti-Communist stand taken by orthodox development theorists,<sup>77</sup> Marxist scholars reacted strongly to Rostow and other neoliberals in the 1960s, challenging the use of capitalistic Northern industrial nations as the conclusive measure of development to be an ahistorical analysis which ultimately served a legitimizing purpose (Svensson, 1991). But by employing Marx's model of history as an alternative explanation, they did not deny that development occurred as an evolution through a series of stages, only that revolution would eventually overthrow the high mass consumptive stage. Capitalism was thus "a necessary, if regrettable, stage to be transcended by socialism" (Wilber and Jameson, 1988). A major shortcoming of this interpretation is that it still sees history as linearly progressive, only with a different teleological conclusion - the replacement of the final Rostowian stage with a socialist one.

Hettne (1991) argues that the rigidity of the Marxist approach to class is reductionist, giving the example that the plurality within plantation societies was important in shaping their political dynamics and is obscured by standard Marxist definitions of class. Indeed, the range of production systems on a world scale means that standard Marxist definitions of class are much too rigid and risk denying relevance to other issues such as variations within classes and within different national and cultural settings, and most importantly, to the international economic order and the relations between nations. Further, the idea that capitalism as it was manifest in the colonial South was a necessary stage of development for these nations was vehemently challenged. Dependency theory grew out of such perceived shortcomings.

### **The Formation of Dependency Theory**

Dependency theorists shifted the focus from the internal class structure *within a nation* to the external relationships *between nations* as the key to understanding the exploitation of the economic surplus in the South. They did not dismiss the importance of class, but rather modified the Marxist position, arguing that class must be seen relative to external dependence and national histories (Wilber and Jameson, 1988). In short, dependency theory shifted the focus of analysis from class to nation state in the belief that development economics must be understood within the context of the world capitalist system.

Andre Gunder Frank was the leading proponent of dependency theory as it evolved in the late 1960s and 1970s, during which time it rose to prominence amongst neo-Marxist development theorists. Frank (1966) saw Southern dependence within the global economy to be the fundamental causal factor responsible for the shared plight of underdevelopment throughout much of the South, though this was later modified to a conceptualization of uneven capital accumulation on a world scale with unequal

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<sup>77</sup> Seen in the sub-title of Rostow's seminal work: *The Non-Communist Manifesto*.

development (Frank, 1978). A key role was given to historical analysis in explaining the nature and process of underdevelopment: “We cannot hope to formulate adequate development theory and policy for the majority of the world’s population who suffer from underdevelopment without first learning how their past economic and social history gave rise to their present underdevelopment” (Frank, 1966).

Thus, dependency theory links Southern poverty and underdevelopment directly to imperialism, through which the capitalistic North was seen to have incorporated the South into a subordinate position in the global capitalist-industrial structure - where it remains locked today. For Frank, Southern ‘underdevelopment’ was not attributable to isolation, backwardness, or any other internal failings ascribed by neoliberal scholars. On the contrary, underdevelopment should be seen as a condition separate, historically and qualitatively, from pre-colonial times. This is an important distinction as it implies the cultural relativity of development.

So while a nation may have been *undeveloped* by the standards of a Northern capitalist state<sup>78</sup> before the entrance of imperial influence, *underdevelopment* was a phenomenon invented by imperial powers and rooted in historical and contemporary forces. In this light, the idea of underdevelopment as a problem and equated with poverty can be seen as a culturally biased concept born to shroud post-colonial interests (the exploitation of Southern resources) under the guise of altruistic development - economics having replaced religion by this point in history as the subordinating, yet self-absolving, disguise.

Rather than associating underdevelopment with the internal characteristics of Southern nations, be they economic, political, social or cultural, Frank interpreted their underdevelopment from a structural historical perspective linked to their colonial subordination. He saw colonialism as having relegated Southern nations to subordinate, or satellite, positions in the global capitalist system which continuing economic relations kept them mired in. In this formulation, Frank discerned a series of levels of dependence between metropolises and satellites, built upon perpetual exploitation from nation to nation, urban to rural, and repeated down to the most rural and poor levels in the South. Through this process, economic surplus was transferred up the dependency hierarchy from the South to powerful Northern metropolitan centres like London and New York. As the metropolises increased through their appropriation of surplus, the satellites necessarily underdevelop in what is an inherently asymmetrical relationship. The resulting loss is one not only of material benefits, but of *control* (Frank, 1966, 1967).

Frank (1984) argues that we must understand the universality of the stages of development defined by neoliberal theorists to be ‘invented’ and ‘irrelevant’. The subordinate position of the South

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<sup>78</sup> Although in many cases the pre-colonial South was very highly developed by Northern standards before being devastated by colonial exploitation. Bangladesh is one of the best examples of a pre-colonial region that was thriving prior to European contact but whose long colonial history has shaped it into the epitome of hopelessness and despair (Chomsky, 1992).



makes the evolutionary model of Rostow, and also that of orthodox Marxists, fundamentally flawed because Northern industrial nations were themselves never in such an historical position of dependence<sup>79</sup> - "the now developed countries were never *underdeveloped*, though they may have been *undeveloped*" (Frank, 1967) - and Southern nations will never be in similar positions of dominance.

Frank (1978) saw the subservience of the South in the global economy as an interactive process, responsible for both the increasing development and accumulation of the West and the entrenched condition in the South. The external control over the economic surplus and the lack of trickle-down led to inequality in growth, which gave rise to and entrenched structural forces that in turn prevented the redistribution of wealth to and within the South. The implication of this political economic condition is that southern nations cannot 'evolve' out of their current malaise and 'progress' to an improved successional stage through a standard development path.

Dependency and subservience in the global economy are inherently linked to exploitation, so that a nation cannot be deprived of its self-determination and hope that external forces will lead it to beneficial development. So in contrast to orthodox Marxist thought, Frank opposed the notion that capitalism was a normal or necessary stage of development. Rather, he argued that there is no universal path each nation will inevitably take just as there is no there such a thing as an original stage of history which the South was sometimes depicted as being mired in. This provides a strong argument for approaching development as a culturally relative phenomenon, not a universal one.

### **The Policy Implications of Dependency Theory**

The vicious cycle of economic subordination of the South within the world capitalist system implies that without a fundamental repair to or a break from the system, the Southern condition cannot get better, only worse. Thus, the response to the distorted metropolis-satellite condition was a call for nations to turn inwards and eliminate dependent relations, and for there to be the emergence of a new international economic order. As a result, dependency theory became a platform for many liberation movements in different Southern nations amid the tumult of the late 1960s. In Jamaica, this revolutionary bent came to a head in the 1970s, though it is better linked to the Plantation School intellectuals.

Because a major concern of these various movements was to return control of the economic surplus in the production process to the individual nation states and *within* these states,<sup>80</sup> dependency

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<sup>79</sup> The experience of former colonies such as Canada, the United States, Australia and New Zealand being incomparable to that of colonial Africa, Asia, Latin America and the Caribbean because the predominance of Europeans (after the annihilation of the native peoples of course) in the population meant an entirely different development pattern took root (except, perhaps, in the American South). Beckford (1972) distinguishes between colonies of 'settlement', of 'conquest', and of 'exploitation', suggesting that North America, Australia and New Zealand were representative of colonies of settlement, Latin America of conquest; and the Caribbean Islands and those of Southeast Asia of exploitation.

<sup>80</sup> As the class structure meant that national self-reliance does not equate with the empowerment of the poor.

theory was often associated with self-reliant socialism - as occurred in Jamaica (though again better placed with the Plantation School). Deriving from the perceived failure of orthodox development strategies and a rejection of the traditional Marxist premise that any such capitalistic development was a necessary (albeit painful) step towards a better end, Frank initially argued that Southern nations had to break with the capitalist world and move directly towards an independent economy organized along socialist lines. Over time, however, he moved from what he termed the 'offensive' to the 'defensive', growing to believe that an attempt to completely de-link and socialize a Southern economy may not be possible (Frank, 1984).<sup>81</sup>

On a broader scale, by attributing responsibility for the Southern condition to underlying problems in the global market and its northern engine, dependency theory called for a new political and economic world order. This, in turn, revived the primitivist view that if the North had not intervened, Southern nations would have developed themselves (Svensson, 1991).<sup>82</sup> Japan after the Meiji Restoration provides the classic example of how a nation, when left to develop on its own without being bound in a subordinate or satellite role, grew to great prosperity (Frank, 1966; Chomsky, 1992). However, such calls for a re-formulation of the global order have been met with charges of irrelevance (discussed later).

Dependency theory has been criticized on an array of fronts, and Svensson (1991) provides a good overview of some of the major points on which it has been challenged. Firstly, the notion that dependency on foreign capital was necessarily bad and an indication of underdevelopment was disputed through examples such as Canada and Belgium. Secondly, some scholars within the Marxist tradition re-argued the idea that colonialism was a progressive force in history in that it spread capitalism, which was seen to be a necessary stage of development prior to socialism (an idea which Frank, as noted, had challenged), and that it ignored internal class structure.<sup>83</sup> Further, dependency theory proved too rigid in nature and incapable of universal explanation or prediction when confronted with specific historical evidence of the diverse development paths evident in the South.<sup>84</sup> But perhaps more than anything what

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<sup>81</sup> This intellectual trend finds an interesting parallel in the political arena in the person of Michael Manley, the two-time Prime Minister of Jamaica. Manley initially retreated from planned socialist reforms in 1977, and after falling out of power in 1980, returned in 1988 with barely a hint of self-reliance on the agenda, understanding Jamaica to be - for better or worse - irrevocably tied to the international system. This will be discussed in greater length in section 1.4.

<sup>82</sup> Svensson notes how the primitivist view was founded largely on the reading of Lenin, who saw imperialism to be an outgrowth of Western capitalism and as having prevented the endogenous development of the Third World which would otherwise have been possible. This view then came to dominate Marxist-influenced critical thought during 1960s and 1970s.

<sup>83</sup> Frank (1978) granted that the most common critique of his theory was that he emphasized external relations "to the virtual exclusion of internal modes of production." Dependency theory does, however, explicitly recognize the 'indissoluble link' between external dependence and the variance within internal class structure (Frank, 1984).

<sup>84</sup> Wilken (1992) links the end of the Cold War to the disappearance of the 'Third World' as a region, and goes so far as to suggest that Southern nations were too disparate to have ever been conceptualized - by left or right - into a region called the Third World when their primary shared "characteristic was something as indeterminate as low per capita GNP." He argues that the designation of a Third World "fostered stereotypes and generalities," and served to divert attention away from differences, like distinctive resource and cultural

brought the demise of dependency theory was that its manifestation into revolutionary political thinking was met with great bloodshed, most notably in Latin America.

Frank did not back down from his argument, and opened his *Critique and Anti-Critique* (1984) with the famous quote from Marx that: "The philosophers have only interpreted the world in various ways; the point however, is to change it." Frank then goes on to suggest that "social and political science is politics," and to explicitly outline the revolutionary agenda of dependency theorists, arguing that "only revolutionary class - including ideological - struggle can eliminate the causes and consequences of underdevelopment." This implies the instrumental use of history as it is written with the goal of revolution in mind. This 'ultra-left stance' was the subject of much criticism against Frank, and he acknowledged that many saw his theorizing as having failed disastrously in Latin America, having "led the proletariat and peasantry down to resounding and cruel defeat at the hands of reactionary forces" (Frank, 1984).

Clearly the instrumental use of history must be regarded with great caution as it runs a high risk of evidence manipulation. The issue of scale in meta-theorizing is also challenging, and will be addressed after other critical perspectives on development are introduced. Yet while the above criticisms are warranted and have meant that dependency theory has fallen out of vogue from its earlier perch as a bastion of critical thought, there remains many insights to be drawn from Frank's work (discussed later).

### The Plantation School

The Plantation School (whose advocates are also referred to as New World Intellectuals)<sup>85</sup> arose in the Caribbean in the 1960s against the same backdrop as did dependency theory in Latin America - rising social inequities and poverty amidst modern economic development. Similar to dependency theory in roots and conclusions, the Plantation School also evolved out of Marxist criticism as intellectuals, primarily trained in economics, sought to find answers in the historical process as to why so many in the Caribbean continued to be left behind in the development process.<sup>86</sup> A similar focus on history led the Plantation School to see, as did Frank, a parasitic relationship at work between the development of the

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endowments, "that were more important than the commonalities." The result, Wilken insists, was that development strategies tended to ignore the distinctions in providing standard approaches. While these critiques have a certain merit and a notion such as the 'Third World' does necessarily mask the tremendous diversity of the region, the idea that "their reasons for economic retardation" are more distinctive than shared is to be debated. Indeed, the commonality of colonial experience as the root of economic retardation is the very reason the 'Third World' concept has any merit. This is not to say, as will be addressed later, that distinctiveness is not a critical issue in the study of development and formulaic solutions not a serious problem in practice - only that there remains some value in looking at the bigger picture.

<sup>85</sup> The *New World Quarterly* was a journal of critical thought focusing on social, economic and political issues in the global South, with particular emphasis on the Caribbean. The core of the intellectuals were from University of West Indies - Mona where it was published (Anderson and Witter, 1994).

<sup>86</sup> In addition to the study of economics and the use of history in method, the Plantation School also drew heavily from sociology, political science and anthropology to gain insights into the nature of the Caribbean economic condition (Girvan and Jefferson, 1971; Best, 1968). Best (1968) suggests that the barriers between these disciplines "needs a drastic lowering."

metropolises and the underdevelopment of the hinterland (Beckford, 1972). Beckford and Witter (1981) argue that surplus extracted by foreigners through ownership of resources, unequal exchange in trade, interest paid out on loans, management services provided, and the cost of imported technology (through institutional mechanisms like TNCs and international lending agencies such as the World Bank and IMF) together drain the productive potential of Southern countries. Further, what surplus that is reinvested in the host country has the effect of increasing the economic and political power of foreign capital there. Thus, Beckford and Witter (1981) assert that:

*...capitalism on a world scale simultaneously generates economic growth (development) of central metropolitan economies and economic retardation (underdevelopment) of the peripheral economies. The two results are linked. They stem from the nature of capitalism as a world system.*

While such a conclusion closely parallels dependency theory, the Plantation School saw the plantation economy to be a unique configuration “within the general class of export propelled economies” imposed by colonialism on the global South (Witter, 1992).<sup>87</sup> Plantation scholars thus sought to analyze the distinctive process of ‘dependent underdevelopment’ and ‘persistent poverty’<sup>88</sup> fostered by plantation economies and rooted in colonial history (Beckford and Witter, 1981), and through this historical analysis interject social issues into economic analysis. Imbued with anti-colonial aspirations, a distinct populism, a strong pan Caribbean nationalism, and the hope of developing “an indigenous view of the region,” a major goal of the Plantation School was to propel the marginalized people of the Caribbean “to place a greater value on what was theirs” (Figueroa, 1994).

A plantation society is seen by Beckford (1972) to be “the product of metropolitan capital and enterprise” tied “to the wider world economic community in very precise ways.” Thus, by its very nature, a plantation society is a highly dependent capitalistic economy, and its integration into the global economy was interpreted to be the root of the characteristic dependent underdevelopment.

Beckford has summarized how the structural characteristics of the plantation economy generate underdevelopment.<sup>89</sup> Initially, the introduction of plantations to an area is seen to have an important developmental impact. This is for several reasons, which include the expansion of lands in production, increased infrastructure and technology, transformation of the peasant subsistence economy through the introduction of cash crops to a money economy - all of which brings about the growth of national output

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<sup>87</sup> The plantation was distinguished from the Latin American *hacienda*, seen to be its closest peer, by two major factors identified by Beckford (1972). While plantations are generally oriented purely for export, sale of produce from haciendas is normally to domestic markets. Secondly, the hacienda is seen to be more self-sufficient than the plantation, as workers are given small plots by the hacendado from which to meet subsistence requirements.

<sup>88</sup> The title of the Plantation School’s most celebrated work, by Beckford (1972), this will be the basis of much of the discussion.

<sup>89</sup> This review is based on Chapter 7 of *Persistent Poverty: The Dynamics of underdevelopment with plantation agriculture*.

and income. While the development is constrained by the high degree of foreign control, the consequent predominance of imported investment and consumption, and the rising population,<sup>90</sup> the net result of this process is nevertheless to transform a society from *undeveloped* to *underdeveloped*. The problem, however, is that plantation economies were seen as incapable of ever going beyond underdevelopment. The impact of development then, Beckford suggests, “connotes a kind of once-and-for-all effect.”

Further developmental progress is seen to be impeded by structural and institutional factors inherent in the plantation economy, so that underdevelopment becomes a perpetuating equilibrium. Economic, social and political power rests almost totally with the small planter class, while the large majority has very little hope of material advancement. Perhaps even more importantly, the majority “are culturally and psychologically dependent” and not a unified class, so that the internal threats to the destruction of the society are contained. Also cited as barriers to development the limited nature of the domestic food production, the deteriorating terms of trade as export production is rationalized and prices fall, the lack of inner dynamism within the economy, the lack of education among the plantation workers, and the inability to adjust to the fluctuations in the global economy because of the rigidity of the production system.<sup>91</sup>

In suggesting that the introduction of plantation economies is generally a beneficial initial transformation economically, and is made problematic largely by its inescapability, Beckford (1972) sees underdevelopment in a pejorative way (the same way as did orthodox theorists, to be discussed in the structural criticisms). The implication is that capitalist development was perceived to be a necessary stage in a nation’s economic development - characteristic of one strain of Marxist development thought (and different than that of dependency theory). However, Beckford also notes that since the inhumanities of native extermination and slavery and continuing with the underdevelopment equilibrium, “the conclusion is inescapable that the sum of social costs [associated with the plantation economy] always tends to outweigh the sum of social benefits by a significant margin.”

### **The Policy Implications of the Plantation School**

Possessing tremendous faith in the latent ability of the masses, Beckford argued that only when society takes control over its own resources can the development problems of the plantation economy be overcome. Thus, one of the most foremost changes he saw as necessary to escape the plantation legacy was land reform and income redistribution. According to Beckford, “land reform and income redistribution are absolutely essential for development in plantation economy,” as the real dynamism in

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<sup>90</sup> Populations rose in plantation societies as preventative medicines were introduced and swamps were replaced with farms.

<sup>91</sup> Girvan (1973) also suggests that the enclave economies exporting minerals (such as bauxite), which developed later in the Caribbean possessed similar structural problems to the plantation economy.

the economy was seen to reside in the peasant rather than in the plantation sector. As well, the low incomes of the mass of people in the plantation society meant that the market size was limited which restricted domestic savings and investment and the potential for domestic industry.<sup>92</sup>

The natural corollary of this belief in the need to repatriate and redistribute a just share of the region's wealth to the impoverished masses was that a strong belief in socialism inspired Beckford and others in the Plantation School tradition. As Witter notes (1997a), he and other Plantation scholars were not drawn to Marxist analysis and socialism out of any intellectual fad but as the only way to comprehend the reality of a society which excluded so many from its benefits, and as a means to eventually overcome it. The preface to Beckford's *Persistent Poverty*, in which he describes the intent of the book, demonstrates the revolutionary designs of the Plantation School:

*It is concerned with the welfare of people living in plantation societies - why are we poor and what can be done about it. It seems clear that a virtual revolution is required to bring about significant improvements in the welfare of all Third World peoples. This book is offered as a small contribution to that revolution.*

It is little surprise that Beckford and the Plantation School took heart in the Cuban revolution as a sign that the poor and marginalized could rise up and overthrow foreign control (Beckford and Witter, 1981).

Such a revolutionary socialist project stood in marked contrast to the Caribbean's most famous economic thinker, Sir Arthur Lewis. Lewis was a world renowned proponent of liberal economic theory and a strong advocate of the 'industrialization by invitation' approach to Caribbean economic development, which was regionally known as the 'Puerto Rican' model.<sup>93</sup> Lewis saw the solution to the Caribbean problem in the use of foreign capital as a vehicle to ascend the 'industrial ladder', so that participation in the global economy could move from being based on cheap labour exports (agricultural or industrial) to being based on a skilled labour force with high technology and capacity for value added. Lewis' approach to transforming the Caribbean through the use of foreign capital drew the ire of nationalist Plantation scholars who saw exploitation and dependent underdevelopment attendant to foreign capital and the Puerto Rican Model and saw little hope of it ever playing a transforming role.

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<sup>92</sup> He also notes (as does Plant (1993), referred to in Part 3 of Section 1.1), that land reform was not just an end in itself as it must also "include appropriate rural economic institutions to provide credit, technical knowledge, and so forth, and, to be effective, it must be part of a process of radical social change to create an ethos in which attitudes to land ownership will change in a way that contributes to effective use of the land." Beckford attributes the failure of most land reforms attempts to their piecemeal process, lack of institutional support, and a failure to change the social ethos regarding land ownership. He argues that for land reform to be successful it must not only address these issues and deal with more fundamental approaches, but must make available the good quality plantation land. In contrast, he notes that most 'land settlement' schemes of various plantation economies have ignored the best quality plantation land and 'redistributed' marginal, rocky, infertile, hillsides areas.

<sup>93</sup> Industrialization by invitation implies such things as providing incentives to foreign capital in the form of free zones, low taxes and little regulation.

Rather, they found hope in self-reliance and saw the need to gain greater local control over resources and the value added process (Figuroa, 1994).<sup>94</sup>

Figuroa notes an important flaw with the policy prescription of the Plantation School: “the same state that was seen as fostering sectional or vested interests was now being asked to act on behalf of the entire community. The same state that had been singled out for its lack of developmental capacity was to become all powerful in reshaping society.” These contradictions fed a neoliberal critique of ‘statism’, which the Plantation School has had to confront. Indeed, Best (1991), one of the Plantation Schools’ pre-eminent scholars, acknowledges that the idealism of the Plantation School resulted in policy prescriptions too heavily reliant on the state when the reality is that there were more alternatives.

Figuroa suggests that Lewis’ strength came in his recognition that there were certain global realities the Caribbean had to conform to, placing real limits on the degree self-reliance could be pursued - a lesson the Plantation scholars learned in Jamaica the hard way.<sup>95</sup> Nevertheless, Figuroa does conclude that “for those of us who still cling to the hope of building egalitarian communities,” the Plantation School remains a more attractive analytic and prescriptive tool than does Lewis’ neoliberal faith in free markets and the benevolent force of foreign capital.

### Feminist Critiques of Development

Another front from which traditional development has been attacked has been in regards to gender. The formulaic development approaches characteristic of orthodox theories have tended to ignore gender as an issue in development planning, having consequently given way to ‘gender blind’ solutions which have denied or ignored the specific role of women and drawn the ire and reproach of feminist scholars. Rather than addressing gender as an issue, development planning has often merely presupposed (or paid lip service to the idea) the idea that the empowerment of women would result naturally from the process of development. Feminist scholars argue, however, that rather than providing a means to empowerment for women, gender-neutral development has in many respects been responsible for their

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<sup>94</sup> Figuroa (1994), however, provides a thorough examination of how Lewis and the Plantation School actually shared some significant commonalities. These include: similar aspirations for the Caribbean people, the need for a major social transformation, the notion that the region was ‘trapped’ in poverty by ill-suited economic norms, the need for a regional approach to development, the notion that a narrow techno-economic analysis was inadequate and historical analysis necessary to understand the problems of development, the need for land reform to break the social power of the plantocracy, the need to transform the rural sector, and a tremendous confidence in the ability of the region’s people to prosper within an improved climate. The key difference, of course, was that Lewis thought foreign capital could be manipulated to the advantage of the West Indies. Figuroa provides a notable quote from Lewis:

*It has been the misfortune of the West Indies to be caught in the trap of these [laissez faire] ideas. But the way to get out is not to abuse the well meaning captors, who genuinely believe that this trap is actually a silken bed which they have generously provided. The way out is to understand the system of ideas which constitutes the trap, to expose its fallacy, and to create an intellectual atmosphere in which such ideas can no longer claim the allegiance of reasonable men [sic].*

<sup>95</sup> As is evident in section 1.5, international political and economic factors were instrumental in crippling Jamaica’s flirtation with self-reliance in the 1970s. Witter (in conversion) noted that one lesson of the 1970s was that “a small, dependent nation like Jamaica can’t do it alone,” and highlighted the particular power of the United States in inhibiting any non-aligning, self-reliant path.

further marginalization, at a cost not only to gender equity but to children and the environment. The result is that there is a need to radically reshape the way development is approached and to address gender and differential household responsibilities as central issues (Shiva, 1993).

Feminist scholars argue that the problems associated with development and their environmental implications cannot be understood without reference to the differential gender impacts.<sup>96</sup> For instance, Momsen (1991) explains how traditional development strategies have imposed a higher burden on women, with a good example being IMF SAPs. SAPs reduce the role of the government in the welfare state, implying an increased burden on the household, where the women are responsible for the large majority of the work. At the same time as their demands in the home are increasing, women are often forced by subsistence imperatives or development initiatives to join the formal work-force. The consequence, Momsen argues, is that traditional development places an additional burden on women which often goes unidentified because an 'economistic' prejudice<sup>97</sup> towards work denigrates women's household responsibilities. This denial of women's interests, she maintains, is rooted not only in the underlying assumptions of orthodox development, but in the patriarchal legacies of colonial and neo-colonial oppression.<sup>98</sup>

Shiva also argues that a patriarchal mind-set in development has been the cause of much oppression and environmental degradation, a valid charge but with a wanting explanation - as she attributes a superior ecological ethic to be inherent in femininity.<sup>99</sup> Momsen provides a better explanation, arguing that the role of women in *social* reproduction is responsible for their enhanced environmental ethos and collectivist values. Yet regardless of the explanation, women tend to be more aware of the needs of their children and community, and thus more cognizant of environmental issues. This awareness, however, has been repressed by the marginalization of women in the development process.

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<sup>96</sup> UNICEF and the Planning Institute of Jamaica (1991) confirm that this is the case in Jamaica, noting that "because children and women are subject to structural vulnerabilities, their position requires particular scrutiny."

<sup>97</sup> This notion of an 'economistic prejudice' was coined by Karl Polanyi, and basically implies the over-emphasis of economic measures to the denial of less quantifiable values. Girvan (1991) suggests that Caribbean societies have "much too readily accepted the tyranny of the ideology of GNP growth associated with Western capitalism and modernization theory" and the associated value system which equates human progress with material accumulation and sees the environment as infinitely capable, with the aid of science and technology, of supporting this.

<sup>98</sup> The need to challenge the underlying, insidious assumptions of the neo-liberal developmental approach is a theme consistent throughout development critiques (i.e. culturally defined poverty, denigration of non-economic work, etc.). As well, though they draw different insights, the links between feminism and Marxism are evident in the parallel criticisms of the oppressive tendencies of neoliberal economics and colonialism. However, Momsen notes that the roots of development-related female marginalization extend to an array of factors beyond those of capitalistic values and colonial legacies. So while complementary to a degree, this is an example of how a range of epistemologies can be used together to provide a more holistic approach to identifying the problems with development research and hopefully aid in its reformulation.

<sup>99</sup> Shiva associates men with the destruction of life and women with a greater inherent attachment to nature. But the patriarchal mind-set of many in power should not be confused with the denigration of men, many of whom have suffered, powerless, alongside the women and children in the South.



## Structuralist-Liberationist Critiques of Development

Popular discontent with development gave rise to a 'liberationist' movement based on structuralist critique, born in Latin America and thereafter spread throughout much of the South. Structuralist criticism examines the connection between language and cultural consciousness, approaching language as a code for society that defines reality, shapes human relations, and reflects access to knowledge and power - the intention being to expose the structures that lay behind the lexicon. Decoding the language of classical development theory reveals ethnocentrism embedded in its ideals and goals, as the very term development conveys a pejorative starting point of 'undevelopment' in a materialist way.<sup>100</sup> This language is neither objective nor benign as it subordinates value judgements about human goals to 'neutral', ambiguous economic ones (Goulet, 1988). Goulet notes how in practice economists have tended to subordinate all non-economic dimensions of development "to the practical requirements of their growth models."

The idea that development is synonymous with economic growth and can be measured in aggregate terms (i.e. GNP) reflects again the 'economistic prejudice' of Northern capitalist norms of material wealth, higher production and increased efficiency, while ignoring asymmetrical power relationships. Lohmann (1993) explains how the evolution of underdevelopment as a concept in development theory was founded upon these biases, and "enables Northern interests to blame deforestation on faraway peasant groups rather than companies or agencies closer to home, and to suggest that the solution lies in Northern wisdom and capital."<sup>101</sup> Similarly, he argues that the designation of overpopulation as a deterministic cause of the Southern condition allays the responsibility of the North (and of the Southern elite) for their overconsumption.<sup>102</sup> The insidious result of such language comes from the fact that it is clouded in a value-free aura, making Northern-style capitalistic economic development appear as a natural, necessary evolution and overpopulation a scientifically determined fact. In so doing, this language provides a self-justifying rhetorical barrier to those in power and obscures the exploitative reality of orthodox development and the destructive role that modern market and state systems have on traditional livelihoods. The 'myths' of development, once decoded, are seen to be self-

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<sup>100</sup> Lohmann (1993) suggests that in addition to 'underdevelopment', this vocabulary consists of terms such as overpopulation, poverty, ignorance, lack of political will, poor management, lack of technology, policy failure, lack of economic opportunities, unsustainability.

<sup>101</sup> As Frank noted earlier with respect to religion, Lohmann (1993) argues that the cultural standards which had previously been used to define the inferiority of the colonized versus the colonizers had to be replaced with a seemingly neutral 'economic yardstick'. Against this measure, "the majority of the world's peoples became *economically backward* rather than culturally inferior," and "the battle against 'poverty' rather than the 'improvement' of customs and religions thus became the North's excuse for intervention and expropriation."

<sup>102</sup> Lohmann asserts that 'overpopulation' is an elite device which allows deforestation to be seen "without evaluating consumption patterns or social and political relations," exempting them from criticism and flattering them "as those who must predict, control and manage social action on a global scale."

justifying rhetoric on the part of self-interested forces (i.e. Northern powers. Southern elites) (Lohmann, 1993).

Development implies benefits, according to Northern capitalist notions of material wealth, higher production and increased efficiency, while ignoring asymmetrical power relationships. But by speaking in terms of liberation as the true goal for development, the hidden value assumptions of conventional thought can be unmasked, revealing the true structures of development: domination and dependence. The goal of structural-liberationist critique is thus to destroy the North's uncritical faith in "the universal goodness of its notions of progress, achievement, social harmony, democracy, and modernization," and in so doing, redefine and de-reify development and force it into the arena of moral debate (Goulet, 1988).

This is an important task, beyond merely a 'war of words'. Structuralist-liberationist criticisms demand that we fundamentally rethink commonly held notions of underdevelopment, overpopulation, ignorance, policy failure, and other associated 'determinants' of Southern poverty and unsustainability, challenging this as a discussion defined from a Northern perspective and masking its roots in Northern economies and institutions. Without a re-thinking of concepts such as poverty and development, Lohmann argues that solutions will inevitably centre around technical rather than necessary political and economic measures, with emphasis given to "'family planning' rather than land reform, to economic growth and resource management rather than limits on Northern consumption, to education and technological progress rather than campaigns to prevent the WB and TNCs from decimating peasant societies."

In attributing responsibility for the Southern condition to underlying problems in the global market and its northern engine, these criticisms provide a valuable contribution to the re-thinking of development. Yet the danger inherent in these critiques is that external forces, while central and blameworthy, may be emphasized to the point of ignoring local, more immediate problems and the diversity of causation.

#### **'Irrelevance' and 'Learning from Below'**

Much of the inspiration and theoretical foundation for this thesis has admittedly grown out of dependency theory and the Plantation School, each rooted in neo-Marxist thought, as well as from liberationist thinkers. To each, Edwards (1989) provides an important admonition and the first of two cautionary notes on the practice of development research to be discussed.

Pointing to the profligacy of development studies alongside the growing plight of the subjects, Edwards argues that much of what has been written on the 'Third World' has been irrelevant to the needs of the people whose condition it purports to address. He contends that this is owing to a massive gap in

power between the researchers and subjects, since Northern academics have tended to monopolize control over research. This inequality and anti-democratic nature of the relationship between researcher and subject is fundamental to the failure of most development studies, according to Edwards, because the ensuing 'research from above' and the associated technocratic and formulaic solutions inevitably neglect the complexity of local problems, devalue local and indigenous knowledge and participation, lead to gender blindness, and deny emotion in the understanding of development problems.

This condemnation of 'research from above' is not restricted to the traditional practitioners of development. Edwards argues that radical critiques have been no more useful to the needs of the people than have the targets of their criticism because they exhibit the same power relationships in their research.<sup>103</sup> Worse yet, he argues, "intellectuals who discuss revolution and violence often utter irresponsible words which place bullets in other people's guns" (a critique Frank has had to address).

Edwards is no doubt right that a fixation with technical, formulaic, rigid solutions typical of traditional development theorists can also be seen in dependency and other leftist criticisms. His analogy of armchair theorists looking into the 'fishbowl' of development issues in the South provides a stern warning for anyone wishing to study the problems from outside without 'digging in their own heels'. The key to being truly relevant to the poor, Edwards contends, lies in their participation as well as in the humility of the researcher to open a 'genuine dialogue' in which the poor are treated as 'subjects' rather than as 'objects'. He argues that research simply "cannot be relevant to people unless we understand their problems, and we cannot understand their problems unless they tell us about them." Further, he envisions a role for the poor not only in identifying their own problems, but also in identifying their priorities and solutions, and merging such research with practice in a unitary process. While this has proven to be a path fraught with immense challenges in practice,<sup>104</sup> Edwards' articulation of the need for enhanced participation of the poor is an invaluable insight into the search for an alternative paradigm for development research, and has played an enormous role in shaping the research design of this thesis.

Nevertheless, while these goals are noble and there is justifiable danger in meta-theorizing in the social sciences, it seems mistaken to deny all relevance to structural criticisms of the capitalist system

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<sup>103</sup> Edwards rebukes radical leftist critiques for having merely created, alongside that of development experts, "a body of ideas which cannot embody themselves in action and so proliferate in helpless parasitic symptoms with that which they criticize." He argues that the usual conclusion of Marxist critiques which demands revolutionary changes in the structure of capitalism to be neither an "original or a useful conclusion to those who are actively working for change" who must do so "within the social and political structures in which they live."

<sup>104</sup> Oakley (1994) notes how the barriers prohibiting participatory agricultural development programs "remain formidable, and making farmers the true 'subjects' of the rural development process is still an uphill task." He notes that the *World Conference on Agrarian Reform and Rural Development* (Rome, 1979) raised the consciousness of many major organizations to the fact that the lowest income groups were not receiving the benefits of development, leading them to question "long-established external, professionally-led styles of project intervention" and to envision more participatory, people-focused approaches. Nevertheless, he remarks that governments and donors still want "to see physical targets and deadlines in project documents," which generally does not mesh well "with participatory approaches in which people themselves should be deciding what should be done, how and when."

coming from the left alongside the search for a more participatory, truly democratic approach which Edwards envisions. While he is certainly right that research must be reoriented towards a process of 'learning from below', that should not preclude a critical examination of how national and international political, economic and institutional forces are linked to the condition of the poor.

Even as he laments the lack of participation and humility in most research and condemns leftist criticisms of existing structures, Edwards goes on to insinuate that these structures demand critical examination. He comments that "the world's poor remain very much in the grip of national and international forces over which they have little influence" and that "very often, the factors that perpetuate underdevelopment lie beyond direct grassroots control, in the policies of governments and institutions which shape the political and economic frameworks within which people have to live and work." Thus, it would seem evident that there remains the need to understand the roots of Southern problems in a macro context, and what is taken to be dichotomous by Edwards could well be viewed as different fronts in the same battle. In fact, neo-Marxist and other critical examinations of the structural forces inhibiting development seem very relevant to the empowerment of the poor and powerless that Edwards professes.

So while involving the poor is very important, an analysis of the national and global frameworks within which their actions are ultimately constrained is also critical. Indeed, it can be argued that radical scholars, be they Northern or Southern, who possess the time and resources to examine large structures, aggregates and processes, must continue on with this 'research from above' since the poor and oppressed are too busy with the task of daily living to investigate such matters. Even Edwards is forced to concede in the end that "there are situations in which we need a combination of higher and lower-level observation: of the skills of the researcher and of the practitioner; and of the view from the 'centre' and the 'periphery' taken together." He notes, in closing, that the ultimate measure by which 'high-level' research can be considered to be genuinely developmental is if it is strongly linked to the real concerns and experiences of the people whose problems it is addressing.

### **Meta-Theorizing**

Hettne (1991) at once defends the need to understand Southern problems in a macro context while providing a useful critique of meta-theorizing, a critique which provides the second cautionary note on the practice of development research. While acknowledging that endogenous local circumstances and various geographical, ecological, cultural, social, economic and political conditions are important and must be taken into consideration, Hettne argues that "the agrarian systems in the Third World did not develop to what they are through some inherent logic but as a response to something that happened in a much larger context." The consequence, he notes, is that "the fundamental transformations taking place

in Third World agrarian structures simply must be analysed in a global perspective in order to be comprehensible.” This is especially true for Jamaica, which Hettne (1991) notes “was not only deeply affected by the impact of the emerging world system, but was a product of this system” - created by the melding of “European capital, African labour and Caribbean land with the purpose of producing sugar.”

Yet at the same time as Hettne provides support for the need to examine world systems,<sup>105</sup> he urges caution in so doing by highlighting the justifiable scepticism with meta-theorizing in the social sciences. Meta-theorizing, whether by dependency theorists, the Plantation School, or as in section 1.1, is invariably faced with the challenge of bringing a ‘global’ approach to ‘local’ realities. That is, if we acknowledge that there are global forces at work impinging on local autonomy and appropriating local economic surplus, how can we conceptualize these links and how does this translate into a method? Unfortunately the reality is, as Hettne proceeds to note, that “what is less obvious is the particular theoretical perspective that would best provide this.”

Frank (1966) acknowledged that “the evidence to test these hypotheses is not open to easy general inspection and requires detailed analyses of many cases.” There is an enormous challenge and danger inherent in looking at the world for its systemic essence and applying this framework to a local level through these case studies without becoming too ‘tunnel-visioned’. The obvious danger, of course, is that external political and economic forces, while central and blameworthy for the Southern condition, may be used in an overly deterministic fashion. Given the ontology of dependency theorists and others with a leftist bent, the potential for such bias and selectivity in the conceptualization and research of the cases is comparable to orthodox theorists guided by a neoliberal ontology.

Importantly, Hettne suggests that local and global analysis should occur within the same framework and that distinguishing a separate ‘global level’ is misleading. In reality global forces are better conceptualized as a series of networks ranging in intensity and influence and linking various activities. Nevertheless, there remains tremendous challenges inherent in examining how systemic global processes apply to a local level. Beckford (1972) provides a quote from Gunnar Myrdal which serves as a useful final thought on bias and selectivity in research: “real objectivity in social research is achieved by explicitly stating the value premises on which a study is based.”

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<sup>105</sup> Hettne’s discussion was based upon an examination of Immanuel Wallerstein’s World-Systems Theory, itself another important school of critical developmental thought. World-Systems theory was developed, in many respects, out of dependency theory, although Hettne notes that it was also drawn from the Annals school in history. The World-Systems approach postulates that since its origins in the 16th-Century, a global capitalist system has expanded from a small number of core-states to transform a massive external arena into its periphery. The degree of polarization between core and peripheral states is based on a global division of labour in which the different levels are correspondent with various forms of labour control. As Wallerstein noted: “Everywhere the process is theoretically the same and everywhere, historically distinctive.” It is more flexible in defining its core and periphery relationship than is Frank’s notion of metropole-satellite.

## Conclusions from Critical Perspectives on Development

Orthodox neoliberal models of development are founded on the notion that rational, self-interested behaviour is the engine that drives economic development and the betterment of the human condition. Therefore, market incentives and freedom are seen to be the guarantors of progress. However, where orthodox-neoliberal theorists see capitalism as the progressive force leading to material progress and modernization, critical theorists see a world system founded upon imperialistic control and exploitation. Critical theories replace the notion of individual behaviour as the essential force directing economic development with that of unequal power relationships based on class, political economy, and patriarchy. They contend that orthodox development, open markets and globalization are the *problem*, not the solution, to the Southern condition. As a consequence, it is argued that “development needs to be redefined, demystified, and thrust into the arena of moral debate” (Goulet, 1988).

The development debate, Korten (1995) notes, polarized in practice around essentially two possibilities - export-led strategies and import substitution. Export-led strategies were the realm of the orthodox developers and transnationalists, who were intent on orienting domestic agriculture and industries primarily to serve foreign export markets. Import substitution, on the other hand, was the realm of critical thinkers and economic nationalists, who emphasized orienting national agriculture and industry towards producing substitutes for what was currently imported. The focus of import substitution on self-reliance was naturally opposed to the goals of the World Bank and the IMF to open domestic economies to increased foreign trade and investment.

While import substitution rose to prominence throughout large parts of the global South in the 1960s and 1970s, it has been export-led strategies - guided by orthodox development theories - that have come to dominate Southern economies. While the reasons for this are multifarious and beyond the realm of discussion here, it is worth noting that “once a country enters a neoliberal course it tends to become institutionalized” and difficult to retreat from (Klak, 1996).<sup>106</sup> Although export-led, orthodox development strategies have prevailed throughout much of the South, there remains little evidence that this triumph is in the best interests of the majority of Southerners, especially the poor masses.

The fact that the different ontologies will affect the questions asked, the information collected, and the methods of interpretation, means that various epistemologies will remain able to present certain examples in their defence (Wilber and Jameson, 1988). This, in turn, implies that understanding the ontologies behind various epistemological research on development is very important to enable the

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<sup>106</sup> Klak (1996) provides a good explanation of how structural adjustment programs have had a ‘ratcheting effect’ - in that new administrations are unable to “reverse direction on layer-upon-layer of free market policies built up over previous ones.” Governments are forced to continue opening their economies and provide incentives to investors to meet with the demands of international bodies, most notably the IMF where SAPs have been signed, whose agreements become a perpetuating process for neoliberal transformation.

decoding of evidence. When the evidence is 'decoded', the picture revealed for much of the South remains a bleak one even in the so-called 'success stories' of orthodox development. The cases conventionally brought forth in defence of traditional development success are widely disputed by critical thinkers, such as Goulet (1988), Korten (1995) and Frank (1984), the latter who wrote:

*As to Rostow's rendition of politics and democracy in the contemporary world it is hard to know whether to weep or laugh. The 'relatively successful democracies' are in Mexico, Malaysia and South Korea!...One can only weep at its lies about the past and the present and the future portends of imperialist policy that Rostow and his henchmen plan to fabricate out of their tissue of lies.*

Goulet (1988) notes that the models of development celebrated by American aid agencies as success stories are places where industrialization and economic growth may have taken place. "but no basic changes have occurred in class relationships and the distribution of wealth and power: the larger social system remains structurally exploitative." Further, he argues success cannot be "measured simply by the quantity of benefits gained, but above all by the way in which change processes take place."

If development is understood simply as increasing control over the forces which shape one's life (Edwards, 1989), then orthodox development must be seen as having failed the poor Southern masses. The dogmatic pursuit of orthodox development and its neoliberal justification have obscured the enormously high social costs in the South, even where growth has occurred. Not only has the era of development devastated indigenous and traditional ways of life, today there are an extensive array of economic indicators which indicate that the material welfare of the Southern poor is declining (French, 1995; Korten, 1995). It is very evident that Southern poverty is neither an original starting point in an evolutionary process nor attributable to a lack of development - rather, it is an historical consequence of the development- underdevelopment process. History has shown that progression along Rostow's evolutionary model of economic development is not inevitable - to say nothing of the environmental impossibility (or insanity) of a concept where high mass consumption is seen to be the global ideal. Rather, orthodox development has made the worsening plight of the poor masses and the degradation of the landscape increasingly intractable.

Although dependency theory, the Plantation School, and other critical perspectives each provide valuable insight into the operation of the global economy, none can alone provide a universal explication for the Southern condition as they must still essentialize complex and multifarious variants into a dominant set of factors. Any theory trying to understand forces occurring at the international level risks denying the uniqueness and complexity of historical experience and present circumstance to nations and regions. Research should thus incorporate a holistic critical lens, framed by an understanding of dependence and world systems and incorporating, where possible, the input of those marginalized to

understand the issue of development and the Southern condition. As Edwards (1989) has argued, development and its study must always be attune to the aspirations of the people, being highly cautious of ethnocentrism in assessing problems and goals of development.

Wilber and Jameson (1988) offer a poignant statement on how development, once critically examined, must be reformulated:

*Development should be a struggle to create criteria, goals, and means for self-liberation from misery, inequity, and dependency in all forms. Crucially, it should be the process a people choose, which heals them from historical trauma, and enables them to achieve a newness on their own terms.*

Critical theory demands an understanding of historical forces and how they have shaped the specific process of development, and section 1.5 will review the historical political economic development process in Jamaica. Yet, while critical theory implies an understanding of how current alternatives are constrained by historical forces, it should not condemn one to fatalism but rather should allow one to aspire to the heights of possibility (Frank, 1984).

### **PART 3: Development and the Environment**

*The commonly used catch phrase 'no room for error', translates in practice into 'prevention rather than cure'. If a problem is to be prevented effectively, its root cause - not the superficial symptoms - must be addressed...[and] most of the observed environmental health problems have their origins in current development patterns and pursuits.*

-Naresh Singh (1994)

While the notion of 'sustainable development' has become a veritable mantra since its popularization in *The Brundtland Report* (1987), its articulation has taken many forms - often employed as a thinly veiled guise for continuing economic growth along the path of traditional development - in the process losing not only momentum but clarity. Different perspectives on development were presented in detail in this section because they provide vital insight into the way development and poverty are understood in relation to environmental degradation, which in turn demonstrates why sustainable development must be approached critically and not as an amorphous catch-all. A review of its traditional process and critiques demonstrates that for development to be in any way sustainable it must be oriented along an entirely different path than it has been - one which is attuned to the needs of humans and particularly to those of society's poorest members. As Gould (1994) notes, traditional projects aimed at conservation commonly fail, despite often huge sums of resources expended, because emphasis is "placed on the resource instead of the people who manage the resource." This critical flaw, he argues, is the product of misguided institutions failing to recognize the basic needs of the people. Or, in essence, looking at the symptom of degradation rather than the root cause of underdevelopment.



This section has also attempted to highlight the important difference between the poverty of *underdevelopment* - that fostered by the imposition of Northern economic norms - and the poverty of *undevelopment*, culturally relative and ethnocentrically-defined. This distinction is at the crux of how poverty can be considered to be a cause of deforestation, and how development relates to environmental protection and can contribute to sustainability. As such, it will ultimately be a key tenet in the analysis of Jamaica's environment and development challenge in chapter 4.

### Poverty and Degradation

The poverty of *undevelopment* cannot be seen to be a cause of degradation, nor by extension, in need of development for the sake of the environment. On the contrary, the traditional development process has denigrated frugal, self-sufficient, sharing regimes where market principles and capitalist norms may have been anti-ethical, and in the process eroded the cultural foundations of sustainable societies and replaced them with alien, material aspirations and imposed a condition of poverty which did not exist before (Lohmann, 1993). Thus, what cultures remain still *undeveloped* must be *protected from* development on a land base large enough to allow them to maintain traditional lifestyles. This is a matter not only of cultural, but also of environmental preservation, as the stewardship of surviving indigenous societies is most likely far superior to the colonizing impact of modernity.

However, for the majority of the Southern poor who like Jamaica's are *underdeveloped*,<sup>107</sup> poverty is very much linked to degradation and hence to the notion that some sort of development must occur.<sup>108</sup> Indeed, without an ameliorated material condition it will be simply impossible to de-pressurize the poverty-induced impact of the poor masses on the environment. As Ramphal (1994) notes:

*The pollution of poverty is perhaps the most threatening of all. We cannot save [anything]...unless we save the people. Simply to tell those at the margin of existence not to cut down the forest or not have many children, when they see both as necessary to their survival, is not only insensitive to their predicament, but downright provocative. We can only ask endangered people to help rescue the planet if we link the Earth's salvation to their own.*

As a result, the dialectics of sustainability have commonly echoed the duality that "conservation means development as much as it does protection" (Pierce, 1992).

Yet where poverty is understood to be a product of the development-underdevelopment historical process, in order for growth to have a de-pressurizing (or sustainability enhancing) effect on the environment it cannot occur in a indiscriminate fashion. For sustainable development to have any utility

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<sup>107</sup> And there remain very few people on a world scale whose cultures have not been significantly eroded by colonialism and the global economy.

<sup>108</sup> Underdevelopment-generated poverty and environmental degradation are a double-edged sword, as the underdeveloped poor are not only the primary agents, but also the primary victims of degradation as noted in section 1.3.

as a guiding ideology (other than perpetuating the self-interest benefited by the status quo), the need to increase wealth cannot be merely an abstract, aggregate goal for an economy, but must serve to reduce societal inequalities and improve the quality of life for the poor.

Critical perspectives on development imply that sustainable solutions in the South, in human and environmental terms, are constrained foremost by the distributive inequities in the use and benefits of resources. The conclusion which follows is that fundamental political and economic reform, rather than merely focusing on more development projects and technical solutions, is necessary for economic development to have any hope of being sustainable. Yet even if distribution is accepted as a paramount goal for development, sustainability remains an elusive target because it ultimately requires a trade-off between environmental and human needs - implying highly relative value judgements. Indeed, Smith (1995) suggests we need to understand the causes of environmental degradation with respect to "the perceptions, values, cultures and traditions which underlie human behaviour."

#### **The Elusive Quest for Sustainability**

Any definition of sustainability invariably includes both environmental and socio-economic dimensions, in a trade-off through which the needs of a community are met and those of its future members protected, another precarious balance.<sup>109</sup> Determining this trade-off of goals is particularly difficult in rural systems based on extensive resource use which by their nature "pose some of the most intractable problems for sustainable management" (Smith, 1995).

At its most basic, this trade-off is manifested into two approaches to meeting human needs, which Bowler (1995) distinguishes as idealist (ecocentric) and instrumentalist (technocratic). An idealist or ecocentric balance between human and environmental needs sees as a requirement for sustainability the need for socio-economic systems to be based upon the goal of no or low growth, which in turn implies dramatic changes in consumption, resource use and distribution, and lifestyles. This is no doubt correspondent with an intrinsic view of nature and the need to conserve species and ecosystem functioning not only for their value to humans, but for their inherent value. This implies the need to tip the balance away from its perilously high emphasis on the human side of sustainability, and clearly applies with greater pertinence to the over-consuming North.

An instrumentalist or technocratic approach to balancing human needs and the environment, on the other hand, sees idealistic goals to be unrealistic - practically and politically - and approaches sustainability as an incremental process of adaptation towards better socio-economic practices without

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<sup>109</sup> The balance between present and future generations is a complex one, and beyond the realm of discussion here other than to say that the present developmental course in most areas has severely compromised the needs of future generations to the demands (both real and imagined) of the present one.

restrictions on consumption, lifestyles, or growth. Such an interpretation, Bowler suggests, is correspondent with a material needs based view of nature and prevails among policy makers and economists. This perspective implies the need to raise the human side of the balance in order to protect the environment and insinuates the aversion of humans to reduce their demands on the environment. This is also what could be called a minimalist approach to sustainability - focusing on preserving the basic resources necessary for the continued material health of humankind. This position obviously implies a very different human-environment balance than does the ecocentric perspective.

The instrumentalist-technocratic approach sees growth as an inescapable goal of human society and sustainability as something to be forged within an ever-expanding material condition, and is the prevailing form sustainable development has taken, both North and South. In the case of the North and the Southern elite, instrumentalist-technocratic sustainability is often just a guise for an unwillingness to retreat from an excessively consumptive lifestyle. However, given that the underdeveloped poor of the global South are already at the bottom end of the consumption and resource use spectrum, the motives for growth are quite different. Indeed, to suggest the underdeveloped poor need adopt a more ecocentric approach with a low-growth equilibrium is to be, as Ramphal suggests, 'insensitive' and 'provocative'.

Where societal inequities are significant and unaddressed and an ecocentric balance between human and environmental needs is taken, the environmental and social justice issues diverge (for the present generation at least), and this amounts to what in some places has been dubbed 'eco-imperialism'. The enhanced environmental consideration accorded by an ecocentric approach is somewhat precarious in this scenario because of the earlier noted pressures that marginalized, underdeveloped members of society have typically had on the environment. An example of this approach is the establishment of human-exclusive parks in underdeveloped or undeveloped areas in the South.<sup>110</sup>

On the heels of *The Brundtland Report*, a significant advisory panel representing a wide range of Jamaica's governmental and non-governmental interests concluded "that the solution to [Jamaica's] ecological crisis depended on a strategy of sustainable development that would balance environmental

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<sup>110</sup> This issue of distant control over local resources, long associated with economic imperialism, has recently occurred through protected areas. This process has raised calls of 'eco-imperialism' from some as Northern-based groups have been instrumental, through such things as debt-for-nature swaps, in securing land in the South for human-exclusive protected areas (based on the American model of a pristine national park with no resident population and strictly prohibited consumptive). In its vigorous promotion of American-style national parks and a wilderness ideal exclusive of humans, Dunlap (1996) argues that the environmental movement has long overlooked the people who have been marginalized by such a pursuit, those who live on the land. At their most extreme, ardent preservationists have shown utter disdain for human rights. The inequity of this model is most evident in the annexation and removal of people from their traditional land base to create a 'natural' state. For instance, in his struggle to exclude the Maasai cattle herders from the Serengeti Plains, Bernard Grzimek argued that "a national park must remain a primordial wilderness to be effective. No men, not even native ones, should live inside its borders" (Kothari et al, 1995).

The equity dilemma is framed thusly; whether the broader public has a right to determine the future of an area at the expense of a local community or whether the minority should benefit at the (potential) long-term expense of society. This is reflected in studies on national parks which have shown that their "acceptance increases with increasing distance to the area" (Bachert, 1991). This finding is particularly problematic for equity issues if faraway Northerners are setting conservation priorities for the South.

protection goals with economic and social ones” (Berke and Beatley, 1995). While different approaches to sustainability are no doubt highly simplified in the matrix, they make evident the ambiguity implied in such a broadly defined ‘solution’, and how very difficult it is to conceptualize what sustainable development ultimately means when its pursuit has tremendously different goals based on a few basic variables. The challenge inherent in Jamaica’s pursuit of development and its environmental implications will be discussed in Chapter 4.

## 1.5 Jamaica's Political-Economic History

*What a people are today depends on how they came to be what they are.*

-The People's Plan (1977)

### Introduction

A review of Jamaica's historical experience is necessary to understand the prevailing political economic conditions, the role of the peasantry within the national economy, and in order to think about alternatives. Jamaica once appeared destined to attempt a self-reliant path, only to stop in its tracks in favour of a strict dose of World Bank-IMF adjustment. As an 'intensely adjusting' economy where "loan conditionality was particularly harsh," the Jamaican experience provides a poignant example to other Southern nations of the problems inherent in adjustment (Anderson and Witter, 1994). The failure of self-reliant socialism in the 1970s and the process of adjustment in the 1980s are also necessary to understand the further marginalization of the peasantry in space and economic function.

### Marginalized at Birth: Peasants and the Plantation Culture

*...since the European people invaded the New World and killed off the native Amerindian tribes throughout the Caribbean, white European capitalists have raped us Black people upside down, sideways, backwards and every way.*

-Beckford and Witter (1981)

The Jamaican economy was founded on slave labour. Having exterminated the native Arawak population by the mid-sixteenth century, African slaves were introduced by the Spanish to work the plantations of sugar cane and cotton, as well as on some cattle ranches. In 1655, Britain took control of Jamaica from Spain, but before they did the Spaniards released many of their slaves. The slaves who fled the plantations for the hills became known as the Maroons, eluding and occasionally tormenting the British. However, as the British intensified production and the use of slave labour, the majority of the island's population remained in bondage until the abolition of slavery in 1838. After this time, white planters brought some indentured east Indians and Chinese to Jamaica, although Africans still dominated the population. Despite Emancipation, the legacy of plantation agriculture endured as Jamaica's physical configuration, settlement patterns, and social structure were all very ingrained by the early 19th-Century.

Although the powerful planters no longer owned the people after Emancipation, they still monopolized control over the good coastal land, and hence the key to survival for the ex-slaves. Free to starve or move to the hills, little had really changed for the ex-slave turned agroproletariat (plantation wage earner). Here, Beckford and Witter (1981) suggest, we can see the "full meaning of Marx's observation that wage-labour was but 'a veiled form of slavery'." As a result, many freed-slaves moved to the interior hills, where they settled in great numbers. The peasantry as a free class was thus born into

an existence at the margins, physically and economically, of the plantation society. Beckford and Witter suggest that the primary change after 1838 was the emergence of an independent mode of production, the peasant sector, alongside a capitalist mode of production, the plantation, with the peasantry ultimately subordinate to the plantation sector. They contend that "the contradictions between these two modes lies at the basis of the Jamaican people since 1838," emphasizing the consistency of experience slave to post-slave periods for the poor African masses.<sup>111</sup>

In the century which followed Emancipation very little changed in Jamaica's societal structure, and rather than withering away, the plantation sector got a rejuvenating boost in the form of American capital.<sup>112</sup> While there were accelerated land settlements in an attempt to ease land hunger in the period between the New Constitution in 1944 and Independence in 1962, the land transferred to the peasantry was generally far inferior to that of the plantations and in very small parcels (as noted in section 1.3). The result of the ineffectual land transfers was that "the basic contradictions between peasant and plantation and between workers and capitalists deepened over the period" (Beckford and Witter, 1981).

### **The Peasantry and the Market**

While the peasantry has always existed at the margins of the plantation economy on land less suited for export production (with the exception of coffee), Witter (1992) suggests that peasants are linked to the plantation sector in three ways: firstly, as a source and/or reservoir of labour depending on the demands of the plantation; secondly, as the source of food for plantation workers; and thirdly, by producing some export crops which can be exported through the same commercial network used by the plantation sector.<sup>113</sup> Witter argues that the monopolization of the best land by the plantation sector inevitably leads to conflict, as it is in the interest of the plantocracy to deny the peasantry any access to land so as to ensure cheap and consistent access to a labour supply which has no alternatives. In addition, the export capacity of the peasant agricultural sector is limited by the lack of both land and credit.

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<sup>111</sup> Beckford and Witter suggest that the class system which emerged as a product of this dual production system was drawn along primarily racial lines. At the bottom was the Jamaican peasantry, African ex-slaves and their descendants. Second was the agro-proletariat, also predominantly African (also indentured East Indians and Chinese) and possessing "deep social, cultural and economic ties with the peasantry." The border between these two classes was blurred, as many either moved in between classes or worked part-time as independent peasants and part-time workers. Thirdly, there emerged a mulatto middle class or petit-bourgeois, consisting of professionals, church people, and small proprietors. Fourthly were the merchants, who were all foreign. At the apex of the social order was the white European plantocracy. Lowenthal (1961) notes the perverse logic with which the white plantocracy justified their role: "White ownership of plantations, like European political control, was also justified as best for the Negroes themselves. 'Again and again it was stated that, if the plantations disappeared, the whites would leave the islands, and the black population would then lapse into barbarism'."

<sup>112</sup> Beckford and Witter note how the plantation culture was reinvigorated with emergence of banana plantations in the late 19th-Century as American capital - Tate and Lyle and the United Fruit Company in particular - were introduced into the monopoly capitalism of Jamaica. As a result, another significant obstacle was established and prevented the peasants' from acquiring land.

<sup>113</sup> Before Emancipation, farming in the interior was purely for subsistence and completely excluded from the national economy. However, after Emancipation peasant farmers began growing a mixture of subsistence and cash crops - predominantly root crops, vegetables and plantains (USAID et al., 1987), and later sugar and bananas, and the production of these cash crops linked the peasantry to the national economy.

Newman and Le Franc (1994) concur with the idea that the Caribbean peasantry have "had a long and close relationship" with the operation of formal market systems, although the peasantry is also part of the informal sector. They suggest that while the peasant sector "has over time contracted and expanded in response to crises and developments in the wider economic system," it has been the ability of the peasants "to utilize informal procedures in a formal sector that has enabled their survival over the years." The informality, flexibility and varied production system of the peasantry amounts to a self-designed and maintained 'safety net', which Newman and LeFranc contend has helped to protect the peasantry from economic crises. They also suggest, however, there is a 'darker side' to this informality and diversified 'safety net' production system, as traditional development strategies have not met the needs of small farmers in Jamaica, meaning that "longer term expansion or development into large commercial operation rarely occurs." The result is that, while capable of existing on the margins the peasantry has not escaped its underdeveloped condition in its 160 years as a free class. But before the current state of agriculture and the peasantry can be discussed it is important to review how the broader economy has evolved.

#### **The Economic Growth of the 1950s and 1960s**

*"We are with the West."*

-Alexander Bustamante, 1st Prime Minister of an independent Jamaica (1962)

After the New Constitution in 1944, Jamaica's economic policy centred around a dependence on foreign capital - essentially the Puerto Rican model of 'industrialization by invitation' - regardless of which political party governed. Jamaica's two founding political parties, the Jamaican Labour Party (JLP) and the People's National Party (PNP) were initially very similar in economic orientation and both very committed to an open, dependent path to economic development.<sup>114</sup> Little changed upon independence in 1962 as the JLP governed until 1972, as Bustamante proclaimed, open to the west and foreign capital.

Jamaica entered the 1950s having evolved from a "classic plantation economy" (UNICEF/PIOJ, 1991) into the embodiment of "the colonial model of dependent underdevelopment." In 1950 Jamaica was an open, import-dependent, monocrop economy, earning 90% of its foreign exchange from sugar alone (Anderson and Witter, 1994), and 96% from sugar, bananas, and other agricultural exports (Thomas, 1988). However, newly discovered deposits of bauxite led to explosive economic growth in the decades ahead. Between 1950 and 1968 Jamaica's economy grew at an average annual rate of 6.7% (in

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<sup>114</sup> As they are again today, despite the intense, and often violent rivalry that remains. A third party, the National Democratic Movement (NDM) entered the fray in the 1990s, composed of dissidents from the two parties (largely the JLP) frustrated with the tremendous corruption attendant Jamaican politics.

aggregate the GDP grew by 217% over the period), fortified primarily by the growth of the bauxite-alumina industry, but also by the emergence of tourism (UNICEF/PIOJ, 1991). By the mid-1960s, agricultural products accounted for only 37% of foreign trade (Thomas, 1988).

Although the government during this time did attempt to encourage domestic industry through a modest import substitution policy, it was otherwise very welcoming to foreigners intent on developing the bauxite and tourism industries which were central to the government's economic planning (McAfee, 1991). Given the welcoming ideology of the governing class, aluminum TNCs quickly gained a firm foothold in Jamaica with what amounted to a *carte blanche* relationship. The TNCs were given nearly complete control over production decisions, vast amounts of land, and proceeded to ship the raw material out of Jamaica to be processed elsewhere, all with minimal customs duties.

By the 1960s Jamaica was the largest producer of bauxite in the world (Ramsaran, 1989), and yet this sector employed less than 1% of the national workforce. The result, Richardson (1992) notes, was that "as with the production of Caribbean sugar [most of which left unprocessed], the value-added final product was...created in the metropolises" - a point which recalls the discussion of dependency and Plantation School theorists. As for tourism, Mathieson (1988) contends that while it is clearly an important source of employment, its foreign exchange contributions "are negated to a certain extent by the large import bills incurred to support the industry."

So while the 1950s and 1960s represented record growth in the aggregate measures of national income, it did not lead to the concurrent creation of linkages within the national economy, the generalization of prosperity, or the reduction of the massive inequalities within society.<sup>115</sup> Anderson and Witter (1994) note that because both tourism and mining developed as enclave sectors, they are highly dependent on foreign markets and consumers and have minimal linkages with the rest of the economy. So while created a small and exclusive wage sector for the local bourgeoisie and managerial elite (and corrupt politicians), the "lion's share of the profits" were still controlled by foreign capitalists. For the poor majority bauxite and tourism brought some employment opportunities, albeit with low wages and high insecurity, and increased the competition for land for an already land hungry peasantry (Beckford and Witter, 1981). Thomas (1988) gives the telling statistic that between 1962 and 1972, a period of tremendous growth (though not as high as in the 1950s), unemployment rose from 13 to 24%.

The net result was that after two decades of bauxite and tourism-led growth in national income, the basic dependent position of the economy had been reinforced, foreign control increased, the gap between the elites (plus a relatively small middle class) and the masses had grown (Beckford and Witter,

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<sup>115</sup> This massive inequities existed between rural and urban areas as well as between the top and bottom of the income scale (GoJ, 1992).



1981; Thomas, 1988),<sup>116</sup> and by 1970 Jamaica “was in a state of severe crisis.” The fact that growth did not heal the colonially ingrained problems in the Jamaican economy soon became evident in the economic crisis of the early 1970s, which Anderson and Witter (1994) suggest was a manifestation of Jamaica’s “deep structural weakness,” and which was worsened as migration outlets closed (Thomas, 1988).

### The Economic Decline of the 1970s

Compounding the fact that the benefits of development barely trickled down to the mass of Jamaicans was the fact that even what was burgeoning at the top came to a screeching halt in 1973. In 1974 the Jamaican economy plunged by 41% - triggered largely by the world recession, increasing international interest rates, a contraction of bauxite exports, and increasing energy costs brought on by the oil shock<sup>117</sup> - a decline which continued throughout the 1970s. Between 1973 and 1980, Jamaica experienced a 20% cumulative fall in output (GoJ, 1992), negative growth rates in every year but one, a 18.3% decline in overall GDP, a 25% decline in per capita GDP, and soaring unemployment (nearly 30% of the workforce by 1980) and consumer price inflation (nearly 30% per year) (Mathieson, 1988). While negative external forces unquestionably played a major role in precipitating Jamaica’s dramatic economic decline in the 1970s, it is impossible to understand this decline without discussing domestic politics.

Michael Manley and the PNP displaced the JLP in the 1972 elections on a platform which included moderate attempts at diversifying the economy, reducing urban unemployment, and redistributing income (Mathieson, 1988). It was not until 1974 that they truly adopted an ideological commitment to socialism. While this commitment lasted but three years, it came to define the decade.

In 1974, in response to the mounting economic problems noted above and the increasing popular awareness and discontent about the inequities and societal imbalance in Jamaica (an awareness spurred in no small part by the Plantation School scholars), Manley took the first step moving Jamaica towards a nationalistic-socialist path - to raise the bauxite export tax. The nature of the bauxite industry, as earlier noted, and the fact that the bauxite TNCs owned nearly *one-third* of Jamaica’s land base, made it the natural target for a nationalist regime intent on gaining a more just share of the benefits from its resources.

In addition to the export tax, Manley attempted to place greater control over the TNCs and regain control over the vast extent of land they possessed. Manley and the PNP also sought to forge an

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<sup>116</sup> Beckford and Witter go so far as to suggest that the “client relationship made the local capitalists hardly more than agents in the foreign exploitation of Jamaican workers and consumers,” perpetuating and benefiting from the exploitative social structure.

<sup>117</sup> Jamaica was (and remains so) totally dependent on imported oil for energy. Thus the oil price rise of 1973 had a devastating impact the Jamaica’s balance of trade.

alliance with other bauxite producing nations, to increase Caribbean integration, and generally started to align Jamaica closer to Cuba and other 'Third World' liberation struggles, taking active part in the Movement of Non-Aligned Countries and rejecting the invasive role of American capital. By the 1976 election, the leftist ideology the PNP had been formulating and pursuing since 1974 was seemingly entrenched, as they campaigned on a platform of democratic socialism - also known as the 'third path'.

The 'third path' was meant to signify a middle road between the 'extreme' Caribbean models of communist Cuba and foreign controlled Puerto Rico, but with clearly much greater sympathy for the Cuban nationalist approach. Despite intense resistance from propertied and business elites and foreign interests who aligned behind the JLP - campaigning on what they called 'nationalism' but was, in essence, a continuation of foreign dominated capitalism - the PNP won an overwhelming mandate to pursue the third path in December 1976 (Beckford and Witter, 1981).

### The 'Third Path'

*We are not for sale. We know where we are going.*

-Prime Minister Michael Manley (1976)

Despite the continuing economic decline of the decade, the PNP rejected an IMF 'solution' in early 1977 and proceeded with apparent determination along a nationalistic-socialist course. Manley's message to Parliament (as quoted in *The People's Plan*, 1977) upon election was forceful:

*The Jamaican experience demonstrates that capitalist strategies of political and economic management cannot solve the basic problems of our people. And indeed, it is clear that the present economic crisis is caused by capitalism.*

'Democratic socialism', in contrast, was presented to the Jamaican people as the answer to the centuries of exploitation bound to an imperial order. The 'third path' intended to: reduce the dependence of the economy and renounce foreign investment as the primary engine behind the economy; create a mixed economy with a stronger public sector taking control of the selected parts of the economy (like bauxite) and supporting the small farm sector through active involvement in price and farm supports; divest land from the government to the peasantry;<sup>118</sup> make the economy less dependent on external and local oligarchic control through such things as improved food self-sufficiency; improve physical and social infrastructure; reduce the social inequities; create employment and raise farm incomes; deepen political democracy and conduct an independent foreign policy (Thomas, 1988; Searwar, 1992; Newman and Le Franc, 1994). It was an ambitious agenda, but one that had understandable support from the poor masses.

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<sup>118</sup> With regards to land reform (as noted in section 1.3), the PNP only ever implemented a moderate policy, *Project Land Lease*, as well as establishing some sugar cooperatives (Thomas, 1988).

Shortly after the 1976 election, four of the leading Plantation School intellectuals from the University of West Indies-Mona were given senior positions within the bureaucracy and the task of writing a plan to set Jamaica on a five-year program towards socialism. The result was *Pathways to Progress: The People's Plan*, completed in April 1977, upon which Jamaica appeared destined to attempt a socialist transition. Although the plan was rejected in favour of an IMF alternative, it is nevertheless worth noting what was presented, as its analysis remains penetrating to this day.

### The People's Plan

*Most Jamaican people are the products of a history of struggle...against human bondage...slavery and indenture; and against economic bondage through imperialism and capitalism.*

-The People's Plan<sup>119</sup>

*The People's Plan* reflects the application of historical analysis characteristic of the Plantation School, as it was drafted by some of its most famous proponents, Beckford, Girvan, Lindsay, and Witter. In the plan, they describe the Jamaican economy as a functionally disconnected, dependent capitalist economy, peripheral to and founded upon the interests of the controlling foreign metropolises who dominate the export economy and inevitably led it to a state of underdevelopment.<sup>120</sup> In accordance with Marxist analysis, the historical process of underdevelopment is seen as the oppression and exploitation of labour by property and capital, a contradiction which, in Jamaica, was accentuated by race as a "racist dimension of labour exploitation became embedded in the relations of production from the start."<sup>121</sup>

The embedded production relations, pervasive foreign control, and socio-racial class lines born out of the plantation society were seen to have changed little with the introduction of bauxite, tourism and other industries to Jamaica's economic structure. So while orthodox development scholars and practitioners looked at the post-WW2 period as a time of great growth for Jamaica, and applauded the development of the tourism and bauxite industries, the authors of *The People's Plan* defined this as a time when "capitalist penetration deepened" and interpreted the national economic crisis to be the "consequence of excessive dependence on international capitalism."

In response to the problems - past and future - that were seen to be inherent in Jamaica's capitalistic development, the plan called for a continued socialization of the basic means of production as

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<sup>119</sup> All subsequent quotations in this section on *The People's Plan* will be taken from the plan itself.

<sup>120</sup> The process of trade was summarized as one of unequal exchange: "We produce for the consumption of Europeans and consume the fruits of their labour. The prices of their goods go up, while ours go down," the result being that Jamaica's "resources are not fully utilized for the benefits of the people" but rather are "largely exploited by foreign capitalists and the small client class of national capitalists."

<sup>121</sup> The authors argued that the two themes of domination by foreign capital and the ensuing disjointedness of the national economy were manifest "in all spheres of our social life; whether it be the education system, the health system or the cultural patterns of our people." Further, given the socio-racial stratification they tended to "institutionalize race in the body social of this country."

its central dynamic theme, and deepening this process to the level of the poor workers and peasants was described as “the single most important policy prescription.” Citing the need to provide “productive and dignified employment” and a better distribution of food<sup>122</sup> as other pivotal themes, the authors asserted that employment and food issues ultimately raised the “fundamental question of the land, for the legacy of inequality and injustice left by slavery and the plantation system still scar the face of rural Jamaica.”

The plantation culture was seen to have imposed its most devastating impact on the peasantry, and increasing access to land was an important issue in the plan. The authors point to national hero Marcus Garvey in the 1920s as having galvanized the call for economic justice centred around access to land,<sup>123</sup> and contend that since Emancipation “the cry of our people remains fundamentally the same - land for the people.” Indeed, they note that of the 10 000 suggestions received for the Plan - having welcomed the input from all Jamaicans - the “vast majority of these suggestions had to do with land, agriculture, and food, which are evidently primordial preoccupations of the Jamaican people.” The plan placed heavy emphasis on rural development and food production, but as with Project Land Lease, sought to increase output by bringing more land into production rather than trying to reform the plantations.<sup>124</sup>

Yet despite the rising hopes of the masses, the “historic decision to opt for self-reliance” was crushed by the rejection of the plan in favour of an IMF alternative by Manley in April 1977, undermining any prospect for building a more egalitarian society based on democratic socialist ideals. So while many point to the elections of 1980 in which the PNP were overwhelmingly rejected as the end of the socialist experiment in Jamaica, that path had already been essentially ‘sold out’ to the IMF three years earlier.

### **The Failure of the ‘Third Path’**

As indicated earlier, while the economic collapse of the 1970s had an independent momentum, the political changes - both real and feared - between 1974 and 1977 unquestionably exacerbated the severity of the decline. Amidst the ideological fervour, some government officials spoke with loud anti-colonial, anti-capitalist and anti-American rhetoric, and Beckford and Witter (1981) note how two famous speeches by Manley in January 1977 served to raise “the expectations of the broad masses, while driving fear into the hearts of foreign and local reactionaries.” Particularly threatening to its ‘allies’ (or

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<sup>122</sup> Noting the perverse fact that while “Jamaica is a tropical country richly endowed with agricultural potentials, more than 1/2 of our infant population suffers malnutrition.”

<sup>123</sup> Garvey’s nationalism was also fueled by a pride in African heritage and a moral outrage with the poverty and unemployment and “racial rejection by the white world dooming islanders to hopeless poverty” (Beckford and Witter, 1981).

<sup>124</sup> This recalls Witter’s assertion (1997a) that the repossession and redistribution of plantation lands, though feared by the plantocracy, was never officially intentioned as the government did not want to antagonize the propertied elements, who ‘still screamed’. Witter is a good source here, having served an 18-month secondment to the Government of Jamaica during the PNP’s movement to the left.

neo-imperial sovereigns, depending on interpretation) was Jamaica's non-alignment with the West in foreign policy, especially in its increasing efforts at conciliation with Cuba (Anderson and Witter, 1994). The United States was very fearful of what the emergence of a regional ally for Cuba could do to the Caribbean region,<sup>125</sup> and made concerted efforts to pressure Jamaica's leaders.<sup>126</sup>

The fear of socialism, the seemingly threatening rhetoric and posturing of the period, and the denigrative media campaign (both foreign and local elite controlled media outlets) all had a negative effect on the climate for investment and brought very unfavourable publicity to the sensitive tourism industry (Mathieson, 1988). As a result, there was a dramatic reduction in both domestic and foreign investment as well as a sharp drop in the number of tourist arrivals. In addition, the foreign bauxite TNCs significantly contracted their production in retaliation to the nationalistic policies from the government (and also to falling bauxite prices), which led to a large decline in export revenues (Thomas, 1988).

The decline in investment was accelerated by the tremendous flight of the educated and propertied classes in body<sup>127</sup> and capital. It is estimated that between 1976-80, US\$412 million in private capital fled the economy (Anderson and Witter, 1994), and this capital flight combined with the declines in bauxite exports and tourist arrivals and the high import-intensity and overall export weakness of the manufacturing sector to worsen an already serious foreign exchange shortage. Yet during this time of falling revenues, both government spending and imports<sup>128</sup> increased rapidly, contributing to an average annual inflation rate around 30% per year (Mathieson, 1988) and a 150% increase in the gross external debt from 1973 to 1976 (US\$195 to US\$489 million) (Thomas, 1988). Against this backdrop of a balance of payments and overall economic crisis, Manley and the PNP accepted a loan from the IMF in April 1977, rejecting *The People's Plan* shortly after it was completed.

Given how close a socialist transition was to being realized and how abrupt the realignment was, it is little wonder there have been many studies seeking to understand why the 'third path' failed and why Manley and the PNP rejected *The People's Plan* in favour of the IMF alternative. The Plantation School intellectuals have not surprisingly been the most ferocious critics of Manley and the PNP. Of Manley, Witter wrote (in an appendix to *Small Garden, Bitter Weed*): he "took the critical decision to keep

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<sup>125</sup> Thomas (1988) notes that Manley was the Socialist International's most important representative in the Third World, and the US was fearful of the role he might play in 'destabilizing' the region.

<sup>126</sup> In 1975, for instance, USAID rejected Manley's "request for aid and food grants unless the government changed its stance" (Thomas, 1988). Witter (1997a) was more blunt, asserting that "the US crucified us."

<sup>127</sup> Brown (1986) points out how the migration of highly-trained labour from Jamaica was particularly acute and damaging in the 1970s.

<sup>128</sup> Imports grew by 126% between 1972 and 1976, and oil imports increased from J\$49 million in 1974 to J\$100 million in 1976 (Thomas, 1988). The currency had yet to decline in the mid 1970s, so the means a doubling in the cost of oil imports.

Jamaica handcuffed to imperialism...and its central bank, the IMF." For this, Witter argues, "history will never absolve him." In signing the IMF agreement in 1977, Manley and the PNP clearly betrayed the left.

However, Plantation scholars and other critical intellectuals go beyond an ideologically-inspired defamation of Manley for *what* happened in the hopes of understanding *why* there was such a sudden reversal. Beckford and Witter (1981) note that between the end of 1976 (just after the election) and the end of 1978, total economic output dropped by 6%, which they suggest, crippled the PNP's courage to proceed with the socialist transition. This economic decline was attributed to a number of factors, including the 'economic sabotage' of the elites,<sup>129</sup> the 'economic strangulation' of foreign imperialists, the disparaging campaign of the foreign press and the American 'propaganda machine' (including the CIA),<sup>130</sup> and the negative external circumstances such as the oil crisis, falling commodity prices for bauxite-alumina, sugar and bananas. Thomas (1988) also suggests that it was a strategic flaw of the PNP to underestimate the impact of its ideological rhetoric, especially at a time of intense cold-war rhetoric which served to 'over-ideologize' the Jamaican struggle and thrust it to the fore of international attention.<sup>131</sup> This reflects, he contends, "a fatal underestimation the importance of sustained income flows (particularly in the form of foreign exchange) in creating the social space required for social reforms." In addition, Richardson (1992) and Thomas (1988) each place high responsibility for the failure of many of the PNP's programmes on their maladministration. Yet regardless of how much weight is given to external circumstances versus domestic policy and local elite and foreign 'sabotage' in affecting the economic crisis, it played a major role in causing the confidence of the PNP to waver.<sup>132</sup>

As the PNP began to 'second guess' themselves they were trapped in a purgatory of their own making having alienated the elites and having talked boldly but not yet established the reforms that would have inspired the complete confidence and support of the poor masses.<sup>133</sup> In short, the PNP was "clearly

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<sup>129</sup> This does not suggest that Jamaica was incapable of surviving the flight of its economic elite's, only that in an economy with such ingrained colonial inequities and monopolization of capital, the flight of the elite had an unavoidable and very negative initial effect on the economy. The Jamaican elite were an auxiliary bourgeoisie who held power as a result of historical forces, not because they were agents of particular dynamism. Obviously threatened by a socialist agenda, the elite possessed immense leverage to cripple the economy. The flight of capital is also revealing about the extent of the commitment of the capitalist class towards the people of Jamaica.

<sup>130</sup> Thomas (1988) notes that "in the closing days of the Ford Administration, Kissinger had become almost manic about getting rid of Manley" and Searwar (1992) points out that in the campaign against Manley, "there is abundant evidence of CIA involvement," a suggestion which Witter (1997a) also highlighted.

<sup>131</sup> Witter notes (1997a) that in 1977 "the eyes of the world were on this island as Jamaica was a main theater of East-West conflict."

<sup>132</sup> Klak (1996) suggests that in taking "to structural adjustment as a response to the crisis of foreign debt, capital flight, and traditional export collapse," Jamaica's experience merely typified that of southern countries "with weak and highly protected economies."

<sup>133</sup> Witter (1997a) provides a useful analysis of why the peasantry turned away from the PNP so overwhelmingly. Firstly, he notes, the peasantry (as was Jamaican society in general) was very disorganized. This disorganization meant that their political education was the weakest, so that they could be (and were) subject to immense propaganda, particularly from the United States which helped to sustain the divisions. Here, the fact that the PNP did not do enough time 'on the ground' with education proved very detrimental, as American and local reactionaries were able to play upon fears of communism inspired by the possessiveness of the peasants towards their land and the anxiety that the government might take it. As well, Witter suggests the peasantry and other poor elements of society were 'starved into

caught between the demands of the upper classes and the lower classes,” and “as economic disintegration continued and the pressures mounted the government ended up displeasing both sectors and alienating middle-class support,”<sup>134</sup> performing an unlikely trifecta and ending “with the worst of all possible worlds” when the IMF bailout was accepted (Thomas, 1988). Thomas concludes that “in retrospect, the only viable option for Manley would have been to have qualitatively deepened the government’s commitment to the poor and powerless at the outset,” though he wisely cautions that “this would not have guaranteed success.” But instead, by accepting the IMF loan and its harsh conditionality, Jamaica was steered back on what Beckford and Witter (1981) dub, the “new-old path of dependent capitalist development” and firmly realigned with the capitalist North.

### Structural Adjustment

*...the IMF solution locked the Jamaican economy tighter in the prison of the international capitalist system and this increased the pressure on the working class and the peasantry.*

-Beckford and Witter (1981)

As noted, the signing of the first IMF loan on April 22, 1977 marked the end of the socialist transition in Jamaica and the return to the ‘new-old’ path of dependent capitalism. Edward Seaga and the JLP’s 1980 election victory on an extreme right wing, pro-American platform only accentuated the return to a neoliberal development course for Jamaica. The 1977 loan for balance of payments support was the first of many World Bank and IMF agreements which, over the next two decades, dominated Jamaica’s economic policy.<sup>135</sup> Thus, Anderson and Witter (1994) argue that the structural adjustment process in Jamaica should be examined beginning in 1977 with the ‘stabilization policies’ conditioned by the first IMF loan (rather than beginning with the loan conditionalities of SAP loans between 1982-85). Indeed, one loan seemed to lead to the next as the first seven agreements with the IMF were suspended because Jamaica failed to meet various performance tests, and each new loan generally “brought with it more stringent conditions so as to force the government to make the policy changes desired by the Fund.”

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submission’ through the withdrawal of consumer goods, which he attributes in part to the sabotage by local capitalists. Finally, the peasantry traditionally supported the JLP based on the historical support for Bustamante.

<sup>134</sup> Keith and Keith (1992) argue “that the vast majority of this powerful fraction of the middle class was more interested in the pursuit of naked capitalist gain than egalitarian principles” and thus saw democratic socialism as “the means to a capitalist end.” Witter similarly points out (1997a) that many in the middle class who benefited the most from the PNP’s changes were quick to turn their backs on these principles after they had attained a newfound status.

<sup>135</sup> Between 1977-90, a series of World Bank and IMF agreements, structural adjustment loans, sector adjustment loans, and programmes loans were implemented. As well, Anderson and Witter (1994) point out the fact that USAID lending grew rapidly (discussed in footnote #28) after the 1980 election, highlighting the “implicit collaboration among the 3 lending institutions.” They argue that the cross conditionalities of “these complementary and interlocking agreements together set the parameters for the stabilization and adjustment experience” based on a series of public policy objectives for Jamaica. In 1981-82, the World Bank’s aid to Jamaica comprised more than 67% of its total lending in the Caribbean, and it went on to advance five more adjustment loans to Jamaica between 1983 and 1987 (McAfee, 1991).

Attendant to the IMF loans in Jamaica were the usual austerity dictates: severe wage controls, drastic budgetary and subsidy cuts associated with a de-emphasized public sector, deregulation and the removal of import restrictions, elimination of exchange controls and currency devaluation (which spurred inflation), and strict conditions on new loans related to deficit goals (Thomas, 1988; McAfee, 1991). Deregulation also disempowered the government against controlling important markets for basic commodities (such as food staples for the poor) and housing, and the cutbacks in government expenditure on social programmes reduced the support received by the lower classes. Further, because of the conditionalities attendant to the loans, all IMF agreements are intended to keep the receiving country oriented along a neoliberal, open, dependent position in the global economy (Beckford and Witter, 1981; Klak, 1996). Ghai and Hewitt de Alcantara (1990) argue that "the policy packages which are tied to these loans have paved the way for a degree of external intervention in national policy-making which is unprecedented in the post-war period."

The professed goals of adjustment are to promote free markets and the private sector through a 'roll-back' of the public sector, with the goal of stimulating export growth and adjusting the economy to trade in the international marketplace. By emphasizing the role of the private sector and foreign investment as the engine of a development path oriented around export production, Anderson and Witter (1994) acknowledge that national production levels and employment did increase for a time. However, they also point out that the economic growth was attained at the cost of an increasingly unequal distribution of resources and the compression of the state's ability to aid in the "increased levels of societal vulnerability."<sup>136</sup> The income re-distribution policies of the mid-1970s were seen to be an impediment to growth and savings, and thus discarded in the adjustment process premised on the notion that a higher savings rate will generally occur when distribution of income is unequal.

So while the World Bank (1993a) compliments Jamaica's strides towards deregulation, its "improved investment and financial opportunities," and dubs it "back on track" with the stabilization program, underlying the economic aggregates is a more dismal reality for majority of the people. McAfee (1991) paints a very bleak image of ruthless World Bank and IMF interventions in the Jamaican economy. The World Bank and the IMF have, she argues, forced a retreat from government spending and economic intervention under the neoliberal dogma that the private sector must determine the allocation of resources regardless of what it means for local companies and small farmers run out of business (the particular case of agriculture will be discussed later), or labourers receiving starvation

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<sup>136</sup> While some have suggested that the rise in the informal sector helped to cushion the impact of the World Bank-IMF imposed austerity, Bennett (1995) concludes that the informal sector did not redistribute much income towards the poorer groups. Rather, he suggests that the expansion of the informal sector appears to reflect the successful efforts of more privileged groups "to maintain their income levels and traditional patterns of consumption."



wages, or whatever social upheaval results. The structural adjustment process was a major agent of social change in Jamaica, and a discussion of its impacts is inseparable from understanding Jamaica's development over the past two decades.

### **Jamaica's 'New-Old' Development Path: 1977 Onwards**

The PNP left power in 1980 with Jamaica in disarray, suffering from under-funded social sectors, increasing poverty (WB, 1993a), rampant unemployment (which had risen to 28%), widespread shortages, dried up foreign capital inflows, extraordinary capital flight and inflation, the massive emigration of skilled people, widespread political violence<sup>137</sup> and negative growth between 1977 to 1980. Equally disturbing was the fact that rather than improved self-reliance, Jamaica left the 1970s more dependent than when it entered the decade. Between 1972 and 1980, commodity dependence on the 'big three' exports, bauxite-alumina, sugar and bananas, grew from 79% to 83% of outgoing foreign trade, and the external debt more than quadrupled from US\$370 million to US\$1700 million. As well, trade as a ratio of GDP had increased from 72% to 107% between 1970 and 1980, which indicates decreased self-sufficiency. The debt service ratio in 1979 was 17% of exports of goods and services. Clearly, diversification and import substitution efforts had largely failed, and it is little wonder that by the end of the 1970s there was a widespread "feeling of crisis and collapse" (Thomas, 1988).

Seaga and the incoming JLP believed that foreign investment rather than national ownership should play the leading force in promoting economic growth. Aided by concerted US<sup>138</sup> efforts at economic stimulation and with renewed foreign investment (including the massive World Bank and IMF loans earlier described), the Jamaican economy attained real positive growth in 1981, growing by 3.3% and continuing to grow in 1982 and 1983. But there was a much darker side to this growth.

Beckford and Witter (1981) argue that the Seaga regime, under the rubric of expanding production for export, wooed foreign investors with incentives "so generous as to call into question the sovereignty of the nation."<sup>139</sup> Similarly, Keith and Keith (1992) contend that the Seaga regime was "characterized by renewed dependence on Western formulas and aid," and "the relative autonomy of the

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<sup>137</sup> There were approximately 800 deaths in the 1980 election campaign.

<sup>138</sup> Beckford and Witter (1981) argue that the cornerstone of the JLP's foreign policy in the 1980s was to "court a special friendship with the US." The US was similarly eager to be courted after its scare of having a Cuban ally in the region, and "Seaga offered Jamaica's cooperation in promoting an anti-leftist, pro-US alliance in the region." The reward for Jamaica was a considerable inflow of American capital - on a per capita basis Jamaica received more aid from the US than any other country aside from Israel in the early 1980s (Thomas, 1988), and USAID went so far as to warn in 1983 that: "the failure of the [AID] program in Jamaica would confirm the view of those in the Caribbean and elsewhere in the Third World that cooperation with the IMF and stimulation of the private sector is a hopeless endeavor." Similarly, Reagan entrusted great hope in Jamaica's adjustment in the 1980s, declaring that "free enterprise Jamaica, and not Marxist Cuba, should be the model for Central America in the struggle to overcome poverty and move toward democracy." In 1985, USAID gave 27 times more aid per capita to Jamaica than it did to sub-Saharan Africa, the high-water mark for Africa, and far more throughout the 1980s than it did to any other Caribbean country (McAfee, 1991). Further, McAfee notes, even as "it slashed its own aid to Jamaica, the US was tying its limited support more tightly to the austerity requirements of the multilaterals."

<sup>139</sup> Indeed, it was even hinted in some quarters that Jamaica might request admission into the United States.

Jamaican state is largely without effect if the economy is dependent on foreign capital and its supportive institutions, such as the IMF.” The result was that growth of the early 1980s reinforced historical structures and increased Jamaica’s vulnerability of the economy to external forces.

The growth was also largely illusory as Jamaica’s trade deficit tripled from the end of 1980 to the end of 1982 and continuing loans were needed to ‘plug the gap’ (McAfee, 1991). Jamaica’s mounting trade deficits during this period were financed by a mixture of foreign assistance (unrequited transfers, like USAID) and foreign borrowing - so much of the latter that the external debt exploded to nearly US\$2 billion (more than doubling) by the end of 1983 (Mathieson, 1988). As well, Anderson and Witter (1994) suggest that the majority of the jobs that were created in the 1980s were “characterized by low wages, low skills, job instability and the virtual absence of worker protection.” Nevertheless, unemployment had risen again by 1983, and the devaluation of the Jamaican dollar by 43% significantly reduced the buying power of the poor. As well, inflation which was as low as 4.7% in 1981 had climbed to 32% in 1984. Worse yet, compounding the problems associated with the *nature* of growth in the early 1980s was the fact that by 1984 the negative GDP growth re-emerged, brought on in large part by the unabated contraction of bauxite and alumina (McAfee, 1991).

Seaga and the JLP were returned for a second mandate at the end of 1983 in an election uncontested by the PNP, and continued on a neoliberal ‘crash course’ - with similar results. Yet despite the strong US backing and the numerous loans, Jamaica’s foreign exchange and balance-of-payments crisis (the same crisis pivotal in the PNP’s retreat from democratic socialism) persisted, and the exchange rate continued its deterioration, eroding the living standards of the poor (Thomas, 1988).

By the end of Seaga’s second term, Jamaica’s GDP was no larger than it had been at the beginning of the 1980s, the social and economic infrastructure had deteriorated, and the debt payments had begun to soar. Between 1986 and 1988, Jamaica’s loan payments totalled US\$881 million (US\$349 to the IMF) and its total external debt was US\$4.4 billion, giving it one of the highest per capita levels in the world (McAfee, 1991) and twice that of Brazil, the ‘Third World’s’ largest debtor (Thomas, 1988).

The debt payments were so severe that by 1989, when Manley and the PNP returned to pick up the pieces of a ravaged nation, they found a situation whereby the government had pay half of its export earnings and 40% of all government revenues merely to continue meet the coming years’ debt service payments. As Manley commented: “That means we’re running a 50-cent economy.” Nevertheless, having ‘learned his lesson’ Manley quickly soothed the fears of international (namely US) observers about his intentions, returning to power barely resembling their earlier incarnation and making clear their designs to promote free enterprise and foster good relations with the US. It is interesting to see how the

World Bank (1993b) describes the late 1980s: “improved economic management and the pursuit of structural adjustment measures combined to help Jamaica stabilize and grow.”

The path of the PNP has changed little since P.J. Patterson took over for Manley in 1992, continuing on with the economic and financial liberalization and maintaining low growth (around 1%/year) between 1991 and 1995. Although it has decreased modestly, debt remains undeniably “the most fundamental aspect of Jamaica’s fiscal economy,”<sup>140</sup> still accounting for nearly 20% of the government’s annual budget (NRCA, 1997).

### **Income Distribution and Poverty**

*Although Jamaica has traditionally been a highly class structured society with a level of income inequality unequalled anywhere in the Commonwealth Caribbean, the societal model which is now taking shape is new to Jamaica. Never in the post-war history...has there been a persistent trend of the enrichment of a relatively small element of the population accompanied by the sustained impoverishment of the majority of the population.*

-Kari Polayni Levitt (1991)

The distribution of income within Jamaica has always been extremely skewed, reflective of “the extreme disparities in the distribution of property” (Anderson and Witter, 1994). However, Levitt (1991) contends that income inequality was “significantly greater” at the end of the 1980s than it was at the end of the 1960s, startling when we consider where Jamaica came from and the fact that the 1960s was also a decade which Thomas (1988) describes as having experienced rising inequality along the lines of Beckford and Witter’s (1981) race-class assessment.<sup>141</sup>

Between 1970 and the late 1980s, Levitt (1991) notes that the standard of living declined markedly for the great majority of Jamaicans as a consequence of the decline in per capita income in 1970s, the failure to rebound in the 1980s, and the fact that wealth in the 1980s was “redistributed in favour of the privileged and successful.” Boyd (1988) presents a similar analysis, arguing that the conditions of Jamaica’s poorest groups have undergone a steady deterioration since the 1970s and have been exacerbated by cuts to social welfare programmes like health, housing and education, cuts which have had a disproportionate impact on the most vulnerable. Further, the *National Report on the Environment* (1992) notes that between 1973 and 1988 - while the rest of the developing world grew on

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<sup>140</sup> Hopefully though, 1996 witnessed a decrease of 6.4% versus with the same period a year before. As well, the stock of internal debt increased consistently between 1992 and 1995 (NRCA, 1997).

<sup>141</sup> One example of this rising race-class division given by Thomas relates to the business elite. He notes that by 1970, in the wake of two decades of soaring economic growth, there was continued consolidation among Jamaica’s “traditional hegemonic groups, with 21 families accounting for 125 of the 219 directorships in corporations registered in Jamaica. These same families also supplied approximately 70% of the chairpersons of the various corporate boards. Not one of these firms was in black hands.”

average by 80% - Jamaica's economy declined by 10%,<sup>142</sup> with the consequence being that the standard of living for most Jamaicans declined, "particularly among the poorest of the poor." The UNICEF/PIOJ (1991) study notes that although Jamaica's per capita income levels place it in the category of a lower-middle income developing country, "it is widely recognized that income distribution within the country is among the most skewed in the world." Levitt (1991) argues that by the end of the 1980s inequality has risen to the point where "the social distance between the top 10% or so and the rest of the population is probably greater than ever in the modern history of Jamaica...[such that] we may well speak of Disraeli's two nations."<sup>143</sup>

### **Agriculture and the Peasantry in the Contemporary Economy**

Reviewing Jamaica's modern political economic history was deemed necessary to contextualize a discussion of the agricultural sector's recent evolution and contemporary challenges. The rise of the bauxite-alumina and tourism industries combined with the decline in traditional export crops have meant that agriculture's relative contribution to Jamaica's GDP has decreased dramatically since 1950 when it accounted for 31% of GDP, to the point where agriculture accounted for between 5% and 8% of GDP throughout the 1980s.<sup>144</sup> The agricultural sector's contribution to the employment picture has also declined, from 40% in 1950 to around 30% throughout the 1980s. As well, by 1980, sugar and banana exports were but half what they were at their peak in the 1970s (GoJ, 1992), evidence of a deterioration in the balance of trade in agricultural products after the mid-1970s. Self-sufficiency in agriculture has also deteriorated over this period, consistent with the general Caribbean experience,<sup>145</sup> resulting in increased dependence on imported supplies (USAID et al., 1987).<sup>146</sup>

Anderson and Witter (1994) observe that peasant agriculture has followed these aggregate trends along a downward path, and although it possesses the lowest rate of unemployment of all sectors in the economy (around 3%) (GoJ, 1990), employment opportunities in agriculture are nevertheless decreasing and rural areas consistently possess the most extensive poverty. The decline in employment

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<sup>142</sup> Keeping in mind, of course, that measurements of aggregate growth throughout the developing world conceal the massive inequities manifest in this growth, thus serving as a poor gauge of true development. Nevertheless, it is still telling of Jamaica's macroeconomic problems and development failings that even its aggregate growth measures are abysmal in comparison with the rest of the global South.

<sup>143</sup> These societal inequities will be examined in greater depth in section 3.1.

<sup>144</sup> Potter (1992) contends that a development path focused on tourism and enclave manufacturing has led to the massive importation of industrial foods and has had a "dampening effect on local agriculture." This assessment is in sharp contrast to that of Rickard and Carmichael (1995), who "suggest that tourism today provides more of a supportive role than a negative role in rural areas of Jamaica."

<sup>145</sup> Cuba was the only Caribbean nation to have improved its agricultural output from the 1960s to the 1980s. Elsewhere, throughout the Caribbean there has been an increased reliance on imported food since Independence (Barry, Wood, and Preusch, 1984).

<sup>146</sup> In terms of increasing self-sufficiency, a subtle yet significant barrier is that of taste preferences rooted in colonial periods. *The People's Plan* even noted this challenge, commenting that people would have to emphasize Jamaican food crops in their daily fare.

and the rural poverty have meant that rural workers have moved increasingly into either the secondary sector or the urban informal sector (Anderson and Witter, 1994).<sup>147</sup>

The JLP initially devised a strategy for the agricultural sector - entitled Agro-21 - which Newman and Le Franc (1994) note "soon came to be overtaken by the dictates and demands of the SAPs," including the Agricultural Sector Adjustment Loan approved in 1990. Each agreement, they suggest, progressively directed the retreat of the Jamaican government from direct involvement in such things as marketing and production. Instead, the intent was to correct the perceived 'market inadequacies'.

McAfee (1991) provides a scathing review of the impacts of the World Bank's policies on Jamaica's agrarian poor. With regards to agricultural credit, she highlights how the World Bank encouraged the Jamaican Agricultural Credit Bank (ACB) to move its interest rates towards market levels, despite the fact that the ACB's funding does not even come from the World Bank, and despite the fact that most of the small farmers could hardly afford credit as it was. The response of one World Bank official, McAfee disgustedly points out, was that the "market is telling you that agriculture is not the way to go for Jamaica." Even more disturbing, McAfee notes, is the fact that as part of the agricultural loan agreement, not a single cent went to aid Jamaica's farmers. Rather, the World Bank funds were to "be converted into Bank of Jamaica certificate of deposit, to shore up the government's credit reserves in preparation for the next IMF test."

Although Newman and Le Franc (1994) suggest that the informal nature of their production system has helped the peasantry survive economic downturns such as those imposed by structural adjustment, Beckford and Witter (1981) argue that the peasantry was nevertheless hurt by adjustment related policies such as the curtailment of Project Land Lease and many government subsidies, as well as the opening the island to the massive importation of foodstuffs. By opening Jamaica to foreign food imports (much of it, as in the US, heavily subsidized) the peasantry faced constricted access to local markets and the price of their produce fell as a consequence.<sup>148</sup>

The peasant sector remains today constrained by an array of factors, summarized in Figure 1.50. These include, the inadequate access to good agricultural land, the uneconomical size of many farms, the low level of technology used by the majority of farmers, inadequate rural infrastructure, the advanced age of many farmers and a lack of militancy in advocating changes, inappropriate government

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<sup>147</sup> This rush to 'town' (Kingston) has added immeasurably to the urban malaise of the Jamaican capital.

<sup>148</sup> Beckford and Witter contend that the relative decline of the peasantry, in turn, has a reverberating effect throughout the economy as the peasants are not able to keep pace with the rising prices of farming and consumer goods, which they were traditionally able to purchase after selling their produce.

policy, overcentralized and weak institutional structures (McBain, 1992), insecure land tenure (WB, 1993a), and praedial larceny (farm theft) (PIOJ, 1990). The *Jamaica Country Environmental Profile* (1987) attributes the stagnant and falling farm income and declining productivity after 1977 to a different set of factors, which include: high import costs, marketing problems, water supply shortages affecting irrigation,<sup>149</sup> rural emigration, inadequate technological inputs including agrochemicals, machinery and equipment (due to foreign exchange scarcity), and the decrease in the number and size of farms. To these constraints, Newman and Le Franc (1994) add the inadequate public transportation system, the lack of information, and almost total lack of outside assistance. They suggest there is today "now a considerable amount of 'slack' in the sector" - little wonder given the range of factors noted above which together present a formidable barrier for the peasantry. The consequence, the *Green Paper on Land Policy* (1994) notes, is that "agriculture is not achieving its full potential in providing a comfortable way of life for the majority of farmers nor has it developed to the point where the sector meets local consumption and export demands."

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**Figure 1.50      Factors Impeding the Productivity and Income of the Peasantry**

- **land:** inadequate access to good agricultural land and secure tenure + small size of farms
  - **cheap food imports:** constrict access to local markets and lowers domestic prices
  - **demographics:** emigration, old age of many farmers + lack of militancy
  - **technology (and high cost of):** lack of agrichemicals, machinery and equipment
  - **poor rural infrastructure and inadequate public transportation**
  - **water:** supply shortages and lack of irrigation
  - **information:** lack of technical assistance and education
  - **credit:** lack of access to capital
  - **marketing:** lack of efficient and consistent outlets
  - **assistance:** lack of help and overcentralized and weak institutional structures
  - **praedial larceny:** farm theft as a disincentive for production
- 

**The Growing Role for NGOs in the Small Farm Sector**

*The best solutions to poverty and injustice are those that stem directly from the actual experience of the poor, from the barriers that they face and the institutions that they lack.*

-Hernando De Soto (1991)

The structural adjustment process has meant the retreat of government from extension services, physical infrastructure, marketing boards,<sup>150</sup> and a range of rural development initiatives related to poor

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<sup>149</sup> The lack of irrigation means that planting and harvesting will continue to be seasonal (dependent on rainy or dry conditions) for most small farmers, which impedes their ability to respond to market conditions or balance production (Stirley, 1993).

<sup>150</sup> For instance, one conditionality of the 1990 World Bank-designed Agricultural Sector Adjustment Loan was that the government reduce its participation in commodity marketing boards (McAfee, 1991).

agricultural communities. In other words, rather than making an effort to help the peasants overcome the aforementioned limitations, there has been an increasing abandonment of the needs of small farmers by government in Jamaica - as is standard with structural adjustment. The role of NGOs in filling this void and addressing the needs of small farmers is therefore becoming ever more important, a point which is highlighted by Newman and Le Franc (1994) in regards to the Jamaican small farm sector.

Extension services are one case where non-governmental organizations (NGOs) are increasingly needed to fill the void created by the retreat of government. Oakley (1994) argues that extension services throughout the global South occur through one of two general frameworks: the one hand being the established national government networks, and the other being a diverse array of local organizations - NGOs, women's groups, co-operatives, rural unions - which inherently also serve as extension agencies. He argues that this second category of informal networks has taken the lead in promoting a participatory form of extension, and suggests that this growth "could bring greater benefits to smallholders and the rural poor than the more traditional, top-down official systems."

In Jamaica, a survey conducted by the FAO in the early 1990s revealed that visits from extension workers to farmers were very rare and that many farmers employed poor techniques. This lack of adequate extension has been further aggravated by the significant cuts to the primary agencies responsible for extension - the Jamaican Agricultural Society (a private body) and the government's Rural Agricultural Development Authority (RADA) - which "now operate in a poor and disjointed manner" (WB, 1993a). As a result, the World Bank (1993a) highlights the need for a significantly improved agricultural extension system, and notes that "research and extension should be re-oriented to serve the needs of hillside farmers rather than continuing to focus on lowland agriculture." It is very unlikely the impetus for this will likely come now from the government.

In addition to playing an increasing role in providing extension services, it is as marketing co-operatives where NGOs will likely be of greatest value in the future in Jamaica. Newman and Le Franc (1994) conclude that in response to the impoverishing impacts of structural adjustment in Jamaica, rather than targeting assistance to the peasant sector in the form of simple poverty alleviation or safety net measures which might temporarily and incrementally make life better, "what needs to be addressed is the identification of mechanisms that will strengthen their capacity to effectively participate in the market."

### **The Need for Co-operatives**

Much of the need for marketing services in Jamaica stems from the dominant role of higglers<sup>151</sup> in getting the fresh produce of small farmers to market. Small farmers, as noted earlier, produce the large

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<sup>151</sup> Higglers are petty traders who Beckford and Witter (1981) suggest "persist in the margins of the economy where scarcity appears or where there are not sufficient profits to attract the big merchant."

majority (90%) of island-grown food for domestic consumption, of which higglers market around 80% (Wong, 1996). Owing to their position as primary intermediaries between small farmers and the market, higglers play a dominant role in determining prices both at the farmgate and at the market (the latter, of course, being where they have less power). The geographic isolation of most small farmers, their lack of planning, and the frequent shortage of competition between higglers in a region means that most small farmers lack real choice regarding the outlet for their produce. Because the higglers control both market access and information, it is widely understood they can and do abuse their position vis-a-vis the small farmers (Shirley, 1993). Further, Shirley notes that higglers have proven able to resist attempts at price controls in the past, owing largely to the lack of alternatives that small farmers possess. This dependence on higglers has serious economic implications for small farmers, as the prices and the quantity sold are significantly lower - albeit highly volatile<sup>152</sup> - than would otherwise be possible with increased market access (Meikle, 1992), resulting in the common occurrence of gluts.

The problem of gluts and the inability to efficiently market the produce of the small farm sector is compounded by the fact that, in the absence of irrigation or more scientific approaches to farming, small farmers can only ever have limited control over the level and timing of their output which tends to be highly perishable. With limited control over both prices and output, the small farmer has traditionally behaved in a speculative fashion, more inclined to gamble on a favourable market condition than to invest in improving the overall productive capacity of their farms since overall productivity does not have a direct relationship with profitability.

In addition to many small farmers lacking the necessary production incentives, there is a tremendous access to credit problem for small farmers. This means that even if small farmers were inclined to take risks and expand their production through investment, they would have difficulty getting access to credit because most lack the necessary collateral. Further, lending institutions have tended to avoid giving loans to small farmers because of their speculative approach and their historically poor performance when given credit (Shirley, 1993).

Shirley asserts that if the small farm sector is to grow, the persistent market failure associated with the higgler-dominated system must be overcome and there must be enhanced access to credit for small farmers so that they can effectively hear and respond to market signals. As a result, co-operatives and improved food distribution networks are deemed to be imperative to strengthen the economic viability of the small farm sector, a need also highlighted by Floyd (1983) (from Rickard and Carmichael, 1995).

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<sup>152</sup> Shirley notes that "the price level for fruits and vegetables are extremely volatile" and that the ratio of highest to lowest farmgate price over a year has been found to vary from 12:1 for cabbage to an amazing 33:1 for tomatoes.



Extension services are another important aspect of rural development initiatives, and Oakley (1994) suggests that it is now widely understood that rural extension must move beyond merely providing technical advice and take a much broader approach, to be both production oriented and participatory, fostering a learning process aimed at developing farmer's skills and abilities. He points to research based on the African experience in the 1970s which highlights four key elements to successful extension beyond the matter of technical advice: supplying agricultural inputs, emphasizing basic education, 'consciousness-raising' (or "developing rural peoples' abilities to explain and analyze their own problems"), and helping to build "genuinely democratic, representative organizations of rural people." Oakley also notes that, rather than national governmental networks, an informal array of local organizations - NGO's, women's groups, co-operatives, and rural unions - have now "taken the lead in promoting a participatory form of extension which could bring greater benefits to smallholders and the rural poor than the more traditional, top-down official systems." However, he also warns that focusing on the second, informal route has the potential of clashing with external donors who often prefer more clearly delineated goals, and with national extension services that "see production as their sole *raison d'etre*."

### **Agriculture Today**

In spite of the declining role of agriculture over the past half century, it is still an economic sector of great importance to Jamaica. The government notes that despite modest growth rates in the late 1980s (averaging around 3%), agriculture is seen "to have considerable potential for both expansion of exports and import substitution" (GoJ, 1990). In addition to its potential role in evening out the balance of food trade, the fact that nearly half of Jamaica's population is still rural, the nation is beset with such high levels of unemployment and poverty, and agriculture remains very labour intensive are all suggestive that it will remain an important source of employment (NRCA, 1997).

There have been some hopeful indications of late, as Jamaica witnessed a decline in the volume and value of food imports in 1994 and more attractive domestic prices, which the PIOJ (1995) suggests was reflective of the government's intention to curtail import demands. Also, recent growth in the agricultural sector has been led by the domestic food crop sub-sector - essentially the peasantry. However, it is notable to see how this growth is taking place, as the PIOJ reports that in 1994 alone, the domestic food crop sub-sector grew by 9.9% in *area* reaped.

## Conclusion on Jamaica's Development

*Jamaica in 1870 was a part of the modern world; as much so as Argentina or Australia; more so than Japan or Russia....why did it get left behind?*

-Sir Arthur Lewis

*Why have the plantation economies been left behind? ...after 400 years of direct participation in modern world economy?*

-George Beckford

*When we think of poverty and malnutrition and violence we don't understand what it really is. There is poverty in Jamaica that would shake the toughest American just simply by seeing it.*

-U.S. Ambassador Gary Cooper (*The Gleaner*, 7/6/1997)

While both Lewis and Beckford arrived at a different solution, Figueroa (1994) notes how each were seeking basic answers as to why Jamaica developed into the distorted society of which the (now former) US Ambassador recently spoke. This review is premised on the belief that fundamental questions like those raised by Lewis and Beckford above must be taken up in order to understand the present condition. A review of Jamaica's political economic evolution suggests that to understand its modern economic problems - and by extension, its environmental ones (as linked in section 1.4) - one must understand the historical processes through which they have been ingrained.

Throughout the 1960s as Plantation scholars emphasized how dependency and the underdevelopment of the large majority had led to dangerous national economic imbalances which forebode a collapse in the system, the economic boom (despite the fact that the masses were being left behind) allowed politicians to largely ignore these warnings. However, as the problems foretold by the Plantation School became "the painful lessons of the 1970s," these critical scholars were thrust not only to the fore of public awareness but of political consciousness as well. As Anderson and Witter (1994) note, "the mid 1970s would mark a clear watershed both in the structure of opportunity for individuals and social classes, and in the awareness among Jamaicans that their economy and way of life were inextricably linked to international markets and foreign capital."

Particular attention was given to the decade of the 1970s in this discussion, for it is then where the fundamental questions about society were challenged, if only fleetingly. Thomas (1988) suggests that the failure of Manley and the 'third path' in the 1970s raises the question of "how far the basic limitations of Caribbean societies prevent any sort of solution to the problems of poverty, powerlessness and underdevelopment," concluding hopefully that "important as they are, neither international developments in relation to local societies nor country-specific limitations, are, in themselves, enough to rule out forever the prospect of meaningful social and political change in the region."

Unfortunately, meaningful social and political change is no less urgent in the present - on a human, and also on an environment level - and yet an attempt at real solutions seems to have long faded from the political and academic discourse (Witter, 1992).<sup>153</sup> Jamaica today is an open and dependent nation, acting as a price-taker for both exports and imports, with foreign capital and the export sector driving the economy, and with staggering societal inequities - which will all be discussed in greater depth in section 3.1. The *National Report on the Environment* (1992) points out as evidence of this dependence the fact that "it is difficult to find even one important economic activity that can be sustained while avoiding import dependence." Yet there are few who continue to challenge what this structural dependence implies for the human and environmental condition.

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<sup>153</sup> The tradition of critical thought has regrettably waned in the last decade in the Caribbean (as elsewhere, especially in the realm of affecting policy). Witter (1992) laments this "perhaps as a direct consequence of the resurgence of the ideology of laissez faire internationally, the hegemony of neoclassical monetarism as the theoretical reflection of this ideology and the subordination of economic policy-making in the Caribbean to these kinds of ideas, especially in the programmes imposed by the IMF, World Bank and USAID."

## 1.6 Summary of the Literature Review

The intent of section 1.1 was to summarize how global political economic processes, both historical and contemporary, effect the degradation of the Southern environment. This implies that research should consider the interaction between global, national and local systems when dealing with the causality of environmental degradation in the South and trying to grasp and articulate solutions. It is argued that the land degradation in the global South nations is inevitably linked to the historically ingrained land use matrix and the structural dependence of these nations. What follows is that the actions of the marginalized poor must be contextualized within the larger political and economic framework in which they are embedded in order to be properly understood and for remedies to be directed at the root causes rather than at managing their symptoms. Jamaica was also introduced as an ideal nation to observe the relationship between political economy and environmental problems.

Section 1.2 discussed the gravity of Jamaica's conservation imperative. However, as Barker and McGregor (1988) note, assessing physical landscape degradation in Jamaica is a difficult task:

*The process of land degradation is highly complex. In tropical hillside farming systems, different sets of physical, biological and human variables intersect and the interrelationships between subsystems are often indirect, circular and generally difficult to interpret. A useful starting point, therefore, is to highlight salient features of the evolution of the landscape.*

Section 1.2 examined the range and severity of implications associated with the loss of the forests in Jamaica and in the tropics in order to demonstrate why deforestation was deemed to be the most 'salient feature' of landscape change and the most critical threat to Jamaica's 'total environment' (a phrase used by Eyre, 1989) - and hence a subject of worthwhile inquiry.

Section 1.3 provided a discussion of the peasantry as the primary agents of deforestation in Jamaica (among other causes described), prefaced by an agroecological discussion of on-farm stability and efficiency and the need for off-farm 'de-pressurization'. Swader (1994) notes that "for far too long, international efforts have generally focused on the engineering and technological aspects of agriculture, rather than on the people aspects," and this section demonstrated that de-pressurizing the impact of agriculture on the landscape is not a matter of techno-engineering efforts but relates to a host of ecological and human issues. Understanding land use stability and efficiency are critical to conceptualizing how the de-pressurization of agriculture on the tropical landscape can be accomplished (i.e. *whether* to or *how* to intensify agriculture), and the role of the peasantry in this regard.

The role of the peasantry as an agent of landscape change ultimately also necessitates a discussion of how poverty, development and degradation interrelate - the focus of section 1.4. The World Bank (1993a) notes that in Jamaica "poverty is a cause of environmental degradation, as the poor must

meet their urgent survival needs. This is particularly true in hillside agriculture...and settlement of marginal lands in forests, coasts and floodplains.” Section 1.4 demonstrates how the degradation of poverty must be seen as a product of underdevelopment - which provides further support for approaching the deforestation problem from the perspective of political economy, and suggests that a reorientation of development is necessary. It also highlights how difficult it is to provide a useful definition of sustainable development, which explains why it is regarded here to be more appropriate to talk in terms of land degradation or deforestation than of sustainability.

As was also made evident in section 1.4, understanding the historical process is critical to understanding modern political economy, and section 1.5 provides the necessary historical background for an inquiry into Jamaica’s present condition and for understanding the role of the peasantry within the national economy. Jamaica’s political economic experience - from classic plantation society, to neo-imperial independence, to the ‘third path’ of the 1970s, to an ‘intensely adjusting country’ in the 1980s, to its current neo-liberal ethos - also makes it a nation whose experience and problems are relevant for other Southern nations. It is a nation where the environmental challenges are inevitably linked to economics. Even the World Bank (1993b) acknowledges:

*The environment has rapidly become a major issue for the Caribbean countries. The environmental issue is quite complex because of the intricate relations between the pattern of economic growth and the quality of the environment. Often, there are short-term trade-offs between them. Many if not all of the environmental issues can be traced to economic causes.*

Yet while the premise for this inquiry is very much in accordance with the above notion regarding the predominant role of economic factors, the diverse sections of Chapter 1 have been presented in the belief that an interdisciplinary lens is needed to provide the necessary backdrop for a political economic study into the causes of environmental degradation. Korten (1995) provides a good discussion of the need for interdisciplinary awareness, asserting that the nature of traditional academia has obscured the connectivity between problems. Because “academia organizes intellectual inquiry into narrowly specialized disciplines,” he suggests that people “become accustomed to dealing with complex issues in fragmented bits and pieces” and the consequent solutions prove inadequate. Rather, Korten argues, “we must develop a capacity for whole-systems thought and action” and this “calls for a scepticism of simplistic solutions, a willingness to seek out connections between problems and events that conventional discourse ignores.”

Barker and McGregor (1988) provide a similar admonition from a Jamaican context based on a case study of the historical degradation in the Yallahs Valley (on the Southern side of the Blue Mountains). They note that while the region has been a focus of physical planning and watershed

rehabilitation efforts since 1951, nothing has been able to ebb the persistent land degradation there. Given the failure of technical measures and in light of the endemic rural poverty of the region, they assert that research should take a holistic perspective and “view land degradation as both an environmental and a socio-economic phenomenon,” tackling issues of soil erosion and rural poverty together.<sup>154</sup> Barker and McGregor conclude that “the study of land degradation in densely populated hillside farming systems in the tropics needs to be supported by empirical research at the interface of natural and social sciences”<sup>155</sup> - an interface where they suggest geographers have a critical role to play.

Although this thesis will traverse a range of social scientific issues, it does not incorporate natural science beyond the literature review. Because the exploitative behaviour of the rural poor is believed to be rooted in political economic forces, the obvious extension is that environmental solutions are to be found in land reform, challenging and reorienting development, empowering the poor and other socio-economic innovations more than they are in technical, scientific responses to ecological issues treated in isolation. This is not to deny the importance of understanding the dynamics of habitat fragmentation, the mechanics of soil erosion and conservation, and other vital research on the science of degradation - only to suggest that these problems are ultimately rooted in causative forces beyond the realm of purely scientific solutions. Understanding the causation of systematic degradation,<sup>156</sup> the focus of this inquiry, is rooted in human forces placing and hence in the realm of social science.

### Approaching Methods

*The adoption of a critical stance towards existing relations in society and the use of an interdisciplinary framework is a legacy that needs to be carefully examined in the contemporary period when everything has become the market and the market has become everything.*

-Mark Figueroa (1994)

The scars of colonial history - structural dependence and the massive and pervasive inequities in land and society - are seen to be among the most critical causes of degradation in Jamaica, as in other Southern nations. Thus, much of the inspiration and theoretical foundation for the political economic approach to environmental problems has grown out of various schools of critical thought discussed in section 1.4. To these, however, Edwards (1989) provides important counsel, highlighting the danger and irrelevance in technical, formulaic, rigid development solutions, be they orthodox or leftist, given their

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<sup>154</sup> In this regard, Barker and McGregor sight the seminal works of Blaikie (1985) and Blaikie and Brookfield (1987), which will be discussed in Chapter 2 on Methods.

<sup>155</sup> Bowler (1995) echoes a parallel call, professing the need to “locate future research at the intersection between processes that produce imbalance between population and resources (at any scale of rural system), especially the linkages between the economic, social and bio-physical sub-systems.”

<sup>156</sup> Systematic degradation being differentiated from natural disasters like hurricanes, which may - as in the case of Hurricane Gilbert in 1988 in Jamaica - impact with great destructive, land degrading force.

propensity for neglecting the complexity of local problems, devaluing local knowledge, and denying emotion in the understanding of the problems of development. His appeal to approach the problems of development with humility and through a participatory process of 'learning from below' has conditioned the nature of this thesis as it seems to be an insistence for the field work component of the research.

Although the need for participatory research involving the poor is very important, an analysis of the national and global framework within which their actions are inevitably constrained is nevertheless deemed equally critical. Even as the unique local circumstances are considered, there is no doubt that the agrarian systems in the global South are more a product of external forces than they are of some natural evolution. This recalls Hettne's (1991) earlier noted admonition that "the fundamental transformations taking place in the Third World agrarian structures simply must be analyzed in a global perspective in order to be comprehensible." Unfortunately, the challenge remains in finding an appropriate theoretical perspective to allow the combining of these different levels of research.

The World Bank (1993b) notes that while "inextricably entwined...there is no methodology to directly link environmental deterioration to economic growth and development." Similarly, Smith (1995) notes that the challenge of using an interdisciplinary approach to land use systems remains how to integrate various findings, as "at present there is no matrix in which to fit the pieces of research undertaken in isolation." This challenge will be taken up in Chapter 2 on research methods, in concordance with Bowler's (1995) agenda for research of sustainable rural systems which "emphasizes the need for theoretically-informed research, with a progression in its focus from the conceptual and theoretical towards the empirical."

## **2.0 Introduction to Methods**

The method for this research is essentially a three-step process: participatory field work, a macro-level political economic analysis, and the progressive contextualization of the field work research within the broader context in which it is embedded. It is hoped that by approaching land use issues from both micro- and macro-levels and understanding how they are connected, Jamaica's deforestation problem as it relates to the peasantry will come into better focus.

The participatory field work and analysis is the first step in the research. In addition to discussing the relevance of a case study approach section 2.1 introduces the case study site, Long Road, and its regional context, Annotto Bay and the banana plantations. As well, this section introduces in some detail the St Mary Rural Development Project, which is critical to understanding the development of the Long Road community and is central to the field work. Section 2.2 reviews the actual field methods used, presenting and explaining the questionnaire employed in the interview process. The results are presented in section 3.0

The second step moves the macro-political economic framework from the theoretical case of the global South to the empirical case of Jamaica. The macro-economic framework was theorized in section 1.1, and this framework will be confronted with evidence specific to the Jamaican condition. The approach for this is discussed in section 2.3, and the results of Jamaica 'in the dependency spiral' and its implications will be presented in section 3.1.

The third step in the research is the progressive contextualization of the field work within the political economic framework in which it is ultimately embedded. Progressive contextualization as an approach will be discussed in section 2.4, with particular reference to Vayda (1983). As well, Blaikie and Brookfield (1987), seminal scholars in the field to which this thesis aspires, will be evoked to provide further justification for need to understand land degradation at these varying contexts or 'nested set of scales'. Two applications will also be discussed very briefly for further clarity. The progressive contextualization of the case study to the macro-political economy are the focus of the analysis of chapter 4.



## 2.1 The Micro Picture: The Case Study Approach and Long Road

### Reiterating the Relevance of a Case Study

*...there is also evidence that pressure (and policies) on resource-poor farmers have encouraged them to rob the soil, pastures and forest merely to survive. All this provides a sound basis for supporting a 'bottom-up', locally specific, participatory approach to research into and diffusion of land management and repair.*

-Blaikie and Brookfield (1987)

Berke and Beatley (1995) recently assessed the problems of degradation and conservation in the Blue Mountains region in examining the ability of the newly established national park to integrate resource conservation and development goals. Taking an institutional approach to their research, they interviewed representatives from the major governmental and non-governmental organizations involved. While they suggest they were elucidating "the nature of interaction among various participants in forest resource management," and exploring "explanations for successes and failures of various resource management strategies," apparently the farmers themselves - the major agents of landscape change in the region - were not deemed 'participants' or 'land manager'. Such a purely institutional perspective of resource management is deemed to have missed a valuable component if it neglects the key resource users themselves in approaching the discussion.

The need to 'learn from below' and account for the perspectives of the poor in development research is critical to the approach of this thesis, as discussed with particular reference to Edwards (1989) in section 1.4. The natural extension of this is that the perspectives of those who 'lack development' need also be taken into account when they are seen to be the primary agents of deforestation, as in the Jamaican case, when we are looking into landscape change and the potential for conservation. However, Meikle (1992) suggests that in rural Jamaica there is "a lack of understanding of the factors influencing farmers' decision-making at the micro-level."

In order to better understand this micro-level behaviour and land use decision-making process and see how it is affected from 'above', a case study was deemed to be necessary. While the experience of one community is of course not entirely transferable across the peasant class,<sup>1</sup> it was nevertheless believed that a case study could unlock some general insights about small farming in the Blue Mountains, and that settling into one community would be of greater value than would passing through several.

Samatar (1993), who examined the Somalian banana plantation economy's response to IMF structural adjustment through a similar case of 'bottom-up' learning and participatory fieldwork, provides a useful final thought on the relevance of a case study:

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<sup>1</sup> Recalling that one of the major criticisms against neo-Marxists was that they ignore the differentiations within class.

*This case study shows the significance of micro-level field-based research for delineating socio-economic changes induced by macroeconomic development strategies at specific localities. Such an approach enables geographers to give a more detailed and complete view of development than country or regional level studies.*

### **Locating the Case Study**

As was also noted earlier, the case study was located in the Blue Mountains owing to the region's ecological significance and the high vulnerability to deforestation. Although the specific location was to be determined upon arrival, it was originally intended to be in a community on the southern periphery of The Blue and John Crow Mountains National Park in the parish of St Andrew, where the access from Kingston would be easier and the degradation well-documented.<sup>2</sup> However, by heeding the advice of local academics and following up a fortuitous contact in the person of Father Jim Webb<sup>3</sup> - who provided utterly invaluable assistance - the case study site was located instead in the town of Long Road.

Long Road is a hillside agricultural community in the north-western Blue Mountains region in the parish of St Mary (see Figure 2.10), inland from the town of Annotto Bay. Situating here provided the additional opportunity to observe a threatened plantation system, the St Mary Banana Estates Limited (SMBE), and to learn about the St Mary Rural Development Project (SMRDP), an excellent example of a development initiative attuned to the needs of the communities it serves. Both the decline of plantation agriculture and the establishment of a successful community-development initiative are of obvious relevance to the condition of the peasantry and its relationship to the land-base, which is at the crux of this inquiry. So to suggest the opportunity to locate the case study in Long Road was fortuitous is to be guilty of a gross understatement.

### **Annotto Bay and the St Mary Banana Estates**

Annotto Bay is a very poor town of about 10 000 people, most of whom live in shanty-like conditions. The coastal plains surrounding Annotto Bay possess are considered Class I agricultural land, which is level area "with deep fertile [recently formed alluvium] soil and no limitations on agricultural use" and slopes less than 5% and relief intensity less than 5m. In contrast, the surrounding hillsides are Class III, or "suitable for cultivation with strong limitation of susceptibility to erosion" (USAID et al., 1987). Originally in sugar plantations, the alluvial plains are dominated by the SMBE plantations on land which is technically leased from the government.<sup>4</sup> SMBE employs approximately 1600 people and

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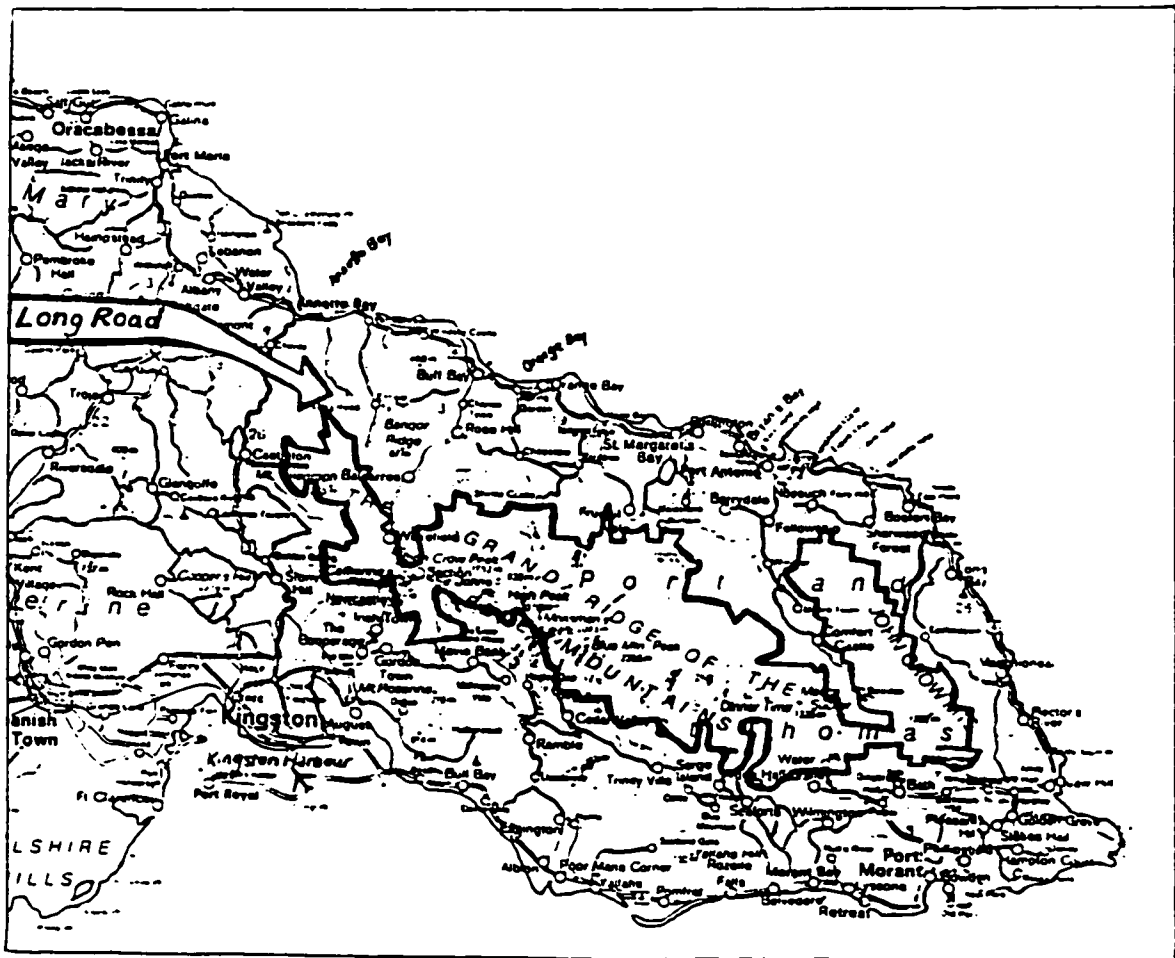
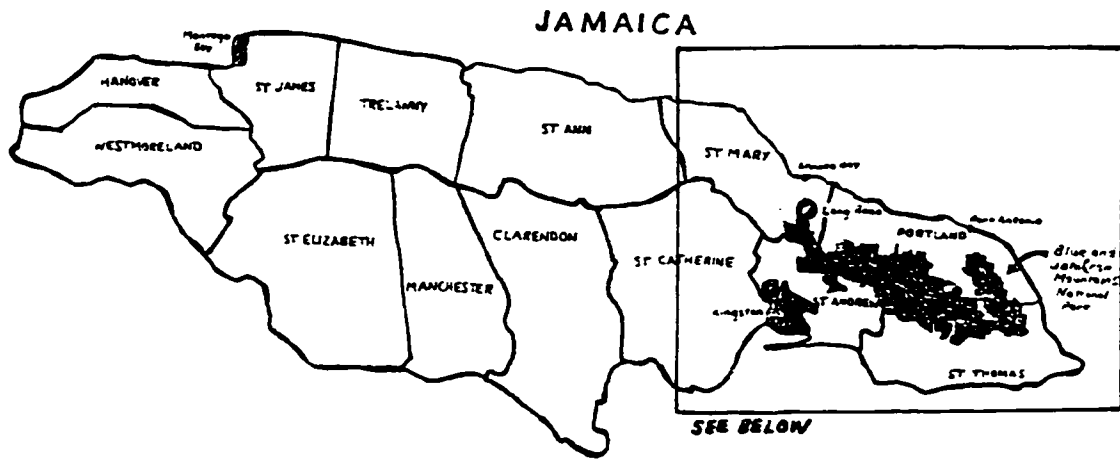
<sup>2</sup> As Witter notes (1997a), "you don't have to go far [out of Kingston] to see all the scars of colonialism." However, after discussions with members of the University of West Indies - Mona Geography Department, it was suggested that the degradation of St Andrew has been 'overdone' with academic research and that to produce more original and insightful work it would be best to locate elsewhere.

<sup>3</sup> Here, my enormous gratitude goes to Anne Weston, vice-president of the North-South Institute, for providing me with the contact for Father Webb that was to prove critical.

<sup>4</sup> SMBE is owned by the Jamaica Producers Group, controlled by wealthy Kingston interests.

Figure 2.10

Long Road in Jamaica



adapted from Cohen (1988)

thus has an enormous role in the local economy, especially after the sugar processing factory shut down in the mid-1980s. However, the banana export industry in Jamaica is on the verge of collapse, owing to the looming termination of Jamaica's (and all Caribbean ex-colonies') preferential access to the European market.

The European Union has long purchased its bananas almost entirely from the former British and French colonies in the Caribbean. This trade and the special licensing arrangement it was based on were, however, in defiance of international rules laid down by GATT (formerly) - WTO (presently). Because of its impact on the 'banana republics' of Latin America, the Chiquita Banana Corporation got the United States, together with Ecuador, Guatemala, Honduras and Mexico, to bring the case before the WTO.<sup>5</sup>

The European-Caribbean preferential trade in bananas was twice deemed unfair (the second ruling necessitated by an appeal by the EU of the first) by the WTO, after which the EU was effectively forced to "stop discriminating against other banana producers or compensate them for their losses" (Cook, 1997). This ruling will devastate the Caribbean banana export industry,<sup>6</sup> which cannot compete with the Central American producers who are able to produce bananas for approximately half the price and at a higher quality. Father Webb notes that "SMBE is most certainly going to feel the crunch of the WTO ruling," and by the end of 1997 it was in the process of laying off 100-200 workers on their least productive farms with more to come. As a result, Father Webb is part of a committee strategically planning how Annotto Bay can respond to the collapse of bananas. The significance of the potential collapse of the local plantation economy for surrounding communities will become evident later.

### Long Road<sup>7</sup>

Long Road is a small peasant farming community located about 6 miles inland from the north shore of the Caribbean Sea and Annotto Bay, distance which belies its isolation. Aside from mountain paths, Long Road is connected to the 'outside world' only by the long road which winds its way perilously up the hillside from the coastal plains of Annotto Bay (hence its name). While it houses four churches, three small general stores, and an all-ages school, Long Road is home to around 300 people.<sup>8</sup>

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<sup>5</sup> Korten (1995) notes that "although the GATT - WTO is an agreement among countries and challenges are brought by one country against another, the impetus for a challenge normally comes from a TNC that believes itself to be disadvantaged by a particular law. That corporation looks for a government that can be encouraged to bring a challenge." After President Clinton received a substantial campaign contribution (in the range of \$700 000) from Chiquita in the previous election, the US subsequently filed a complaint.

<sup>6</sup> In the process destroying the entire economies of some of the Windward Caribbean Islands which are almost entirely dependent on bananas for exports.

<sup>7</sup> The basis of this and following discussion on Long Road and the St Mary Rural Development Project is taken from personal discussions with Father Webb and from Shirley (1993) as well as from my general knowledge of the community and the co-op.

<sup>8</sup> Precise measurement of how many live in the town is very difficult and would depend on how the town is delineated.

While some commute to Annotto Bay for work, the large majority of Long Road residents are peasants operating farms less than 5 acres in size and practising mixed cultivation on moderately- to steeply-sloped hillsides. Although Shirley (1993) downplays the role of land hunger as a factor in limiting the growth of Long Road's agricultural production,<sup>9</sup> Long Road is in many respects characteristic of the challenges of farming in the Blue Mountains and illustrative of the land use dynamics in the region. However, the establishment of a marketing co-operative in 1990 has brought an added economic dimension which at once distinguishes Long Road and makes it a useful example of how traditional economic barriers such as isolation from the marketplace can be addressed.

Before 1990, growth in agricultural output in Long Road was stagnant, and Long Road very much typified an isolated peasant community. Prior to the establishment of the co-op, nearly all of Long Road's produce was marketed through higglers and sold at the Annotto Bay Market (a weekly market selling the produce from the farming communities within a radius of about 30 km), although some farmers also sold there directly. Some Long Road farmers also sent a portion of their produce with higglers to Kingston, but the higglers did so only on a conditional basis and typically returned giving reports of a poor market. They would then leave the produce in Kingston due to the perishable nature of the produce and the high cost of transport. Needless to say, this relationship bred a level of distrust in excess of what normally attended the small farmer-higgler relationship described in section 1.5.

In large part owing to the inadequate mechanisms to get produce to market, gluts and wastage were common, and farming returns were quite poor. As a result, farming was not seen to be a desirable way of life in Long Road by most of the youth, and many young adults under the age of 30 left Long Road for bigger towns or for Kingston in the hope of finding any sort of work. As well, the overall output of the community was seen to be in decline.

### **The Birth of the Co-operative and the St Mary Rural Development Project**

Witnessing the decay of the community, particularly through the outflow of its youth, some leading community farmers and the Annotto Bay Jesuit priests who served Long Road together decided to establish a marketing co-operative. It was hoped that this would help the community's farmers overcome the problems of isolation and higgler manipulation (as discussed in section 1.5), with the primary goal being to help make farming more profitable. In the process of making farming more profitable and secure for all, it was hoped that it would consequently become more attractive to youth - a critical goal for the community's future.

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<sup>9</sup> With respect to land hunger, Shirley notes that most farmers in Long Road have access to more land than what they have under cultivation, and thus he contends that the availability of land has not played a role in limiting the growth of production.

The Long Road Co-operative has helped breathe new life into the community. Young farmers are now engaged in farming, much more produce gets to market as the farmers now have a consistent outlet, and the social and physical infrastructure has improved along with the modest economic development. Among other things, the namesake road has seen massive improvements, the members of the co-op lobbied and received a post office and a phone, and some improvements were made in the all-ages school.

As the Long Road co-op began to grow, nearby communities (whose Catholic Churches were also in the parish of the Annotto Bay Jesuits)<sup>10</sup> sought out assistance from the Jesuits to establish similar ventures. There are now four co-ops - Long Road, Fort George, Enfield (no.41), and Belfield - under the umbrella of the St Mary Rural Development Project (SMRDP), which is centred in Annotto Bay. This growth has had the beneficial impact of allowing the administrative and transportation costs to be shared between the four co-ops<sup>11</sup> and has helped to enable the SMRDP afford these (and hopefully soon also extension) services on a sustained basis without needing a continual input of external funds.

### Co-operative Marketing

After the idea had been cast, one of the first steps in organizing the co-operative was to locate markets which would be regular and bulk purchasers of the types of produce grown in Long Road. The obvious target was Kingston, where almost all of the produce presently goes, with one caterer buying 40% of the total supply and the remainder going to food processors,<sup>12</sup> supermarkets, schools and a few exporters. The produce is sold and delivered weekly to the various institutions based on the prevailing price of the crops in Kingston markets, and the farmers are in turn paid the selling price less a margin to pay for the transport and administrative costs as well as a small profit for the co-op. The prices and quantities requested are posted on the co-op building the day prior to pickup, and co-op members can sell any amount of a given crop at the posted price. If there is an oversupply on the day of the pick-up, the co-op Selector - a Board member<sup>13</sup> who checks the quality of the produce before it is collected - rations what each farmer can sell on a allotted quota basis. The farmers are paid by cheque later in the week.

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<sup>10</sup> Although the co-op's are open to members of all faiths, the presence of the Catholic Church in each of the four communities housing them was instrumental in their establishment as many key relationships were already in place.

<sup>11</sup> In addition to the Annotto Bay Jesuits (2 of the 4 of whom concentrate on the SMRDP), the administration also includes an accounting clerk and a marketing manager, both positions which are paid for by the SMRDP. In terms of transport, the produce of Long Road and Fort George is collected on the same day and taken to Kingston, and that of Enfield and Belfield on another day. In this way, the transportation costs are halved for each town.

<sup>12</sup> A major growth market the co-op has located is in plantains, which are sold to a food processor making chips (like potato chips). The co-op has encouraged plantain production given an almost unlimited demand - albeit at a modest price - from the processor, who is confident that plantain chips will replace banana chips in the marketplace.

<sup>13</sup> Board Members are elected annually.

The steady outlets with the co-op have provided much more consistent prices for the farmers than the volatile price swings characteristic of higglers, who nevertheless continue to exist at an equilibrium with the co-op.<sup>14</sup> The increased demand provided by organized marketing has allowed farmers to sell in greater bulk, and thus there is less wastage of produce and the overall volumes sold by each farmer have grown. Given these visible successes - stable prices and the ability to sell consistently in bulk - membership in the co-op grew quickly, and most farmers in Long Road sold at least part of their produce to the co-op within the first year or two.

The pricing stability allowed farmers to extend their planning horizons, and the increased volume provided by the co-op meant that there was more incentive for farmers to expand output. As a result, farmers in Long Road began to think about expanding their production in two ways: increasing the *efficiency* of already cultivated lands and increasing the *amount* of land cultivated. These impulses were, however, constrained by the lack of financing and the lack of technical expertise - both of which the co-op has attempted to address.

### **Securing Credit and Expanding Production**

For those farmers who have sought to expand production, most initially lacked both capital and access to credit (without the requisite collateral to get a loan) and were thus unable to buy the necessary inputs such as suckers, seedlings, sprays and fertilizers. In response, the co-op secured a grant from an international agency in order to provide accessibility to credit for the farmers. The international funds were disbursed through the St Mary Credit Union, which loaned each Long Road farmer willing to participate 'seed' capital in an amount equal to the minimum share capital necessary to be a member in the credit union. This loan was to be used in an agricultural project, with the returns going into the repayment of the loan. Because the loan was repaid to the credit union, the farmers would not only have the required share capital but would develop a credit history. Membership privileges in the co-op were made contingent on the timely repayment of the loan - increasing the incentive to repay the loan - and the rate of repayment was almost total with some securing new amounts to further expand output.<sup>15</sup> The co-op has also played a role in expanding output by supplying farmers with suckers, seedlings and fertilizers, or by buying these and other farming supplies in bulk and selling them at reduced rates to the farmers.

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<sup>14</sup> There is no way to measure whether the number of higglers in Long Road has declined since the inception of the co-op, but Father Webb suggests that higglers are still present to a similar extent as they were before, sometimes able to out-pay the co-op. Higglers also provide the marketing for Long Road's most famous and profitable crop (at least until the coffee begins to be reaped), the long mango. The co-op has not marketed long mangoes because the market for them is very strong, meaning that the farmers can get good prices from higglers and very few go to waste.

<sup>15</sup> Only one person defaulted on the small loan program of the original 42 persons who took loans. In fact, several have continued to save and have contracted new loans with the total savers growing to 58 persons, up from the original 42 that started (from the Co-op Annual General Meeting).

## **Encouraging Young Farmers**

Much of the effort in distributing free supplies has been directed at young farmers who have been encouraged to plant coffee - which, as noted in section 1.3 is by far the most profitable crop in the Blue Mountains region. Because a primary objective of the SMRDP has been to keep the young adults on the land, coffee was seen to play a very important role in making farming more profitable and attractive in Long Road. While the co-op has not attempted to market coffee,<sup>16</sup> the concerted effort to enhance the attractiveness of farming to youth has already brought significant dividends as the number of young adults engaged in agriculture has grown dramatically since the co-op's inception. In helping to ignite a vibrant group of young farmers the co-op has done much to ensure the future of Long Road.

## **Extension Services**

A main problem limiting increasing productivity from the efficiency standpoint was the technical deficiencies of the farmers, and the Board encouraged the hiring of extension officers to fill this identified gap. Because most farmers were without any formal training in agricultural techniques, they were unaware of how practices could be altered, how technology could be used to improve efficiency, and how soil conservation could be enhanced. In response to this problem - also with the aid of foreign funding - the SMRDP hired two agricultural college trained extension officers in 1997 to instruct farmers. The extension officers have paid particular attention to instructing the young farmers on such things as proper planting, spraying, harvesting and soil conservation techniques. Although the start-up cost for the officers was paid for through foreign grants, it is hoped they will soon be self-financing.

## **The Critical Role of Foreign Funding**

Since its inception, the SMRDP has made very effective use of the foreign funding which it has proven adept at procuring. The core of the funding has come from CIDA, which since 1990 has consistently provided 2/3 to 3/4 of the budget for the SMRDP as well as paying for 2/3 of the delivery truck. The truck was purchased with the foreign money, and 'leased-to-own' to the driver in an ingenious and mutually beneficial process. From the co-op's perspective, it has essentially been able to secure the truck and delivery service, avoid the ongoing maintenance costs of the truck, and recycle the original funds through lease payments on what would otherwise have been a depreciating asset (to invest in other aspects of the co-op). The owner is reliable (having never missed a delivery in the co-op's history) and dependent on the co-op for the major source of his income, so the co-op is assured that the service will

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<sup>16</sup> Despite the encouragement of coffee production, the co-op has not made any attempts as yet to market coffee because, as with mangoes, the outlet - the Coffee Board - is already there since the market is so strong. However, Father Webb feels that in the future as more begin to reap (many are just in the growing stage, as the trees take around 3 years before they yield their first crop), it is a possibility that the co-op will market coffee, although he notes that "our production would have to be much higher in order to justify the purchase of equipment necessary."



continue. The driver, on the other hand, is able to own the truck, which allows him to contract out his services on the off-days to supplement his income from the co-op.

Foreign funding was also instrumental in paving and bringing about significant improvements to the long road connecting the town to Annotto Bay. This was a project administered in part by the Agricultural Credit Bank and the Jamaican Development Fund National Farm Road Improvement Programme with significant funding from CIDA, and community members also invested significant labour and resources. Given its previously dilapidated condition and the fact that it is the only artery connecting the town, this was an extremely important endeavour in increasing the accessibility of Long Road,<sup>17</sup> particularly for the co-op delivery truck. Its importance - and perhaps its symbolic significance - was such that Jamaican Prime Minister P.J. Patterson flew in for the official opening of the road.

As well, USAID funded the Long Road and Environs Hillside Agricultural Project between 1993 and 1996, through which an additional four staff were hired and 700 acres of hillside land replanted with various crops. Other significant donations have been received from CEBEMO (a Dutch Catholic agency), The Caribbean Conference of Churches, and the Jamaica Self-Help Organization. This various funding has gone towards administrative costs, pick-up trucks, general supplies and a summer school for children. Father Webb describes the foreign aid as having been 'indispensable' to getting the SMRDP to where it is, commenting that "This thing has been very slow in developing - it is hard to imagine how long it would take without some initial inputs, extension officers, etc." However, he did point out that "conceivably, it could have come from within the country."

### **Food Processing and Exports**

The SMRDP has made some attempts at value-added processing and export marketing with mixed success. The first and most successful endeavour was to dry and package spices and herbs produced by the community's farmers. These packaged goods are predominantly marketed in Jamaica, mainly in the tourist areas, but some are also sold to alternative trading companies and one commercial dealer in the US.<sup>18</sup> This has required very minimal capital inputs, and the packaged herbs and spices in Long Road now bring in more income than does the fresh produce.

Other attempts at processing were less successful. Long Road is renowned for its long mango, an exceptionally sweet type of mango, and with the abundance in the region it was thought early on that processing might be possible. However, Jamaica's Scientific Research Council (SRC) told the co-op

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<sup>17</sup> At first sight it might appear as a rather unexceptional - albeit very precarious - mountain road. However, as Father Webb said on my first accent, "you should've seen this road *before* we got it fixed." Indeed, after travelling throughout a great deal of the Blue Mountains and experiencing the horrible condition of most roads, the quality and significance of the long road's improvements were readily apparent.

<sup>18</sup> Formerly sold under the label *St Mary Natural Solar Dried Products*, a consultant suggested the name be changed to 'Blue Mountain' from 'St Mary'.

directors that the long mango was not suitable for processing because its flesh was too soft. Another attempt at food processing was made with the help of the SRC, which helped to develop a very good grapefruit marmalade. Unfortunately, however, the co-op found it nearly impossible to make the price competitive and has chosen to stick with the dried spices and herbs, which are much less risky and complicated and which have proven quite successful.

The co-op has had difficulty getting its produce sold to foreign markets. Price is a major obstacle, because exporters demand very low prices to be competitive in international markets, and thus large scale exporting has not been able to provide a reasonable margin. According to Father Webb, this is characteristic of all Jamaican agricultural products. Nevertheless, he did suggest there is some potential for exporting fresh produce, although another major barrier is that the quality demanded in the international marketplace is difficult to achieve, especially without much fertilizers and pesticides.

### **Stagnation and Education**

While the overall record of the co-op in Long Road has been excellent in most respects, productivity and sales to the co-op have begun to stagnate, having been overtaken in volume by the youngest of the four co-op's in the SMRDP. As well, there has been some disaffection engendered by the low prices the co-op is providing for certain crops, causing commitment to waver slightly amongst some in Long Road (as will be seen in section 3.0). A degree of complacency has undoubtedly set in, and the lack of productivity negatively affects the co-op by reducing the confidence and leverage it has with its buyers. This complacency is being met with heightened efforts at education.

Since the SMRDP's inception, the Jesuits have made co-op education and community development high priorities through their own efforts,<sup>19</sup> and recently with the help of the extension officers. The extension officers have tried to play both educational and technical-instructional roles, promoting the ideals and the necessary 'buy-in' at the same time as they are teaching agricultural techniques and providing supplies. Nevertheless, this was not found to be enough, and the SMRDP has recently secured additional foreign funding to pay for an education officer because of what Father Webb terms "the evident organizational weakness." He suggests that "part of the organizational weakness has been because of the financial weakness of the co-ops. If they were making money, requiring decisions about the disbursements of profits, etc., they would be organizationally stronger and people would have something to decide when they came to the meetings." It is hoped that a full-time education officer will increase the farmer's understanding of what the co-op represents and strengthen the grassroots commitment necessary for the co-op to achieve the profitability that would inherently make it stronger.

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<sup>19</sup> They originally also provided literacy classes which were poorly attended and later cancelled after only a few weeks.

## **Conclusion**

At a meeting for young farmers, Father Webb described the co-op as “a business that provides a service and that service is marketing.” However, the SMRDP also procures agricultural inputs and farm implements at a lower cost than would otherwise have been possible, provides agricultural extension services and has helped farmers secure loans for expansion of agricultural output. It has helped to secure physical infrastructure improvements and has given the community an immeasurable investment in social capital, having increased the confidence of many farmers and helped to inspire a committed group of young farmers. In short, the SMRDP and the co-op have helped Long Road begin to overcome some of the central problems that traditionally inhibit the growth of small farming, which include the marketing failure, the access to credit, the lack of extension, and the short term time horizons. In so doing, it has both encouraged and made increasingly possible the expansion of production. The co-op is already so interwoven in the fabric of Long Road that it is impossible to consider the dynamics of farming in the community without understanding its role.

## 2.2 Field Research Methods

The field research was conducted over a one month period, from July 10 to August 10, 1997.<sup>20</sup> The primary methods in the field were semi-structured interviews (30) and participatory observation through assisted labour. However, there were a variety of other opportunities to observe the co-op and issues surrounding small farm agriculture in Long Road that provided great insight. These included spending two initial days accompanying Father Webb visiting Long Road farmers, observing the Long Road Co-operative's Annual General Meeting and a young farmers meeting, observing and assisting with a tour of the SMRDP by the Morant-Yallahs Agricultural Co-operative, and spending several days accompanying the SMRDP's two extension officers on their daily work teaching and assisting the small farmers. As well, the opportunity arose to travel extensively throughout the region.

Although it is only six miles inland from the Caribbean Sea and Annotto Bay, Long Road is a very isolated community. The pace of life is slow, and the opportunities for diverse experiences limited. Thus, much of the town's social activities occurred around the town 'square' (the dead end of the long road) in front of the co-op selection office. In addition to providing an interesting glimpse into the daily social experience of the farmers (it was dominantly the men who would hang out here), the majority of the interviews were secured by hanging around the town square or by wandering around the town and hillsides. Some interviews were done on the farms where I helped work and a few were done through arranged appointments at farmer's homes.<sup>21</sup>

The labour assistance occurred on most days (generally 5 days out of every week) and helped to develop a rapport with some of the young farmers which was invaluable to my social experience in Long Road as lasting friendships were established. The work included such things as felling bamboo and clearing fire breaks with a machete, helping to build a water tank, collecting pimento, helping to plant plantain suckers, assisting in building a fence, helping to spray coffee, and even participating in a semi-controlled slash-and-burn.

As well as the farmers themselves, it would be remiss not to note the tremendous generosity and contribution of Father Webb, the SMRDP's extension officers, and the old farmer I stayed with, for their

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<sup>20</sup> Another 10 days in Jamaica were spent primarily in library research in Kingston at the University of West Indies-Mona, the NRCA Resource Library, and the Ministry of Agriculture Data Bank. As well, two days were devoted to touring the southern Blue Mountains from Morant Bay up the Yallahs River Valley, seeing the Blue Mountains National Park, and which included climbing the Blue Mountain Peak.

<sup>21</sup> In terms of representation, it is estimated that between one-third and one-half of all farmers in the immediate area were interviewed. Given the terrain and the scattered nature of farms, it would have been impossible to employ any sort of systematic pattern. As well, I did not want to disturb farmers at their homes or at work, which meant that this was less an 'occasional opportunist' sample than a 'necessary or unavoidable opportunist' approach. As will be noted later, it is likely somewhat skewed in terms of having a few more of the young farmers but is generally representative in terms of gender and age distribution.

time and insight. Numerous discussions on an array of topics as well as the opportunity to travel extensively in the region were extraordinary contributions to this research.

### The Questionnaire

Understanding how farmers perceive their conditions and the forces influencing their decisions was the primary motivation for the fieldwork, and interviews were seen to be the best way to elucidate the micro-level land use decision-making process from the 'bottom-up'. The interviews were based upon a semi-structured questionnaire that included 18 core questions (listed and discussed below). This structure was deemed necessary to allow the patterns of response to be interpreted statistically and comparatively.

However, since the principal objective was to understand land use decisions and the challenges of development from the perspective of the respondent, this was seen to have precluded more quantitative oriented surveys. It was judged to be near impossible to have the farmers, who were completely unfamiliar with surveys, place numeric grades on their values and perceptions. Any such an attempt would no doubt have lead to tremendous inaccuracies with quantitative manipulations. Rather, emphasis was placed on the qualitative nature of response through some general, open-ended questions. This implied the need to establish an atmosphere within which the respondents would feel encouraged to expand upon answers and discuss their problems and challenges in an open exchange beyond the rigidity of a formal survey.

The ability to generate an open exchange of ideas happened better with some than others, and it was a process that very much evolved out of experience. Here the challenge of communication should also be noted, as there was a significant language barrier created with some farmers because of the mutual unfamiliarity between Canadian English and Jamaican Patois.<sup>22</sup> As a result, the depth of some responses was no doubt lost on my behalf (although the ability to understand got better as the process went along), and some had great difficulty understanding particular questions. When there was a noticeable problem in understanding what was being asked, the question was explained at greater length and a concerted effort made not to disrupt the comparability of the response with other interviews.

The initial target for interviews was between 30 and 100, but it soon became evident that getting even 30 - the amount necessary to do any statistical manipulations with confidence - would be an demanding goal because the interviews were a reasonably time-consuming process (sometimes lasting close to an hour). The questions (see Figure 2.20) were both closed and open-ended and the information sought can be characterized by four primary categories of inquiry:

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<sup>22</sup> Patois is also referred to as English creole, which Father Webb described as English words with African syntax. An article in *The Gleaner* (23/07/1997) notes that over the past 20 years, "standard English usage has markedly deteriorated. At the same time, Jamaican creole has spread across the entire society as a vernacular usage" and this has meant the "erosion of the quality of standard English usage." As the patois is especially 'thick' in rural communities, it was an unforeseen obstacle that took time and patience to overcome.

- on the land itself
- on land use decision making
- on the perceptions of farming, constraints, challenges and development
- on the cognizance of environmental issues

**Figure 2.20**

**The Questionnaire**

1. Do you, or your family own your farm?
2. What is the size of your farm(s) (in acres)? Do you have multiple plots?
3. Did you clear the land yourself?
4. What crops do you grow?
5. Why have you chosen this mix of crops?
6. If coffee was grown:
  - a) how long has it been grown?
  - b) what was on the land before coffee?
  - c) why did you choose to grow coffee?
  - d) where is it marketed?
7. Have you ever received any credit?
8. Have you had any help from extension officers?
9. How is your produce marketed?
10. Do you feel it is easier, the same, or harder to market your produce than it was 10 yrs ago (i.e. before the co-op)?
11. Is farming difficult here?
12. Do you feel that farming is easier, the same, or more difficult than it was here in the past?
13. Has your well-being improved, stayed the same, or declined in the past 10 years in Long Road?
14. What would you say are the obstacles limiting your well-being as a farmer in this area?
15. Would you be better off if you had more land or flatter land?
16. Do you think there are too many farms in this area?
17. Is there a deforestation problem in the region?
18. Have you experienced problems with soil erosion?

**Discussion**

1. *Do you or your family own your farm?*

Ownership status was sought as a measure of the landlessness and land hunger in the community, and the degree to which tenure issues (as discussed in section 1.3) could be an issue in the misuse of land.

2. *What is the size of your farm(s) (in acres)? Do you have multiple plots?*

Farm size was seen to be important to understand how comparable the Long Road community was to the small farm sector in terms of amount of land held. Information on multiple plots was taken as a measure of land fragmentation.

3. *Did you clear the land yourself?*

The question regarding the age of land clearance was originally designed as 'How long has your family worked on your land?' However, many just replied something to the effect of 'yes, it is family land', implying possession and clearance went back generations and without specific knowledge. Thus, it was deemed that asking whether the respondent cleared the land themselves would better give a general picture of how much farmland was of recent origin.

4. *What crops do you grow?*

Asking what crops were grown by each farmer was intended to elucidate both the range of crops grown and the dominant ones in the region. It is also suggestive of how diverse the cropping system is. Precise measurement and knowledge of specific land use areas was deemed unrealistic.

5. *Why have you chosen this mix of crops?*

How farmers explain their cropping system is believed to be suggestive of how they internalize their position relative to the market and to their subsistence-needs. Originally it was also going to be asked what percentage of food needs are satisfied from their own farm, but this proved very difficult to explain. It was subsequently deemed to be near impossible to gain a quantitative measure of the degree of subsistence versus market orientation of a farmer's operation.

6. *If coffee was grown:*

- a) *how long has it been grown?*
- b) *what was on the land before coffee?*
- c) *why did you choose to grow coffee?*
- d) *where is it marketed?*

Because coffee was hypothesized to be a major factor causing landscape change in the region, for those who grew coffee a series of questions were raised regarding the length of time it had been grown, the previous land use, why it was grown (if it had not specifically been addressed in question #5) and how it was marketed. The first three questions were aimed at testing, in various ways, the hypothesis of coffee acting as an agent of landscape change. In this respect, the *why* question was perhaps the most relevant. The fourth question about marketing was intended to ascertain how the coffee got to the market.

7. *Have you ever received any credit?*

The farmers were asked about their credit history because credit has often been noted as a factor constraining the growth of the small farm sector and it is something which the co-op has helped to improve. Any comments about the process of gaining credit as sources of capital were also recorded.

8. *Have you had any help from extension officers?*

The lack of extension services has also been cited as a factor limiting the success of small farmers, and is another aspect which the co-op has given significant attention to recently. This question

examines the degree to which extension services have reached the small farmers before and after the co-op.

9. *How is your produce marketed?*

The farmers were asked how they marketed their produce because this was seen to be the principal variable in assessing how they were linked to national markets, and was also indicative of how significant the role of the co-op was in this process. The farmers were also encouraged to expand on the impact that they felt the co-op has had for them and for the community.

10. *Do you feel it is easier, the same, or harder to market your produce than it was 10 years ago (i.e. before the co-op)?*

The farmers were asked whether they felt the marketing had improved versus 10 years earlier, or since the inception of the co-op, in order to see if they understood the co-op to have increased their access to the market. This is one measure of economic development.

11. *Is farming difficult here?*

The question regarding whether farming was perceived to be difficult was intentionally broad so as to elicit a response about the challenges of farming without having imposed any constructs on the respondents. The dimensions of assessment are in this way completely drawn from the respondents, not dictated by the researcher.

12. *Do you feel that farming is easier, the same, or more difficult than it was here in the past?*

The farmers were asked to relate the challenges of farming today relative to those they faced in the past in order to illuminate whether they see their work as having evolved. This gives one measure of perceived development, by having them gauge their present conditions of work versus past ones.

13. *Has your well-being improved, stayed the same, or declined in the past 10 years in Long Road?*

The question about well-being was intended to be another quality-of-life development measure, and ten years was seen to provide a reasonable time frame (and the co-op a notable vantage) from which the respondents could judge changes. The initial intention was, as with the previous section, to have had the farmers compare conditions relative to the preceding decades of ideological turbulence (described in section 1.5), but this proved to be most difficult. It would have been impossible, and intrusive, to have obtained realistic income figures as most do not keep records.

14. *What would you say are the obstacles limiting your well-being as a farmer in this area?*

The intent of having the farmers describe the obstacles they face (it was proven too difficult to have them rank these, as was initially intentioned) was to elucidate how the farmers perceive their challenges. These responses are grouped with those of question #11. Because the intent of each question



was similar,<sup>23</sup> and in order to save the repetition that would occur if they were discussed separately, each farmer's explanation of difficulty and discussion of obstacles was grouped to provide a single list of what will be referred to simply as problems. The problems cited by all respondents - whether they saw farming to be difficult or not - were then grouped and ranked. This process of identifying difficulties or obstacles was, by extension, seen to be a means of elucidating the development priorities of the farmers.

15. *Would you be better off if you had more land or flatter land?*

Asking the farmers to judge whether lesser sloped or a greater amount of land would be more beneficial to their well-being was a question designed to highlight how the relationship between small farmer and the land base could best be improved from the perspective of the farmer, with an eye to a later discussion of land reform.

16. *Do you think there are too many farms in this area?*

The intention of asking the farmers whether they thought there are too many farms in the area was to get their interpretation on whether land hunger was a problem in Long Road.

17. *Is there a deforestation problem in the region?*

The last two questions, on soil erosion and deforestation, were intended to illuminate the farmers understanding of the two fundamental environmental problems of the region. These were seen to be particularly important given that the *Status Report on the National Environmental Plan* (1997) notes that "limited public awareness" along with persistent poverty are two of the key points underlying Jamaica's environmental crisis. The question of deforestation, in every case, was explained as a loss or a change in the forests because the term 'deforestation' was not understood.

18. *Have you experienced problems with soil erosion?*

Some farmers were aware of the term 'soil erosion', but if they were not it was asked if they had less soil or if it was any less productive.

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<sup>23</sup> Both questions were essentially intended to encourage the farmers to explain their perceived obstacles - question #11 without imposing the assumption of a problem.

## 2.3 Establishing the Macro-Framework

Section 1.1 concluded that the devastating political economic structural dependence which Southern nations face is inseparable from their environmental problems. As well, Blaikie and Brookfield (1987) argue that a major source of confusion in understanding the complexity of human causation in land degradation “arises from a failure to view degradation within a wide historical and geographical context.” As a result, it is argued that research on environmental degradation in Southern nations should consider the interaction between local, national and global systems, as well as the role of the historical forces which have shaped these interactions. Such is the objective taken for this thesis.

Thus, the necessary second step of this thesis is the macro-level political economic analysis, profiling Jamaica’s national economy and relating it to international systems. Although neoliberal ideology now prevails over the discourse and policy of economic development in Jamaica, as throughout much of the global South, Klak (1996) notes that “much of the analysis of it in geography and kindred fields rejects those frameworks in favour of a richly textured political economy approach.”<sup>24</sup> The political economic approach taken here is based on the outline of the ‘dependency spiral’ in section 1.1, combining both statistical and literature-based evidence.

Although the dependency spiral is a generalized and theoretical overview of a complex of dynamics spanning the massive and very diverse global South,<sup>25</sup> it nevertheless provides what is believed to be a useful political economic framework through which to examine the condition of individual nations.<sup>26</sup> In its application here, a national economic profile will be developed with particular emphasis given to the agricultural sector, emphasis which is important for the progressive contextualization (discussed in the following section) of the field-work to the broader structural forces impacting the small farm sector. As well, Blaikie and Brookfield (1987) contend that the connection between agricultural systems and land degradation is an important one, but one which is frequently missed in research.

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<sup>24</sup> However, Blaikie and Brookfield (1987) note that “neither classical nor Marxian economics have satisfactorily attacked the methodological problems of studying land degradation, thus depriving social scientists of a developed theoretical base” for this field. As well, the World Bank (1993b) suggests that “there is an urgent need, both at the regional and national level, to develop a methodology to assess the links between environmental degradation, economic policies and economic growth.”

<sup>25</sup> The questionable utility of the ‘Third World’ as a concept, as raised by Wilken (1992), having already been discussed.

<sup>26</sup> Blaikie and Brookfield (1987) note that “there *are* patterns that repeat themselves in human-environment relations, but their modelling can only be partial at best” as the circumstances of degradation in any nation and any region are complex and unique. For instance, they note that while “many areas of the Third World suffer from a set of related symptoms which combine the results of land degradation, political and economic peripheralization, stagnant production, emigration and poverty...there are clearly important variations in the politico-economic and physical histories of peripheral areas.” Thus, Blaikie and Brookfield highlight the importance of case-studies. Similarly, while the dependency spiral models a series of dynamics, it is not intended to overshadow the diversity of experience, geography, culture or resources in the South which demand case studies. The degree to which it can withstand empirical rigor from individual cases will ultimately determine its theoretical contribution.

## The Dependency Spiral

The analysis will be given structure by the broad subjects (shown in italics here) defined by the dependency spiral and the subsequent model which highlighted its impacts on the environment. While the intention is to assess the applicability of the model based on statistical evidence, some subjects lend themselves more to quantitative appraisal than do others. Where quantitative data cannot be reasonably applied, the focus will be on an applied literature review with emphasis, where possible, on relevant comments and policy conveyed by government officials and documents.

Economic data is analyzed in US dollars because the devaluation of the Jamaica dollar over time would distort assessments of economic figures. The statistical evidence is taken from United Nations (various agencies), World Bank and the Planning Institute of Jamaica<sup>27</sup> sources. Some PIOJ data had to be converted from Jamaican dollars, which was done using the average exchange rate versus the American dollar for the year. Where possible, any major discrepancies between statistics from the different sources have been cross-referenced and noted in the analysis.

The historical foundations of the dependency spiral in the Jamaican case have already been largely outlined in section 1.5. As a result, the analysis of section 3.1 will focus less on the *Impact of Colonialism*, the age of *Independence and Neo-colonialism*, *The Growth of a Commodity-Export Dependent Economy*, and *The Reliance on Foreign Investment and Trade Imbalances*, than it will on their modern manifestations in the macro-economy. Nevertheless, section 3.1 will highlight the most salient issues from these subjects, looking at such things as the impact of colonialism on land distribution, the creation of a small ruling class and 'auxiliary bourgeoisie', the pervasion of foreign control, the historical reliance on foreign capital. The discussion of the neo-colonial period will assess geographical trading patterns statistically over time, but will also be more dependent on the literature than on quantification. The extent of trade and commodity dependence and the historical export-import trends will be examined statistically when this subject is returned to in *Reinforcing Commodity Dependence*. The modern extent of the trade imbalance will also be discussed in more depth later in the analysis of the *External Payments Problems*.

The *Increasing Power of TNCs* and the *Asymmetry in the Relationship* between TNCs and the Jamaican state will be discussed with particular emphasis on agriculture and bauxite, as well as noting the case of tourism. This analysis will be drawn largely from an applied literature review. The *Instability of Commodities Pricing and Compensating Overproduction* and the *Decreasing Terms of Trade* will be discussed with reference to statistics on Jamaica's 'big 3' commodities - bauxite-alumina, sugar and

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<sup>27</sup> Planning Institute of Jamaica documents will subsequently be cited as PIOJ.

bananas - as well as coffee (for reasons that will become evident later). The historical performance of these commodities will be seen through their price performance over time calculated from the gross earnings and export volumes. The quantity of exports in relation to the prices will be assessed to determine if the compensating overproduction is a valid dynamic here. As well, this discussion will review the precarious future of both bananas and sugar, and how the looming changes in world trade law could impact on Jamaica's terms of trade - which has particular exigency in the Annotto Bay region.

*The Deregulation of World Money Markets* and the explosion of speculative activity have had an enormous impact on the world economy and on commodities pricing and interest rates. However, this has been an abstract impact, difficult to measure on specific commodities. Also difficult to pinpoint but very important has been rising interest rates, which have affected Jamaica through its debt payments (seen later in *The Debt Problem*). What can be seen more directly is how the shift from fixed to flexible exchange rates has impacted currency devaluation, measurable in the exchange rate of the Jamaican dollar versus the US dollar. The impact of the de-valuation is drawn in the second part of the analysis.

*The Increasing Role of International Financial Institutions and Interest Rates* is a subject also introduced in Section 1.5 with reference to the role of the World Bank and the IMF from the 1970s onwards. This impact is most evident in its impact on the debt problem. Similarly, *The Oil Shock* and the increasing price of energy imports were introduced in the review of the 1970s political economic history, and will be measured as a percentage of Jamaica's imports and trade deficit. Its impact is also manifest on the debt crisis. Jamaica's *Debt Problem* will be measured with an array of statistics on the evolution of the debt burden. The debt burden indicators used by UNCTAD (1996) are debt-to-exports, debt-to-GNP, debt service-to-exports, debt service-to-government expenditure, and all of these indicators will be examined. As well, the evolution of the gross debt and the debt per capita will be examined.

The extent that *Northern Protectionism and Hypocrisy* have impacted Jamaica is very difficult to determine, and will remain cloudy without intensive scholarship into trade policy and barriers far beyond the realm of inquiry here. However, the impact of subsidized agricultural imports and the *Lack of Diversification* are more concrete phenomena, the former which will be discussed from the literature and latter which is addressed in the discussion on *Reinforcing Commodities Dependence*.

The *External Payments Problems* will be examined through an analysis of Jamaica's record of external earnings, the evolution of the balance of trade and the export-to-import ratio. As well, the balance of trade in agricultural items, the pattern of food exports, and the food deficit will be examined over time. The role of tourism and services in the balance of trade is also discussed.

The extent to which the national economy has been tailored to operation of the international marketplace is the subject of *Reinforcing Commodities Dependence* - which can also be seen as the present culmination of the dependency spiral. This is reflected in the role of commodities in the export sector. The evolution of trade (exports and imports combined) as a ratio of GDP reflects the degree of self-sufficiency or openness of an economy (UNDP, 1993; Anderson and Witter, 1994), and Jamaica will be examined over time and in comparison in this regard to the rest of 'developing world'. One final issue that must be addressed is that of economic growth, and a section entitled *Neoliberal Growth* has been added to discuss Jamaica's recent economic growth. Although it may appear to contradict the otherwise gloomy picture, Jamaica's recent growth laden with the problems set out in the dependency spiral.

### **Implications for the Use and Management of Resources**

The degree of elite and foreign control over the land and economy in Jamaica implies that resource wealth is being taken from local communities and rural peoples, and this will be discussed under the subject of *Wealth Escaping*. This section is meant to discuss how wealth is leaving both the nations and communities, but it is difficult to quantify this outflow. As a result, this section will focus on the societal inequities in wealth, which are the net result of this process. Very central to the condition of the peasantry is the *Inequity of Access to Resources*, which will be discussed with reference to statistics on land inequities and farm sizes and distribution.

The subject of *Rural Impoverishment* will examine social and economic statistics specific to the rural population, as well as looking briefly at the particular case of women, who as noted in the original model, tend to be the most burdened by rural poverty. The *Retreat of the State* will be discussed by looking at the evolution of government expenditure as a percentage of GDP, as well as examining how this has affected policy on a variety of fronts: social spending, education, agriculture and the environment. The dangers of discussing population as a causal agent in degradation having been acknowledged, *Population Growth* over time will nevertheless be discussed along with population growth rates and the rural population pyramid, as well as a brief review of livestock populations.

The discussion of *Environmental Degradation* will focus on how land use has changed over the past three decades and its current configuration. It will not, however, extend beyond the literature review of section 1.2 regarding the environmental impacts of deforestation.

## 2.4 Progressive Contextualization

*...as more is known of their contexts, the better are any activities of concern to us understood...*

-Andrew Vayda (1983)

It has already been theorized that the causes of degradation and the challenges of conservation in the global South are rooted in forces extending far beyond the local - indeed up to the global realm - and thus must be approached in their broader context. However, the emphasis on external structures raises justifiable concerns over determinism and reductionism, and there is no doubt potential to 'force-fit' a case study into a theoretical construct. This can mean a neglect for internal problems and solutions, and at the worst can serve to submerge hope for change and betterment under the weight of external circumstance. So at the same time as structural forces are considered, it was deemed critical to understand the causality, land use decisions, and challenges of degradation, development and conservation from the 'bottom-up'.

Hettne (1991) argues that to the extent any theoretical approach to agrarian processes is applied, "we can make a very rough distinction between internalists and externalists, depending on the role they give to influences from the external world *vis-a-vis* various endogenous factors." According to this, it would seem that what is being sought here is an approach in between internal and external emphases - acknowledging both, and ultimately drawing links between the global and national processes and local perceptions and actions. An approach referred to as *progressive contextualization* can bridge this divide, and is an ideal way to approach bottom-up research which extends to national and international systems.

Vayda (1983) describes progressive contextualization as a procedure which seeks to explain significant human-environment "interactions by placing them within progressively wider or denser contexts." From a case study in East Kalimantan, Indonesia, which sought to understand and explain the array of forces contributing to deforestation, Vayda illustrates how the causes and effects of specific activities like logging can be progressively 'traced outwards' from immediate people-forest interactions. He argues that this demands commitment "to the holistic premise that adequate understanding of problems can be gained only if they are seen as part of a complex of interacting causes and effects," avoiding an *a priori* delimitation of the dynamics. Rather than being an abstract notion of endless scope, this is seen as a return "to common-sense, practical ways of seeing what is happening in the world."

At its most basic, Vayda describes a guide for progressive contextualization to be a 'rationality principle' whereby people are assumed to be interacting rationally with their environment - given their knowledge (and we can assume culture), resources, and the constraints of their specific circumstance - in order to achieve particular goals. While the need to rationalize behaviour might sound suspiciously like

the 'rational economic man' Western economic theorists took as a foundation in their formulation of theory, and which was so roundly condemned by critics of development (and of neoliberal economic theory in general) for neglecting cultural disparities, the application of rationality to the subjects of concern here does not assume the same set of goals, aspirations and ideals for everyone. Rather, by employing progressive contextualization one attempts to rationalize *according to* these different goals, aspirations and ideals. This is nevertheless a challenging and highly qualitative task, and one which must be firmly embedded in participatory fieldwork.

Research then proceeds outwards to contextualize the interactions of interest, examining the complex of causes and effects to which the interactions are related. As opposed to traditional research and planning approaches whereby resource management systems are pre-defined and then studied, progressive contextualization means avoiding a rigid definition of the research unit prior to study. Vayda explains:

*...in using the approach, we need to make no assumption that the people-environment interactions that interest us are necessarily the components or expressions of some previously defined system. Instead, we are free to gain understanding by proceeding empirically to put the interactions in question into context - sometimes by going far beyond the boundaries of a nation-state or island, sometimes by being satisfied without going beyond even the boundaries of a single...village and its land.*

Rather than resorting a 'procrustean systems framework' to explain the interactions and processes under study, progressive contextualization is seen to provide the 'fluidity' and 'flexibility' better suited to resolving complex and multifarious relationships.<sup>28</sup> However, it is also evident that the process of indefinitely enlarging and densifying the contexts under study could be an interminable process, and there comes a point where determining partial contexts becomes sufficient - especially since it is doubtful "whether 'total' contexts can ever be known."

In addition to the broad rationality principle for contextualizing interactions, Vayda suggests that another guide which can be used is the knowledge of similar contexts and interactions occurring in different places. This use of comparative knowledge in turn implies an assumption that there is some universality to be found in the experience of marginalized classes around the world.<sup>29</sup> Vayda notes that his research in East Kalimantan was initially guided by the comparative knowledge of forest conversions occurring elsewhere in the tropical world, as it was seen to be similarly caused by landless people uprooted from their homelands by inequitable land tenure patterns and population pressures and fighting

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<sup>28</sup> Vayda gives an example from his research, noting that the "kaleidoscopic nature" of the complex of factors influencing human-environment interactions in East Kalimantan meant that insisting "on the rigorous methods of the experimental sciences would have been counterheuristic."

<sup>29</sup> This notion that there is some commonality of experience implicitly points to the utility of a macro-level of analysis.

to survive amidst unfamiliar and often precarious ecological conditions. However, he importantly notes that in this instance, comparative knowledge misled him in assessing the causes of forest conversion, as 'the contexts of desperation' which he was expecting to find as causal agents were not evident. This surprise, in turn, led the research in important new directions and proved to be an 'important impetus' for pursuing different and necessary lines of inquiry.

The role of surprise as a catalyst for research suggests "that surprise itself may be a guide in using the method of progressive contextualization,"<sup>30</sup> as well as a further justification for its use. Progressive contextualization is seen to afford the necessary latitude to make uncovering and pursuing the unexpected both possible and easy, much more so "than would be the case in projects with prescribed rigorous methods and carefully formulated experimental designs."

### **'Nested Scales' for Research on Land Degradation**

In their seminal work on land degradation Blaikie and Brookfield (1987) lay out a similar sequence to research as did Vayda. They contend that research on land degradation in any specific area begins with the land managers, be they peasants or TNC forest companies, and their direct relations with the land. The next step is to examine their relations to one another, to other land users, and within the broader society which affects them and their land management. The 'last links in the chain' are the state and the world economy. Blaikie and Brookfield note that while there may be no one "'correct' scale to investigate land managers and their decisions," a comprehensive investigation of land management and degradation will generally "require an approach which employs a nested set of scales."

Explanation then becomes highly conjunctural, connecting local and site specific activities where decisions are made by individuals or small groups, to the regional scale with more generalized patterns of land use, geography and history, to the national scale where land use is embedded in the particular class relations and their attendant economic, political and administrative contexts, and finally to the international scale through the commodification of land, labour and agricultural production in the world economy. For instance, Blaikie and Brookfield note that while *direct* decision-making is predominantly local, whether by a sugar plantation manager or a peasant farmer, "many of the parameters of choice are determined by others." As a result, they argue that to understand how forces of agrarian change impinge upon land managers like peasants and affect land degradation, we "may well have to ask and answer questions on a number of scales which fit inside each other like a set of Chinese boxes."

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<sup>30</sup> Vayda found a similar emphasis on pursuing the element of surprise in fieldwork to be found in Hill (1970), who admitted to being very dependent on "naive feelings of *surprise* - holding that the most surprising 'events' are most worth pursuit." 'Discovering' the co-op was one experience among many from my fieldwork which confirms this suggestion about the importance and profitability of following up 'surprises'.



This process, as laid out by Vayda, is seen to begin at the local site, and as Blaikie and Brookfield note, however much the 'parameters of choice' are constrained by external conditions it is nevertheless "important to identify who makes the decision to manage land and how it is made." In an earlier work on the causes of soil erosion in the developing world, Blaikie (1985) also makes clear that this process of understanding must be a 'bottom-up' one, moving from a 'place-based concern' to a "non-place-based concern for political-economic relations." He suggests that research should begin "with actual people making decisions on how to use land" and extend to "involve a conceptual scheme in which people relate to the environment and to each other." It is notable, however, that Blaikie's emphasis is more on why soil erosion occurs than on what can prevent it - as change is seen to be rooted in global structures.

### **Two Examples**

Schelhas (1994; 1996) employs a similar approach to Vayda's but in research on deforestation in Costa Rica. Schelhas combines household interviews within a framework inclusive of macro-forces. Schelhas considers micro-level analysis to be fundamental to understanding landscape patterns and thus deals in great depth with the household decision making of peasant farmers. However, at the same time as his emphasis is clearly on the micro-level decision-making process, he nevertheless highlights how land-use decisions must be conceptualized relative to their broader context and "macro-level factors such as population density and growth, land distribution, and international commodity markets."

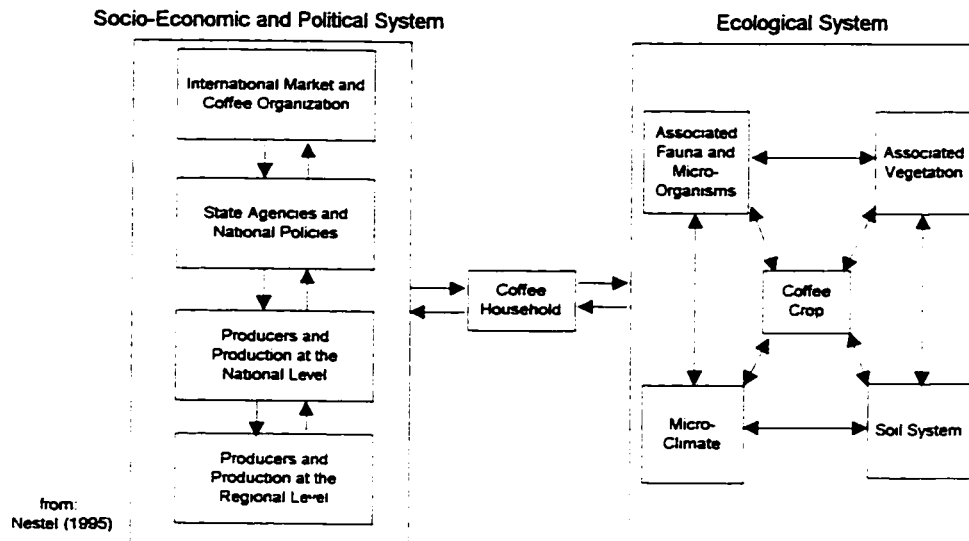
Nestel (1995) discusses how regional landscape in Mexico's coffee regions are affected by the behaviour of coffee in the international commodity market. He divides the coffee agroecosystem into an ecological and socio-political economic system linked by the individual coffee household.

*...because, regardless of its size, the household is the place where most of the information from both systems is compiled and analyzed, and also because it is the basic unit where decisions are taken concerning the form and composition of the ecological system.*

After starting with the household as the basic element, Nestel divides the socio-political economic system associated with coffee "into a nested hierarchy of subsystems," akin to Blaikie and Brookfield. Of these, Nestel defines the international market for coffee to be the most important subsystem "in terms of its degree of influence." While he makes more detailed connections to the ecological system than will be attempted with this thesis (which more generally focuses on deforestation as the agent of ecological change), his depiction of the socio-economic and political system (seen in Figure 2.40) has illustrative value for showing how a 'nested hierarchy of systems' might be progressively contextualized.

In his conclusion, Nestel points out how the complete lack of trade regulation operated to the detriment of the Mexican environment - signalling the need for “a certain level of public intervention.”

**Figure 2.40** The Coffee Agroecosystem in Mexico



## Conclusion

Progressive contextualization provides a well-suited approach to discuss the land use issues involved in peasant-driven deforestation from the ‘bottom-up’, while still incorporating the macro-political economic forces believed to be so important to analyzing land degradation in the south. The analysis of chapter 4 will contextualize the case study site, based on the fieldwork discussed in section 3.0, within the macro political economic condition discussed in section 3.1. The centre-piece of this analysis is a rationalization or decision-making model whereby the perceptions of the farmers affecting land use are linked to various scales - local, regional, national and international. These ‘nested scales’ are discussed from the perspective of the individual farmer, and are seen as both ‘pushing’ and ‘pulling’ forces.

### 3.0 Fieldwork Results

*"It discourage you many times but me just love the farming."*

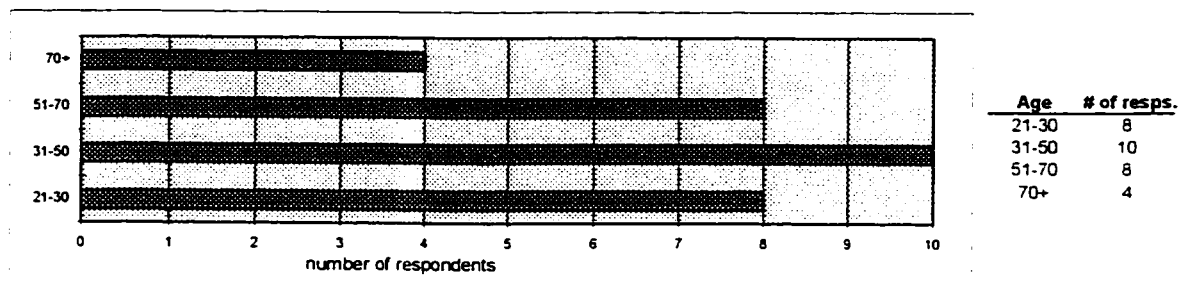
-Long Road farmer, age 27

#### The Survey Sample

The survey sample was 30 farmers, smaller than originally anticipated but large enough to allow for confidence in the descriptive statistics used. The sample included eight farmers under the age of 30, ten between the ages of 31 and 50, eight between the ages of 51 and 70, and four over 70 (see Figure 3.0.0).

Figure 3.0.0

Survey Sample By Age



#### Young Farmers

The percentage of young farmers (27%) in the sample may have been slightly more than if the entire farming population was taken. However, the perspective of the young farmers was deemed to be very important because they represent how the community is changing and because the co-op has placed such high priority on their success and growth. At the co-op's Annual General Meeting (AGM) in August, the Board of Management noted that, with respect to new membership, there was "particular emphasis on the youth," remarking that "we want to continue to keep and encourage these young farmers." As a result, it became a survey goal to get the input of enough young farmers to constitute a reasonable sub-sample. With over a quarter of the respondents under the age 30, the discussion of some key responses will be broken down and the quotations specified to observe the young farmers as a distinct category. This distinction, it is believed, provides important insights into the current and future dynamics of land use in the area.

#### Women

Of the sample, 27 were male and only 3 were female. While this might appear to be gender biased, particularly in a nation where so many households are led by women and who often bear a dual

work-load between home and job, this is deemed to be a good representation of the Long Road community as it is primarily men who farm. Women in Long Road hold a variety of jobs - including working in Annotto Bay, working at the banana plantation and at a smaller citrus plantation, running the three general stores and the post office, teaching at the school, selling produce at the Annotto Bay Market, and drying and packaging the spices and herbs for the co-op - but very few ran their own farms or contributed significantly to their husband's or partner's farm.<sup>1</sup> Nevertheless, a conscious effort was made to interview women, using the snowball approach was employed whereby the women farmers interviewed (as well as some of the men) were asked if they could refer me to other women. Yet only four women small farmers were located and only three interviewed.

In addition to the standard questions, the women were asked to explain why they felt there were so few women in farming, and to discuss any particular challenges they might face. One, who was struggling to raise four children by herself after her partner had left for the US, stated simply that "me have to do the farming to help myself." Another noted that "women all don't want to do the hard work...only a few of us willing to do de farming." Finally, one woman who is a pillar of the community and a very respected farmer, explained that part of the reluctance of women to farm is owing to the fact that "some of them never grow up with parents [and] look to depend on men." She remarked that while a few women are willing to "stick out neck to make own living instead of waiting for someone to make it for them...a lot not trying to be independent and get own money." She concluded that "first time [in the past] we used to have more women farmers." Many of the young men farmers looked derisively at the young women because most were unwilling to work in farming and had left Long Road.

### **Discussion**

The discussion will be based upon the questionnaire responses and discussed in four parts: current land use; land use decision-making; perceptions of farming and well-being; and cognizance of environmental issues. Various other elements of the fieldwork will be woven throughout the response discussion, notably the commentary of the extension officers, conversations with Father Webb, information from the AGM and the young farmers meeting attended, and the tour of the SMRDP taken by the Morant-Yallahs co-operative, and participant observation. As well, a follow-up email interview with Father Webb provided critical insight.

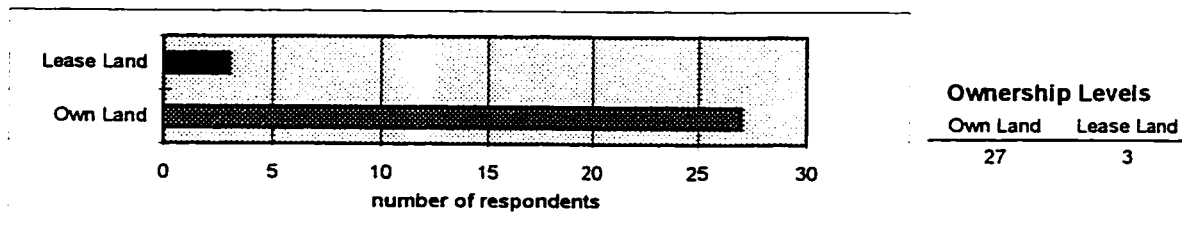
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<sup>1</sup> In Jamaica, very few of the couples are actually formally married, but rather tend to live common law. It is estimated that over 85% of the children are born out of wedlock. One farmer, after 9 years of living together and 2 children said that he was "not yet ready to put the ring on."

## PART 1: Land Use in Long Road

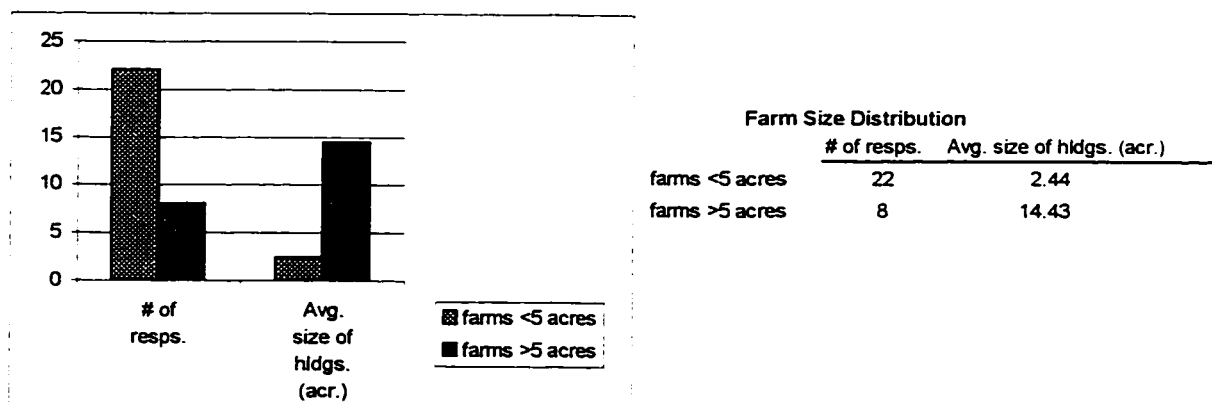
In order to assess land use decision-making and perceptions in Long Road, the backdrop of the current land use must first be established. This was the intention of the first set of questions which sought information on land tenancy, holdings size and division, land clearance history and crops grown.

**Figure 3.0.1 Land Tenancy in Long Road**



90% of respondents either own their land or farm on family owned-land (see Figure 3.0.1), and those who lease do so under long-term agreements. This suggests that land hunger in Long Road is not nearly as intense as would be found in other parts of the Blue Mountains, and that land tenure situation is not of the nature that would provoke the conscious short-term abuse of land (discussed in chapter 4).

**Figure 3.0.2 Long Road Farm Size Distribution (a)**



The average size of the total holdings of the survey respondents is 5.64 acres, high with respect to the national average for small farmers. However, when the distribution is segregated between farms above and below five acres, the distribution becomes more skewed with the majority of farms (73.3%) averaging 2.44 acres (see Figure 3.0.2). Those with holdings greater than five acres on average own

14.43 acres. For the sake of later comparison with both the small farm sector and the national total, the survey results can be segregated as in figure 3.0.3.

Figure 3.03

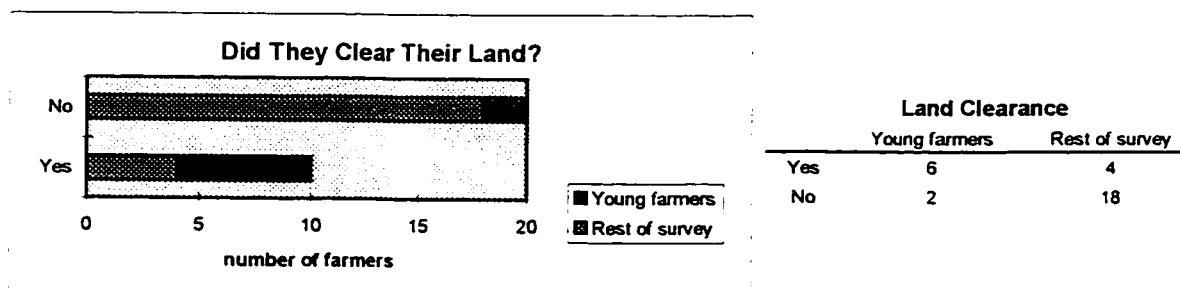
Long Road Farm Size Distribution (b)

Acres	% of survey	Acres	% of survey
<1	10	<2	46.7
1-5	60	2-6	26.7
5-25	26.7	6-10	16.7
>25	3.3	10+	10

Although one-third of the respondents operate multiple plots, this should not be seen to be a handicap to the relative well-being of farmers in Long Road, as most of those who hold multiple plots are the more prosperous members of the community. In fact, the average total holdings of those who operate more than one plot is 11.7 acres. To the extent that land fragmentation is a problem, it is manifest in the small size of some of the holdings, which have been split among family members over time. However, as will be later discussed, the size of land holdings is not generally seen to be a major constraint in the well being of Long Road farmers, and this combined with the fact that the control of multiple plots is generally equated with more land suggests that land fragmentation is not a significant problem in inhibiting the productivity of Long Road farmers.

Figure 3.0.4

Land Clearance History



One-third of the respondents cleared the land they occupied themselves, and while this could imply a difference of 56 years given the age span between the oldest and youngest farmers interviewed, it becomes a more telling statistic when the survey is broken down to assess the activity of the young farmers (see Figure 3.0.4). 6 of the 8 young farmers surveyed had to clear some or all of the land on which they currently worked. This represents a significant amount of recently cleared farmland, and it is notable that 75% of the young farmers were forced to clear land in order to gain access to the land. As

one extension officer noted, "what most young men do is go to Kingston and find out things are worse there than here and come back and clear land."

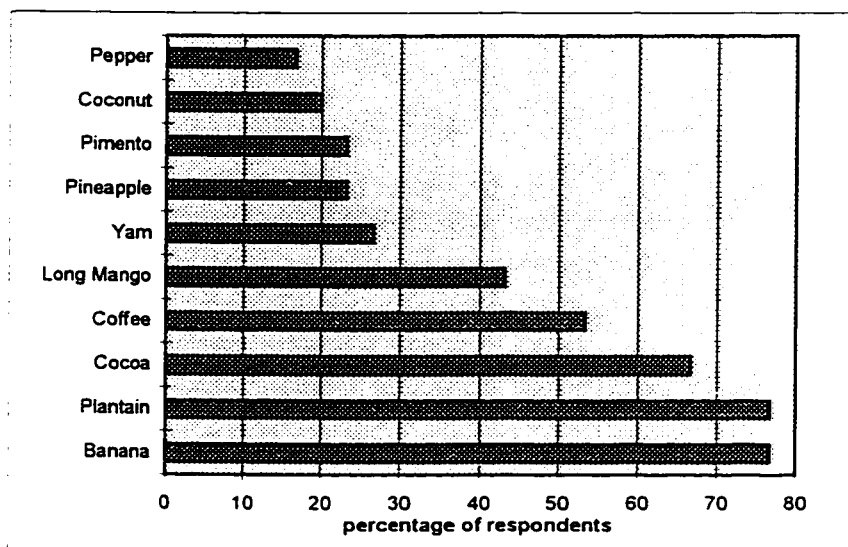
On average, each respondent grows over 6 different crops. While reveals some of the diversity in the cropping system, it can nevertheless be taken as an underestimation of the actual total. There was a tendency to note only the primary crops marketed, and this became evident upon visiting some of the farms. Many, and particularly the older farmers, would list some of their crops and then say something to the effect that there were numerous other crops grown beyond their primary ones referred to.

Figure 3.0.5

Crops Grown in Long Road

**Crops Grown in Long Road  
(by % of respondents)**

Banana	76.7
Plantain	76.7
Cocoa	66.7
Coffee	53.3
Long Mango	43.3
Yam	26.7
Pineapple	23.3
Pimento	23.3
Coconut	20
Pepper	16.7



also grown:

13.3%: carrots, peas (red and green), tomato, pear, soursap

10%: lime, ginip, ackee, breadfruit, sugar cane, potato

6.7%: cabbage, grapefruit, tangerine, lumber (pine, cedar)

3%: bissi, calalou, passionfruit, jackfruit, mint, bees, turnip, oranges, cassava, dasheen, neesberry, avocado, pumpkin

The most popular crops grown in the district are bananas and plantains, which are each grown by 77% of the farmers surveyed. Cocoa was next, grown by 67%, followed by coffee with 53%, and long mango with 43%. Of the other 33 crops noted, none are grown by more than 27% of the respondents (see Figure 3.0.5). The eight young farmers all grow plantain, and seven grow coffee. Although not noted in the survey, most farmers had some form of livestock. Chickens and goats are the most common, rabbits are becoming increasingly popular, and a few farmers had cattle which was either grazed on a hillside pasture or between rotating fenced-off areas of mountain paths.

## **PART 2: Land Use Decision-Making**

Farmers were asked to explain why they designed their cropping system as they did in order to ascertain how their decisions were conditioned, and to see the extent to which they were guided by market versus subsistence needs. Most emphasized a single point, from marketability to old age, which will be grouped according to the major theme of the response.

Although it was deemed to be near impossible to gain a quantitative measure of the degree of subsistence versus market orientation of a farmer's outlook and operation, and while nearly all meet at least some measure of household food needs from their farm or from their 'backyard garden', it is significant to note that only 13.3% of respondents explicitly noted a subsistence imperative in explaining part of their cropping decisions. Subsistence motives were evident in responses such as: "me eat some of each and sell some of each," and to "feed me self and sell to co-op some," although these also imply a degree of market orientation.

A mixture of subsistence and market orientation was implicit in other responses, which highlighted the need for balancing risks (10%) and accounting for the seasonality of harvesting different crops (16.7%). In terms of balance, one farmer simply noted that he just plants "every little thing," while another explained that in the "area we live in, if you plant one thing you're in trouble," pointing to the importance of having "something ready for each time of year." With regards to seasonality, one farmer explained: "the crops don't all come in at the same time...so when it's carrot time, carrot time: pineapple time, pineapple time." Another noted that his multi-cropped system means that there is "something coming in every part of year when drought not take it."

Two old farmers cited the role of historical factors - one the strong price of cocoa and the other the role of the Coconut Board - in causing them to focus on these crops when they were planting decades ago. On having invested in cocoa, the first farmer explained that "time ago, cocoa was very promiseable product - me try and get into it." However, he complained that "now prices are bad, and devaluation of money hurt" such that "me hardly make enough to clean it now." The farmer who planted heavily in coconut (though somewhat diversified planting 6 other crops) did so because he was supplied long ago by the Coconut Board, and used to be able to sell to the factory directly. He went on to note that his crop has diminished markedly since Hurricane Gilbert in 1988, coconut trees being especially susceptible to damage given their height.<sup>2</sup> Both farmers lamented how their concentration on one crop has negatively impacted their current well-being, but both were too old to change their fields at this stage in their life.

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<sup>2</sup> Banana and plantain trees are even more susceptible to hurricane damage, as they are practically rootless and can sometimes get blown over with only a strong wind. But while a hurricane can wipe out an entire banana or plantain crop in a season, they are fast growing and the damage can be more easily recovered in the following seasons than can damage to slower growing trees such as coconut.



Another old farmer also noted the importance of age in shaping his priorities, commenting that he is "old and weak, so focus on keep up cocoa" which he can handle, remarking that he "used to focus on more but can't manage all and can't get no labour."

Three of the young farmers noted the important role of the co-op in directing their planting decisions. One said that "as me was just starting out, me was planting everything me could get me hands on," pointing out that the co-op directors have not only supplied him with much of his start-up inputs, but have told him what was marketable. The other farmer also noted how a lot of his start-up inputs have come from 'Father Jim'. A third noted that the "co-op enlighten us to plant things."

Although livestock animals were not discussed in the survey, most consume the chickens and rabbits themselves, while goats are both consumed and sold. The cattle are primarily intended for sale. Father Webb explained that many farmers see cattle, and to a lesser extent other livestock, as an investment, like putting money in the bank, and which could be someday used to pay for such things as their children's education. This was evident with one young farmer who noted how he had 'invested' in some cattle and might use them later to pay for the coffee suckers, fertilizer and chemicals for the two acres which he intended to clear, dependent on how much the co-op supplies him (he already has more than an acre in a coffee-plantain intercrop).

### Coffee

Of those surveyed, 43.3% gave responses directly relating to marketability and earning potential as the primary reason for their cropping decisions, with 76.9% of those (30% of the survey total) pointing to the particular importance of coffee. The explanations for planting coffee are revealing, and generally centre around one farmer's simple explanation: "you get good money from it." One farmer said that coffee provided the "best price to sell legal" and earned "foreign exchange."<sup>3</sup> while another noted that it is the way "to be most prosperous."

On his mix of 9 crops to which he had just added coffee in 1996, one farmer noted that "those crops, especially de coffee, plenty a people in hills going into to make a livelihood." One young farmer, age 27, who used to focus on plantain but began to grow coffee at the urging of the co-op noted that in addition to being "most marketable," coffee is "easier than plantain." Remarking that one "can make a livin' off a coffee real quick," he said that he will eventually concentrate on coffee once it starts to bear.<sup>4</sup> Another young farmer stated that both plantain and coffee are the "most marketable...[while] coffee the

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<sup>3</sup> The comment on legality was no doubt a reference to the other highly profitable and widespread, though illegal export crop in the Blue Mountains - marijuana. It is unlikely that this farmer was assessing coffee's role in Jamaica's balance of trade, but rather intended to imply that coffee commanded strong prices given its foreign demand.

<sup>4</sup> Coffee suckers take around 3 years before they bear their first crop, while plantain suckers will bear a crop within a year. Thus, plantain makes an especially attractive intercrop for young farmers just starting out in coffee.

best price.” Another, who equated coffee with money, pointed out that his “crops [plantain and coffee] do well together” and that “spraying works better together.”

Also insightful is the explanation of the farmers (10%) who wanted to grow coffee but could not. One lamented that he did not “have the money to get coffee...me like to grow coffee but me have no money.” Another, an old farmer with a lowland farm, explained that “they want coffee on the higher land,” implying that the price he would get was not valuable enough to convert his farm at this stage in his life. He also noted that “me could, but me couldn’t afford enough labour when it reap.”

Perhaps the most lucid explanation of how coffee is perceived came from two young farmers, ages 25 and 23. Said one: “when the coffee bear, me in poverty no more.” The other noted of coffee: “it *is* the money in Jamaica.” As a premium, highland Jamaican coffee commands the highest price in the world. Father Webb notes that Blue Mountain coffee sells consistently at the dock to exporters for around US\$11/lb, while high mountain coffee sells for US\$8/lb, and lowland Jamaican coffee for US\$4/lb, while Colombian coffee commands a meagre US\$0.90 US/lb in comparison. The market, he notes, is such that “even low quality Jamaican coffee is fetching a very high price on the world market.”

Coffee trees yield one crop per year, and the extension officer for Long Road estimated that the average price for Blue Mountain coffee was J\$1700/box over the past 4-5 years. The most efficient farm in the region is run by the former Minister of Agriculture, Dr. Percival Broderick (on land, it was suggested, that was marked to be forest reserve), and reaps 136 boxes per acre.<sup>5</sup> The large plantations have been carefully terraced and are farmed using cheap labour, as well as using expensive inputs and technologies far in excess of what the Long Road coffee growers have access to. As a result, the extension officer estimates that the small farmers in the Long Road district can expect to average 40-50 boxes an acre, which at J\$1700/box would earn between J\$68 000-J\$85 000 (US\$1943-3400) an acre.

It has, however, been rumoured that the Japanese coffee market - the primary destination for Jamaican coffee - may be over-saturated.<sup>6</sup> Asked whether there are any fears about putting ‘too many eggs in one basket’ with regards to coffee and the young farmers of Long Road, Father Webb noted “there does seem to be some saturation of the Japanese market by Blue Mountain Coffee, but there are also conflicting reports on this.” Having discussed this matter with the man who assists some of the Long Road farmers with the marketing of their coffee, Father Webb was advised that “there is no problem and production should be expanded.”

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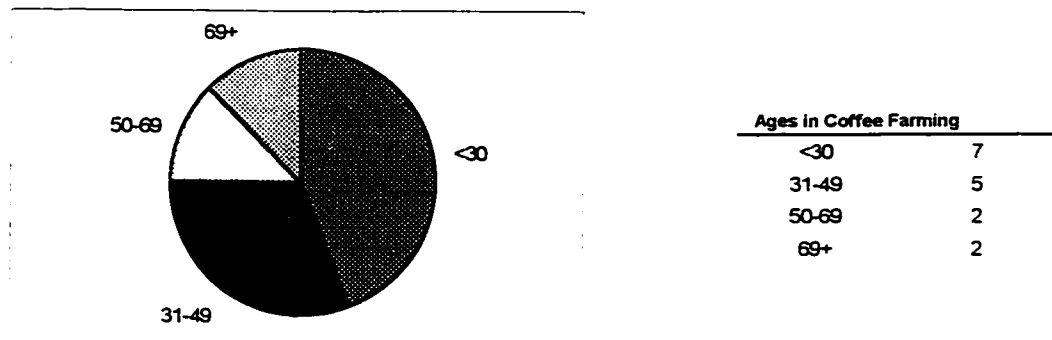
<sup>5</sup> On a trip through St Andrew to deliver fertilizer to a Long Road coffee farmer, we stopped at and observed the most sophisticated Blue Mountain coffee plantations. At this time, a Long Road young farmer commented: “these are the farms of the rich and privileged; we want to emulate them.”

<sup>6</sup> This rumour and the potentially fleeting strength of the coffee market was noted by David Lowenthal at the 1998 AAG in Boston, who also commented on the role of coffee as an agent of soil erosion in Jamaica.

Of the 16 coffee growers, 11 had not yet reaped by the summer of 1997 (and none who had Blue Mountain coffee had), ranging from having just planted to approaching harvest in the fall of 1997. This means that 68.8% of the coffee growers in the region had only established coffee within the previous three years, and it was generally the youngest farmers in the community who had done so (see Figure 3.0.6). Of the 11 recently converted coffee fields, only three of the farmers are over the age of 35.<sup>7</sup>

Figure 3.0.6

Ages in Coffee Farming



Father Webb understands that coffee - and particularly the aura and price of Blue Mountain coffee - has been integral in keeping some of the farmers on the land, especially the young ones. He notes that before the coffee, many of the youth were eyeing Kingston (some already having went and returned), Toronto, New York, and Miami, but they have now become attached to the land because "they have an investment in the hills."

Out of the 11 new coffee farmers, 9 were confident that their coffee would be considered to be Blue Mountain coffee (the premium which commands the highest price), while the other 2 were uncertain but hoped that it would be considered as such.<sup>8</sup> In contrast, the coffee grown by the farmers before the 'coffee boom' is considered to be 'lowland' - which commands, as noted, good though significantly lower prices than highland coffee. One farmer who has long grown lowland coffee is hoping to soon clear some land higher in the hills in order to grow Blue Mountain coffee. The main obstacle for him is the lack of a road accessing the upper hills, commenting that "if the road was there, I'd be there."

<sup>7</sup> One of the community's most successful farmers, at 68 years of age, had remarkably just recently planted one acre of coffee on his farm.

<sup>8</sup> The Coffee Board assesses whether the land is high enough to be certified as 'Blue Mountain' coffee, after which the farmer is given, in the words of one farmer, a 'ticket to sell'.

Of the same 11 recently planted coffee farms, 5 (45.5%) were previously ruinate forest cover. The remainder were converted from other farm or pasture lands,<sup>9</sup> as well as being intercropped with already established banana and plantain. All of the coffee farmers market (or intend to market) their produce through the Coffee Board, though one young farmer was going to consider marketing his produce to the coffee estate where he also works if he can get a better price there.

Those who had not earlier discussed why they had planted coffee were asked to explain their motivation for doing so, and the response generally echoed the earlier discussion with comments such as: "coffee the best price," "you get good money from it," and "coffee the most payable crop." One farmer noted that while it is the most profitable, coffee also requires a lot of work and needs chemicals. Coffee is a heavily chemical intensive crop, and one young farmer noted how he was planting pepper and pumpkin on separate land from coffee so that the spraying from the coffee will not affect those crops.

In the discussion about going into coffee, the role of the co-op was also apparent as five farmers (or 45.5% of the recent coffee growers) cited the role of Father Jim, 'the priests', or the co-op<sup>10</sup> as having encouraged them to do so and supplying with suckers and fertilizer. The desire to plant their own coffee was further evident amongst the young farmers who had formerly or who continued to work at coffee plantations. At a Blue Mountain coffee plantation a worker earns approximately J\$240 to pick one box while, as noted, a farmer growing his own coffee could get J\$1700/box - 7 times as great.

One young farmer, age 30, epitomized this desire to plant coffee in the highlands. Possessing a lowland farm readily accessible to his house in town and planted largely with plantain (as well as some pepper, passionfruit and pepper), into which coffee could have been easily intercropped, he chose instead to slash-and-burn a one acre highland plot that was over a 1 1/4 hour walk away. He explained that for coffee it is "most profitably to do it in the hills," and noted that the co-op was helping him start up his farm by supplying him with 2000 suckers. In contrast with the push to plant in the highlands, those with lowland coffee were more indifferent about its earning potential, with one old farmer noting that he was "not interested in it [because it was] too hard to reap."

Two respondents cited experience with the People's Co-operative (PC) Bank as having played a role in their decision to go into coffee, with mixed reviews. The first farmer noted that at the encouragement of Father Jim, he took a PC Bank loan which helped him with seedlings and fertilizers and allowed him to employ some men. He also noted importantly that the PC loan included some incentives to cut trenches and provide shade for the coffee. However, he said: "I'm sorry I planted

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<sup>9</sup> While it seemed unbelievable that cattle could have managed on such steeply sloped lands, two farmers noted this conversion from pasture to highland coffee. The cattle there, it seems, are more dexterous than what a North American would expect.

<sup>10</sup> The significance of many of the farmers conceptualizing the co-op as 'Father Jim' or of 'the priests' will be drawn later.

[coffee] through the bank...me really don't like loan," noting the inconvenience and the limited amount of funds which he could have derived from his savings. The other farmer, younger and less prosperous, noted that the PC Bank loan helped him to plant coffee by enabling him to purchase fertilizers, suckers and seedlings, and said that the terms were such that farmers are given 4 years to pay it back, which begins "when you start reaping."

### **Experience with Credit**

Only 26.7% of the respondents had any experience with credit (see Figure 3.0.7). Of these eight, three had recently secured loans contingent on helping them establish coffee, with the credit in the form of inputs - seedlings, suckers and fertilizers. As noted, this experience was mixed. One explained that "the priests" and the Credit Union helped him to secure his land on which he was starting to plant some coffee.

Two old farmers noted that they had taken loans a long time ago when they were "youthful," with one noting that if he were to get another loan it would be to go into coffee, so he could "pay to clear land [because] to clear land very hard." Another old farmer who had taken out a loan from the PC Bank expressed regret at having done so. He said that "me borrow a little bit at PC and me pay and pay and pay and they tell me I take too long...[they] give loan in small portions and I can't do anything with it - need it all at once." He felt that "you should be able to get at once so you can do something, like raise goats if cocoa fail," concluding that the PC Bank brought him "no good money to do business - just run me into debt...Me avoid!"

The majority (73.3%) of respondents had not ever had any credit. Two farmers had tried and failed to get a loan, one noting that "they said me no have tax paper" and the other that he will "not bother with it again." Three young farmers said that while they had not tried yet, they intended to apply for credit. Two of them wanted to take out a loan to purchase a vehicle to help them get to their farms and sell their produce - plans contingent on the proposed extension of the long road (discussed later). Another had been advised that he could get a loan to extend his coffee production.

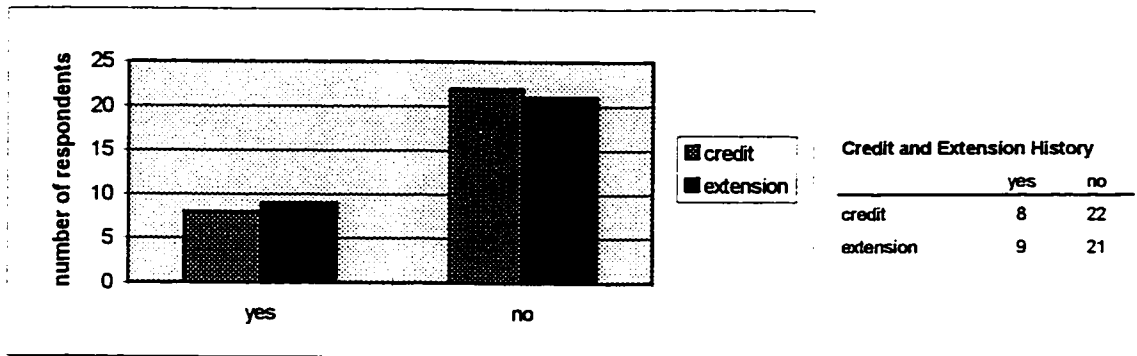
Most of those who had not tried to get credit displayed no intention of doing so. One respondent noted how he had joined the PC Bank at Father Webb's urging, but did "not take any loans for the land." One farmer remarked that while he "could have for coffee, me not worry with it." Others were more cynical, with one noting that "if you throw money in credit union, get no benefit." One very old farmer lamented that he had never had "no help from no source," and explained his frustration over paying into a pension which paid him only J\$100 every two months<sup>11</sup> because "they say I didn't contribute enough."

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<sup>11</sup> Which amounts to about \$3 US given mid-1997 exchange rates, barely enough to buy a beer at a local store.

Figure 3.0.7

Experience with Credit and Extension



Experience with Extension Services

Less than one-third of the survey sample (30%) had ever had any help from extension officers (see Figure 3.0.7). Of those who have received help, in every case it had been very recent - from either the Jesuits or from the extension officers hired in early 1997 - and in some cases this was limited to a few visits to the farm or some inputs like suckers or chemicals. More than half (55.6%) of those who have received extension help from the co-op were young farmers.

In addition to the lack of extension, none of the farmers interviewed had any formal agricultural training. With regards to education, not one young farmers surveyed had attended school beyond the all-ages level, which gives no agricultural training and from which, Father Webb said, many leave in their early teens functionally illiterate.<sup>12</sup>

As a result of the lack of extension services and formal training, most farmers learned their agricultural techniques from either their parents or from other farmers. One respondent noted how he “learned from others and seeing old guys.” One young farmer, who had recently cleared his own field and planted coffee but who continued to work at a coffee plantation in St Andrew, noted that “learned most from work on Coffee Estate.” One of Long Road’s most successful and knowledgeable farmers, in his mid-30s and having twice won both Parish and Island-wide prizes as the ‘4H Young Champion Farmer’, took the most scientific approach to his cropping system. Explaining that he “picked up off other farmers” initially, he now also “learns from experience” by keeping a notebook of planting history and studying how his crops do relative to where and when they were planted and the inputs they receive.

<sup>12</sup> At age 12, all students write a standard exam, the results of which determine who will go on to high school or technical schools. Attending one of these schools is very expensive for a rural household, and one of the small farmers noted how the “education system not for the poor [because you] need lots of money to rise in system.” However, very few students from rural schools pass this exam, and Father Webb notes that for the few that do, their families tend to do whatever it takes to send them on.

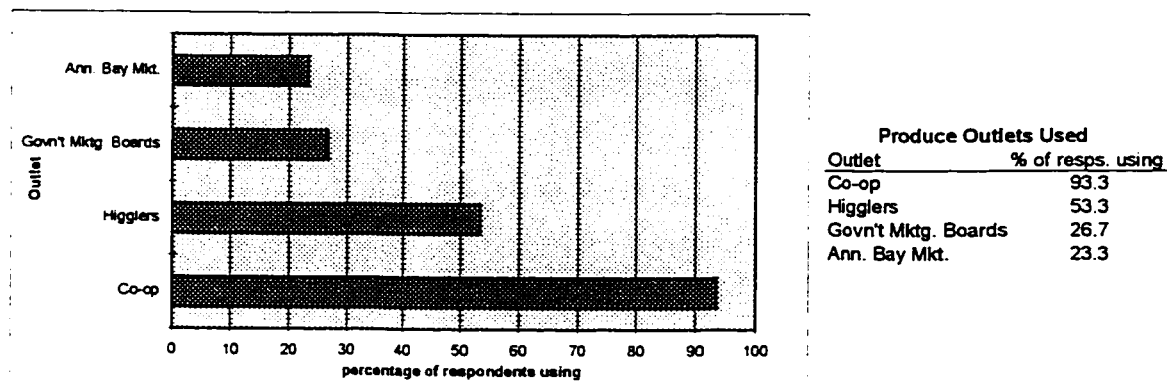
However, many have not been taught even informally and employ a more *ad hoc* approach to farming. Responses such as: “nobody never helped me,” “just on my own,” “try to make my own living,” and “no help - I’d always love to get help. I alone go at it,” all reflect the traditional absence of extension services and the important role that the co-op must play in this regard in the future.

### Marketing the Produce

The majority of the produce in Long Road is sold through the co-op or to higglers (see Figure 3.0.8). Of the respondents, 93.3% said that they sold some of their produce to the co-op, with 82.1% (23 of 28) of those saying they use the co-op for ‘most’ or ‘everything.’ 53.3% of those surveyed also sell to higglers, who provide the sole outlet for the town’s valuable long mango crop, as well as for various other crops. 23.3% of those surveyed sell at the Annotto Bay Market, but it is the primary market for only one of the farmers surveyed.

Coffee always goes through the Coffee Board, and cocoa gets sold through both the Cocoa Board and the co-op (which also dries and packages it). When asked whether the co-op ever intends to venture into coffee, Father Webb noted that it is a possibility “at some point in the future, but our production would have to be much higher in order to justify the purchase of equipment necessary.” To this point, the co-op has been content to get the farmers started in coffee, confident in knowing that there is already a strong marketing system in place.

**Figure 3.0.8** Outlets for Produce in Long Road



While coffee is a pure export crop, most of the produce marketed by the co-op goes to various domestic buyers - caterers, green grocers, restaurants, schools, supermarkets - primarily in Kingston, as well as a few exports (as noted in section 2.1). The spice packaging activities focus on tourist areas. On the subject of exports, Father Webb notes that small farmers tend to be out-competed in cash crops and vegetables because they need water to be consistent, and very few have access to irrigation. One young

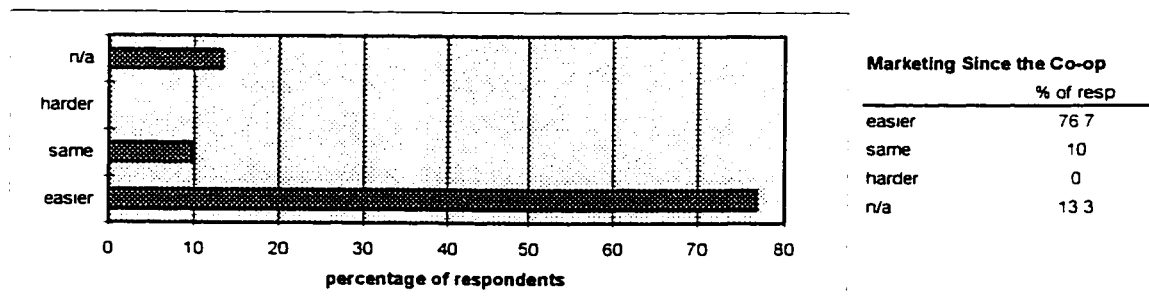
farmer in Fort George who had recently gained access to irrigation had looked into the potential of exporting his produce, primarily callalou. However, he noted defiantly, "I'd rather crop spoil than sell it for those prices."

### PART 3: Perceptions of Farming and Well-Being

#### Has the Marketing Improved?

The biggest strength of the co-op identified by the Board of Management at the AGM was the "joint efforts in marketing" that the co-op has made possible. While the degree to which the co-op is appreciated varies significantly, there is near unanimity in the belief that its establishment has improved the marketing of produce over the past decade. Four young farmers were too inexperienced to judge the changes, but 23 of the remaining 26 (88.5%) in the survey sample said that marketing their produce is easier now than it was 10 years earlier. Only 3 (11.5%) said that the marketing has stayed the same, and none said that it has become harder to market their produce (see figure 3.0.9).

Figure 3.0.9 The Challenge of Marketing Since the Co-op



One who feels the marketing had not improved complained about the co-op's prices, pointing out that she makes better money by continuing to sell at the Annotto Bay Market.<sup>13</sup> The other two respondents who felt that the marketing had not improved sold very little through the co-op, preferring to continue selling more through higglers and the Annotto Bay Market. They both, however, noted the need to "keep it [the co-op] alive" in the words of one, and "keep it up" in the words of the other - as each pointed out the role of the co-op in making the community better. As a result, they were both planning on selling more to the co-op in the future.

In explaining how the marketing conditions have improved, the majority mentioned how the co-op has eased the process of selling produce, with the major themes relating to the consistency of the co-op

<sup>13</sup> This farmer had a fallout with the co-op over its refusal one time to accept some of her crops because of their condition, rupturing her dealings with it.



as an outlet and the expanded market. However, views were mixed over the benefits of the co-op's prices and its ability to take enough produce.

In terms of the ease and stability of selling, the co-op was generally seen to be superior to both higglers and the markets in Annotto Bay and Kingston. As well, its establishment was believed to have reduced levels of crop wastage. One farmer noted how you "don't have to undergo higgling and uncertainty," but rather "Sunday just take it into truck, Thursday get cheque." Another also appreciated how "the co-op helped me get a cheque," as well as noting how it helped "the community bring plenty to market" which otherwise would go to waste. Two other farmers commented on the appeal of the Sunday pick-up - Thursday cheque distribution system in comparison to the Annotto Bay Market. The first one commented that "with market, transport fee and market fee" but "with co-op just bring in Sunday and done with it [and get] pay-day Thursday." The second pointed out that "first time [in the past you] had to go to market [and] if it didn't sell you just left it there."

The reduced wastage was attributed to a growth in the range and amount of what is marketed by the co-op. In terms of expanded range of saleable produce, one farmer noted that now "more crops marketable," and another explained that the "co-op buy plenty things never used to sell and some things used to sell to market." In terms of increased volume, it was noted that "most of the time we can take all we want [to the co-op]," and "if not, local buyers take." Another farmer found that the "co-op takes almost all [he] can sell," and a young farmer commented that he will no doubt be able to sell more to co-op than he would be able to with higglers or at the market.

However, many were frustrated with the fact that the co-op can often only take limited volumes of their produce. Nearly half of those who discussed the changes in marketing (12 of 26) complained to varying degrees of the enforced rationing by the co-op, which was often necessitated by an oversupply of a certain crop. One gave the example that he might "have five stem plantains or bananas, [but] co-op says they can only take two."<sup>14</sup> Another said that "co-op short a market...want more market." and stated that even with the co-op, "plenty of things spoiling because they don't have market." He concluded that "co-op need more market so they can take more produce." A similar prescription was noted by another farmer, who commented that "them [the co-op] don't have the market much...need to get more market." This farmer noted that while there was an open market for plantain, bissie and pimento, for many crops "them can't take much when in season." A similar point was made by the past co-op Selector, who said that the co-op's ability to take produce "depends on what the others have and what you can bring in." She also noted how with plantain "you know that they can take any amount."

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<sup>14</sup> This response was either a hypothetical or past example, because while the banana market was rationed, the co-op now has an open market for plantain.

At the July young farmer's meeting, one complaint was that it is difficult to sell peppers to the co-op. The co-op had encouraged farmers to plant pepper a few years ago on the counsel of their buyer, who said that they could accommodate the expanded production. However, the pepper buyer overestimated the demand and became grossly overstocked,<sup>15</sup> and with this market closed the co-op could only accept limited amounts of peppers at weak prices. So while plantain currently has essentially an open market (16 000 lbs/week - far beyond what the farmers can supply) - much of which goes to a food processor making plantain chips<sup>16</sup> - Father Webb had to assure the farmers that the plantain market would remain strong (although the concerns about plantain are more related to price).

A common response to the inability of the co-op to take everything is for farmers to turn to higglers for the remainder. One farmer remarked that when the "co-op work where you can't sell everything," he responds by selling "to local buyers so [it] doesn't spoil." This is a typical reaction, seen in responses such as: "the co-op easier, but me still have to sell some of stuff to higglers"; "co-op a big help...but right now can't sell all there - send some elsewhere"; and "support co-op but can't take all [so he] give them some and sell some to higglers." However, despite these frustrations, there is no doubt that the co-op has increased the capacity of what is marketed as well as making the process of selling easier.

In addition to the increased ease and range of marketing, some believed that they "get better prices now" with the co-op, in the words of one farmer. On the tour of the SMRDP by the embryonic Morant-Yallahs co-op, the Chairman of the Belfield Co-op noted the need to develop co-op's because of the "monstrous higglers living off the sweat of the farmers [and] choking the system." Another explained it this way: "Higglers wanted to give you little money" and "paid by heap," whereas now the co-op pays by the pound. Thus, when the higglers dominated, people farmed "almost for nothing - [which] made people lack ambition." However, he said that with the co-op farmers now get "more money for things." Increasing ambition related to improved confidence in the marketing system was also noted by the award-winner farmer, who said that the "co-op gave me a big push [because] me used to never plant this much."

Three farmers also noted that the co-op brought increased stability to the prices of their produce. One noted that "they [the co-op] give basic prices," like \$60 for a certain amount, whereas a higgler might give J\$90 one week, and J\$40 the next for the same amount. Another remarked that the "co-op and higglers about same [price] level" but "co-op has made more stable."

However, despite the fact that the higglers are driven by profit-maximizing motives and the co-op is attempting to minimize the cost of the middleman for the farmers, higglers have frequently provided

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<sup>15</sup> Frustrated with this erroneous advice, Father Webb went to the buyer who proceeded to show him a warehouse full of pepper barrels, their market having collapsed.

<sup>16</sup> This is seen to be a growing market as plantains are taking over bananas in the chip processing industry.

better prices than does the co-op. Nine respondents complained that the co-op did not bring good prices, a problem which also came up at the AGM. Typical complaints with respect to prices were restrained, including such things as: "much easier but a little cheaper price," "I think it easier but one problem is goods cheap, market not so wonderful," "very helpful but them is cheap," "things improved but need better price," and "co-op is nice still but if we have nuff things sell it too cheap." One farmer remarked that he might now "sell bananas for J\$5/pound, but not forever," noting that part of the reason he continued to sell to the co-op is because he saw "the potential - with support, the prices will get better." A Fort George farmer commented that he "can't get good prices for bulk crop" through the co-op.

A few were more harsh in their criticism. Said one respondent of the co-op, "price low, bad still...want more money." Another noted that because "market pay better price than co-op...plenty sell to market." One young farmer complained that the co-op "doesn't bring strong enough prices," and stated that the price for plantain (J\$6/pound) from the co-op was "not good enough." Yet while he felt there are often "better prices at [Annotto Bay] Market," he said that he will continue to "mostly support co-op," noting how "you still get a lotta little benefits from da co-op" such as suckers, fertilizers and other inputs (recalling the co-op's concerted support for young farmers). Another young farmer was similarly planning to entrust his loyalty to the co-op based on these 'little benefits', insisting that while prices are often better with higglers or at the market, "as soon as I get suckers, me sell more to the co-op."

It should be kept in mind that despite the complaints about limited volume and poor prices, 88.5% of the respondents who discussed marketing felt it has improved over the past ten years. Most who noted deficiencies in price and quantity were also quick to point out how the co-op is beneficial and has to be kept up. One farmer noted that "plenty a farmers draw away from co-op...and go to higglers." However, he went on to warn that "not all times we see higglers - we always see co-op." Another warned that 'not enough' were supplying the co-op and this lack of support was dangerous. Two others echoed this fear, one asserting that "sometimes the higglers pay more but you still have to support the co-op," and the other noting that "if we give co-op no support, we no keep it alive." One farmer who did not sell much to the co-op said he intended to sell more there because of the "need to support to keep it up." However, as an extension officer commented (noted later), such rhetorical support must turn into action.

The general support and the belief in the need to maintain the co-op is no doubt owing to the overall impact it is seen to have had on the community, reflected in remarks such as:

- "me love the co-op, wish they had it when I was much younger"
- "co-op very good for the area"
- "Jim helped us"
- "co-op help district a lot"
- "co-op a good force in the community"

- “give my full support to the co-op”
- co-op is the “best of the best” to come into the community, and “opened the light to help community”
- “want to develop the district - offer my support to the co-op”
- “co-op helped community...co-op very good.”

Clearly, the marketing system with the co-op has improved versus 10 years earlier, having increased the access of the Long Road farmers to the market. As a measure of economic development, the co-op can be judged from the perspective of the Long Road farmers to have improved the economic viability of farming, albeit for many not yet on satisfactory terms. As a result of the fairly widespread dissatisfaction with quantities and prices, there remains the danger that as the ‘newness’ of the co-op fades and if the prices do not soon improve this support might wane.

#### **‘Chicken and Egg’ Debate: The Co-op’s Production-Price Dilemma**

There was much discussion relating to what can be characterized as a ‘chicken and egg’ debate. That is, many farmers complain about the prices of the co-op being too low when there is a lot being supplied by the community, such that there can be a disincentive to increase production. But from the co-op’s perspective, production in Long Road needs to expand,<sup>17</sup> as consistent and increasing production is necessary to strengthen the co-op and eventually generate higher prices. Thus, the question essentially is what needs to come first, expanded production (the farmers) or increased prices (co-op)?

At the Co-op’s AGM, the Board of Management complained that the “farmers [are] not producing enough” as well as acknowledging that there is “not enough market for some products.” The result, they note, is a serious problem impeding improved production: with good production in the community, the farmers receive low prices and with poor production, higher prices. They cite the need to solve this by finding a stable market, but at the same time the farmers have to be motivated to increase production without an immediate price reward.

Father Webb noted that the source for this increased production must come from the younger farmers. Older farmers, he suggests, are unlikely to increase their production significantly because of physical limitations. In fact, he believes that some of the old farmers who are regular co-op suppliers are now actually producing less as a result of the co-op, because it has stabilized their income “and they prefer to have a stable income rather than the increased drudgery which would come from expanded production.” Thus, the co-op is concentrating on motivating the younger farmers to expand production, and in order to do so, Father Webb notes that there “is a need to convince younger farmers that increased production will generate more income,” if not now, than in the future. He believes that the potential

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<sup>17</sup> The production problems do not include its spice packaging activities, which continue to thrive in tourist areas. However, with regards to produce, while Long Road has the oldest and most established of the four SMRDP co-ops its production is now significantly less than that of the youngest co-op in Belfield, which is a similar size.

increases in production must generally involve better technology, like pest control and irrigation. Further in regards to improving production, the extension officer noted that many farmers in Long Road are too reliant on tree crops - which demand less effort - doing less with cultivation than in other areas.<sup>18</sup>

The need for increased and more targeted production and improved loyalty was also noted at the AGM, as the Board of Management stated that:

*...we see where as a co-operative we could easily double and triple our earnings if our membership were to grow more staple crops and vegetables on a sustained basis and ensure that the co-operative had steady supplies. We must mention here the co-operative's drive to put in plantains to be able to supply...its recently identified weekly market of 16,000 lbs of plantains at a guaranteed price. We also want to encourage those members who are now selling plantain and other produce to higglers to remember the co-operative needs them and to put Long Road first as divided we shall surely fall but united we can only grow from strength to strength.*

### **Co-op Education and Empowerment**

Very closely related to the problem of production and supply is the issue of co-op education, which the Board of Management recognized at the AGM as perhaps its most glaring organizational weakness. The Board explained:

*...several members do not seem to have fully understood the responsibilities that come with co-op membership. Although informal education was attempted in the co-operative, no serious ongoing effort was made during the period at educating the general membership. The co-operative is well aware of this situation and efforts are under way to put in place a formal training programme...*

One extension officer noted that the experience of various co-operative efforts in Jamaica has shown that "if they don't reach the ground they fail," and he remarked that the SMRDP "team would be strengthened with full-time effort" focused at education. As it was, he and the other extension officer were spending as much time teaching the ideals of the co-op as were in providing the technical services. He went on to note that the "farmers need to understand why they're doing this" because right now the "farmers themselves are undercutting this" by not producing enough, and by not supplying enough of what they do produce to the co-op. The Board also noted this problem, pointing that "we or any collective can only be as effective as the membership wants it to be. As we reflect and go forward we want to appeal to the Long Road community to give their blessings in tangible forms to the co-operative."

The farmers, according to the extension officer, "need to gain an appreciation of the co-op"<sup>19</sup> so that their 'buy-in' is not from week-to-week and so that they do not sell to higglers whenever the higglers

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<sup>18</sup> Citing the 'unbelievable diligence' and 'farming spirit' of the farmers in Trelawny as a point of comparison.

<sup>19</sup> This extension officer noted that while many possess an extreme faith in the co-op and in the Jesuits, it is important to temper this faith with the recognition that religious beliefs have inclined some towards the co-op without a full understanding of the self-help ideals it

provide better prices. He argued that the farmers must comprehend not only that without their support will the co-op fail (indeed, a fear cited by many) and make the future much more difficult, but that with their full support it can potentially grow and generate the improved price strength and stability at a bulk purchase which they want. As well, another advantage which was noted by the Board at the AGM but which is under-appreciated is the "ability to bulk purchase [which] can bring costs down" for inputs. But not only has an appreciation for the future costs and benefits of supporting the co-op been widely lacking - so also has there been a widespread failure amongst farmers to recognize that the co-op is indeed *theirs*.

As the extension officer noted, for the co-op to work it 'needs buy-in' through which the farmers, rather than seeing it that as a project of the Jesuits or as an ambiguous entity, "think of it as their own." However, he noted that "lots are not seeing it this way...saying always 'they' or 'the priests'" when referring to the co-op, rather than 'us' or 'we'. He concluded that "it can't go on this way." Indeed, the Jesuits have made great efforts to not lose sight of their main objective which is to mobilize the self-help capacity of the farmers, and eventually pass more and more control on to the community. However, Father Webb laments that "empowerment has been very slow. There is a tremendous lack of self-confidence." Given this and the fledgling nature of the co-op's, it is unlikely that the Jesuits will be able to 'pull back' as they intend any time soon. Nevertheless, the continued role of the Jesuits and the increasing possessiveness of the co-op need not be mutually exclusive.

The distance, or lack of a feeling of possession in the co-op is most evident among younger farmers. The co-op's Board of Management is dominated by older members of the community despite efforts to involve the young farmers, and the young farmers were noticeably absent at the AGM. The "poor attendance by members" at co-op meetings and functions and the reluctance of the young farmers to become involved with the Board were weaknesses identified by Board at the AGM, as it was stated that "young farmers who are members need to take a more active role" in the management efforts. Another organizational problem reflecting this lack of possessiveness of the farmers in the co-op is the fact that for some time they had voted Long Road's most prominent citizen, who is not farmer but who works in Annotto Bay, to be the President.<sup>20</sup> Explained one extension officer to some young farmers, "it is in the interests of farmers to keep farmers in charge" so "it is your responsibility to be involved."

The understanding and 'buy-in' of co-operative ideals and the role of the small farmer was most evident during the tour of the SMRDP and the Belfield co-op by the Morant-Yallahs farmers. Small

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represents. He noted that "while this support has been critical [as some of the more prominent farmers are Roman Catholic], this cannot be based on religious affiliation but on an understanding of what is being done." This, he noted, "comes back to education again."

<sup>20</sup> This is very much akin to the assessment of Berke and Beatley (1995), who note the predominance of local elites in controlling local development projects in Jamaica. However, with the co-op such people are not in a position to benefit materially, only in terms of prestige.

farmers are the most important producers of domestically consumed foods (USAID et al., 1987), and the director of the Morant-Yallahs co-op noted that “if we don’t produce, this nation will become a nation of pure importers.” With great emotion it was echoed that the “small farmer is so important to this nation.” The Chairman of the Belfield co-op gave an impassioned, well articulated expression of what a co-op is about and what it means to ‘gain strength through unity’ to the Morant-Yallahs farmers. He exhorted that “we must work together or they will crush the small farmer, and the small farmers feed this nation.” This call was met with great applause by the farmers.

Selena Tapper, from UWI-Mona, was the guest speaker at the Long Road Co-op Annual General Meeting in August and she also gave an emotional speech to the farmers about the value of their education and their understanding of the co-op, and about having confidence in themselves. She described the people in Long Road as being “at the cross-roads in a journey. Congratulations for getting here, but this far is not anything but a beginning,” going on to explain to the farmers that:

*...the whole of Jamaica, the whole of the globe, is changing. And you have to be prepared to adapt to that... in a new global reality, technology is taking over, and things are changing rapidly. You can't just be satisfied to put seed in the soil, you have to be aware of what the market wants. You are at a cross-roads - a threshold of a new reality and the challenge is that you are going to have to run the business yourself need to learn new skills and educate yourself, because Father is not going to be here forever.*

### **Is Farming Difficult?**

Asked whether farming is difficult, 70% said that it is, 13.3% gave a mixed response, and 16.7% said that it is not (see Figure 3.0.10). Farming was judged to be not or only moderately difficult for different reasons. One old farmer, age 79, noted that farming was not difficult “but younger [people] not working - that’s why it looks difficult.”<sup>21</sup> Semi-retired but still bringing in produce to the co-op, he was one of the 2 who said that there were no obstacles to farming in the region, remarking with confidence that one “can get help from credit, can succeed.” A younger female farmer noted that farming was not hard “if you plant the things the co-op needs.” Another, age 69, bluntly said to the question of whether farming was difficult: “No man.”

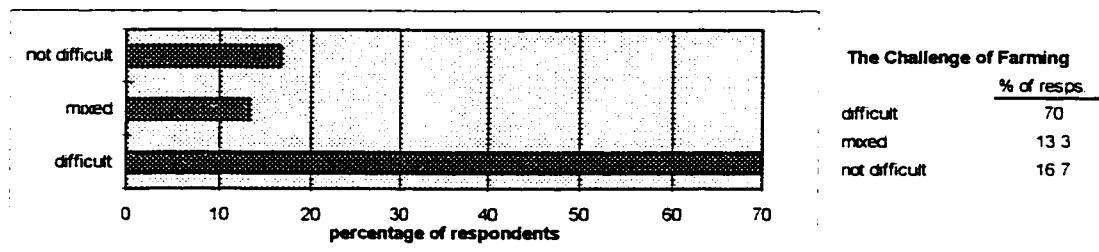
Three of the four giving mixed responses suggested that a lack of help made things more difficult. The fourth respondent who gave a mixed response was a very confident young farmer who stated that farming was not difficult “if you know your trade,” commenting that “I can get around - I’m a technician - [the farming is] not as hard cause I know what I’m doing.” About to reap his first coffee crop, he does not see very much limiting his success, commenting “I’m really on target.” Another young

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<sup>21</sup> This indignation with younger people is quite common amongst the older farmers, who perceive the youth unwilling to go into farming to be lazy. This theme recurred in the responses.

farmer, imbued with a similar confidence, explained that while farming was difficult he has “confidence in hard work [and has] no problem right now.” Another remarked that “you do all right if God bless you.”

**Figure 3.0.10 Perceptions on the Challenge of Farming**



### Identifying the Problems

As noted in section 2.2, the discussion of why farming is difficult and the question of what obstacles are perceived tended to be very similar, and were combined for each farmer (so as to avoid repetition) to provide a single list of problems each farmers noted. The problems identified by the respondents are discussed in the rank order of the number of farmers who identified them (see Figure 3.0.11).

#### No Labour

The most common problem cited (17 farmers) was that the farmers have no help and cannot afford to employ any labour. One farmer noted that with help, “farming can pay,” while a 76-year-old farmer said that he was “used to the hilly [terrain, and] if you could get assistance in farming you would not find it so difficult.” One farmer, when asked to cite the obstacles he faced, said “can’t get no labour man - just that,” while another related this complaint to the frustration of knowing that so many youth sat idling around town: “me want help...if me ever get 2 workers, me all right...it just me one, while people just sit here.” Another farmer made a similar comment, noting that while labour was his biggest obstacle. “we can’t get people to work [and] you pay dear to get people to work.”

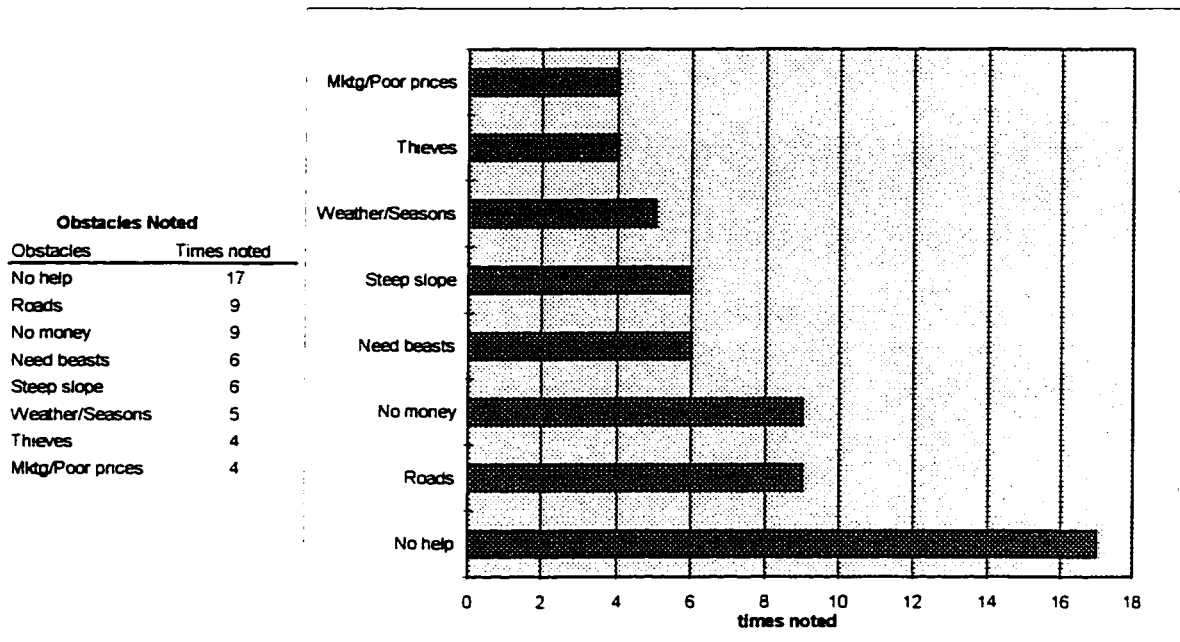
The importance given to labour can clearly be attributed to the gruelling and solitary nature of the work. One farmer explained that there are “limitations to what you can do” as only one person. Another remarked that “as one man, you burden yourself in the field,” although he went on to note that “if you put in labour it can work.” An old farmer complained that his biggest problem was that his children are not helping, remarking that he does not have the money to employ help having “never



employed anyone.” One very tall farmer - not from the survey sample<sup>22</sup> - put it this way: “I would more work but me back can only take so much.”

**Figure 3.0.11**

**Problems Identified**



also noted:

- thrice: Lack of machines, lack of credit, lack of government support
- twice: No obstacles, lack of motor vehicle, size & access to land, pests
- once: lack of irrigation, fire, animals eating crops, lack of fertilizer, old age

Lack of Roads

During a long hike to one farmer’s highland field, an extension officer commented that “this is the kind of land these people are dealing with - it’s tough work just getting to the land - and this an easy piece of land to get to.” Understandably, the lack of adequate roads was cited as a problem by nine farmers, and generally related to the task of carrying produce. One farmer commented that “because we don’t have the road it not easy to get out the produce [and] we have to carry out on our head,” while another remarked that “all we need is good farm road” - both in reference to the planned extension of the long road. At the AGM, the Board noted that the SMRDP is “trying hard to get the road to ‘the Com See’” - essentially an extension of the long road from it’s ‘dead end’ in town up along the mountain path which is currently too narrow for any vehicles.

<sup>22</sup> This farmer was from Fort George, the town below Long Road.

The road to the Com See eventually makes it to somewhat of a plateau, and if the road could get to this point it could easily be extended farther into the interior and would link many of the young farmers' coffee fields - at present very remote - and allow for the pick-up of produce from these more isolated highland plots. This road would also link Long Road by road to the interior and St Andrew. Currently a road (albeit a very precarious and poorly kept one) which enters the mountains from the south side of the island, near Kingston, is the only way supplies such as suckers and fertilizer can be brought to the farmers of this highland region. However, this 'road' from St Andrew (really only a glorified mountain path near the end) is the domain of donkeys and 4x4's and is in no condition to allow for a delivery truck.

For those who farm in this area, some as far as a 1 1/2 walk from Long Road, the task of carrying the produce out is a tremendous burden which a road could potentially alleviate. The majority of those who cited roads as a problem were referring to this major extension, and it is no wonder they hope it will come soon. The issue of the road was also a major item of concern at the AGM, with many farmers showing great interest in the road and displeasure that it had not yet progressed beyond the point of planning. As of the summer of 1997, the SMRDP had yet to secure both the funds - an application was pending to the Jamaican Social Investment Fund - and an economically feasible engineering plan needed to make the extension. Father Webb expressed confidence that the money will be secured as soon as they can get a reasonable engineering estimate.

#### No Money

A lack of money was cited as a problem by nine farmers, and this generally reflected an inability to address another of the identified problems. One young farmer, who also works part-time on a coffee plantation, complained simply that "if you just farm, you make no money." Some related the lack of money to the aforementioned inability to hire labour, with comments including: "farming need push start with money...can't hire labour," "if I had money I could employ people," and "farming difficult, rough...have to have money...to buy things to carry stuff and employ help." One young farmer noted that his problem was "largely the money" because he needs help with farm maintenance, explaining that "all you see going on is mostly me alone."

Others related the lack of money to the inability to make necessary investments. One farmer noted that because he "can't get no money" he is unable to plant the additional crops that he wanted to, while another noted that he would like to farm coffee but cannot afford to buy the suckers. A young farmer explained that he had "no money to employ people" in addition to being unable "to buy certain things, especially chemicals and other things farms needs" - as his coffee was suffering from a berry

borer infestation.<sup>23</sup> Another young farmer defined his problem as “money, money, money,” which he needed “to hire people and equipment.” One of the most successful farmers noted that “me done farming since me growing up...really enjoy though sometimes money stubborn [and] most times financial problems.”

### Carrying the Load

As noted with respect to the desire for roads, carrying the produce from the farm to town is a very arduous task for most, and the notion of ‘carrying the load’ and the lack of ‘beasts’ to help were cited as problems by six farmers. Because most do not have a donkey to carry their produce, which much often be transported over miles of rugged and sloping terrain, the burden of carrying the produce on one’s head was also related to the problem of farming in a hilly district.

One old farmer, age 70 and still bringing in significant amounts to the co-op, explained that it was “burdensome carrying load from gullies to road” because it is a “hilly district.” He noted that he would be better off “if me had a beast to carry load,” but lamented that he could not afford one. Another, age 68, commented how “carrying the load hard on neck,” and yet, despite being one of the area’s most prosperous farmers he cannot afford to buy a donkey. Another old farmer noted how “me could sell more but me can’t carry it and me don’t have money to employ workers.”

### Hillside and Slope

Problems related to the practice of agriculture in a steeply sloping area were also cited by six farmers. In addition to noting how it made carrying the produce harder, the mountainside was cited by one farmer as making farming difficult because the “steep land [causes] manure to wash away.” More on the challenge of farming a steeply sloped area will be discussed later.

### Weather and Seasonality

Because no one in Long Road has irrigation,<sup>24</sup> the farmers are totally dependent on rainfall for crop production. However, the summer of 1997 was one of the longest and most severe droughts in years

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<sup>23</sup> Berry borer, weeds, and other pests are typically controlled on coffee with the Roundup, but subsequent to the interview with this farmer he was barred from applying it to his field because of his location above the catchment for the town’s water collection. The town’s water inspector, upon being informed that coffee was planted above the catchment and knowing the chemical intensity of coffee, referred the matter to the region’s water officer in Port Maria.

The young farmer attributed the fact that he was suddenly reported, two years after having cleared the land and planted the coffee, to the “jealousy, envy, covetousness” of ‘his enemies’. He said that while some, like himself, “try and better conditions” through hard work, there are “others trying to bring you down.” The paradox, he noted, is that “if you do nothing, you remain in poverty and they insult you.” He initially refused to back down, clinging fiercely to his rights as owner of the land to do as he pleased with it. He was ready to demand that the government compensate him, payment which an extension officer noted would have to be enormous if it was to recompense the farmer for anywhere near the earning potential of the land over the coming years - which was unrealistic to expect. However, in the time since, the young farmer has co-operated with the chemical-ban, and Father Webb is helping him buy a weed-cutter to control the growth of grasses and weeds that Roundup would otherwise take care of. In terms of the berry borer pest, it is hoped that organic methods of control can be found.

<sup>24</sup> The tank building I participated in was in Fort George. Some in Long Road have tanks collecting rainwater but which are used only for domestic purposes.

and took a serious toll on many farms. As a result, the lack of rain and the heat was at the forefront of many farmers' consciousness, perhaps more so than would have been the case if the interviews were conducted at a different time of year. Nevertheless, six farmers cited weather and seasonality as a problem. One noted the problem with the summer sun, the "dry weather [and the] dryness of ground," while another commented that the drought and the fact that farming "depends on season" meant that he "can't plant anything now."

#### Praedial Larceny

Four farmers listed thieves as a problem, and Father Webb described farm theft - referred to as praedial larceny - to be rampant in the area. The problem is particularly acute for the older farmers. Said one, "if you can't curb that you might as well lay down arms." Another old farmer complained that to stop those who "steal by night...we need at least 4 police in district but don't have any." He said that "me can manage [but] all me need is police." One farmer lamented that he "would feel so happy if me know I could take up all me planted," but said that he "gets discouraged [and] one time you want to give up," concluding that he "wouldn't have problem but for that."

#### Marketing Problems and Poor Prices

Prices and issues relating to marketing were cited as problems four times. One farmer described his money problems and linked them to the fact that "me can't sell me crops and get enough." Another complained that "when crop come in, we need market for it," claiming that mangos are the town's "best crop and still three-quarters spoil...need better marketing." One young farmer linked a reduction in the marketing problems they face to the growth of the co-op, commenting that "if co-op gets stronger it will help." Another of the more successful young farmers described farming as "really difficult" because "even when we can produce sometimes we can't sell or get good prices." He said that this makes farming often very discouraging, and while he still has a love for the farming life, which he calls a "nicer way," he reiterated that "we all know farming hard still."

#### Lack of Machines

The lack of machines and equipment - "as in Canada country" one farmer noted - was cited three times as a problem. One young farmer noted how a "chainsaw would help," a fact which becomes obvious when the incredible labour intensity of the 'slash' part of the 'slash-and-burn' is appreciated, since many of the farmers cleared the better part of their fields with only machetes. As well, the tasks of planting, cleaning, and harvesting are all done manually, using simple tools such as the machete, fork and hoe, making them very laborious. One young farmer related this technological limitation to farming a

sloped area, commenting that “if we talk about lower land, we talk about machines...when we talk about hills we talk about machete and fork.”

#### Lack of Credit

The lack of credit was cited by three farmers as a problem. One old farmer noted that “when you try and get loan you find it difficult.” The others gave little elaboration however, and the issues associated with credit have already been essentially covered.

#### Lack of Government Support

Three farmers complained of a lack of government support, with one old farmer noting that “government not helping and I don’t know who to go to.” Another cited as an obstacle the “lack of money from government.” With regards to the party politics so fierce in Jamaica, one farmer said he “can’t tell difference [as] neither has farmer vision. [You] pay taxes and get nothing.”

#### Other Problems

There were various other problems which were raised by only one or two farmers. Problems relating to the size or access to land were twice noted, with one farmer commenting how “people not sell the land,” and another remarking that a bigger farm would help. Two young farmers said that the lack of a motor vehicle was an obstacle, envisioning being able to get produce to market themselves. Two farmers noted problems with pests, one complaining how the “worms eat food” and the other the young farmer whose coffee crop was suffering from a berry borer infestation.

Only one farmer noted the lack of irrigation as a problem, which is interesting given how many cited the weather and drought as a problem. One farmer complained of animals eating his crops, while another noted the lack of fertilizer, which he needs “to make crops grow faster.” The problem of fire was only noted by one farmer - this in reference to another farmer who recently lost his entire crop to a careless slash-and-burn. The lack of acknowledgement of fire as a problem despite its frequency and danger is likely owing to the fact that fire is seen as a necessity rather than a problem (discussed later). Old age and the lack of support from children, related issues, were each noted by one farmer. One young farmer who worked full-time at a coffee plantation and worked his own farm only on weekends and days off saw his lack of time as the biggest factor making farming difficult for him.

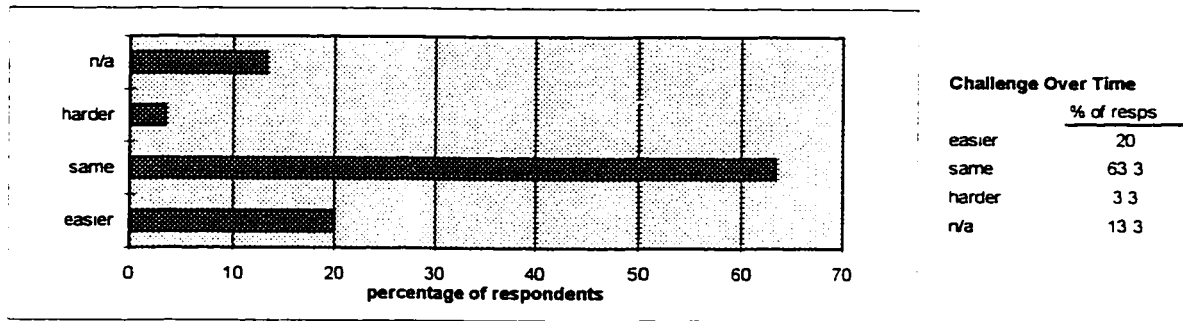
Finally, some explained that it was simply very hard work. One noted that “it difficult here but you have to go on.” While the challenges were varied, perhaps the best conclusion was given by one farmer who remarked that farming is “very hard work [and] anything you do can’t get it easy.”

## Has Farming Changed?

After being asked whether farming was difficult, the farmers were then asked to assess whether it was any easier or more difficult now than it was in the past. Four of the young farmers said they could not really judge this, being too inexperienced. Of the remaining 26, six felt that farming has become easier, one felt that it is harder, and 19 believed that it is essentially the same (see Figure 3.0.12).

Figure 3.0.12

### The Challenge of Farming Over Time



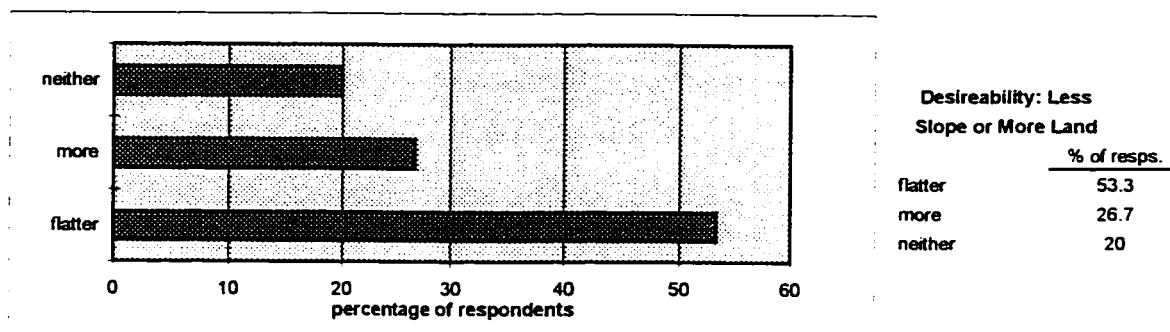
Those who felt that farming has become easier attributed it largely to the presence of the co-op. One comment was that while work is still hard, farmers are now “better off if it work.” Another noted that he “used to not make money, now make money,” which he attributed to raising livestock in addition to the presence of the co-op. One farmer explained that the co-op has made things “a bit easier.” because with “a next market opened up” he is now “able to set up plans” better than he could in the past. The other explanation for farming being easier than in the past was given by a young farmer who noted that there is more equipment and tools (ex. fork, chainsaw), “stuff our forebears never had.”

The one respondent who felt that farming had become harder was 76 years old and lamented that “no assistance not getting.” Another older farmer stated that while the practice of “farming the same,” it was nevertheless “easier when I was younger.” Most, however, generally felt little has changed with their trade over the years. Quotes such as “everything hard” and “just the same.” typified the responses. One farmer noted that “the more you put in, the more you take out,” a sentiment echoed by another who did not “believe it changed...what you put in what you get out still.” Another farmer noted that “to bring it here by neck is just as hard,” with the difference being “just now don’t have to go to Annotto Bay” because of the co-op’s pick-up. One young farmer felt that while the practice farming had changed little, people were generally “not working the land as much” as in the past.

### Size vs. Slope as an Obstacle

After the farmers assessed the obstacles they face, they were then asked whether a change in the amount of land or a change in its slope be more beneficial to them. This directed comparison was attempting to elucidate how land is viewed as an obstacle and to see how small, hillside farmers feel their relationship to the land could best be improved hypothetically. This was deemed a relevant question based upon experience, as participation confirmed one extension officer's claim that "it's a days work just getting up and down these hillsides."

Figure 3.0.13 Size vs. Slope as an Obstacle



A slight majority (53.3%) of the survey sample said that if they could change one of the variables - slope or size - they would be better off with flatter land (see Figure 3.0.13). However, this is twice as many as those who felt they would be better off with more land (26.7%), because 20% of the respondents said that neither change would benefit them. Those who felt that a change in their land would not benefit them were "satisfied with amount," as one farmer noted, and had no problem managing the slope. One young farmer remarked that he had "all I can manage," and even felt that "hillside land easier...when you used to a thing." An old farmer commented that "more land wouldn't help [because] men steal by night," having earlier identified praedial larceny as his primary obstacle.

The average farm size for those who feel that more land would be beneficial is 3.63 acres, less than the survey average (5.64 ac.) but over one acre larger than the majority of farms.<sup>25</sup> However, none has less than 2 acres of land, meaning that, those who said they would prefer more land are not the most land poor (in terms of size) farmers. An explanation is that for these farmers, slope is either not a major obstacle or it is very beneficial. Half of those who feel more land would benefit them are young coffee farmers for whom high, hillside - and hence sloping land - is key. Said one farmer who has one acre planted in coffee and who recently burned another to prepare for planting: "I would like to access more

<sup>25</sup> The 22 farms under 5 acres average 2.44 acres.

land but can't afford to buy." He hopes to acquire more land once he is able to reap his coffee. Another farmer noted that while increasing the amount of land would benefit him, more beneficial would be a better location closer to the road.

For those who said they would be better off with flatter land, most responses reflected the limitations of being one's only source of labour - as many do not feel they could manage any more land than what they currently work. "I have all I can handle," said one farmer, while another explained that he already has a "heap of work" and remarked how it would be "easier to farm flat land." One noted how he was "happy with amount of land [but the] hillside tough," while another said simply "flatter would make it easier." Another, commenting how it was "steep carrying up gully," remarked that "if land was flatter you'd...get along much better."

Similar sentiments were expressed by farmers with quite small plots (farm size being noted after the quotation), who asserted that they would prefer flatter land at the same time as they noted their satisfaction with the amount they operated: "me enough land" (3 farmers: 1/2 acre, 3/4 acre, 1 acre); "land good size" (1 1/2 acre) and "enough land sufficient" (2 acre). While this fails to consider the age and labour intensity of the specific cropping system, it is significant to note that four out of the five smallest landholders in the survey sample (some of whom were young and middle-aged farmers), described size as a negligible issue and slope to be the more significant obstacle. The sentiments of these respondents are perhaps best summed up by an old farmer who explained that farming would be "easier if you have flatter land but we don't got it, we just got hillside."

Two farmers made the association between flatter lands and more roads, with one noting the possibility of machinery: "could use tractor...could have roads" with flatter land. Two other farmers noted how flatter land would reduce fertilizer inputs, one remarking that "more level [land] would mean less fertilizer lost" and the other echoing that "when you use manure it would more stay on the land." This, it was noted, and would ease the workload because to "terrace takes lot of labour."

### **A Case of Land Reform**

The inequities and economic segregation of the country are not lost on many small farmers.<sup>26</sup> Said one Morant farmer: "Jamaica a nice country but very poor, and the gap between rich and poor is way too big. No middle." While there are many signs of hope amidst the general condition of material, underdeveloped poverty and environmental degradation, perhaps the most exciting development was

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<sup>26</sup> This awareness was found to be particularly evident with regards to tourism. On a day trip to a famous tourist area, Dunn's River Falls, a young farmer commented that "these nice places not for us, they are set up for rich foreigners...poor man never holiday unless you're sick." Such conditions, noted an extension officer, are why "poor Jamaicans get so annoyed with tourists, because for them it is always work, work, and they don't get to enjoy the beauty of the country, and then the tourists come here, see everything, all care-free, just relaxing."



occurring in Enfield (or Number 41). Enfield is a small farming community located a few miles inland from the Caribbean Sea, on flat coastal land. It is one of the four communities where the SMRDP operates a marketing co-operative.

While the town is located on the coastal plain, the farmers of Enfield are predominantly hillside farmers, much as in Long Road. The flat, coastal land at their doorstep has long been used for plantation agriculture - at first sugar, and later bananas. However, around a decade ago, St Mary Banana Estates (SMBE) stopped planting this land as part of a general contraction of its operations. The land became indefinitely fallow, and was overgrown with shrubs and guava trees. Townspeople also used the land as a commons for their cattle, which is a very common occurrence throughout Jamaica.

The land remains the property of the government, leased by the Jamaica Producers Group (holders of the St Mary Banana Estates), though it is highly unlikely it will ever be replanted in plantation bananas (given the dire state of the banana industry). After years of watching this flat, productive land go to virtual waste, four of the more successful area small farmers decided to act. They sectioned off a ten-acre parcel with wire in order to capture the land, aided by the SMRDP (which supplied the wire) and an energetic young extension officer who, when driving across this wasteland of good coastal plains to provide extension to farmers in the hills behind similarly identified the need to act on this land.

Although they are technically squatting on Banana Estate land, it is with the 'covert permission' of the area's Member of Parliament (MP), according to Father Webb, and having gained the support of the MP gave them confidence and firmer footing from which to approach the SMBE. While the SMBE allowed the plans without demanding concessions, they refused assistance in ploughing. In terms of the security of these four farmers squatting on what remains government owned and privately leased land, one extension officer noted that the "Government retreating here [i.e. abandoning the small farmers] would be political suicide [so it is] unlikely they'll be forced off."

Father Webb describes this effort as being "very important," and notes that the SMRDP is "supporting them in every way possible." He explains that the philosophy of the SMRDP has been to "prepare the land first, and we'll help with inputs, seeds, technical advice, chemicals, marketing and machinery." For the farmers was left the task of "labour and land preparation."

The four farmers pooled their labour and personal resources from their savings, one admitting that "we taking a big chance, and did not want to go into debt." Said another, "we don't want no obligations." Another commented how they "work as a team" to reduce labour costs, and will share the profits. Of the four, the extension officer noted, "these are intelligent farmers [and] they know what they are doing." He has much confidence that they will "keep the team spirit up."

Despite some setbacks<sup>27</sup> the farmers were strong and unwavering. By August 1997, the field was ploughed and ready for planting - the deep fertile soil of the area revealed amidst the scrub that dominated. Said one proudly, "we did pull it off." The extension officer remarked that "they are to be role models," and this success is a very important example because it could potentially spawn other attempts, especially with the looming collapse of the export banana market and the SMBE.

### **Annotto Bay**

As described in section 2.1, Annotto Bay is a very poor town and very dependent on the Banana Estates for employment. Ironically, the very trade dependence and market openness which has been responsible for the plantation economy may soon bring the demise of the banana export sector. While the potential impacts remain to be seen - and open a window for land reform - the initial shock will undoubtedly be harsh and the impact will depend very much on how alternative strategies are approached.

With regards to the specific case of Annotto Bay, Father Webb was on a committee in conjunction with JAMPRO and the Department of Business Management Studies at UWI which was planning how Annotto Bay can respond to the changing economics. By November 1997 this committee had completed questionnaires to generate an economic profile for Annotto Bay. Father Webb notes that the following alternatives were arrived at for Annotto Bay and the displaced workers: "develop cottage industries (ex. candy making), woodworking and more people returning to small farming."

### **Perceived Well-Being**

The respondents were asked to assess whether their well-being has improved, is the same, or has declined relative to 10 years ago, in the belief that this would provide insight into the broader quality-of-life development in the community. 80% of those surveyed feel that their well-being has improved, while only 6.7% said that it declined. The other 13.3% said that it had stayed the same (see Figure 3.0.14).

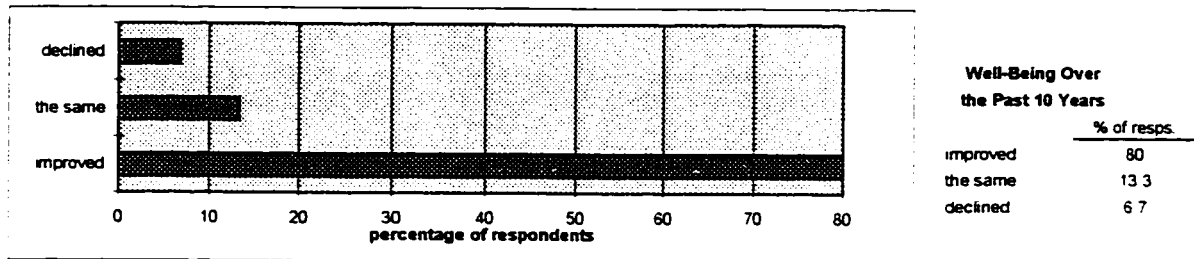
Those whose well-being has declined or stayed the same gave disparate answers. An old farmer, age 76, lamented that "years gone by much more plentiful and people more hard-working," noting that the old people who worked hard "died out and young people don't want to work." The result, he concluded, is that "whole life much more difficult...people these days don't live in unity and love and so you find a different life." Another old farmer also noted how there are "too many lazy people...first time I never see so much lazy people."

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<sup>27</sup> The farmers pooled their money and used it to hire a tractor to plough the land, which unfortunately brought some serious complications. They were very frustrated with the tractor owner who was trying to find out how much they expected to earn so as to either take a cut of the profits or increase his fee. The farmers felt he was acting out of jealousy of their potential success, and one noted how "some big men have small minds."

Figure 3.0.14

Perceived Well-Being Over the Past 10 Years



A young farmer complained that his decline in well-being was attributable to the fact that he did not have access to enough land. Another farmer felt his well-being was the same because, while the co-op had made it “better to get out” the produce and made it possible to produce more, this increase was negated by the fact that it was “at less money.” One farmer recognized that while her well-being had stayed the same, the “community [was] better to live in.” Indeed, there was considerable town pride, evident in comments such as Long Road is a “fruitful district, [the] most prosperous community around,” and “this is the best little community I can think of...no one goes hungry, quick to take care of strangers.”

Most people who said their well-being had improved attributed it to either the co-op or the infrastructure improvements which the co-op had played a critical role in securing. One farmer who said the main reason for the improvement was the co-op appreciated the stability it provided: “things go on more better...sell and get cheque.” Others commented on the improved distribution of produce and the supplies the co-op contributed, with one farmer noting that her life has improved because the “co-op help us with many stuff” and that before “lots of stuff used to spoil.” Another connected his improved well-being to the fact that the “co-op come in buying things, even if at cheap prices [and it] really helped with seedlings, suckers, fertilizers.” Another simply said, the “biggest improvement in Long Road is co-op.” although he feared how “plenty a farmers draw away.”

Three farmers connected their improved well-being to their increased earning potential. One young farmer noted the role of both the co-op and his farm soon to bear its first coffee beans: “co-op has really helped, and coffee will make difference.” Another commented that he “can earn more money now,” while a young farmer who had recently cleared a highland plot on which he was planting coffee, attributed his improved well-being to the fact that he had a “bigger farm now.”

Others described their improved well-being in terms of the infrastructure, especially the road improvements, as well as the recent additions of the telephone and the street lights and the repaired post office. Part of this appreciation for the co-op and the infrastructure is reflected in a tremendous faith and

gratitude for the work of the Jesuits - especially strong among the area's Roman Catholics, but also evident amongst farmers of other or no faiths. Said one secular young farmer, Long Road was a "little better [because] Mr. Jim he changed a lot," noting how he "change road [and] helped lots of people with funds and supplies" and concluding that Father Webb has "done so much to help...he's the perfect one for Long Road." Another said of Father Webb: "him try a lot with this community...blessed man that Father Jim...without co-op, a lot more people be gone."<sup>28</sup>

Two of the area's most successful farmers said that the community was better off because of the fact that some young people have been inspired to farm.<sup>29</sup> One noted how the "co-op improve area [because it] help young men [and] encourage them into farming." One farmer, whose son had returned to farm in Long Road after having left for Kingston, said she felt that it was important that the "young people [are] encouraged." However, while also noting the physical improvements in the town, she went on to give as a measure for how far things have improved the example that "people used to just wear patch-clothes," but now they have better clothes and "better hygiene." Similarly, another farmer noted how more farmers have shoes these days. Such comments put the discussion of 'improvement' and 'development' into context. As one farmer noted, the "co-op help situation but still very poor."

One older farmer explained that when children do not help on the farm, they are seen less as a resource than as a burden, suggesting that the fact that his children have grown up is the reason for his improved well-being: "when a man have children - burdensome bringing them to adulthood...when they get there things get better." While this frustration about the lack of help from children was common amongst older farmers and might seem to discourage having children as 'old-age security', as is common throughout the global South, some young farmers noted in conversations that they intended for their children to take care of them when they were old.

#### **PART 4: Cognizance of Environmental Issues**

##### **Land Crowding and Hunger**

When asked to assess whether there were too many farms in the region, 93.3% felt that there were not too many, suggesting that land hunger was not perceived to be a problem by most farmers (see Figure 3.0.15). Neither of the two who felt that there were too many explained why they felt this way with much clarity, and curiously each noted (in the preceding question on slope vs. size) that they have

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<sup>28</sup> Although Father Webb was cited more commonly - having been a founder of the co-op and also serving as the priest for Long Road for some time - the farmers are also very fond of Father Martin Royackers, for whom they also expressed great respect and gratitude.

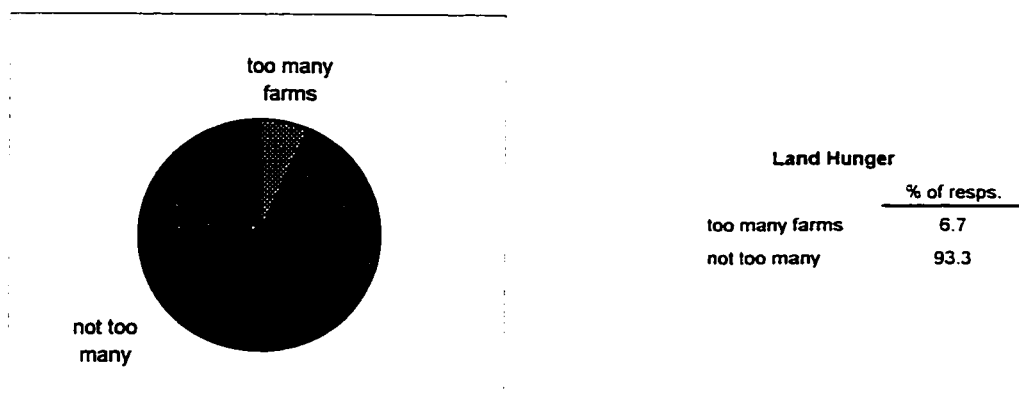
<sup>29</sup> Many old farmers are frustrated with the reluctance of young people to go into farming because of what it means for the future of their community, and, as evident on the tour of the SMRDP by the Morant-Yallahs co-op, some also see the broader ramifications. One old farmer from Morant-Yallahs complained that "the young people don't want to get their hands dirty" - to which the Chairman of the Belfield Co-op, "they're going to have to for when we pass on this country will need them."

'enough land' (farming plots of 2 and 3/4 acres respectively). One young farmer, although said he did not feel there were too many farms, did complain that "people not sell the land, not lease land...can't get no land," when he discussed the reason his well-being had declined. Generally though, land hunger was not a problem that came out of the discussions.

The prevailing theme was that the region could house more farmers. One farmer noted that there is "enough idle land," another remarked that the "majority of people don't want to farm," and a third noted that there is "more land than farmers but many don't want to work [because they think it is] too hard." But not only did the vast majority feel that there were not too many farms and that there could be more, many felt that there *should* be more.

Figure 3.0.15

Perception of Land Hunger



This feeling that there should be more farmers was particularly evident amongst the older farmers, who respected the young farmers but who looked very scornfully at the many other young people in the town who did not want to farm but rather 'idled all day'. Said one old farmer: "too few people do farming...the younger people man not want to do what we do." Another old farmer remarked that there "should be more if young people was farming...could be more." This unwillingness to farm was commonly attributed by those who did farm to laziness. Said one: "I believe it need more [farmers] because of too many lazy people in this area." One farmer connected the problem of praedial larceny to there not being enough people farming, commenting that "we need more farmers [because there is] a lot of idling and higgling and thieves."

A young farmer growing coffee, whose field is quite remote and an 1 1/2 hour uphill walk from his home in Long Road, made the interesting point that "if more farms here a truck would come - better for us...Coffee Board would send truck if more farmers." Working full-time on a coffee plantation in

addition to having his own farm,<sup>30</sup> he is quite aware of the importance the government attaches to coffee. As a result, he feels that if the area around him - where most of the other young farmers growing coffee are situated - was to grow even more coffee, the government would be encouraged to extend either the long road (the road to the Com See) or the road from St Andrew, in order to make the area accessible and provide a pick-up service for himself and the other young farmers. Given how far he will have to carry his coffee harvest in the absence of a road and a pick-up service it is little wonder he holds out this hope.

The notion that more farms could prove beneficial to those already farming was also noted by another farmer, who together with her sons and husband grows coffee. She said that she "would like more [farms so we] could produce more, like export crops." Having earlier cited the importance of getting a road extended back to her fields, she felt that a growth in the number of farms could potentially bring about improved infrastructure links which would be necessary to produce for export.<sup>31</sup>

From these responses it can be concluded that land hunger is not perceived to be a significant issue by Long Road farmers. Rather, what land is currently being farmed - aside from the government lands in pine forest - is seen to be land that could and should be farmed. This view of the land is perhaps best expressed by a young farmer who remarked that "whoever wants it can have it. [they] just need strength and ability."

### **Perceptions of Deforestation**

Not a single respondent was familiar with the term 'deforestation' when asked to assess whether it is a problem in the region, so it was explained as 'a loss or change in the forests'. This unfamiliarity with the lexicon was not seen to have distorted the intent of the question, because the farmers were still encouraged to reflect on how they interpreted the changes (or lack of change) in the surrounding forests, as was the original intent. The qualitative element, 'change', was added in the definition of deforestation because so many of the region's forests have been converted to pine plantations by the government.

The legacy of the Forestry Department, and later FIDCO, surrounds the hills of Long Road. As one young farmer explained, you can tell the boundaries of the government property by where the pine ends. Over the past four decades, one of these two agencies has been responsible for cutting much of the forest surrounding Long Road, and replanting it with pine. The result is that the district is dominated with farms and pine plantations, with some ruinate forest, and many of the streams are now dry or seasonal.

An older farmer who had worked for the Forestry Department for 22 years beamed proudly that "these hills are all pine because of me." The department, in an attempt to provide domestic sources of

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<sup>30</sup> It is his hope that once his first coffee crop bears, he will be financially able to stop working at the plantation, concentrate on his own farm, and end this punishing lifestyle.

<sup>31</sup> Although aside from coffee she did not explain why she felt exporting was desirable.

cutting board, light posts and other building needs, began decades ago cutting the natural forest and replacing it with faster growing trees. At first it tried mahogany, cedar and spanish elm mono-forests, but this farmer noted how the "soil don't grow those trees." He said that "in 1960, I say to officer what we been planting not working...why not plant pitch pine [and] from then till now, pure [Caribbean] pitch pine." The pine has proven to be a fast grower having already yielded a mature harvest, some of which was harvested by FIDCO.

Only 6.7% of the respondents felt that there is a problem with the surrounding forests (see Figure 3.0.16). Of those two, only one gave an explanation, noting that the community "used to get more rainfall [but there was] too much cut above us." 93.3% of the respondents said that there is not a problem with the forests, with some making comments to the effect that the forests have not changed at all. Typical responses were: "everything all right," "forests the same," and "everything running the same way." Many, however, went on to point out various changes and insights of note.

While they did not see it as a problem, six farmers noted that there has been a change in forest composition, pointing out the presence of pine and coffee in the area. One remarked that there were "less forests, [having been] put to pine and coffee," but went on to note that this had "no impact." Two others also observed a change but downplayed the impact, one saying "yes change, but no problem," and another that "yes, less forests but no problem." One farmer commented that the forests are "mostly pine," and another that while there is now "coffee in the forest," there are also still "plenty of trees in the forest."

It should also be noted that the forests are used by many to provide charcoal in order to meet a portion of household energy needs. In a conversation with an extension officer on the subject of deforestation it was noted that poverty, in addition to relating to the burning of the forests for crop production, also relates to the charcoal consumption. He also noted how the PNP promised to subsidize kerosene and ovens but subsequently broke that promise. A Mennonite development worker also discussed the importance of subsidized kerosene, for the sake not only of the forests but for the farmer's well-being.

In addition to the one farmer who felt that there was a problem because too much high forest had been cut, four others suggested that the conversion to predominantly pine forests has affected the region's water. The farmer who had worked for the Forestry Department and was instrumental in the conversion to pine also noted that there is lower water pressure now than in the past because "them cut down old trees, and not as much water as there used to be." One farmer remarked that while it was "not a problem, [the] pine draw plenty a water," a comment echoed by another farmer who said that "pine stopped flow of water," and again by a young farmer who noted that the "area people say that pine drawing water."

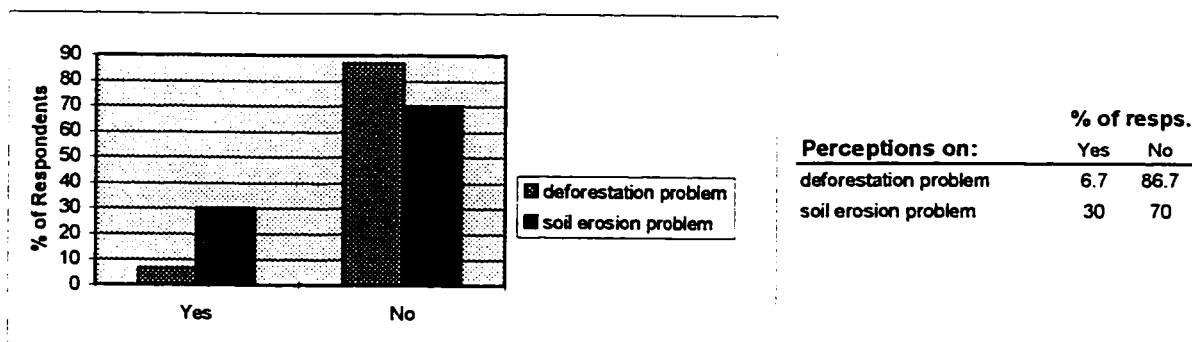
Said one extension officer: “while I have no empirical evidence, I can see pine and in areas where there used to be good yearly water harvests, there now is very little...it’s not hard to see the connection.”

FIDCO (see section 1.3) used to employ some Long Road residents to harvest the government-owned pine in the region, but recently operations in the area have ceased. As a result, four respondents said the real problem with the forests was that they were no longer providing employment. One noted that “plenty used to get livelihood” and that “a few years ago could get employment” harvesting pine but now “it die out.” Another said the forests are fine “but one time people used to get jobs cutting trees.”

One of the most noticeable and consistent features in landscape during the fieldwork was the presence of fire. Every day for over four consecutive weeks, one or multiple fires were seen somewhere in the forests surrounding Long Road. As an extension officer noted one day upon seeing numerous fires smoking: “they’re burning down the hillside again.” Yet despite the frequency of fire, in the discussion of forest loss or change only two farmers noted the impact of fire. One of these farmers commented that while the forests are fine, the only problem is “men lighting fires in dry season.” This issue of fire was particularly pertinent at the time, as many fires were being lit and the prolonged drought made them especially potent - having recently led to the devastating loss of one young farmer’s entire coffee crop.<sup>32</sup>

In short, it can be concluded that while some did not see there being any difference with the surrounding, many acknowledged there had been some change. However, very few saw this conversion, whether it be to coffee or pine plantation, to be a negative change, even when it was seen to have affected the water regime. Employment was a bigger issue than was the altered environment.

**Figure 3.0.16** Perceptions of Environmental Problems



<sup>32</sup> This young farmer had two acres in coffee and lost his entire crop only weeks before he was to harvest his first crop, the consequence of careless slash-and-burn below his land during dry season. As with most, he was unable to afford crop insurance, so three years of grueling work and one big payoff went up in flames in a few hours, demonstrating the precarious nature of making a long term investment in an area where slash-and-burn is practiced.



## Perceptions of Soil Erosion

The term 'soil erosion' was less problematic than was deforestation, but if the respondents were not familiar with it, it was asked if they had noticed their farm had less soil or if the soil had lost some of its productivity. 30% of the respondents noted that they did have a problem with soil erosion, while 70% said that they did not. For those who did not identify a problem with soil erosion, typical comments were: "no problem - soil steady," "soil all right," "always fertile [and] will bear anything...don't need manure," and "with rain everything all right." However, some of those who said that there was not a problem did demonstrate an awareness about the potential dangers of erosion and were taking cautionary measures. One farmer noted that "though [he] might lose some," he terraces and plants in rows to protect his soil, while another remarked that "my farm not steep [and] me contour [so] soil fine." One saw crop rotation to be a key: "my own land o.k...changing crops to keep soil."

The role of the co-op with regards to soil conservation is notable. Cognizant of soil erosion dangers, extension efforts have emphasized the need use intercropping measures with tree crops and land terracing where possible. At a young farmers meeting, this consciousness of the need for soil conservation measures was very evident. Father Webb and one extension officer encouraged the planting of trees on all steep hillsides for the sake of soil protection, noting that "without trees on the slope, the soil will be gone" - a comment which the young farmers all agreed with. It was suggested that the farmers plant carrots or a root crop together with trees, so that after two years of growing carrots there will be some trees established. The extension officer also emphasized how coffee needs a hillside ditch in order to stabilize the soil, pointing out that contours have the added effect of making planting and harvesting much easier. In stabilized soil, he suggested that coffee trees can be expected to produce for 20-25 years or longer.

For those who identified a problem with soil erosion, typical responses were: "water washing soil off," "soil just wash away," and "some part of land it wash away." Two noted how the exposure to the sun made the soil more prone to erode, one commenting how "sunny soil...washed away," and another, with multiple plots, remarking that in his plot which was "more sunny...plant no do well after while [as the] soil just wash away." One old farmer commented that "the soil just mash away on the hillside, it gets tired, worn out...year after year, generation after generation of working same land - need manure - after years of that just give up and find new land." As well, two farmers who said they do not have direct problems noted that soil erosion was a problem in the region, one attributing it to the fact that the area is a "hilly district," and the other noting that "on other land, up on hill if you start to plough gets sandy."

One young farmer who grows coffee on a very steep hillside said he has problems with soil loss, and noted how he hopes to someday terrace his land "with a fork." After having burnt his field initially, rather than terracing the soil before planting - an incredibly labour intensive and time consuming task for a single farmer - he immediately planted his field in coffee, haste no doubt augmented by the fact that coffee takes around 3 years to bear its first crop. Because his coffee is still young he does not want to risk damaging the trees and must now wait some years until they became more established before he can begin to terrace the soil, during which time he risks losing much soil given the steepness of his land.

Having worked with many of the other young farmers on their coffee farms, this experience was typical as most were aware of the potential problem. On their farms they acknowledged a similar intention to terrace their land after the coffee trees had become more established, but could not initially wait to plant their trees and could not terrace while the trees were so young. In areas with extreme slope, farmers would hastily built individual terraces with bamboo, but for the most part serious soil terracing had been put indefinitely on hold by the need to start the crop as soon as possible.

One visit with an extension officer to a plot about to be cleared inland from Fort George was especially poignant. The farmer was explaining how he intended to clear and crop this densely forested, very steep land,<sup>33</sup> and sought advise on the irrigation potential of a hillside creek. The extension officer confidentially remarked that the land is "bound to erode," but commented that the farmer "just has to be smart and practice as much soil conservation as possible." In the end it was noted, "it's all he has." While the land hunger in Long Road is not as desperate as it was for this man, many of the younger farmers in the interior are on similarly sloped lands and must be very conscious of soil erosion in the future.

### **Conclusion**

The Long Road region and the northern slopes of the Blue Mountains do not reveal the stark devastation of the southern slopes of the Blue Mountains. A descent from the Blue Mountain Peak reveals that many hillsides on the southern slopes, even those within the park, have been recently burnt and are already visibly eroding, far too steep to yield more than a few years of crops. It provides a visually disturbing picture, especially when set against the backdrop of green mountainsides as far as the Caribbean Sea - slopes no longer covered by the dense forest that gave them their blue name, but which are a wasteland of grasses. Hundreds of years will not replace those forests lost.

On our descent from the Blue Mountain peak, we (I was travelling with a SMRDP extension officer) met a small farmer who we recognized from the Morant-Yallahs tour of the SMRDP. My friend noted his displeasure to the farmer with "what some of you guys are doing to these hills." The farmer

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<sup>33</sup> He was intending to squat on the land, having targeted this land because the owner was an absentee landlord, and if someone peacefully possesses and utilizes the land for 7 years without intervention from the owner it can become theirs by right.

responded: "I know, but them can't do better ya know - them don't got no land ya know." We knew, and were embarrassed to have raised this. These were clearly victims, not the cause of the deforestation.

While the extent of landlessness and deprivation in Long Road is not as severe as it is in the above scenario or in other areas of the Blue Mountains (nor the land use change as ecologically significant, given that most or all of the natural forest cover surrounding Long Road has long been lost), the land use and change in the Long Road region can be similarly linked to the economic conditions which the marginalized farmers face. However, the SMRDP means that another layer must be added to the analysis of farmers land use decisions, as most in Long Road are influenced by and internalize markets through the co-op.

The SMRDP raises a complex series of environment and development issues, because clearly development - from the farmers perspective - is occurring, however sluggishly. The SMRDP provides many insights, in both its successes and limitations, for rural economic development and how the barriers of marginalization can be overcome. Foremost, it illustrates how geographic isolation and the fragmented, volatile (in both price and volume) market system dominated by higglers can begin to be surmounted through a co-ordinated marketing strategy linking farmers to consistent purchasers. As well, and very important with regards to the long term health of the community, the co-op has paid special attention and done very well in inspiring young farmers, having helped to nurture a core group of driven, diligent, aspiring young farmers who will lead the community in the future. There is a resilient optimism amongst most of the young farmers. Said one: "with hard work we'll get out of poverty."

However, in terms of the environment, development has also implied an intensified use of the land, most notably with coffee but also with such things as the potential road extension. Yet while the hypothesis that coffee is a major factor causing landscape change and deforestation was given strength by the findings and responses, and while many have condemned a development path focused upon the production for foreign markets (see Section 1.1), coffee is clearly so critical to the development process for these farmers that it is difficult to see it in a negative light. Such is the vexing nature of development in such a marginalized area, the discussion of which will be left for the analysis of Chapter 4, which ties together the results from the fieldwork with the macro-political economic analysis of the following section, and the conclusions of Chapter 5.

### 3.1 Jamaica's Structural Constraints to Sustainability

The second step of this thesis is the macro-level political economic analysis, profiling Jamaica's national economy with particular emphasis on agriculture. This will be accomplished through the use of the dependency spiral laid out in section 1.1, and as discussed in section 2.3. The profile will employ quantifiable measures where possible, though it will also include literary sources and highlight pertinent examples of government thought and policy.

#### PART 1: Jamaica in the Dependency Spiral

##### The Impact of Colonialism

The impact colonialism has had on Jamaica's development can hardly be exaggerated. As described in section 1.5, the Jamaican economy was founded on slave labour, with the pre-existing civilization annihilated and a plantation matrix embedded in its stead. The colonial era shaped the physical configuration, settlement patterns, and social structure of the island, with the ex-slaves marginalized as peasantry in the hilly interior, as agroproletariat on the persisting plantations, and as urban masses relegated to low-wage labour or higglering. The era of 'King Sugar' and colonial rule also spawned a close and pernicious (for the masses) relationship between foreign and local capitalists, the latter being dependent on the former for finance, technology, supplies and marketing.

The degree of dependence exhibited by the Jamaican bourgeoisie led Beckford and Witter (1981) to label them "a *client* (or comprador) bourgeoisie."<sup>34</sup> It is significant, as Figueroa (1994) notes, that this criticism was shared by both left and right critics of Jamaica's historical experience. Both the Plantation School and Sir Arthur Lewis saw the lack of dynamism and innovativeness of the local capitalist class and the planters to be major deficiencies in Jamaica's development. The result of this economic subordination to British and North American capital is that the client bourgeoisie and the plantocracy have been averse to risk, "favouring mercantile activities over productive ones." This inclination has impeded Jamaica from gaining value-added and longer term benefits from many of its exports (Thomas, 1988; Klak, 1996).

Compounding the economic subordination of the bourgeoisie is the fact that it is mirrored in the state. Beckford and Witter (1981) remark that "when Marx defined the state as the instrument of the ruling class, he was never more correct than in the case of the Jamaican state," as the Jamaican parties, though born out of labour movements, have historically operated "at the dictates of foreign interests."

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<sup>34</sup> Beckford and Witter discuss at great length how thoroughly the capitalist classes in Jamaica - the merchants and the plantocracy - have been intimately tied to foreign interests. They describe the top pillar of Jamaica's socio-racial hierarchy to be the white foreign and Jamaican capitalists, and the rung below being 'brown or black' client (or comprador) capitalists and professionals - both small groups in terms of size, massive in terms of control over the economy, and each utterly lacking in dynamism.

Yet the impact of colonialism has been even more insidious than the ingrained physical configuration, settlement patterns, and social structure and economic orientation, all described in section 1.5. Although the end of slavery brought a “decisive rupture of the previous social relations,” in the words of Witter (1992), it was “followed by a long period in which these social relations, and the attitudes and value systems they nurtured, fade slowly, and perhaps never completely, like scars on the body social.” This intangible scar was also noted by Father Webb, who, in addition to pointing out the “tremendous land ownership inequality” as a determinant of Jamaica’s condition, gives high priority to “the residue of slave psychology in both the dominant and subservient classes.”

### **Independence and Neo-colonialism**

Although Jamaica gained independence in 1962 and experienced tremendous aggregate growth in the 1950s and 1960s led by the emergence of alumina-bauxite and tourism, the neo-colonial period has seen few changes in the fundamental structures of society. As discussed in section 1.5, foreign interests came to dominate both of these growth industries and the bourgeoisie remained subservient. Nettleford argues that today “the home-grown private sector remains by and large clusters of commissioned agencies that take little risk as trading houses, that never have to face the IMF or the World Bank (to negotiate loans)...and often piggyback on the capital and initiative of foreign investors.” As a result, he asserts, they are concerned with “money rather than improving people’s lives” (*The Gleaner*, 23/07/1997).

A brief review of the evolution of Jamaica’s geographical trade pattern reveals how ingrained colonial ties remain in trade relationships. Thomas (1988) notes that in the 1970s, Jamaican leaders made an effort to diversify trade away from traditional destinations, North America and the United Kingdom (which dominated Jamaica’s European outlets). This effort to diversify trade dependence meant that by 1980, total trade with the ‘developed world’ had decreased to 64.6%, down from 89.3% in 1970. However, by 1991-92, the total trade with developed world had climbed back to 80.5%, owing to the liberalization of trade under structural adjustment (see Figure 3.1.0).

The inability to diversify trade relationships has been most evident with regards to exports. In 1970, almost 91% of Jamaica’s exports were destined for the developed world - largely North America and the United Kingdom - and by 1992 the developed world was the destination for around 87% of all exports. The percentage of exports destined for the developing world rose only slightly, from 8.3% in 1970 to 12.7% in 1992, owing largely to the formation of CARICOM (Caribbean Community) in 1973. CARICOM was established in 1973 with the objective of promoting the economic integration and development of the region, especially among the ‘less developed’ countries, and in 1999 the move

towards a single market and economy will begin.<sup>35</sup> While it has encouraged some inter-regional trading, North American and European markets are still the overwhelming destination for Caribbean exports.

**Figure 3.1.0 Jamaica's World Trade: Export-Import Structure By Destination**

		World	Developed	Europe	USA/ Canada	Japan	Other	East Europe	Developing World
		US\$million	%	%	%	%	%	%	%
1970	Export	334.9	90.9	29.2	61.1	0.3	0.2	0.8	8.3
	Import	525.4	88.3	29.9	52.7	2.6	3.1	0.1	11.8
1980	Export	942.4	79.6	38.7	40.2	0.6	0.1	5.3	15.1
	Import	1177.7	52.6	12.2	37.6	2	0.8	0.3	47.1
1990	Export	1108.5	81.9	39.9	41.1	0.7	0.2	4.8	13.3
	Import	1917.7	73.7	12.5	55.4	4.8	1	0.1	26.2
1992	Export	1052.8	86.9	36.7	48.5	1.4	0.2	0.4	12.7
1991	Import	1700.4	76.6	11.7	56.8	7.4	0.7	0.3	23

source: UNCTAD (1995a)

Much of what diversification away from traditional partners that there has been has occurred on the import side of the balance, as imports from the 'developing world' grew to as high as 47.1% of the total in 1980 before falling again. Much of this rise, however, was owing to the increased relative significance of oil brought on by rising prices, as nearly 38% of Jamaica's 1980 import bill was on fuels (UNCTAD, 1995a). By 1991, imports from the 'developing world' were again less than a quarter of the total. The consequence of this colonial trade pattern is obvious, according to Beckford and Witter (1981):

*The contradictions which constitute Jamaican economy and society are obvious. We produce for the consumption of white people in Europe and North America and consume the fruits of their labour. The prices of their goods go up, while ours go down.*

### The Growth of a Commodity-Export Dependent Economy

As a plantation economy, Jamaica was essentially developed as a hinterland to the metropolises in North America and Europe, providing food exports, and later raw materials and a tourist destination, and serving as a market for manufactured goods and food exports. As noted in section 1.5, 'King Sugar' dominated the Jamaican economy into the 1950s. In 1950, sugar exports still accounted for 90% of Jamaica's foreign exchange, and total agricultural exports accounted for 96% of export earnings at this

<sup>35</sup> CARICOM is also progressively becoming 'a single economic space', meaning that not only will goods and services be allowed to move freely but so also will be factors of production (McIntyre, 1994).

time. The emergence of bauxite-alumina and tourism in the 1950s and 1960s led to tremendous economic growth, and by the mid-1960s the role of agriculture had declined to account for only 37% of exports. However, the fundamental commodity dependence had really only shifted from agriculture to minerals, as well as to what some have called an ‘invisible export,’ tourism (Ramsaran, 1989). Jamaica’s modern commodity dependence will be reviewed in the later section on *Reinforcing Commodity-Dependence*.

### Reliance on Foreign Investment and Trade Imbalances

The subject of Jamaica’s historical development path, its dependence on foreign capital, and the ensuing trade imbalances were discussed in section 1.5. After the New Constitution in 1944, the economic policy of each successive governments centred around a “dependence on international capitalism, by creating ‘a welcoming society’ for foreign capital under the general rubric of ‘industrialization by invitation’” (Beckford and Witter, 1981). Thus, TNCs came to dominate not only the agricultural export sector (over which they already had a strong hold), but the bauxite-alumina and tourism sectors.

In 1950 the ratio of exports-to-imports was 68%, and improved to 72% by 1960. However, by 1970 - as the volume of trade had more than doubled since 1960 and was nearly eight times what it was in 1950 - exports had fallen to 57% of imports (see Figure 3.1.1). This rapid growth in the trade deficit, in size and ratio, gives support for Anderson and Witter’s (1994) earlier comment that by 1970 the economy “was in a state of severe crisis,” rooted in a “deep structural weakness.”

Figure 3.1.1

### Balance of Trade (1950-75)

Value of Exports and Imports (US\$million)			
Year	Exports	Imports	X/M
1950	43	63	0.68
1960	157	219	0.72
1970	299	522	0.57
1975	815	1122	0.73

source: UNCTAD (1995a)

The ratio of exports-to-imports improved to 73% by 1975 as improving self-reliance had become a focal point of the PNP’s leftist policy by 1974, but the actual trade deficit still grew by US\$84 million from 1970 to 1975 because the volume of trade more than doubled during that time. As a result of the continuing trade deficit and the rising interests rates, the debt grew from US\$195 to US\$489 million between 1973 and 1976, and the economic woes were compounded by the capital flight and declining production levels. For various reasons discussed earlier, the ‘third path’ collapsed (or was ‘sold

out' depending on perspective) before it could address the economic imbalances and structural weaknesses which had brought the economy to the brink of collapse.

In its wake, beginning in April 1977, came the first of many IMF loans which have compounded the role of foreign financial institutions in Jamaica's economy. The massive trade imbalances engendered by Jamaica's open, foreign investment-guided development path are therefore inextricably linked to the rise in prominence of international financial institutions in the Jamaican economy. In turn, through SAPs and contingent loans and aid, the intervention of foreign financial institution has meant that foreign capital and investment had remained the focal point of Jamaica's economy. One result has been continuing and increasing trade imbalances, which will be discussed in the later section on *External Payments Problems*.

### **Asymmetry in Relationship and Increasing Power of TNCs**

TNCs have played an enormous role in Jamaica's development. In opting for an open, foreign investment-driven development path, successive Jamaican governments have given significant tax, tariff and other concessions to lure TNCs.<sup>36</sup> Barry et al. (1984) argue that "TNCs have penetrated the Caribbean more than other regions of the world" and have come to dominate all of the leading economic sectors in the region, in Jamaica's case mining, tourism, export agriculture, manufacturing and banking.<sup>37</sup> While the asymmetry is difficult to quantify, Beckford (1972) points out the historically inordinate power of agribusiness TNCs relative to the state with the example of Tate & Lyle, the biggest force in Caribbean export agriculture (ahead of United Fruit). In 1970, Tate & Lyle had annual sales equal to 69% of Jamaica's entire national income, or 12 times total sugar plantation exports in Jamaica.

McKee and Tisdell (1990) argue that "small island economies are even less well equipped to deal with [negotiating with TNCs] than are larger Third World hosts." The asymmetry, they contend, is particularly evident in sectors dependent on modern technology, management, marketing or distribution, and can give TNCs monopoly or monopsonistic dominance and lead to pricing policies very unfavourable to the national economy.

Beckford (1972) similarly contends that pricing in intra-company transactions has been a problem in the Caribbean, because vertical integration means that "the profit earned on any one activity may be inversely related to that of another." Thus, the agriculture TNCs have been willing to take a low

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<sup>36</sup> Beckford notes (1972) that historically governments have even included legislation to abet the consolidation of undertakings, such as capital-investment incentive legislation for sugar in Jamaica. He cites the example of how a threat by Tate & Lyle to close down its sugar operations forced the Jamaican government "to accede to the company's earlier unheeded demands for greater mechanization of field operations and the establishment of bulk loading facilities."

<sup>37</sup> They go on to suggest that in certain industries (like mining, local banking, agriculture, and utilities), many firms have shifted their stock ownership to host governments and yet are able to retain "influence through management contracts, technology transfer agreements, and marketing."



profit on raw-sugar production because they can later take a higher profit on refining, and as will be seen later, most sugar refining occurs outside Jamaica (although Jamaica does produce world-famous rum).

The bauxite-alumina industry, as noted in section 1.5, was dominated by TNCs since its inception - developing what amounted to 'isolated high-tech enclaves'. The capital-intensive nature of the industry meant that few jobs were created: between 1950 and 1970 the bauxite TNCs invested US\$300 million and made Jamaica the largest producer in the world, and yet created only 6000 permanent jobs. The TNCs naturally kept most of the profits, and not only did the poor receive few of the benefits, but much land was usurped from the peasantry and polluted, and the tax revenues owing to the government were systematically undervalued (MacDonald, 1990).<sup>38</sup> By 1974, Jamaica was earning the lowest bauxite revenues per tonne in the Caribbean region (Ramsaran, 1989).

As a result of this very apparent asymmetry in power, a focal point for the PNP when they took up the democratic socialist banner in 1974 was to take greater control of the bauxite industry. This included the Jamaican government spearheading the formation of the International Bauxite Association (IBA)<sup>39</sup> and unilaterally imposing a levy on the six bauxite TNCs after the TNCs refused to settle on a more just taxation arrangement. The levy meant that the Jamaican government earned US\$15.20/tonne from income tax and royalties between 1974 and 1983, when from 1969 to 1974 it earned only US\$2.36/tonne (Ramsaran, 1989).

However, with their privileged position 'jeopardized', the bauxite-alumina TNCs began to decrease production and investment in Jamaica after 1974 (MacDonald, 1990). Production of bauxite between 1975 and 1978 averaged 11 233 MT, versus 15 224 MT in 1974 (UN, 1981), a 26% decline. In fact, more bauxite and alumina was produced in the five years preceding the levy than the ten years following. The companies argued that the levy was detrimental to the competitive position of the Jamaican bauxite industry, but despite two concessions to the TNCs regarding the levy the slide in production continued into the 1980s (the trends in bauxite-alumina will be examined in the following discussion on commodities pricing). By the mid 1980s, Jamaica had fallen to third in world bauxite production, accounting for 9.8% of world total (Ramsaran, 1989).

Beckford et al. (1977) and Ramsaran (1989) each contend that there are essential similarities in the way tourist and branch-plant manufacturing economies and the plantation economy function. Foreign

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<sup>38</sup> The vertical integration of the TNCs meant that the value-added process - the smelting of relatively cheap crude ore into high-value aluminum - was done abroad (McDonald, 1990). However, intra-company transactions are notoriously difficult to tax and Ramsaran (1989) notes that "the price given for tax purposes is often significantly lower than the real value of the transaction." Thus, the taxes paid to the Jamaican government and the amount of jobs created were far less than would be expected from the value of the resource. The TNCs also demonstrated little care for the Jamaican environment, creating the infamous red mud lakes.

<sup>39</sup> The IBA united the world's major bauxite producers with the goal of assuring countries that they will earn a "just and reasonable real income" from the "exploitation, transformation, and marketing of bauxite" (Ramsaran, 1989).

capital has unquestionably had a major hand in directing Jamaica's tourist industry, as more than half of the total hotel capacity is controlled by foreign companies. As well, McDonald (1990) points out how much of the tourist spending remains in the North (ex. payment to tour operators) or goes to foreign-owned enclaves.<sup>40</sup> Ramsaran (1989) suggests that the reliance on foreign investment as the engine of industrialization was also fundamentally flawed because "profits are more likely to be remitted back to head office rather than reinvested"<sup>41</sup> (the lack of trickle-down will be noted later). Nevertheless, Ramsaran also notes how private foreign investment does have the advantage of not involving fixed interest payments as do foreign loans.

In terms of the direct deforestation caused by timber harvesting, Eyre (1987) notes that - unlike other tropical countries where they have been so active - TNCs "have so far been a negligible factor in Jamaican deforestation." Most timber in Jamaica goes for domestic use.

### **Instability of Commodities Pricing and Compensating Overproduction**

Jamaica's balance of trade is dependent on the export of a few principal commodities, and their performance over the past three decades has mixed - as coffee, though it is relatively small, has soared, and there has been a recent resurgence in alumina and sugar, although sugar is tenuous at best. The performance in the commodity sector has had a role in the declining terms of trade Jamaica has experienced over a prolonged period.

#### Bauxite and Alumina

Bauxite performance has declined significantly since the early 1970s when Jamaica was the world's largest producer and prices were relatively stronger.<sup>42</sup> The index of bauxite exports, in constant dollars, was almost twice (1.85 times) as great in 1970 as it was in 1989 (WB, 1993a). The amount earned per MT for bauxite fell by 61% from 1982 to 1993, at the same time as volume exported grew by 32% (see Figure 3.1.2). This suggests that production might have been expanded to compensate for the declining unit prices, and here there is clearly the danger, as Ramsaran (1989) identifies, of Jamaica's government being pressured by the need for foreign exchange and overusing this non-renewable resource "without getting an adequate return."

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<sup>40</sup> Less visible than the problem of wealth escaping, McDonald (1990) notes, is the immense social effect caused by the creation of "a luxury enclave, predominantly white, in a background of poverty, predominantly black." Ramsaran (1989), however, contends that any concerns over the social and cultural impacts of tourism "are generally pushed into the background in the context of the need for foreign exchange and poor performance of the export (goods) sector."

<sup>41</sup> He suggests the typical pattern of TNC investment - tightly controlled branches or subsidiaries - has been commonly replaced by a wider array of more subtle operative forms: joint ventures, licensing agreements, management contracts, turnkey contracts, production sharing contracts and international subcontracting.

<sup>42</sup> This decline in bauxite-alumina prices during the 1980s was owing in large part to the fact that there was reduced growth in the demand for aluminum globally, and the rate of alumina and aluminum produced in the US declined (WB, 1993b).

Historically bauxite was exported largely in raw and semi-refined form, meaning the national economy lost out on valuable alumina conversion. While efforts have for some time been made to increase Jamaica's internal capacity to produce alumina and capitalize on the value-added conversion process, the energy intensity of this process and Jamaica's dependence on imported oil makes it difficult (Ramsaran, 1989). Figure 3.1.2 shows that while the amount earned per MT of alumina increased significantly in the late 1980s, the volume exported actually decreased - revealing either or both a contraction in world demand and the limited capacity of Jamaica to convert for alumina. Given the much stronger price of alumina (and the jobs attendant to its production) versus bauxite, emphasis on this conversion will continue to be a priority for Jamaica. However, in order for alumina production to significantly improve in Jamaica, the energy intensity and oil dependence predicament must somehow be overcome.

Figure 3.1.2

**Bauxite-Alumina Exports**

Bauxite Exports				Alumina Exports			
Year	US\$millions	000 MT	US\$/MT	Year	US\$millions	000 MT	US\$/MT
1982	170	8435	20.2	1982	344	1783	193
1983	109	7806	14.0	1983	315	1938	163
1984	160	8875	18.0	1984	284	1740	163
1985	77	6431	12.0	1985	212	1648	129
1986	98	7076	13.8	1986	211	1611	131
1987	~	7783	~	1987	~	1597	~
1988	105	7527	13.4	1988	312	1601	195
1989	111	9546	11.6	1989	475	2180	218
1990	103	11112	9.3	1990	625	2935	213
1991	113	11804	9.6	1991	543	3081	176
1992	104	11360	9.2	1992	502	1459	344
1993	89	11173	8.0	1993	463	1145	310

source 1982-91: PIOJ (1985;1987;1991)  
source 1992-93: UNCTAD (1995b)

source 1982-91: PIOJ (1985;1987;1991)  
source 1992-93: UNCTAD (1995b)

Plantation Staples: Sugar and Bananas

The price of sugar was depressed on the world market from the late 1970s throughout the early and mid-1980s (MacDonald, 1990), but it improved in the late 1980s and early 1990s, with the amount earned per MT rising by 51% from 1986 to 1993, and by 32.6% from 1993 to 1995 (FAO, 1996). Projections for 1997 were less promising, with earnings per tonne having fallen by 3.6% in the first quarter (PIOJ, 1997). Notable here is the fact that none of the exported sugar is refined (UNCTAD, 1995b) (the recent performance of bananas and sugar can be seen in Figure 3.1.3)

The quantity of bananas exported expanded significantly in the early 1990s, apparently in response to the strong prices received in 1990 and 1991.<sup>43</sup> However, the earnings per metric tonne dropped in 1992 and 1993, and the projected earnings per tonne for 1997 were just above the price in 1993 (\$476.80) (PIOJ, 1997). It is highly doubtful that Jamaica will be able to earn these prices and export comparable quantities in the absence of a preferential agreement.

Figure 3.1.3

Banana and Sugar Exports

Banana Exports				Sugar Exports			
Year	Value US\$million	Quantity OOO MT	V/Q US\$/MT	Year	Value US\$million	Quan. (raw) OOO MT	V/Q US\$/MT
1980	10.5	33.5	313	1980	54.7	133.9	409
1981	4.3	31.5	137	1981	46.5	123.2	377
1982	4.7	21.3	221	1982	49.1	140.5	349
1983	6.8	23.4	291	1983	57.3	156.2	367
1984	1.5	11.2	134	1984	66.0	159.6	414
1985	4.2	13.2	318	1985	49.8	154.0	323
1986	9.1	21.3	427	1986	63.7	145.7	437
1987	18.9	34.3	551	1987	73.8	135.7	544
1988	15.7	28.5	551	1988	91.9	155.5	591
1989	19.3	42.3	456	1989	64.8	134.5	482
1990	37.6	62.0	607	1990	85.8	148.7	577
1991	45.2	76.5	591	1991	93.4	159.7	585
1992	39.6	76.7	516	1992	82.5	139.4	592
1993	35.9	76.8	467	1993	98.6	149.5	660

source 1980-91: PIOJ (1985; 1987; 1991)  
source 1992-93: UNCTAD (1995b)

Most of Jamaica's sugar and banana exports have been sold through preferential arrangements, the most important of which for sugar are the US quota agreement and the Sugar Protocol to the Lome Agreement with the EU. While quotas under the Lome Agreement have been stable, the sugar quotas for the US declined dramatically - by about two-thirds between 1982 and 1987 - before stabilizing. Almost all of Jamaica's bananas (as with all Commonwealth Caribbean bananas) entered the UK through a now terminated preferential agreement which had brought an implicit subsidy (for Jamaica the highest in the Caribbean in 1990) (WB, 1993b). However, the case of bananas demonstrates how these agreements can be unilaterally eroded or overturned in a challenge to a trade body such as the WTO. Caribbean producers now face the risk of a 'banana shock' because of the WTO ruling in September 1997 that the European Union was breaching rules of trade by allowing preferred access to Caribbean banana

<sup>43</sup> The World Bank (1993b) notes the fall in the value of the US dollar vis-à-vis the currencies of its major trading partners in 1989-91 "particularly benefited those countries with preferential trade agreements in sugar and bananas." Most Jamaican sugar goes to the US, and most bananas to Europe.

producers (with 10% of the EU market) over those of the US TNC Chiquita (with 70% of the market) (Cook, 1997). As a result, Caribbean bananas will likely be out-competed by those from Latin America.<sup>44</sup>

The prospects for sugar similarly depend largely on the fate of preferential trade agreements, although the outlook for sugar is less vulnerable in the short run than it is for bananas. The future of preferential sugar arrangements is unknown and potentially vulnerable under the WTO and the PIOJ (1995) notes that while the short term outlook for the sugar industry is positive, the future of Jamaica's preferential quotas in Europe are guaranteed only until 2000. However, the World Bank (1993b) suggests that it is likely the agreements "will continue for some time," although it also points out that because the Lome Agreement relates only to quantities and not to prices "sugar prices may be squeezed in Europe by internal cost considerations." If the preferential agreements were to collapse for sugar as occurred with bananas, the Bank suggests that the short term impact would be harsh because the protected markets provide relatively higher prices than would be found in a liberalized market, and in the long term the export agriculture sector would certainly shrink. However, it goes on to point out that the potential decline of these exports means "there will be room for non-traditional crops to develop, as already is the case in [Caribbean] countries which are not dominated by banana or sugar production."

### Coffee

Coffee prices have been robust and rising, increasing by 141% from 1980 to 1993 (see Figure 3.14). These prices are particularly strong when compared with the three primary coffee producers - 9.5 times the Columbian price, 9.6 times the Mexican price, and 12.6 times the Brazilian price. After dipping to US\$16.2 million in 1994, the value of coffee exports continued to rise in 1995 and 1996,<sup>45</sup> earning US\$26.3 million in 1995 and US\$32.2 million in 1996 (*The Gleaner*, 23/07/97). The total value of coffee exports in 1996 was more than 3 times what it had been in 1988. This suggests that rather than expanding production to *compensate for* falling prices, production has boomed to *capitalize on* strong prices - a potential response noted in section 1.1 about taking advantage of 'when the going is good' (Tester, 1991).

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<sup>44</sup> The 'banana shock' will be heaviest in Dominica, St. Lucia and St. Vincent and the Grenadines (WB, 1993b), given that the entire economies in the Windward islands are centered around the banana trade - in the hands of foreign fruit companies. In Dominica, for instance, bananas account for 60% of exports. Yet while the initial impact will be harsh, a comment (in MacDonald, 1990) from the General Secretary of the National Farmers' Union in St. Vincent suggests that a 'banana shock' will not be so bad in the long run:

*Banana is killing us, not only financially but socially. If you add it all up it's just not profitable. Bananas need a lot of land - the more you grow it the more you need so farmers are cutting down the forests to produce more. Bananas have brought us a range of chemicals over the years that are killing us.*

<sup>45</sup> The volumes were not given.

Figure 3.1.4

Coffee Exports

Year	Value US\$million	Quantity OOO MT	V/Q US\$/MT
1980	5.2	0.9	5778
1981	5.7	0.8	7125
1982	7.3	1.1	6636
1983	8.1	1.1	7364
1984	8.7	1.3	6692
1985	7.5	0.9	8333
1986	7	0.8	8750
1987	8.3	0.9	9222
1988	9.2	1.0	9200
1989	9.5	0.8	11875
1990	8.7	0.8	10875
1991	12.0	0.9	13333
1992	16.2	1.3	12462
1993	19.5	1.4	13929

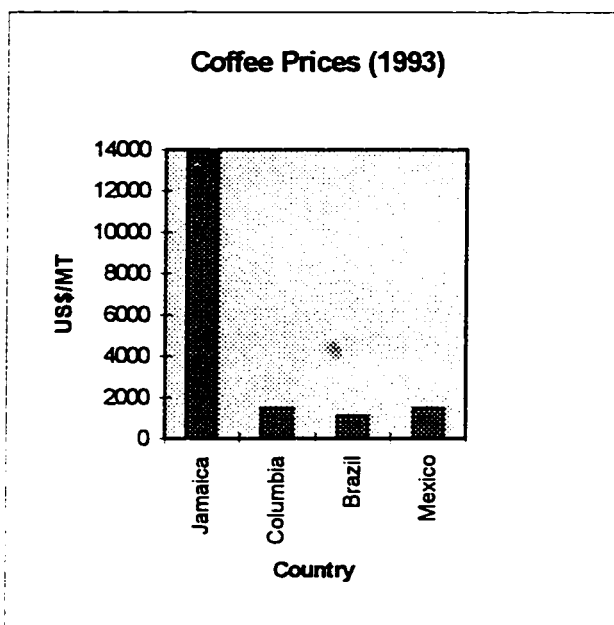
vs. Columbia (1993)	1152.3	788	1462
vs. Brazil (1993)	1066	964.5	1105
vs. Mexico (1993)	284.6	195.8	1454

source 1980-81: PIOJ (1985)

source 1982-86: PIOJ (1987)

source 1987-91: PIOJ (1992)

source 1992-93: UNCTAD (1995b)



Decreasing Terms of Trade

Jamaica, like most of the global South, is highly vulnerable to decreasing terms of trade because it has diverse import requirements for both consumer and capital goods - which include food, technology, oil and manufactured goods and inputs<sup>46</sup>- and an export sector narrowly concentrated on a few commodities. As a result, Mathieson (1988) argues that "the performance and potential of the Jamaican economy as a whole are strongly sensitive to shifts in supply and demand conditions and policies in the aluminum and sugar markets."

The recurring trade and current account deficits which have ensued have generally been met with the inflow of foreign capital - both official and private. Levitt (1991) notes that even when export earnings did increase in the 1980s, their impact has been largely negated by the need to service external

<sup>46</sup> Mathieson (1988) notes that in the late 1960s, Jamaica's imports of goods and services were equal to about one-third of the GDP, by the early 1980s had risen to about one-half, and by 1985 - telling of the intense liberalization of the period - imports were equal to approximately two-thirds of national GDP.

debt. However, the UNDP (1993) notes that between 1987 and 1993, while the terms of trade actually stabilized on aggregate for the 'developing world' they fell by 12% for Jamaica.

The decreasing terms of trade will become more evident in the later section on *External Payments Problems*. However, the evolving terms of trade in food are notable. McBain (1992) notes that while the value of food imports have consistently exceeded food exports, the rise in imports is "more in relation to value than volume, since the price of imported agricultural commodities have increased significantly relative to the price of Jamaican agricultural exports."<sup>47</sup>

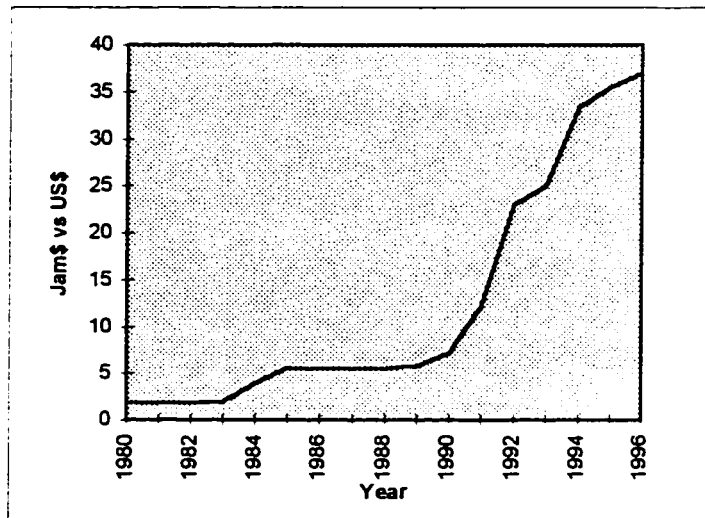
### The Deregulation of World Money Markets

The impact that global speculative activity has had on commodities pricing and interest rates is profound, but cannot easily be measured with specific commodities. Similarly, the impact on rising interest rates cannot be measured, although the impact of these rising interest rates will later become apparent in the discussion of Jamaica's *Indebtedness* and its mounting debt payments. Klak (1996) notes how the rising real interests rates on foreign debt after 1978 exacerbated Jamaica's debt service crisis.

Figure 3.1.5

Currency Devaluation

Nat'l Currency vs. US\$	
1980	1.78
1981	1.78
1982	1.78
1983	1.93
1984	3.94
1985	5.56
1986	5.48
1987	5.49
1988	5.49
1989	5.75
1990	7.18
1991	12.11
1992	22.96
1993	24.95
1994	33.35
1995	35.54
1996	37.02



source 1980-93: UNESCO (1997)

source 1994-96: SIOJ/PIOJ (1997)

<sup>47</sup> Although, as will be discussed later, the intense subsidization of agricultural imports from Northern governments still makes it difficult for local producers to compete in terms of price.

A very visible impact of the deregulation of money markets and exchange rates has been the dramatic devaluation of the Jamaican dollar.<sup>48</sup> The Jamaican dollar, which was equal to the US dollar in the 1970s, steadily declined throughout the 1980s and by 1996 had fallen to a rate of J\$37 to US\$1 (see Figure 3.1.5). One basic effect of such depreciation is the reduction in the accessibility of imported goods to the poorer classes. As well, Davies (1994), the Jamaican Minister of Finance, notes that in addition to other macroeconomic problems, “the rapid changes in the value of the Jamaican currency contributed to an unstable business environment.”

### **The Role of International Financial Institutions and Rising Interest Rates**

Jamaica’s economy has been heavily guided by multilateral lending institutions for the past two decades. This is both a cause and effect of Jamaica’s debt and its foreign investment-driven development path. Levitt (1991) argues that the reality in Jamaica is that “neither the state, nor the private sector are today playing the ‘leading role’ in the economic life of the country: that role is privileged to the international financial institutions which are now in charge of the economic management of the country.” This assertion is given strength by *The Planning Institute of Jamaica* and by Jamaica’s Minister of Finance. The PIOJ (1990) notes that “stabilization and structural adaptation” dominated economic policy during the 1980s and the Minister of Finance points out that the Jamaican economy has been heavily influenced “by the policy dictates of the major international financial institutions from which we borrow, as well as by those of our major bilateral banks” (Davies, 1994). Davies goes on to note that this intervention becomes both more complicated and deeper if USAID is considered, having attached “macro-economic policy conditionalities to some of its support.”

Klak (1996) points out that of the 89 Southern nations which have signed stabilization and SAP loan agreements with the IMF and the World Bank, only Mexico and Pakistan have signed more than Jamaica’s 17. The World Bank and the IMF have obliged the Jamaican government to liberalize trade and comprehensively deregulate and privatize the economy as a requirement for loans,<sup>49</sup> conditions which have increasingly also been attached to aid. This has meant that Jamaica has been forced to put in place macroeconomic and regulatory policies which dramatically reduce tariff and non-tariff barriers on both exports and imports. The result was ceaseless trade deficits, which bought more loans and in turn made loan conditionality become circular for Jamaica in the 1980s, as the very conditions embedded in the loans perpetuated the need for more loans.

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<sup>48</sup> In contrast to other CARICOM countries (except Guyana) which peg their currencies to the US dollar Jamaica uses an ‘independently floating’ auction system (Ramsaran, 1989).

<sup>49</sup> Jamaica’s Minister of Finance complained in 1990 that the “tendency on the part of the multilateral financial institutions to impose excessively detailed conditionalities is proving to be counter-productive to our joint efforts at securing sustained economic growth and development” (Levitt, 1991).



As liberalization, deregulation and privatization have become blanket goes for the economy, commodities and financial capital can move in and out of the country ever more easily, and the ability of the government to manage the economy is severely constrained. In particular, the ability to encourage domestic producers to expand production for the domestic market is limited (Levitt, 1991). The ascendancy of foreign over domestic control and orientation of the economy is noted by Figueroa (1994), who points out the irony in the fact that while the US and Europe will not let an 'outsider' head the World Bank or the IMF,<sup>50</sup> the government of Jamaica "can appoint a foreigner to the position of Central Bank Governor in the 1990s."

Levitt suggests that "the government is effectively in receivership, and agricultural and industrial producers are reeling under the blows of devaluations, import liberalization, and high interest rates." The 'mountains of debt' which have accrued from the rising interest on loans in turn demand the continued inflow of balance of payments support from official creditors, which also contributes to the 'encircling' nature of intervention. The combined impact of the intervention, loans, liberalized trade, and rising international interest rates are conspicuous in the growth of Jamaica's *Indebtedness*, discussed shortly.

### The Oil Shock

The oil shock in the 1970s and Jamaica's continuing dependence on imported oil have played major roles in exacerbating and perpetuating its balance of payments and debt problems. Jamaica is very much trapped at the mercy of world energy prices, dependent on oil for 83% of its total energy requirements (GoJ, 1992).<sup>51</sup> Although energy use is quite modest by world standards<sup>52</sup> (and fell throughout the 1980s), oil "remains a major source of domestic and commercial spending" (WB, 1993a). Fuels as a percentage of imports rose from 6.4% in 1970 to 37.8% in 1980 (UNCTAD, 1995a). The soaring cost of oil played a huge role precipitating the payments crisis and IMF bailout of 1977.<sup>53</sup>

While oil as a percentage of total imports tapered off to 18.2%<sup>54</sup> in 1991 and to 15.4% in 1996, the total deficit was still growing to US\$442.7 million in 1996 (see Figure 3.1.6). A good measure of how significant oil is to the payments problems is that in 1991, it accounted for 46.5% of the total deficit and in 1996 it accounted for 29.0% (SIOJ, 1997). The decline in the percentage contribution of oil to total exports since the early-1980s is attributable to the fact that the volume of other imports have

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<sup>50</sup> Although an Australian now heads the World Bank, that does not detract from his essential point.

<sup>51</sup> The percentage of oil versus total energy imports is measured only against commercial energy, and does not include the charcoal produced by rural people. Jamaica imports 100% of its commercial energy sources (WB, 1996).

<sup>52</sup> Yearly, Jamaica consumes 1112 kgs of oil equivalent per capita (WB, 1996).

<sup>53</sup> In 1977, oil accounted for 30% of import bill (Davies, 1994).

<sup>54</sup> UNCTAD (1995a) found it to be 19.1% in 1991.

increased at a faster rate than have oil imports, rather than representing a decreased energy dependency.

Remarked Jamaica's Minister of Finance recently:

*The sad truth is that the economy is no less open to the negative effects of a major increase in the price of oil in 1992 than it was 20 years ago. Nor has there been any progress to speak of in the development of energy conservation measures (Davies, 1994).*

**Figure 3.1.6 Trade in Mineral Fuels (US\$ million)**

Year	Exports	As % of Total	Imports	As % of Total	Deficit
1986	18.3	3.0%	202.7	20.8%	184.4
1991	11.6	1.0%	327.2	18.2%	315.6
1995	8.4	0.6%	394.7	13.9%	386.3
1996	5.9	0.4%	448.6	15.4%	442.7

source 1986, 1991: PIOJ (1992)

source 1995, 1996: SIOJ/PIOJ (1997)

### The Debt Problem

Indebtedness has been a defining element of the Jamaican economy for the past two decades. The UN classifies Jamaica as one of 17 'heavily indebted countries' (UNCTAD, 1995a), and in 1990 Jamaica's Minister of Finance noted that:

*...any solution to the problem of underdevelopment requires a solution to the problem of the debt...[and] must address, at its heart, issues related to the conduct of the multilateral financial institutions... there can be no justification for countries like ours to be net transferors of resources to the IMF and the World Bank (from Levitt, 1991).*

Macroeconomic imbalances and perpetual trade deficits augmented by the oil shock led Jamaica to borrow from major international lending institutions (GoJ, 1992). Jamaica accepted its first IMF loan in 1977, and in 1978 the net external capital inflows were US\$190 million,<sup>55</sup> a dramatic increase. However, the most significant inflows came during the early 1980s when the US was determined to make Jamaica a 'showpiece' of capitalistic success (versus Cuba) for the region. Net external flows soared between 1981 and 1986.<sup>56</sup> Between fiscal years 1981-82 and 1985-86 the average aid given to Jamaica was US\$450 million. For the following five years, it declined to an average of US\$100 million (PIOJ, 1990). Jamaica's debt today is very much a legacy of this period, and in the decade of the 1980s debt

<sup>55</sup> While the World Bank and the IMF loans were the most significant in terms of volume, Anderson and Witter (1994) note how early efforts to finance the trade deficit were made by borrowing on the Euromarket, 'flush with OPEC money for recycling and willing to lend to states whose economies appeared to have strong prospects for growth.'

<sup>56</sup> Official inflows between 1978 and 1984 totalled US\$1.72 billion, compared with US\$350 million between 1970 and 1977 (Ramsaran, 1989).

nearly tripled from US\$1.49 billion in 1980 to US\$4.29 billion in 1990 before levelling off (see Figure 3.1.7).

Figure 3.1.7

**Debt Outstanding and Service**

Year	Debt Outstanding		Debt Service
	US\$million	% of GNP	% of exports of goods & services
1975	670	23.3	8.9
1980	1490	61.3	13.7
1989	4124	111.1	32.3
1990	4286	112.6	26.4
1991	4134	128.1	45.2
1992	4022	140.5	34.3
1994	4318	112	20.6

source 1975-1992: UNCTAD (1995a)

source 1994: World Bank (1996)

Debt-to-GDP/GNP

In 1970, Jamaica's external debt was equal to 28.6% of GDP (GoJ, 1992), by 1980 it was 60% (PIOJ, 1990), and by 1985 debt had exploded to nearly three times GDP (276.3%), before falling to 177% of GDP (GoJ, 1992), or 113-150% of GNP in 1990.<sup>57</sup> By contrast, total debt for the 'developing world' averaged 39% of GNP in 1990 (UNDP, 1993), Latin America - renowned for having severe debt problems - had a debt-to-GDP ratio of 46% (Klak, 1996), and the highly indebted low-income African countries had a ratio of debt-to-GNP ratio of 99% (Levitt, 1991). External debt per capita in 1990 was US\$1730-1800, around 20% greater than Jamaica's per capita GNP of US\$1500,<sup>58</sup> although it did fall to US\$1565 by 1992 (Klak, 1996).

By the 1990s, Jamaica's debt had stabilized and in 1994 remained steady at 112% of GNP (WB, 1996). However, Jamaica has little flexibility with its debt management because this heavy debt burden is not eligible for much rescheduling or relief since over 90% of the medium- and long-term debt is owed to official multilateral creditors like the World Bank, the IMF, and the Inter-American Development Bank, which never reschedule their loans (Levitt, 1991; UNICEF/PIOJ, 1991; Anderson and Witter, 1994). While Levitt goes on to note that debt swaps and other such schemes have little to

<sup>57</sup> GDP represents the total production of goods and services of a country's economy within the national territory. GNP is GDP plus the income received from abroad by national residents minus income in the domestic economy which goes to people abroad. Because different sources use either measure and provide relevant comparisons, they have both been noted. UNCTAD (1995a) notes total debt in 1990 to be 112.6% of GNP, the UNDP (1993) has it at 132%, while Levitt (1991) cites the figure to be 150%.

<sup>58</sup> UNICEF/PIOJ (1991) report per capita debt to be US\$1800, supported by UNDP (1993) and WB (1993b) figures. Klak (1996), however, cites per capita debt to be US\$1730. As well, per capita income levels, as will be seen later, are estimated to be much lower.

offer because only 9% of Jamaica's debt is owed to commercial banks. Anderson and Witter do point out that part of the modest decline in debt servicing in recent years is owing to the rescheduling of some of the commercial debt. Klak (1996) also suggests that some debt forgiveness has been involved in decreasing per capita debt levels.

#### Debt Service-to-GDP

By the end of the 1980s, debt service was equal to almost 30% of GDP (UNICEF/PIOJ, 1991) far above the countries the World Bank identifies as highly indebted 'lower middle income' countries and "among the heaviest in the world" (Levitt, 1991). Levitt suggests that this is the most significant single measure of the burden of debt, noting that the implication in the early 1990s was that over 1/4 of all economic production in Jamaica was "privileged to external debt service."

#### Debt-to-Exports

In 1991, outstanding debt (US\$4.13 billion) was 3.6 times as great as total exports (US\$1.15 billion) (SIOJ, 1997). This gives some indication of the relative weight of the debt and the challenge of paying it down, particularly when these exports are significantly less than imports. The burden of debt repayment is, however, better seen in the debt service-to-exports ratio.

#### Debt Service-to-Exports<sup>59</sup>

In 1970, Jamaica's debt service ratio as a percentage of all exports of goods and services was only 2.8%, well below the average of 13.3% for the 'developing world' (UNDP, 1993). However, by 1980 it had risen to 13.7%, and by 1991 debt service was equal to 45.2% of all exports (UNCTAD, 1995a),<sup>60</sup> well above the developing world average of 20.4% in 1990 (UNDP, 1993). By 1994, the ratio of debt service-to-exports had fallen significantly to 20.6%, although total outstanding debt had still risen to US\$4.32 billion (WB, 1996). The export orientation and high openness of the Jamaican economy (seen later with the ratio of exports-to-GNP) means that external creditors can more easily collect debt service from Jamaica than from other large debtors with relatively smaller export sectors (Levitt, 1991).

#### Debt Service-to-Government Expenditure

The debt service-to-government expenditure is another way of assessing the 'weight' of the debt and its impact on the citizens. By the late 1980s on a net basis Jamaica was transferring resources to its external creditors. Debt service in 1980 was 14.5% of government expenditure for the fiscal year 1980-

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<sup>59</sup> The service of a foreign debt is the sum of interest payments and repayment of principal (capital loaned, regardless of yield). The relation between debt service and exports of goods and services is a practical measurement commonly used to evaluate capacity to pay the debt or obtain new credits. These coefficients do not include private foreign debts without state guarantees.

<sup>60</sup> The PIOJ (1990) uses significantly different figures, suggesting that from the beginning to the end of the 1980s the ratio of debt service to exports, after reschedulings, rose from 18 to 48%.

81, but by 1991-92 it had grown to 102%<sup>61</sup> - or in other words, about half of the national budget went to pay interest on accumulated debt, and by the early 1990s debt service was more than twice the amount spent on social services (Klak, 1996; Anderson and Witter, 1994). 40% of what was paid out to the World Bank, the IMF, and Inter-American Development Bank between 1989 and 1991 was on interest alone (GoJ, 1992).

In the *National Report on the Environment* (1992), the government notes that "by 1990...the imperative of debt service had established the main parameters for economic planning." It goes on to note that while there has been some improvement since 1988, "the significant indicators of debt and debt servicing capacity have all deteriorated in the past 2 decades." Jamaica is one of the most indebted countries in the world, and there is consensus that this is a defining element of the macroeconomy (USAID et al., 1987; UNICEF/PIOJ, 1991; Levitt, 1991; McAfee, 1991; Anderson and Witter, 1994; Klak, 1996), and ample evidence to concur with Levitt's assessment that "the SAPs have unquestionably facilitated the net transfers of real resources required to service external debt." The net result, she notes, is that while the economy has been oriented and increased in its capacity to service external debt by emphasizing the export sector over production for the domestic market, the SAPs "have not established a viable regime of accumulation and growth."

#### **Northern Protectionism and Hypocrisy and the Lack of Diversification**

It is difficult to assess, much less quantify, the extent of hypocrisy in trade relationships. While it is true, for instance, that much bauxite and all sugar leaves Jamaica to be processed elsewhere, whether that is owing to protectionist measures of Northern governments, pure expediency on the part of TNCs, or some degree of collusion between the two, is beyond the realm of investigation here. In addition to protectionism, another key point noted in the model is the impact that Northern domestic subsidies - and the ensuing flood of cheap imports to the South - have on the agricultural sector in Southern nations. This is very evident in Jamaica.

McBain (1992) contends that the primary constraint against Jamaica's farmers increasing national food self-sufficiency "are price and the food-aid policy of external donors," owing partly to the scale of operations in North American and Europe but importantly also to the domestic subsidies and price supports given in these nations. McIntyre (1994) notes that the producer-subsidy equivalents of Northern imports can reach 50% or more, making it nearly impossible for local producers to compete. Similarly, Vincent (1992) - a top official with the *Eastern Caribbean States Export Development*

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<sup>61</sup> Government expenditure in 1980-81 was US\$1.34 billion (PIOJ, 1987) - converted using the exchange rate for the period J\$1.78:US\$1 - and debt service was \$US194 million in 1980 (UNCTAD, 1995a). In 1991-92, government expenditure was projected at US\$995.6 million (PIOJ, 1992) - converted using the exchange rate average for the years 1991-92, J\$17.5:\$US1 - and debt service was US\$1.02 billion.

*Agency* - complains that while both North American and European governments provide massive subsidies to their agricultural products, Caribbean nations are "being forced into removing subsidies and all forms of tariffs and other protection for our domestic products." So while Northern imports are given price support by their home government, Jamaica has been forced to deregulate its prices as a contingency of the loans and aid that its payments problem initially forced it into taking.

The result of this deregulated marketplace, McBain (1992) notes, is that prices have fallen, and together with the prolonged decline of real income and purchasing power has meant that there is a lack of incentive for Jamaican farmers to increase their production because of domestic market conditions. McIntyre (1994) concurs, suggesting that unilateral trade liberalization of agricultural products - as Jamaica and other CARICOM nations have been forced to undertake - not only creates a disincentive for local producers to produce, but threatens to run them out of business entirely. McIntyre makes the important point that while poor CARICOM nations have the desire to provide cheap food for their citizens which makes cheap imports appealing,<sup>62</sup> this cannot overtake the need to sustain local production.

To make matters worse (and as will be discussed later) the government now lacks the financial capacity to support agricultural production and research and develop rural infrastructure. Yet while Vincent asserts that Caribbean nations cannot exploit their comparative advantage in the present condition and must be able to compete on equal footing in the world market (for all but their traditional plantation staples, which, ironically have persisted based largely on their preferential access to foreign markets), the US refuses to even discuss this 'double standard' of distorted markets and policies. The lack of diversification in Jamaica's export base will soon become evident in the discussion of *Reinforcing Commodities Dependence*.

### **External Payments Problems**

Owing to the various forces discussed - openness, trade dependence, mounting debt, reliance on imported oil, reliance on a few commodities for export and an array of industrial and food imports, and unfavourable terms for this trade - Jamaica has faced a deteriorating balance of payments condition and rising trade deficit for nearly four decades (see Figure 3.1.8).

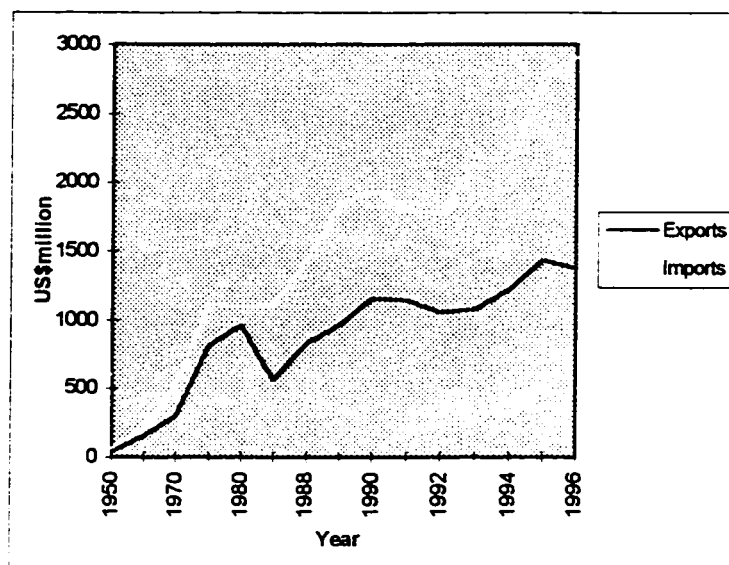
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<sup>62</sup> An example how the government of Jamaica sought to provide cheap food prices is the Jamaica Commodity Trading Corporation (JCTC), which was established in 1981 to facilitate the importation of 3 types of goods that were primarily imported through commodity aid arrangements: basic food items (corn, wheat, milk, rice, edible oil, frozen meats and canned fish), lumber for construction, and pharmaceuticals for the public sector (it later came to import fertilizers and cars as well). The JCTC quickly became one of the three largest companies in Jamaica and used its profits, strangely, "to subsidize the domestic sale of imported foodstuffs." This led to the sharp increase in consumption of subsidized food and discouraged agricultural production. However, in 1991 the Government eliminated generalized food subsidies, choosing instead to use more targeted programs to aid the needy. The JCTC's import monopolies were also eliminated in 1991, although it remains a procurement company for fertilizer imports from commodity aid agreements from the US and Canada (WB, 1993b). Yet while the subsidies have been eliminated, the liberalized trade is far from being on equal terms.

Figure 3.1.8

Jamaica's Balance of Trade

Balance of Trade			
Value of Exports and Imports (US\$million)			
Year	Exports	Imports	X/M
1950	43	63	0.68
1960	157	219	0.72
1970	299	522	0.57
1975	815	1122	0.73
1980	963	1095	0.88
1985	566	1111	0.51
1988	831	1440	0.58
1989	967	1852	0.52
1990	1158	1942	0.60
1991	1145	1800	0.64
1992	1054	1775	0.59
1993	1075	2189	0.49
1994	1220	2177	0.56
1995	1430	2773	0.52
1996	1379	2907	0.47



source 1950-89: UNCTAD (1995a)

source 1990-95: FAO (1996)

source 1996: SIOJ/PIOJ (1997)

note: While the first two sources overlap for the years 1990-93, the FAO was used because it harmonizes with the SIOJ/PIOJ's (1997) figures for Balance of Trade for the period

Although Jamaica did have a positive trade balance in 1977 and 1978 (Ramsaran, 1989)<sup>63</sup> these years can be seen as aberrations, especially since they were the product of a very different ideological climate than the neoliberal path which followed 1977, and which has been characterized by heightened openness and trade dependence. Between 1990 and 1996, while exports increased by 19.1% (US\$221 million), imports also increased by almost one-half (49.7%, or US\$965), nearly doubling the trade deficit from US\$784 to US\$1528 million (see Figures 3.18 and 3.19). This means that the trade deficit has moved from 40.4% of imports to 52.6% of imports. This trend of imports rising faster than exports increased in the first quarter of 1997, with the trade deficit rising to 53.4% of imports (SIOJ, 1997).

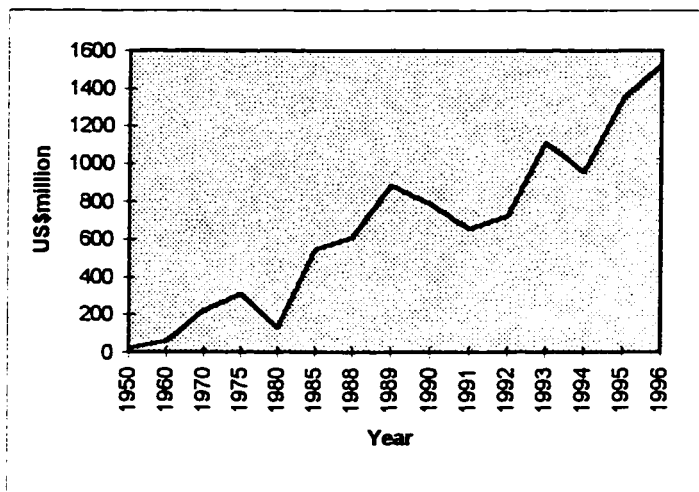
The fact that imports have historically risen faster than exports is also evident in the declining the export-to-import ratio shown above. The ratio of exports to imports has declined since 1950 and 1960 when exports were equal to 70% of imports, to the present where total exports between 1990 and 1996 were only equal to 54% of imports. This low ratio is compounded by the fact that the trade volumes have increased along with the rising deficit - meaning that even as the ratio of exports-to-imports has stabilized, the trade deficit is growing rapidly, as seen in Figure 3.1.9.

<sup>63</sup> These trade surpluses are unfortunately masked in the graphs which show only figures for 1975 and 1980.

Figure 3.1.9

Jamaica's Trade Deficit

Trade Deficit	
Year	US\$million
1950	20
1960	62
1970	223
1975	307
1980	132
1985	545
1988	609
1989	885
1990	784
1991	655
1992	721
1993	1114
1994	957
1995	1343
1996	1528



note: statistics taken from the previous chart

The growth of this deficit becomes very evident when it is seen relative to GDP. Between 1978-1980, the Balance of Payments ran a deficit, on average, of 6% of GDP. By 1996, however, the deficit had risen to approximately 40% of GDP.

Payments Problems and Agriculture

Although the deficit in the food trade is less severe in terms of percentage than is the overall trade deficit, and the role of agriculture in GDP has long been declining,<sup>64</sup> the trade in food is nevertheless illustrative of the problems of dependence and a contributing factor (increasing in recent years) in Jamaica's payments problem. Jamaica has consistently run a deficit in food trade despite the fact that nearly 30% of the work-force is still employed in agriculture (although down from the 40% in 1960) and that it is a naturally bountiful island with very productive soils.<sup>65</sup> Here it should be noted that the per capita food production index - with 1979-81 as the base year 100 - decreased significantly from 107 between 1960-65 to 95 between 1988-90 (WB, 1993a). Nevertheless, the fact that Jamaica runs a deficit in food trade is owing largely to the distribution of land and the export orientation of its best land, rather

<sup>64</sup> While agriculture's contribution to GDP has declined dramatically since 1950, it grew for a brief period between 1973 and 1978, after which there have been fluctuations with a decreasing trend (PIOJ, 1990). Between 1980 and the present, estimates have placed its contribution to GDP anywhere between 5 and 9%, sometimes within the same year. For instance, the UNDP (1993) suggests that agriculture accounted for 5% of GDP in 1990, while the *National Forestry Action Plan* (1990) states that its contribution to GDP was 8.4% during the same year. Some of this difficulty in measuring agriculture's contribution to GDP no doubt stems from the informal nature of the small farm sector.

<sup>65</sup> The fertility and resiliency of the lowland soils is evident in the fact they have sustained intensive cultivation for nearly 500 years and remain productive.



than to having superseded any natural limits. As de Graaff and Sheng (1994) argue, “the poorer land base of the small farm sector means that they cannot meet the food requirements of the nation.”

In the 1980s, Newman and Le Franc (1994) contend that there was a “very clear shift in the stated goals and objectives of agricultural policy, as well as in the nature and extent of governments activities in the agricultural sector.” The focus of Jamaica’s agricultural policy, in line with World Bank-IMF doctrine, came to be on expanding production for export, promoting large-scale commercial production, and bringing an end to ‘market distortions’ like farmer subsidies and price support. McBain (1992) also notes how the agricultural component of the SAPs were aimed at expanding and diversifying export production. By the end of the 1980s, while the focus on exports and ever-liberalizing trade had exacerbated the trade deficit, the solution noted by the *Jamaica 5-Year Development Plan 1990-95* was more of the same. The Plan points to the “necessity for a vigorous export expansion drive, led by the private sector, to relieve acute foreign exchange problems now being experienced and to create positive growth.”<sup>66</sup> The rising food deficit which ensued from the increased emphasis on openness and exports in the 1980s is evident in figure 3.1.10.

The food deficit accounted for 6% of the total trade deficit in 1996, and has accounted for as much as 15% of the total deficit in 1989 and 20% in 1984.<sup>67</sup> The balance of exports-to-imports in food has hovered over 80% in the 1990s, having experienced earlier swings between almost complete equilibrium in 1975 to having exports equal to only 59% of imports in 1984 and 57% in 1989. This ratio has declined in recent years to 76% in 1995 and 1996, and the SIOJ/PIOJ (1997) notes that it fell again in 1996-97 when imports of consumer foods increased by a staggering 27.7% (pushing up the total growth of consumer imports by 5.6%), by far the biggest increase in imports in the decade. At the same time, food exports declined in early 1997.

The SIOJ/PIOJ suggests that this rising food import bill is “indicative of the increasing trend of imported consumer goods to satisfy local demand,” noting that domestic agricultural production has suffered from “continued competition from imported food items.” The small farm sector, it also states, has further been hurt recently by “a general fall in international prices for some non-traditional export crops and persistent drought.” *The Jamaica 5-Year Development Plan 1990-95* states that by the late 1980s the agricultural sector was performing “far below potential despite a SAP intended to improve

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<sup>66</sup> The Plan followed this admonition of the need to vigorously expand agriculture - and particularly export agriculture - as well as other land based activities with the rationale that such expansion is needed “to create an environmentally sound, self-sustaining economy, generating employment opportunities and arresting rural-urban drift.” Setting aside the problem of employment and ebbing rural-urban drift, the idea that expanded exports in agriculture will help to make the economy more ‘self-sustaining’ and that land based activities must be intensified to create an ‘environmentally sound’ economy raise justifiable skepticism (PIOJ, 1990).

<sup>67</sup> The 1984 figure is derived from the trade deficit of US\$480.9 million (PIOJ, 1987), while the rest are calculated from the previous chart.

performance.” While the Plan fails to definitively link the SAP to this unsatisfactory performance, it does go on to note that the declining performance “has been accompanied by the increasing dependence on imported food” - which is undeniably linked to the liberalization of imports under structural adjustment. The Plan also notes that the low productivity means that “farm income and the standard of living in farming communities are below acceptable levels.”

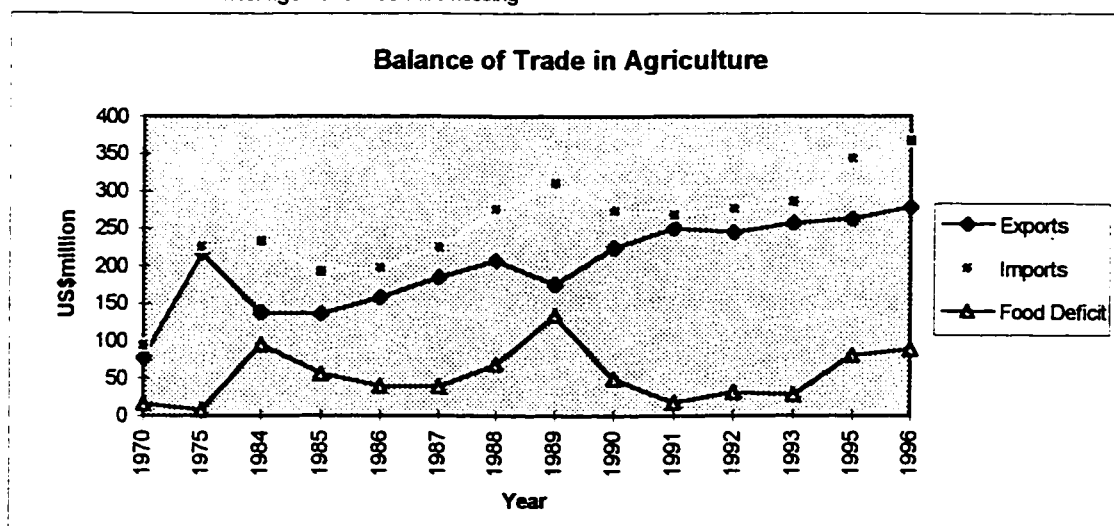
**Figure 3.1.10 Balance of Trade in Agriculture (US\$million)**

Year	Exports	Imports	Food Deficit	Ratio (X/M)
1970	77.6	93.9	16.3	0.83
1975	218.1	225.7	7.6	0.97
1984	138.0	233.0	95.0	0.59
1985	137.1	192.7	55.6	0.71
1986	158.3	197.8	39.5	0.8
1987	185.0	224.2	39.2	0.83
1988	207.4	275.4	68.0	0.75
1989	175.8	309.9	134.1	0.57
1990	224.8	273.7	48.9	0.82
1991	249.7	267.3	17.6	0.93
1992	244.5	275.7	31.2	0.89
1993	256.8	285.0	28.2	0.9
1995	262.2	343.6	81.4	0.76
1996	278.3	367.1	88.8	0.76

source 1970-1993: UNCTAD (1995b)

source 1995-96: SIOJ/PIOJ (1997)

note: figures for 1994 are missing



The performance of the major export crops is also noteworthy. Although plantation agriculture dominates food exports, Newman and Le Franc (1994) point out that the small farm sector nevertheless

makes a significant contribution to exports. While they note that there is unfortunately “no current data which can precisely indicate the contribution of the small farm sector to export crop production,” it was found that 98% of all farms producing for export are under 25-acres.<sup>68</sup> Nevertheless, it can be assumed with reasonable assurance that the two primary agricultural commodity exports - sugar and bananas - are still overwhelming produced from plantations.

**Figure 3.1.11 Selected Agricultural Exports (1987-96) (US\$million)**

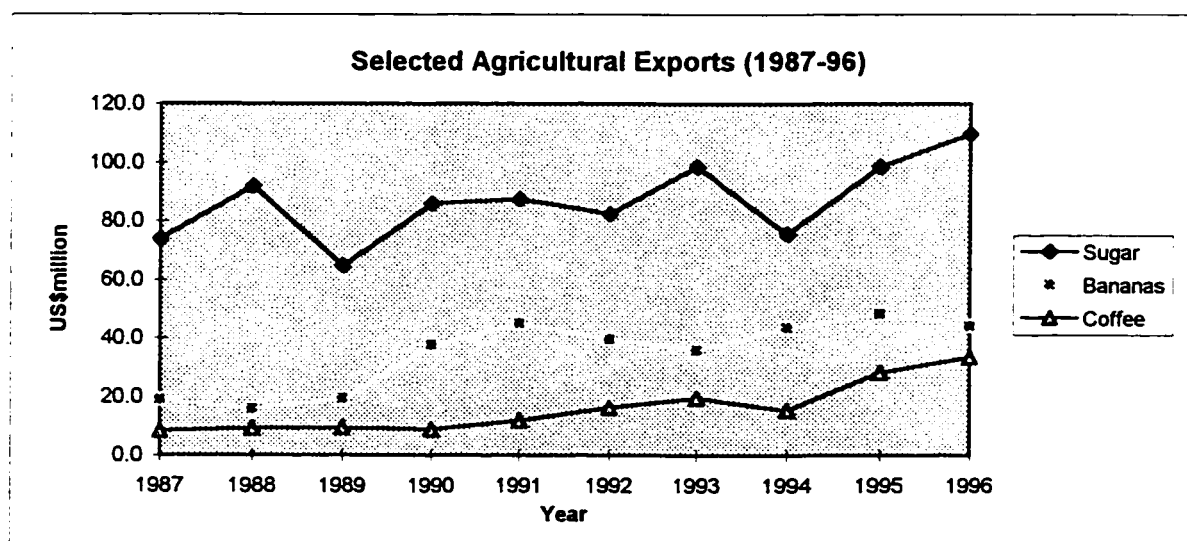
Crop	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Sugar	73.8	91.9	64.8	85.8	87.4	82.5	98.6	75.7	98.5	109.7
Bananas	18.9	15.7	19.3	37.6	45.1	39.6	35.9	43.6	48.2	44.1
Coffee	8.3	9.2	9.5	8.7	11.8	16.2	19.5	15.3	28.1	33.5
Citrus	2.6	4.6	2.5	4.7	3.3	4.7	3.5	2.7	3.3	6.0
Pimento	4.9	5.1	4.6	5.7	3.5	4.5	3.8	4.5	4.9	5.1
Cocoa	4.6	3.4	1.8	3.3	2.2	2.5	1.8	2.9	2.7	2.1
<b>Sub-total</b>	<b>113.2</b>	<b>129.9</b>	<b>102.5</b>	<b>146.7</b>	<b>153.4</b>	<b>149.9</b>	<b>163.1</b>	<b>144.7</b>	<b>185.7</b>	<b>200.5</b>
Non-trad'is	18.9	16.5	15.7	15.6	17.8	17.1	19.2	22.7	32.8	26.0
<b>Total</b>	<b>132.1</b>	<b>146.3</b>	<b>118.2</b>	<b>161.3</b>	<b>171.2</b>	<b>167.1</b>	<b>182.3</b>	<b>167.3</b>	<b>218.5</b>	<b>226.5</b>

source 1987-90: PIOJ (1991)

source 1991-93: PIOJ (1994)

source 1994-96: Ministry of Agriculture Data Bank

note: the values for sugar, bananas, and coffee differ slightly from those cited earlier from UNCTAD (1995b) with regards to price performance, but the trends are the same and the differences negligible.



Recalling Eyre’s (1987a) assertion that the much of the clearance and conversion of the forests to coffee was coming at the hands of “middle- and upper-income entrepreneurs, large landholders and quasi-government corporations such as CIDCO,” and recognizing that coffee production is also

<sup>68</sup> Although this says nothing about volume and would seem to overstate their role.

increasingly foreign (Japanese) controlled, much of the coffee production can neither be considered to be from the small farm sector. Nevertheless, the small farm sector no doubt contributes a much greater percentage to coffee exports than it does to either sugar or bananas. In terms of domestic agriculture, however, "it is reasonably safe to say that almost all of it is accounted for by the small farm sector" (Newman and Le Franc, 1994).

While traditional plantation crops sugar and bananas have remained significant export earners over the past decade, the most notable change has been in the rise of coffee (see Figure 3.1.11). Jamaica's Agricultural Credit Bank statistics reveal that from late 1994 to early 1996, farmers operating under the hillside project were planting in excess of 40 acres of coffee per month. This, according to Jamaica's *The Agriculturalist* (1996) trade journal, "is seen as one of the channels through which Jamaica can increase its efforts to meet the high demand for the country's coffee on the world market." Non-traditional exports have also increased significantly over the past decade.<sup>69</sup> Non-traditional export crops figure to be increasingly important with the looming collapse of the banana industry and would no doubt benefit from the increased regional co-ordination amongst CARICOM members.

#### Animal Agriculture

In 1989, a World Bank-designed Agriculture Sector Adjustment Package was signed, which called for the near-elimination of tariffs and quantitative restrictions on livestock imports (McAfee, 1991). If we examine the deficit in food trade in the six years that followed and compare it with the trade in animal products over the same period, a major cause of the food deficit becomes quickly apparent (see Figure 3.1.12).

Figure 3.1.12 Trade in Animal Products (US\$million)

Year	Meat and Meat Prep.		Feedingstuffs		Dairy and Eggs		Total		
	Export	Import	Export	Import	Export	Import	Export	Import	Deficit
1990	0.7	31.6	0.7	8.0	1.9	37.7	3.3	77.3	74
1991	1.5	30.4	0.9	4.9	2.9	39.2	5.3	74.5	69.2
1992	1.6	38.3	0.9	7.8	3.2	27.2	5.7	73.3	67.6
1993	1.1	45.2	0.9	7.9	3.5	37.2	5.5	90.3	84.8
1994	1.0	33.8	1.2	8.8	3.4	30.4	5.6	73	67.4
1995	1.2	34.6	0.9	19.1	4.0	41.8	6.1	95.5	89.4

source: FAO (1996)

<sup>69</sup> Wilken (1992) notes that the root crop sub-sector (yam, sweet potato, cassava, cocoa, dasheen, badoo, irish potato) "has been targeted as a potential foreign exchange earner," as well as contributing to improved domestic self-sufficiency. Of these, yams are by far the most significant, accounting for 55% of root crop exports in 1991 (PIOJ, 1992).

Between 1990 and 1995,<sup>70</sup> the food trade deficit averaged US\$41.5 million, while the deficit in animal products averaged US\$75.4. In 1995, the net imports of meat, feedingstuffs, dairy and eggs totalled US\$89.4 million, almost equal to what sugar exports earned. This means that if the trade in animal products was eliminated, Jamaica would have run a surplus in agriculture during this time.<sup>71</sup>

### Improving Self-Sufficiency

Owing to the persistent trade deficit in food products, there have been various calls for increased self-sufficiency in agriculture through import substitution. The *Jamaica Country Environmental Profile* (1987) linked the need for self-sufficiency programs to the need “to reduce the import bill, develop the country’s food security program, and protect the natural environment.” Improving food self-sufficiency was most vigorously pursued by the PNP during the mid-1970s.<sup>72</sup> but the rhetoric on its importance has also consistently accompanied neoliberal policies.

A program titled Agro-21 was established in 1984 and sought to comprehensively transform and ‘modernize’ Jamaican agriculture. While Agro-21 had a strong export focus, seeking to develop non-traditional exports and increase traditional exports through enhanced technology and operational scale, it nevertheless also cited the need to improve self-reliance in food and thus save on foreign exchange through import substitution (PIOJ, 1987).<sup>73</sup> However, the program largely failed and was overtaken by structural adjustment policies. Newman and Le Franc (1994) note that the not only were subsidies, price supports, import restrictions, extension services and credit programs all slashed, but “in official circles there was no longer talk of the need for resource transfer (as in a land reform programme), the importance of decreasing the reliance on imports, nor of the development of the rural farm family as a critical productive unit.”

This lack of desire or confidence in the ability to transform the agricultural sector is very evident in the *Jamaica National Report on the Environment* (1992), which acknowledges that while Jamaica is an ‘open and dependent economy’ and there is an alternative view which “sees the need for greater local production and consumption of domestic agriculture and other products.” The report then notes, however, that there “are numerous impulses, some ingrained in the psyche perhaps, that mitigate against

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<sup>70</sup> Noting that the 1994 figures were not available.

<sup>71</sup> This is certainly not advocating increased domestic production and import substitution as a viable response to this problem (as will be seen later, livestock populations have in fact soared). Intensified animal agriculture could prove ecologically suicidal (discussed in Chapter 5).

<sup>72</sup> It would be wrong, however, to characterize this pursuit of food self-sufficiency in the 1970s as having alleviated any pressure on the environment as the USAID et al. (1987) report suggested could happen. The PNP sought to expand the *amount* of land under cultivation, demonstrating that self-sufficiency, if haphazardly pursued, will not necessarily have a de-pressurizing impact on the environment. Eyre (1996) harshly condemns the ‘dream world’ of the 1977 Emergency Production Plan, which he suggests was oblivious to the finite nature of Jamaica’s land and resources. He asserts that “nature cannot be squeezed to provide a safety net for social and political emergencies except with enormous long-term costs that will ultimately have to be paid.”

<sup>73</sup> Albeit through the import substitution of animal products of beef and milk, as well as corn, cassava and soyabeans.

such efforts. There are also practical barriers such as scale economies, conflicting policies amongst our international economic partners and the other kinds of openness - the media and information - which make any approach to autotarchy a practical impossibility.”

#### Tourism and Services in the Balance of Trade

Gross tourism earnings in 1996 were US\$980 million, having increased from US\$705 million (a 38.7% increase) in 1991 (SIOJ/PIOJ, 1997) and from US\$498 (49.2%) in 1984 (Ramsaran, 1989). While this would still leave an earnings gap of over \$US 1/2 billion for 1996, tourism would at first glance appear to be a very ameliorative force in terms of the trade balance, especially when these gross figures are measured against the trade export and deficit totals. In 1991, gross tourism earnings were equal to 61.1% of all exports and 107.6% of the deficit, and in 1996 were equal to 71.1% of exports in and 64.1% of the trade deficit. However, tourism can easily be overstated as an important foreign exchange earner - or an ‘invisible export’ - and though it does play a very significant role in the Jamaican economy,<sup>74</sup> Ramsaran cautions against overstating its importance in terms of alleviating the foreign exchange deficit. This is because such a high proportion of tourist expenditures tend to flow out of the host country in various ways (such as profits, services, payments for imports, including food, etc.). He also warns against using tourism expenditure figures as a measure of the benefits derived from the industry, noting that, on average, only 6.5% of the total travel expenditures in the Commonwealth Caribbean in the early 1980s actually went to the nations themselves.

If a broader perspective of the trade in services (or ‘invisibles’) is taken, the net balance to Jamaica is negative owing to profit remittances and, more significantly, to the debt service burden earlier discussed - though it seems perverse to class debt service as a service. Nevertheless, the debt service burden together with the trade deficit make the external payments issue a perilous one, and official loans and grants become desperately needed for balance of payments support in order to allow the continued purchase of essential imports of fuel, basic food and industrial goods necessary to keep the economy afloat. The result is that Jamaica has become tied to its official creditors, primarily the World Bank and the IMF, which have provided the loans needed for payments support on conditions of strict compliance with their financial targets and policy prescriptions, as noted earlier. In other words the ‘Bank and the Fund’ have essentially set the economic policy in Jamaica over the past two decades.

#### **Reinforcing Commodities Dependence**

The model in section 1.1 hypothesizes that the net result of the spiralling political economic forces is the perpetuation and deepening of a dependence trade relationship and a commodity and

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<sup>74</sup> Although it raises a host of social issues noted earlier.

resource-based export economy. Such is the case in Jamaica. In the years 1975-77, Jamaica was dependent on its three leading commodities - alumina, bauxite and sugar - for an average of 70% of all exports (UNCTAD, 1995b). By 1991 little had changed, as 57% of all exports were from bauxite and alumina,<sup>75</sup> and 12% were from sugar and bananas. Only about 10% were from manufacturing (PIOJ, 1992). The perpetuation of a commodity dependent economy is evident in the ratio of the traditional commodity exports - bauxite-alumina, sugar, and bananas - to total exports (see Figure 3.1.13).

**Figure 3.1.13 Commodity Dependence in Exports**

Year	Total Exports	Exports of Trad'l 3 Commodities (bauxite-alumina, sugar, bananas)	Top 3/Total (%)
1982	769	568	74
1983	686	488	71
1984	739	511	69
1985	569	344	60
1986	605	382	63
1987	709	n/a	n/a
1988	883	525	59
1989	998	673	67
1990	1158	852	74
1991	1145	788	69

source: PIOJ (1985; 1987; 1992)

While the dependence on the three traditional commodities did decline in the mid-1980s (recalling that prices for these commodities at this time were weaker), by the early 1990s the dependence was the same in terms of ratio as it was in the 1970s. This suggests clearly that the export base has failed to diversify. However, this commodity-dependence has actually even deepened, as the role of trade in comparison to GDP has also increased (see Figure 3.1.14).

**Figure 3.1.14 Trade as a Percentage of GDP (US\$million)**

Year	Exports	Imports	Total Trade (X+M)	GDP	Trade/GDP
1980	963	1095	2058	2669	0.77
1985	566	1111	1677	2017	0.83
1988	831	1440	2271	3486	0.65
1991	1145	1800	2945	3499	0.84
1994	1220	2177	3397	3796	0.89

source 1980-88 Trade Stats: UNCTAD (1995a); GDP Stats: (PIOJ, 1985; 1987; 1992)

source 1991, 1994 Trade Stats: FAO (1996); GDP Stats 1991: PIOJ (1992), 1994: WB (1996)

<sup>75</sup> McIntyre (1994) notes the danger in this, pointing out that "the Bauxite and alumina market is unsettled and oversupplied at the present time."

The UNDP (1993) suggests that total trade (both exports and imports) as a ratio of GDP is a good measure of the degree of self-sufficiency and openness of an economy (UNDP, 1993). Over the past two decades, growth in trade has consistently outstripped growth in GDP, as evident in figure 3.25 (with 1988 being a notable exception). Jamaica's ratio of trade-to-GDP is very high in comparison with the rest of the global South, more than double the 'developing world' average of 40% in 1990 (UNDP, 1993). By 1994 trade was equal to 89% of the total GDP, representing an increase of 12% from 1980 and a heightened trade dependence. Anderson and Witter (1994) note how "a principal objective of the adjustment policies has been to orient the economy primarily towards exports and to increase the import capacity of the economy," and this increased ratio of trade-to-GDP reflects the "success of adjustment process in reorienting the economy toward international trade [albeit] with relatively greater success on the side of imports" (Anderson and Witter, 1994). Structural adjustment can therefore be seen to have "further opened an historically trade-dependent economy" (Klak, 1996).

The *Jamaica 5-Year Development Plan 1990-1995* acknowledges the "acute dependence of the economy with the value of foreign trade representing approximately 60-70% of national income from year to year [higher in the 1990s]." The response, the Plan explains, is that "export trade promotion will constitute a major policy priority of the Government" and the "process of liberalization [begun in the 1980s] will be maintained." The export orientation of the government can be no more evident than in the following remark by Minister of Industry, Investment and Commerce, Dr. Paul Robertson, who on August 13, 1997 (*The Gleaner*) proclaimed: "We [the ruling PNP] have no doubt that the future of Jamaica has to be an industrial and export future. Unless we can export to the rest of the world, we as a country have no future."<sup>76</sup>

The 1990-95 Plan also notes that and that "the Government will also address the institutional and administrative barriers to the growth of export trade and channel investment resources to the training and infrastructure systems required to support production and export." This 'support for production and export' - or more cynically that the government is, as McAfee (1991) suggests, "grasping every possible source of foreign exchange" - is very evident in the drive to expand coffee production. Although it is still a relatively small earner of foreign exchange (accounting for around 1% of total exports in 1994), coffee has the strongest market of all agricultural products and is seen to have great potential by the government.

The government's efforts to expand coffee production are reflected not only in the establishment of CIDCO (discussed in section 1.3) and the Coffee Board to enhance the production and marketing of

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<sup>76</sup> Although this stands in sharp contradiction to a comment made earlier in the month (*The Gleaner*, 8/4/1997) by PM P.J. Patterson, who called on Jamaicans "to put our energies and talents together in the quest for true economic independence, for social justice and a better life for all people."



coffee, but also in attempts to expand the area under cultivation. For instance, in July 1997 the Minister of Agriculture and Mining noted the success of Claverty Cottage/Sterling Castle Coffee Development Project in achieving "its target of putting 1 400 hectares into production" (*The Gleaner*, 08/02/1997). As well, because the government provides financial assistance for agricultural production through such agencies as the Agricultural Credit Bank (ACB) and the local People's Co-operative Banks (GoJ, 1990), the export orientation of the government could also conceivably be related to the accessibility of credit for specific crops.

### The Role of CARICOM

Much hope for the diversification for Jamaica and its similarly small, open and dependent neighbours has been placed in a budding regionalism. As Bernal (1994) notes, "given Jamaica's size many of its objectives will have to be pursued in consort with other developing countries in the Caribbean, Central America and Latin America." However, to this point Wilken (1992) suggests that politics, history and geography "have obstructed the social and economic interactions from which a region could emerge" as CARICOM nations have not yet developed agricultural or other complementarities. Rather, in the case of agriculture, production continues to be centred on sugar and bananas, and the markets for these and other non-traditional export crops remain largely in mid-latitude countries. Although Wilken (1992) suggests that there have been some exceptions,<sup>77</sup> industrial development has tended to "reinforce North-South linkages," and McIntyre (1994) notes that it has long been "understood that the CARICOM countries need to find new exportables, both of goods and services."

### Conclusion

Beckford and Witter (1981) lament that the control of property by foreign and local elite has meant that Jamaica's "exporting industries are thoroughly tied to the advanced capitalist countries" such that they "are largely disconnected from the national economy." As a consequence, they argue, performance of the national economy is utterly dependent on the performance of the export sector. Little has changed. Pantin (1990) notes how the surge in foreign direct investment in Jamaica in the 1980s was concentrated on export-oriented industries and failed to transform and diversify the industrial base.<sup>78</sup> In

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<sup>77</sup> The exceptions he highlighted are food processors from Jamaica and Trinidad establishing links throughout the region, although as discussed earlier by Shirley (1993), food processing links between the small farm sector and the food processing industry in Jamaica are very inadequate.

<sup>78</sup> Not only has foreign investment failed in most cases to diversify and create linkages within the industrial base, Klak (1996) finds that the benefits SAP-prescribed 'industrial free zones' (IFZ) - designed to attract foreign manufacturers to produce for export at enclaves sites - have been monopolized by a small sector of foreign industrialists and a small national client capitalist class whose access to disempowered and readily exploitable supplies of cheap labour has been enhanced. This has very negatively impacted on the working poor, particularly women. Explained a friend from Kingston, because of there are so many unemployed "time and again they [foreign industrialists] have raped us, 90-10, because people are too weak and think that if it was otherwise, they would leave. We need to make it closer to 50-50 and set down strict conditions for foreign industry and be prepared to say 'bye' if the companies don't want to listen. But we need investment, especially national investment."

many respects, the macroeconomic problems assessed by *The People's Plan* (1977) resonate today, and a return to aggregate growth (discussed below) has not meant societal development on a broad level. As Beckford et al. noted in 1977: "the national economy is weak and underdeveloped because land and capital are concentrated in the foreign part (the export economy) [while] labour is concentrated in the national economy where land and capital are in limited supply."

### Neoliberal Growth

Before proceeding with part 2 of the model, Jamaica's recent economic growth must be addressed. Since the mid-1980s, the Jamaican economy has experienced some growth, although its pace has ebbed since 1990 (see Figure 3.1.15). Here it must be re-iterated that the dependency spiral does not imply that economic growth - and at times rapid growth - has not nor cannot occur. Rather, the model was intended to describe why the growth which does occur tends to be of a certain nature - generally destructive environmentally, and for the majority, socially.

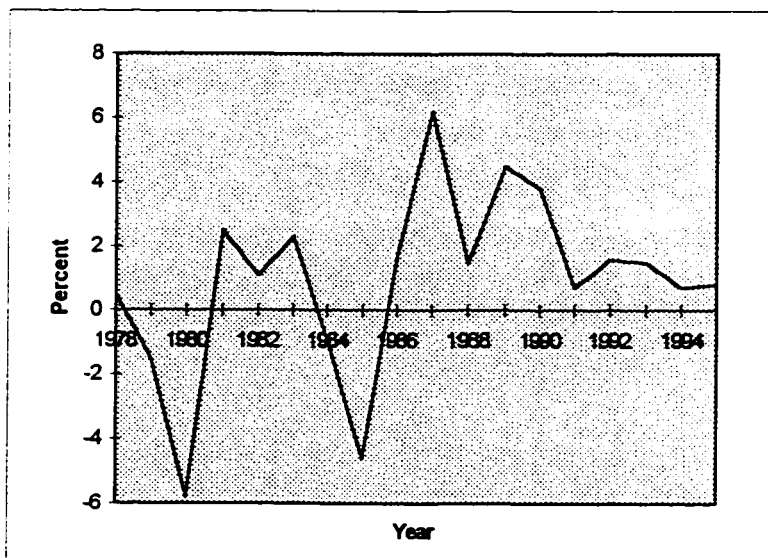
That said, the total growth of the 'developing world' between 1973 and 1988 was 80%, whereas Jamaica experienced a decrease of 10% during the same period (GoJ, 1992). In the decade of the 1980s, when developing countries on average experienced a annual growth of total GNP of 4.7%, Jamaica's economy grew by only 0.7%.

Figure 3.1.15

GDP Growth (1978-95)

Growth of GDP (constant prices)

Year	Rate
1978	0.5
1979	-1.5
1980	-5.8
1981	2.5
1982	1.1
1983	2.3
1984	-0.9
1985	-4.6
1986	1.7
1987	6.2
1988	1.5
1989	4.5
1990	3.8
1991	0.7
1992	1.6
1993	1.5
1994	0.7
1995	0.8



source 1978-1990: World Bank (1993b)

source 1991-95: ECLAC (1996)

In terms of the UN Human Development Index (HDI), between Jamaica experienced the second biggest fall in the world from 1970 to 1990 (only 13 of the 103 listed nations were seen to have fallen) - a decline more severe than any nation but Romania (UNDP, 1993).<sup>79</sup> The consequence, the *National Report on the Environment* (1992) notes, is a "decreased standard of living, particularly among the poorest of the population." So while Jamaica is caught in a similar spiral as is most of the global South to the detriment of its environmental and social conditions, the growth that neoliberal economists and political theorists commonly use to guise the structural problems in other nations was not even evident in Jamaica until the mid-1980s. By the mid-1980s economic aggregates began to improve somewhat, and when the ten years after 1985 are examined the aggregate growth rate in Jamaica is 3.9% (WB, 1996).

There is an obvious need to be critical of the World Bank's (1993b) assertion that "economic growth and the reduction of poverty are mutually reinforcing phenomena" when assessing this recent growth. The general effect of SAPs is well described by Samatar (1993), who notes that "structural adjustment may enhance economic growth, but it also deepens inequality and worsens the poverty of working people. As such, structural adjustment is a *growth* rather than a *development* strategy [italics added]." Similarly in the Jamaican context Klak (1996) asserts that we must go beyond the economic aggregates to understand the real impact of neoliberal growth on human development, as the benefits have been monopolized by elite classes. Even the Government of Jamaica (1990) asserts that "the social impact of these [SAP] programmes have been most severely felt by the poorest in society." The polarization of Jamaican society will be discussed in the following section.

## **PART 2: Implications for Resource Management**

### **Wealth Escaping**

Jamaica's per capita GNP in 1994 was US\$1540 (WB, 1996), which places it among the class of 'Lower Middle Income' nations (avg. US\$1320), and barely half as high as the Caribbean average of US\$2970 (WB, 1993b). But this is actually a serious overstatement of the condition of the large majority. The inequities in Jamaican society mean that about 80% of the population, and most people in the rural areas, had a per capita income in the range of US\$500-600 year by the end of the 1980s (Levitt, 1991). This was below the 'developing world' average, which in 1990 was US\$810, but above that of the 'Low Income' nations (US\$330) (UNDP, 1993; WB, 1993b).<sup>80</sup>

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<sup>79</sup> Jamaica's Human Development Index drops significantly when the total value is compared with the income-adjusted value, indicating that Jamaican aggregate statistics conceal the disparity between rich and poor (UNDP, 1993).

<sup>80</sup> Although many developing nations presumably have similar urban-rural dichotomies masked in national aggregates, making their rural areas relatively poorer also.

Anderson and Witter (1994) report that during the 1980s, "the share of GDP accruing to foreigners almost doubled," concurrent with increasingly unequal divisions within the Jamaican population. They assert that in the 1980s alone, the share of GDP going to a group they loosely term as 'working people' - general labourers, industrial workers, farmers, etc. - fell by 20-25%. As well, since 1985, the World Bank, the IMF, and the bilaterals - such as USAID and CIDA - have been extracting more money from Jamaica than they were disbursing in new loans and aid (Levitt, 1991),<sup>81</sup> a transfer of resources to external creditors which has already been discussed under the subject of *Indebtedness*. The net result, Anderson and Witter (1994) conclude, is that structural adjustment was a set of externally imposed measures "designed to swing the balance further in favour of the propertied classes, and to extract resources from the country through increased foreign penetration and international indebtedness."

While the extent of wealth escaping from local people to foreign and elite interests could possibly be measured in the case of, for instance, a TNC-controlled resource or commodity like bauxite, in the case of the peasantry the wealth escapes more subtly - and is perhaps better seen as a wealth inhibiting process.<sup>82</sup> From this perspective, structural forces undervaluing the peasantry's earnings from their resource use include a lack of access to domestic or foreign markets on adequate terms of price and/or quantity, owing in part to the flood of cheap imports domestically and the inability to compete with heavily subsidized Northern agricultural sectors.

The extent to which wealth has 'escaped' or been 'inhibited' from reaching the rural poor and other marginalized classes is evident in the inequities in societal wealth distribution, which place Jamaica among the most inequitable societies in the world in a class "with such notoriously inequitable societies as Ecuador, Peru, Mexico, and Brazil" (Levitt, 1991) (see Figure 3.1.16). Levitt also suggests that the poor became both poorer and more numerous in the 1980s with real wages falling and income distribution shifting "in favour of commercial and entrepreneurial income."

From the statistics given by the *1995 Survey of Living Conditions*, societal inequities appear to be going down, contrary to what most scholarship suggests. The *1995 Survey* showed the richest decile consuming 10 times as much as the poorest decile, and the top 20% consuming 6.3 times the bottom 20%. In contrast, in the *1989 Survey* the top decile was seen to consume 17 times as much as the bottom decile, and the ratio of top quintile to the bottom was given as 9.6 to 1. As well, Levitt (1991) cites a

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<sup>81</sup> Levitt (1991) also notes how poorly the massive inflows of loans and aid were employed, commenting that while they "might have rebuilt the capacity of Jamaica's economy to increase production, [they were] largely spent on public and private consumption of imported goods and services."

<sup>82</sup> Although the earnings justly due local farmers could conceivably be conceptualized as having 'escaped' to foreign agribusiness interests, etc. who often outcompete them in domestic markets.

World Bank report from the late 1980s which found that in addition to consuming 49% of the nation's total consumption, the top quintile of Jamaican society earns over 60% of the national income.

Figure 3.1.16

Societal Inequities

		Percentage Share in National Consumption			
	10%	2	2.9		
Poorest	20%			7.1	5.1
	20%			44.8	49.1
Richest	10%	32	29.2		
		(GoJ, 1992)	(SIOJ/PIOJ, 1995)	(UNICEF/PIOJ, 1991) -(UNDP, 1993)	

It is difficult to believe that the inequities (although still very severe as presented in the 1995 Survey) could have ameliorated themselves so quickly from 1989 to 1995, particularly when the *Jamaica National Report on the Environment* (1992) reports similar figures to those given by the 1989 Survey, including a ratio of 16:1 for top-to-bottom decile consumption, and when the UNDP (1993) found a ratio for the top-to-bottom quintile to be 9.1 to 1, much closer to the 1989 Survey than to the 1995 report. The recent amelioration of inequities is even harder to believe given that neoliberal policies as currently pursued tend to have a polarizing, rather than levelling, effect. Nevertheless, even if we accept that there has been a reduction in societal inequities, Jamaica remains a nation where much wealth escapes to foreigners, a small and privileged elite control wealth and power far in excess of their numbers, and those directly interacting with the resource base are marginalized relatively speaking.

**Inequity of Access and Control of Resources**

Inequity of access to resources will be discussed in terms land, as the small farmer is the ultimate subject of this inquiry. Inequities in land distribution in Jamaica are dramatic and competition for land is intense, and the NRCA (1997) points out how this competition is now being compounded by population growth and industrial and commercial expansion. However, Newman and Le Franc (1994) argue that the "national aggregate data on land distribution since the 1978 Agricultural Census are either unavailable or unreliable," which makes assessing the extent of inequity of access to land difficult. Nevertheless, various estimates were given in section 1.3, and are summarized in figure 3.1.17. In terms of distribution, inequities are less severe than the Dominican Republic but significantly greater than in Haiti.

**Figure 3.1.17**

**Distribution of Farmland**

Source	% of farmers	% of farmland controlled
USAID et al. (1987)	67	19
Rickard and Carmichael (1995)	75+	15
World Bank (1993b)	80	20
Government of Jamaica (1992)	97	38
Haita (WB, 1993b)	59	22
Dominican Republic (WB, 1993b)	82	12

The *National Report on the Environment* (1992) notes that 97% of all farmers in Jamaica own or occupy less than 25 acres of land - and yet account for only 38% of the total farmland in use. The most recent statistics the Ministry of Agriculture (1997) had were for 1993, which suggest that 98.2% of farmers operate holdings less than 25 acres (see Figure 3.1.18). According to the Ministry of Agriculture, 78.7% of all farmers work land less than 5 acres in size, but when only small farmers are considered, Gordon (1987) found that over 95% operated farms less than 5 acres, and only 1% of small farmers had access to more than 10 acres of land (see Figure 3.1.18). While it is unfortunate that more recent statistics are lacking, even the most modest of these estimates paints a picture of gross inequity in access to land - magnified when it is noted that the land controlled in large parcels (100+ acres) is nearly always the best lowland farms and, increasingly, highland coffee plantations. It is little wonder that the UNICEF/PIOJ (1991) report argues that "the extreme deprivation to which many rural families are subjected is related to the unequal distribution of farmlands and fragmentary size of holdings."

**Figure 3.1.18**

**Agricultural Demographics and the Distribution of Small Farmers**

Agricultural Demographics (1993)			Distribution of Small Farmers	
Farm Size (acres)	# of Farmers	% of Total	According to Farm Size (1987)	
<1	51 000	26.5	<2 acres	57.5
1-<5	100 500	52.2	2-5 acres	37.6
5-<25	37 500	19.5	6-10 acres	4.0
25-<100	2500	1.3	10+ acres	1.0
>100	1000	0.5		
All farms	192 500	100		

source: Ministry of Agriculture Data Bank (Aug. 1997)

source: Newman and Le Franc (1994);  
from: Gordon (1987)

## Rural Impoverishment

In 1970, 59% of Jamaica's population was rural, by 1982 this had declined to 52% (UNICEF/PIOJ, 1991), in 1991 it was 48%, and by 2000 the rural population is projected to shrink to around 40%. The flight to urban areas and the associated slums and destitution - consistent with the experience throughout the 'developing world'<sup>83</sup> - is owing largely to the fact that rural areas are the poorest in Jamaica. It is a testament to the impoverishment of Jamaica's rural areas that despite the grinding poverty and violence of Kingston, 'Town' is seen by many to possess greater opportunity. It is further telling of the rural condition that people continue to leave the countryside for cities when national unemployment levels have not been below 20% since the late 1960s and agriculture has by far the lowest unemployment rate of any economic sector.<sup>84</sup> The attraction of Kingston is owing in part to the fact that Jamaican youth yearn "for the lifestyles offered by material advancement" (GoJ, 1992), especially as American media becomes ever more pervasive.

The *National Report on the Environment* (1992) cites the mean per capita income in 1990 as US\$797 (see Figure 3.30), similar to the figures given by UNICEF/PIOJ (1991), but considerably less than the per capita GNP or GDP figures (ex. p.c. GNP US\$1500 in 1990; UNDP, 1993) (see Figure 3.1.19). Whatever this difference is attributable to,<sup>85</sup> it is significant to note that rural areas were found to have a mean per capita income 20% less than the island average, 24% less than that of towns and cities, and 43% less than that of Kingston,<sup>86</sup> and that the average income declined by 24% from 1974 to 1979. The *1989 Survey of Living Conditions* found that while 32.7% of the national population lived below the poverty line, the rate was 36% in rural towns and 40% in rural areas in general (from UNICEF/PIOJ, 1991). Another study from the same period estimated that about 43% of the total population were below the defined poverty line and "that the incidence of poverty is much higher in the rural areas" (WB, 1993b, from Gordon, 1989). By 1992, it was estimated that 50% of the rural population lived below the national poverty line (GoJ, 1992).<sup>87</sup>

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<sup>83</sup> Although the spatial pattern of the urban slums and wealthy elite in Kingston is the reverse of what it is for many Latin American primate cities, as the Kingston elite occupy the hillsides and periphery while the slums are concentrated in the lowland core. In contrast, the hillsides of many Latin American cities are home to the poorest squatter settlements.

<sup>84</sup> In Jamaica, less than 30% of the workforce are involved in agriculture - in comparison, the average is 61% for the developing world (UNDP, 1993). In agriculture, the unemployment rate is only around 3% (GoJ, 1990).

<sup>85</sup> As the role foreign investment and extraction has on national aggregates is accounted for with GNP, the causes for the dramatic difference in per capita income and per capita GNP figures is difficult to discern.

<sup>86</sup> Although any discussion of averages in Kingston belies the incredible inequities there from Beverly Hills overlooking to the sprawling urban slums.

<sup>87</sup> The poverty levels are generally a reflection of the ability to meet food and caloric needs based on income and cost of typical food basket in that area.

Figure 3.1.19

## Per Capita Income

	US\$	Year	US\$
Island average	797	1974	1130
Kingston M.A.	1125	1975	1074
Other towns	842	1977	951
Rural areas	640	1980	842
		1983	867
		1985	797
		1987	848
		1989	893

source: GoJ (1992)

source: UNICEF/PIOJ (1991)

Levitt (1991) argues that the successive devaluations of the Jamaican dollar since the mid-1970s have impacted most heavily on the poor. This is because many basic food requirements, consumer goods (such as kerosene oil, cooking gas, medicines) and most farm inputs are imported, meaning that each devaluation increases their local currency price. Between 1986 and 1993, the average annual growth rate of consumer price indices was 28.7 (UNCTAD, 1995a) and inflation between 1986 and 1996 averaged 26.6% (SIOJ/PIOJ, 1997). In order to 'protect the poor' from exchange rate devaluations and reduced government expenditure (discussed below), Jamaica introduced a food stamp program in 1984 targeted at those with an income less than US\$300 (WB, 1993b).

While indicators such as life expectancy and infant mortality are on par with developed countries and health indicators are generally quite good, other statistics point to failures in development. Malnutrition among young children is rising and 35% of the housing stock has no running water or sanitary facilities (GoJ, 1992). Access to safe water actually fell from 86% in the late 1970s to 72% in the late 1980s (UNDP, 1993), although it increased again to 86% by the mid-1990s (ECLAC, 1996).

#### Women

The *National Report on the Environment* (1992) argues that women could have a 'potentially immense' contribution towards environmental protection and sustainable development because "they exert significant influence over attitudes and behaviour in the society towards natural resource management," paralleling the arguments of the feminist scholars in section 1.4. The report suggests that this is owing to the fact that women possess a "unique position as primary care-givers and educators" and in their "daily interaction with the environment (land, domestic water supply, forest, family sanitation, waste disposal)." However, the report goes on to note that there has long been an excess burden placed on women which "limit[s] their potential to contribute meaningfully to environmentally



sound development and may in fact predispose them to using survival strategies that lead to environmental degradation.”

In 1997, 38.1% of rural households were headed by a woman breadwinner, compared with 51.7% of households in Kingston (SIOJ/PIOJ, 1997). As these households often comprise extended families, “the economic and social responsibilities of women are disproportionate to earning powers.” This tends “to create a poverty trap” (GoJ, 1992) because women are forced to “disproportionately bear the social burden of neoliberal policies that simultaneously reduce public spending on services, education and shelter [and] raise consumer costs” (Klajak, 1996 from Deere et al., 1990).<sup>88</sup>

The *National Report on the Environment* (1992) also describes the situation of children to be one “of great risk,” and the UNICEF/PIOJ (1991) report states that the ‘structural vulnerability’ of women is interwoven with that of children and that their mutual “position requires particular scrutiny.” Among the factors contributing to their vulnerability which the UNICEF/PIOJ identify are structural economic adjustment, decreasing social service expenditure, the uneven income distribution, and a severe imbalance of urban-rural resource allocation. But also part of this predisposition to greater risk, the report contends, is attributable to the common structure of families. Because “mating and reproduction occur within a range of conjugal unions, many children are born into families that are either headed by women, or which receive very weak economic assistance from males.” This is an enormous problem as 85% of all children born out of wedlock (Sherlock, 1996b).<sup>89</sup>

### The Retreat of the State

*Most analysts focus on the implications [of the debt] for external accounts, and these are obvious and important. However, it may be argued that the fiscal implications may be even more important from a developmental point of view, when such a large percentage of government expenditure is accounted for by debt servicing.*

-Minister of Finance Omar Davies (1994)

The World Bank (1993b) asserts that “on the expenditure side, Caribbean governments *suffer* from the large size of their public sectors [italics added].”<sup>90</sup> From this perspective, it is little surprise that the World Bank and the IMF have set about systematically deconstructing the public sector in Jamaica (as elsewhere) - intentionally, as part of loan conditionalities - and incidentally, as the massive debt service has combined with high interest rates to create a tremendous fiscal burden that has made public

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<sup>88</sup> In urban areas, there are higher unemployment rates and lower wage levels among women (GoJ, 1992), has made them more easily exploitable, and Deere et al. (1990) contend that neoliberal policies have had the effect of encouraging investors to exploit low cost female labour.

<sup>89</sup> Although many life partners do not get formally married, this statistic still implies an inordinate amount of children whose fathers are not a significant part of their lives, financially or emotionally.

<sup>90</sup> This perception of nations suffering from public spending is well explained by Levitt (1991), who notes that “a principal assumption underlying the SAPs is that government is a drain on the resources of the private sector.”

expenditure increasingly difficult. While structural adjustment has routinely been found to have negative social effects across the global South, Anderson and Witter (1994) remark that Jamaica's "loan conditionality was particularly savage." Even the World Bank (1993b) admits that "the presence of a large debt [and its service]...makes difficult support for education, health care or the provision of public goods."

**Figure 3.1.20** **Total Government Expenditure (1980-92)**

Fiscal Year	J\$ million	US\$million	% of GDP
1980-81	2392	1344	50.3
1981-82	2553	1434	48.5
1982-83	2756	1486	47.2
1983-84	3359	1144	48.7
1984-85	3664	771	37.4
1985-86	4529	820	37.7
1986-87	5599	1020	42.1
1987-88	6012	1095	34.9
1988-89	8773	1561	45.3
1989-90	9546	1475	39.6
1990-91	11461	1188	38.7
1991-92	17423	998	40.1

note: US\$ figures converted using exchange rate average for the 2 years

source 1980-87: PIOJ (1987)

source 1987 onwards: PIOJ (1992)

The fact that government spending has decreased by about 20% its initial level in only one decade is evident in figure 3.1.20 showing public expenditures relative to GDP (see Figure 3.1.20). The emphasis of the government is also evident in the *Jamaica 5-Year Development Plan 1990-1995*, which noted that by the late 1980s, "the government's main concern was to correct the financial imbalances, which had arisen in the preceding years. To that end, it prepared very tight financial and credit programmes for the year" (PIOJ, 1990). This government retreat has had profound impacts on education and health, agricultural support, extension services, infrastructure, and environmental programs.

#### Social Spending

There is some consensus that the social condition in Jamaica has been in a prolonged state of degeneration. Levitt (1991) argues that "the achievements of decades of economic and social development are unravelling." The *Jamaica National Report on the Environment* (1992) concurs, attributing this decline in the social condition to "years of severe economic contraction, decreases in social service expenditure and uneven income distribution." Yet having acknowledged this declining

social condition and the fact that it has hit the poor the hardest (GoJ, 1990: 1992), there is little that the government can do as long as it seeks accommodation with the World Bank and IMF, which decree that government reduce its role and shift resources away from social needs. From 1981 to 1985, for example, government per capita spending on health fell by one-third (McAfee, 1991), and at the same time as SAP-imposed devaluations have increased the price of many consumer goods the government has reduced both provisions and subsidies for basic needs (Klak, 1996). By the early 1990s, the Jamaican government was spending twice as much on debt service as on social services (Anderson and Witter, 1994). The result, according to Sherlock (1996a), is that Jamaica's "great engines of social change, such as education, our system of social justice and our health services are all in reverse gear."

Ultimately, as Levitt (1991) notes, not only has the government been financially incapacitated, but the external management of the economy has had a disempowering effect. That is, policy instruments have been forsaken, eroding "the capacity of the state to stimulate production for the domestic market and to protect essential public services of education, health and transportation." Equally disturbing, Levitt goes on to note, "is the impotence of the government to regulate a critical minimum of distributional equity."

### Education

Jamaica was once home to a respected public education system which expanded significantly between 1955 and 1975 and was held widely as a path to social mobility. However, since the late-1970s there has been a dramatic regression in the quality and accessibility of education, owing largely to the continued reduction in government expenditures. In 1981, Jamaica was found to have among the best systems in the Caribbean, but by 1988 it ranked among the worst and university had become inaccessible to average Jamaicans (Levitt, 1991). Levitt refers to a CIDA report from 1986, which found functional illiteracy in grade 6 to be 30% for male and 12% for female students. In rural all-age schools, rates of functional illiteracy were a staggering 58% for males and 34% for females. Father Webb estimates that at least 30% of children now leave all-ages school totally illiterate.<sup>91</sup> Further, those in rural areas do not receive any agricultural education.

Recently, the *Jamaican Coalition on the Rights of the Child* found that "although statistics indicate that Jamaica has near universal access to education and ranks first among 87 developing countries in the percentage of 6 to 11 year-olds enrolled in school, there are serious structural weaknesses in the system" (*The Gleaner*, 23/07/1997). Father Webb concurs, noting that although it has always been

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<sup>91</sup> Some degree of these educational problems are attributable to broader social issues beyond those of the declining education system. For instance, the UNICEF/PIOJ (1991) study, which stated that high levels of children are living "in ignorance and poverty," suggests that many have to sacrifice school for household responsibilities. It was also noted that the stresses caused by poor housing, decreasing income levels and general ignorance all mitigate against improved parenting patterns such that these problems become entrenched.

highly selective,<sup>92</sup> the educational system used to be relatively good but has now “deteriorated, in large measure as a function of debt servicing and SAPs.” This attribution of the declining educational system to debt service and structural adjustment is supported by the *National Report on the Environment* (1992), which also confirms that Jamaica’s well developed educational system “has suffered setbacks due to financial constraints which have restricted maintenance and expansion of facilities while contributing to the high attrition of teachers.” Not only does the deteriorating education system bode poorly for Jamaica’s future by impacting negatively on human resource development (Levitt, 1991), but it “continues to deny equality of educational opportunity - the only door to social mobility, to a large proportion of our youth” (Sherlock, 1995).

#### Agriculture and Extension

Support for agriculture and extension services have also been restrained by the dictates of the World Bank and the IMF and suffered under the weight of debt service. The World Bank (1993b) exhorts that there is a “need to liberalize agricultural prices and markets,” commenting that structural adjustment programs have emphasized liberalization because “public marketing institutions have failed to operate efficiently.”<sup>93</sup> Between 1981 and 1985 when structural adjustment was intensifying, real expenditure in agriculture as a percentage of GDP declined from 3.6% to 0.9%. Subsidies which small farmers had previously received decreased between 1983 and 1985, and after the early 1980s - in line with the World Bank and IMF’s emphasis and in light of the need to meet debt payments - credit was geared towards producing export crops at the expense of domestic crops (although credit was also geared towards the livestock industry, which is primarily for domestic consumption) (McBain, 1992). McBain argues that the withdrawal of price supports and the rhetoric surrounding the need for liberalization from the Bank and the Fund is hypocritical given the fact that European and American agricultural sectors “developed under conditions of price support and trade protection” in addition to having advantages of scale.

Extension services have also suffered, impacting on the small farm sector. *The Jamaica 5-Year Development Plan 1990-95* notes that the “the macro-economic situation of the 1980s has impacted adversely on the budgets for research and development and extension, resulting in a considerable reduction of support services to farmers.” The Plan also remarks that the declining performance of the domestic food crop sector suggests “that factors such as the severe cut-back in the Ministry of

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<sup>92</sup> Every year children under age 12 from across the island write Common Entrance Exams, from which places are awarded in traditional high schools. There is room for roughly one in five to qualify (Levitt, 1991), and the cost is significant for a rural household. For those who fail to qualify or cannot afford it, education may last a few more years but eventually ends at the all-ages school.

<sup>93</sup> The Bank (1993b) does, however, highlight the potentially beneficial role of cooperatives in agricultural marketing.

Agriculture's support services have had a negative impact."<sup>94</sup> McBain (1992) similarly notes how the government cutbacks have meant that there is "a shortage of extension officers," with one officer serving over 400 farmers.

### Environment and Infrastructure

In line with the budgetary cutbacks which Jamaica's external managers have imbued and fiscal imbalances have dictated, environmental spending has been downgraded throughout the period of structural adjustment. The *National Report on the Environment* (1992) points out that severe debt service payments have "made it difficult for the country to allocate resources for improved environmental management and the support of social and physical infrastructure." McBain (1992) also notes that the government is now generally "unable to support agricultural production and rural infrastructure development because of a lack of finance."

In terms of the social infrastructure associated with environmental management, the NRCA (and its precursor, the NRCD) - the primary agency concerned with environmental issues - have been "repeatedly reorganized and downgraded," and asserts that the "years of institutional neglect" have impacted on both the capacity and morale to act effectively<sup>95</sup> (WB, 1993, a). Berke and Beatley (1995) contend that the cuts and the lack of commitment to the environment have "stemmed from a strong preoccupation since the mid-1980s in stimulating the faltering Jamaican economy through greater exploitation of the country's natural resources." As evidence, they point to the government's emphasis on supporting those economic sectors which can earn foreign exchange to help pay down the national debt.<sup>96</sup> Between 1986 and 1990, when environmental programs were being hit hard with cutbacks, FIDCO and CIDCO - government-backed investment organizations intended to expand export production - received budgetary increases of 50% and more.

### The Role of Foreign Aid

At the same time as debt service obligations and fiscal problems have limited the ability of the government to support various services, it should be noted that foreign aid has played a modest countervailing role. USAID is the single largest bilateral donor in Jamaica, and McAfee (1991) notes that in the early 1980s when the US was determined to have Jamaica become a 'capitalistic showpiece' for

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<sup>94</sup> Extension services were moved to a new statutory body - the Rural Agricultural Development Authority (RADA) - which was established in 1990. RADA reports to the Ministry of Agriculture and "has also absorbed the 13 Land Authorities with a view to achieving an integrated approach to rural development which focuses on the entire farm family" (PIOJ, 1990).

<sup>95</sup> The lack of a strong governmental body in the environmental field with a limited capacity for both monitoring and enforcement (Berke and Beatley, 1995) is particularly glaring because the environmental "NGO community is even weaker and more fragmented than the government agencies" (WB, 1993a).

<sup>96</sup> As a result, they argue that government policy was centred entirely on economic interests to the complete denial of environmental concerns, such that what moderate success there has been in reducing the debt should be seen as coming "at the expense of the environment and long-term sustainable development activities."

the region, per capita levels of USAID funding to Jamaica were greater than those to any other nation in the world save Israel. In terms of CIDA's relative expenditures, Jamaica is also the most important country in Canada's development assistance program in all of Latin America and the Caribbean (Levitt, 1991).

In 1990, 33% of all the development assistance to Jamaica from bilateral and multilateral sources were grants. Unfortunately, balance of payments problems have meant that much of this aid has been turned right around and used for payments support (GoJ, 1992) - meaning that bilateral grants are essentially only "subsidizing Jamaica's net transfers to official creditors" (Levitt, 1991). Nevertheless, some funding has still been targeted for technical assistance, food aid, and capital projects (GoJ, 1992), and total development aid received in 1993 was US\$109 million (about \$45 per capita), or about 3% of GNP (WB, 1996). This represents a significant decline compared with the early 1980s, and the World Bank (1993b) warns that the outlook for external financing is not promising.

### Corruption

Finally, it would be remiss not to note that part of the government's inability to provide adequate services is owing to the tremendous corruption. Father Webb notes that while political corruption might not be significant in terms of millions of dollars, it is "significant in terms of morale of the country. No one trusts a single politician. Money for rural development, roads, extension services is going to pay off political henchmen."

### **Population Growth**

The dangers of citing population as a causative force in land degradation have been acknowledged in Section 1.1. However, while it can be argued whether population is indeed a cause of degradation, population growth is indisputably an exacerbating factor - in Jamaica, as elsewhere in the global South (various population statistics for Jamaica can be seen in Figure 3.1.21). From 1970 to 1996 Jamaica's population increased by 32% to nearly 2.5 million. The Government of Jamaica (1994) estimated that it will surpass 3 million by 2000. This implies a "relatively high population density," estimated at 216 people/km<sup>2</sup> in the early 1990s (WB, 1993a) and 221 people/km<sup>2</sup> in 1994 (UNESCO, 1997).

While population growth rates have slowed to 1.2% since 1985 (ECLAC, 1996), population lag will clearly be an issue in the future, particularly in rural Jamaica (see graph above) where over half of the population was under the age of 20 in 1991 - although the rural-urban flow noted earlier will reduce this pressure somewhat in rural areas. The Government of Jamaica (1994) projected that by 1998 there would be a human-to-acre ratio of 1:1 (247 people/km<sup>2</sup>) on the island, and that by 2000 population

would top 3 million, rendering "land use competition extremely fierce." This is magnified when the inequities in land distribution are considered.

**Figure 3.1.21** **The Demographic Picture**

Population (1970-96)		Population Growth Rates	
Year	Population	Years	Growth Rt.
1970	1 869 000	1970-75	1.5
1980	2 133 000	1975-80	1.2
1990	2 366 000	1980-85	1.6
1996	2,465,000	1985-90	1.2
2025 (projection)	3,301,000	1990-95	1.2

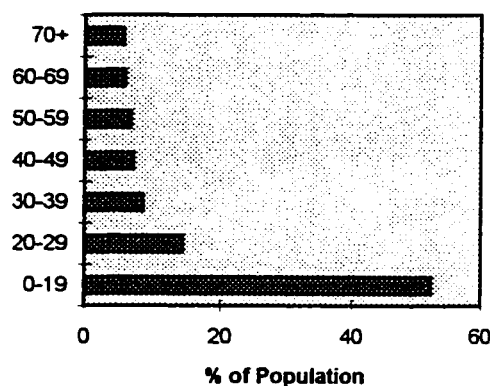
*source 1970, 1996, 2025: ECLAC (1996)*  
*source 1980, 1990: UNESCO (1997)*

**Population Distribution by Age for Rural Jamaica**

Ages	% of Population
0-19	52.4
20-29	14.3
30-39	8.4
40-49	6.9
50-59	6.6
60-69	5.8
70+	5.6

*source: Newman and Le Franc (1994); from SIOJ (1991)*

**Rural Population Pyramid**



As well, it is impossible to consider population pressure without factoring in livestock (Weis and Pace, 1997), an issue very relevant to a small island like Jamaica. Jamaica had a livestock-to-human ratio of 0.43:1 in 1990 (not including chickens), which, though it pales to the world average of 3:1 or Canada's 20:1, is still a significant and growing figure (see Figure 3.1.22) on an island where competition for land is already so fierce. Between 1974 and 1984 alone, there was a 23% increase in livestock population (FAO, 1985). In terms of the environment, the rising cattle population is the most threatening, given the enormous demands ruminants place on the environment (Rifken, 1992).

**Figure 3.1.22** **Livestock Populations**

	Cattle	Pigs	Sheep/Goats	Equines
1987-89	290 000	249 000	443 000	37 000
% change since 1967-69	19%	55%	-1%	-32%

*source: UNEP (1991)*

## Environmental Change

The net result of these various forces is tremendous pressure on Jamaica's limited land base and natural resources, manifest in the intense environmental problems discussed in section 1.2. As also noted in section 1.2, the loss of the forests is an urgent concern on both ecocentric and human levels, and since the early 1960s the amount of forests have decreased by 11% - lost largely through the conversion to agriculture (see figure 3.1.23). The dramatic decline in pasture lands noted in Figure 3.34 is curious given the rise of cattle populations, and its conversion to permanent cropping systems is an environmentally advantageous transformation.

**Figure 3.1.23** Land Use Change (1962-92)

	<u>Change</u>
Arable Land	-10%
Land Under Permanent Crops	37%
Permanent Pasture Acreage	-25%
Forests	-11%
Irrigated Land	50%

source: GoJ (1992)

The result of the land use change, according to the Ministry of Agriculture's (Data Bank, August 1997) most recent statistics (see Figure, is that nearly half of Jamaica's land is now devoted to agriculture, while almost a quarter still remains in some form of forest, much of it rinate or second growth. However, the expansion of agriculture at the expense of the remaining forests is unrelenting, so this land use framework (see figure 3.1.24) is but a momentary (and no doubt already dated) snapshot in a rapidly changing picture. As noted earlier, Jamaica's deforestation rate is among the highest in the world at 3.3%, and has been for at least a decade when it was first reported to be at this pace.

Girvan (1991) remarks that while many have understood "that the basic paradigm of economics excludes consideration of the interaction between the human economic system and the wider ecosystem of which it is a part," he suggests that this "applies with particular force in the Caribbean" because "the attention and energy of economic technocrats are absorbed by the demands of short-term economic management (Balance of Payments, Debt, adjustment, etc.). The environment is regarded as a 'long-term' problem, or is perceived to be of greater concern to developed countries, or is thought to be the special concern of a specific group labelled 'the environmentalists'." It is both notable and unfortunate to find that in spite of Jamaica's acute environmental problems, the *Symposium on Preparing for the Twenty-First Century* (Lewis, 1994) - jointly sponsored by the Ministry of Finance, the PIOJ and UNDP



to address Jamaica's future - said nothing about the environment. Rather, tremendous faith was placed in the private sector as the engine of Jamaica's future, and yet, as Wilken (1992) rightly points out, environmental concerns are not a concern of the private sector. Rather, "private sector participation implies cost recovery and profitable resource use." Girvan (1991) puts it well:

*The traditional neglect of the environment in Caribbean economics stands in sharp contrast to the extreme degree of environmental-sensitivity of Caribbean economies. Natural resource-intensity is, and has historically been, an outstanding feature of productive activity in this part of the world.*

Figure 3.1.24

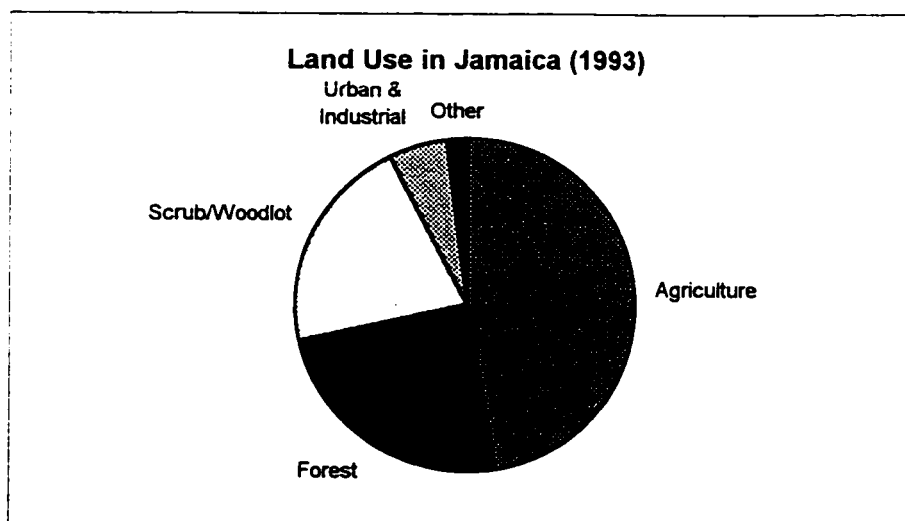
Land Use in Jamaica (1993)

	% of Total	Area (ha)
<b>AGRICULTURE</b>	<b>47</b>	<b>516 520</b>
Arable	19.4	213 210
Permanent Pasture	18.4	202 210
Permanent Crops	6.1	67 040
Irrigated Crops	3.1	34 070
<b>FOREST</b>	<b>24.3</b>	<b>267 060</b>
Natural	7	77 000
Ruininate/Second Growth	17.3	190 060
<b>SCRUB/WOODLOT</b>	<b>20.8</b>	<b>228 590</b>
<b>URBAN &amp; INDUSTRIAL</b>	<b>5.6</b>	<b>61 540</b>
<b>MINING</b>	<b>0.4</b>	<b>4400</b>
<b>WETLANDS</b>	<b>1.9</b>	<b>20 880</b>
<b>TOTAL AREA</b>		<b>1 099 000</b>

source for land use % (except forest - scrub/woodland %):

Ministry of Agriculture Data Bank (August 1997)

source for forest %, total land area: GoJ (1992)



Nowhere is the dichotomy of which Girvan speaks - resource intensive land use on extremely sensitive environmental areas - more evident in Jamaica than in the case of the peasantry, though the consequent impact on the environment in their case it is not owing to neglect but marginalization. The next chapter will trace the land use and development issues raised in the fieldwork to the pertinent elements of the macroeconomic framework raised in this section to explain why the peasantry are such agents of environmental change, and why the process of their development will inevitably imperil Jamaica's rich natural heritage.

## 4.0 Analysis

### Introduction

*If you see that very little has been done to change the exploitative socio-economic relations in what once was a slave society in pristine form, then you will realize that no problem, and particularly the environmental one, can be seen clearly except through the lens of our colonial history. This is not to resign oneself to the inevitability of historical forces. Men and women, after all, make their own history, but they do not do so in a historical vacuum.*

-Michael Witter (1997b)

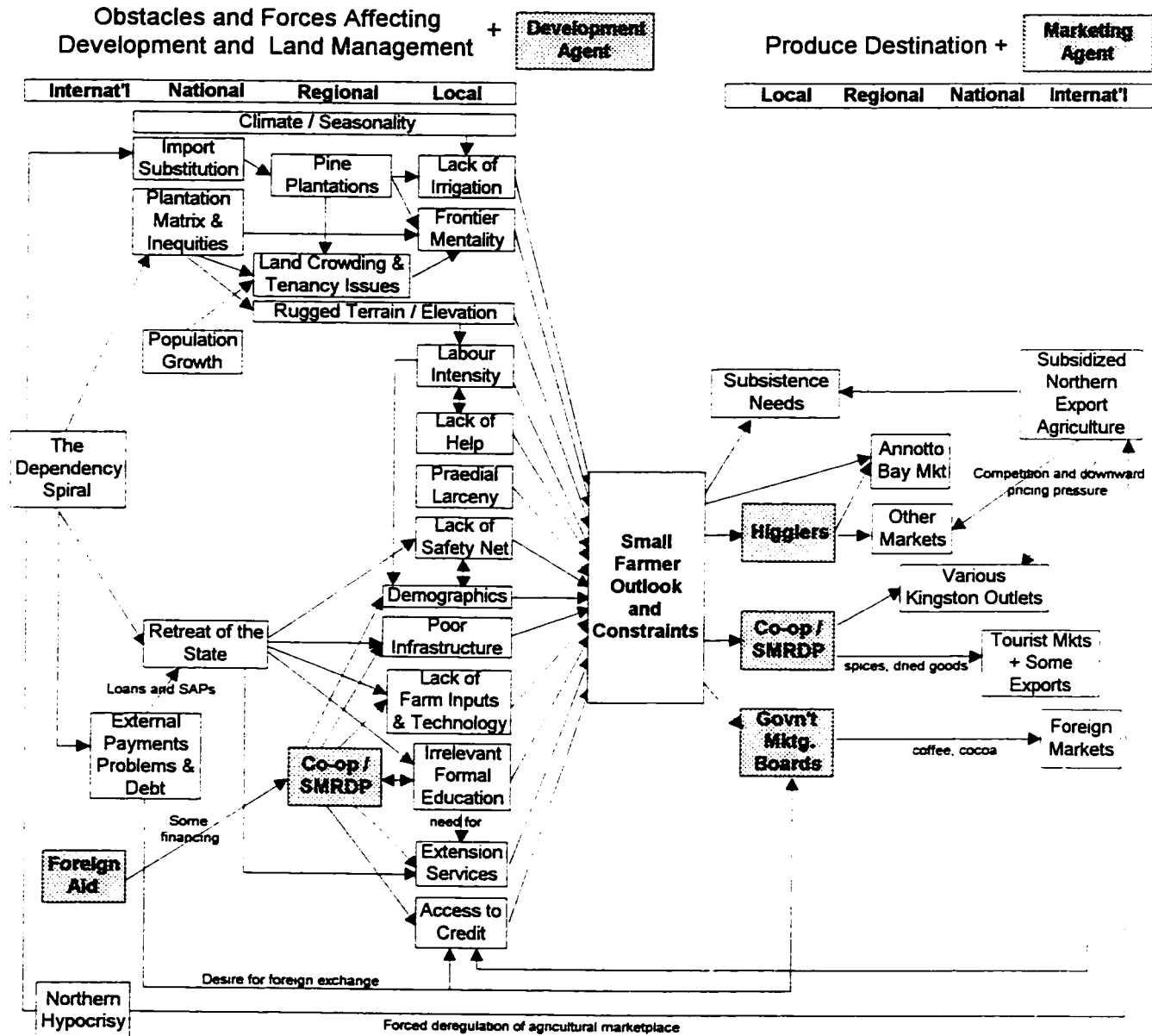
Witter's admonition that we must view Jamaica's environmental crisis 'through the lens of our colonial history' and the 'exploitative socio-economic relations' which remain embedded serves as a poignant call for the need to explain how land use decisions are affected at a variety of levels, particularly how they are connected to the historical and current forces assessed in section 3.1. Such is the intent of this chapter, as the perspective of the individual peasant farmer is 'progressively contextualized' within this broader context. At the centre of this discussion is a decision-making model whereby various forces impacting on the farmer's direct relationship with the resource base are 'traced outwards' from the immediate people-land interactions to a variety of levels (see Figure 4.00).

This decision-making model, although a simplified and generalized way of looking at how various forces impact on the individual farmer, should not be seen as imposing values or judgements upon the subjects. Rather, it is to assume that people are interacting rationally with their environment given their particular circumstance, knowledge and culture - in this case, as evident from the fieldwork and interviews - and rationalize their land use decisions based on their pursuit of specific goals. Some degree of reductionism is of course inevitable.

As well, it is a somewhat artificial process to distinguish between local (Long Road region), regional (St Mary, Blue Mountains region), national, and international levels of influence, as the lines are considerably more blurred than their rigid depiction here might suggest. However, as Vayda (1983) suggests, the 'kaleidoscopic nature' of the complex of factors influencing human-environment interactions and the fact that enlarging and densifying contexts could be an 'interminable process' together mean that a degree of reduction is necessary for explanatory purposes, especially since it is doubtful 'whether 'total' contexts can ever be known.' Nevertheless, while there may be no one 'correct' scale to investigate these multifarious processes, understanding land management and degradation does require that we examine 'a nested set of scales' (Blaikie and Brookfield, 1987), and using this simplified decision-making model will connect the 'nested scales' of markets, relationship with the land base, support services, and other developmental constraints as seen individually, which together form a

community representation. The result is, as Blaikie (1985) sets out as a goal for political economic research on the environment, the movement from a 'place-based concern' in Long Road to a 'non-place-based concern' for Jamaica's political economy.

Figure 4.00 Long Road Farmer Outlook and Constraints



### Small Farmer Outlook and Constraints

However much external forces are seen to condition the 'parameters of choice', Blaikie and Brookfield (1987) argue that for research on land degradation it is "important to identify who makes the

decision to manage land and how it is made.” As has been discussed, the most significant direct agents of landscape change in Jamaica’s rugged interior are the peasantry, so understanding their perspective on how decisions affecting land management are made - and extending these to the constraints inherent in their condition - would seem very important to understanding Jamaica’s environmental crisis.

The discussion of the forces affecting farmer’s land use decisions will be in two parts. The first part looks at how the individual farmer orients their production based on produce destination, or how they are ‘pulled’ by various market forces (although limitations in the marketing system could certainly also be seen as obstacles). Secondly, the range of forces which constrain their development and land use decisions will be examined based upon the perspectives revealed in the surveys, as well as from other pertinent issues which arose during the course of the fieldwork.

### **PART 1: ‘Producing for Whom?’: Produce Destination and Marketing Agents**

Long Road farmers produce, on average, in excess of six principal crops.<sup>1</sup> As discussed in section 1.5, the Jamaican peasantry has long been intimately connected to local and national markets, supplying the large majority of the nation’s domestically consumed produce. Thus, the cropping decisions of the peasantry must be understood relative to the marketplace. In Long Road, at the same time as all meet at least some degree of their household needs through their own farm, all respondents noted some (and most a large) degree of market orientation in describing their cropping decisions. Although a few Long Road farmers sell directly to the Annotto Bay Market, most internalize markets as price-takers for three primary agents at the local level: higglers, the co-op, and government marketing boards, who in turn connect them to various destinations. This recalls Selena Tapper’s exhortation to the farmers at the co-op AGM that “you can’t just be satisfied to put seed in the soil, you have to be aware of what the market wants.”

Blaikie and Brookfield (1987) contend that despite the strains of oft-times difficult market conditions, “most of the world’s peasantry would not wish to withdraw from the market.” This was evident during the fieldwork, not only for financial reasons but (as noted in section 3.0) because there is much pride taken by some farmers in their understood responsibility to ‘feed the nation’ so that it does not become a ‘nation of pure importers’.

#### **Subsistence Needs**

Although all Long Road farmers meet some of their food needs from their own farm or ‘backyard garden’, based on the explanations of cropping systems the market appears to be much more significant in determining crop choices. Meeting subsistence needs appears to be a more residual concern.

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<sup>1</sup> Although, as noted, this is no doubt an underestimation of the actual diversity of the cropping system.

While the balance of crops between seasons does reflect some concern for meeting household needs, this balance is also - as noted later - a hedge for farmers against the whims of the marketplace and serves to balance the labour demands more evenly throughout the year. The fact that farmers need to be at least moderately oriented to the market is evident in the fact that they must purchase their dietary staples diet of cereals such as rice and wheat. Thus, rising prices for these imported staples, as has occurred particularly with Jamaica's successive currency devaluations, inevitably hurts the agrarian poor (Levitt, 1991).

### **Higglers**

As discussed in section 1.5, higglers are the primary agents through which most Jamaican small farmers are linked to the national marketplace, and this was true in Long Road before the co-op was established. However, as was also noted, a higgler dominated marketing system tends to be very inefficient in linking producers to markets, as it creates conditions of market failure whereby gluts, wastage and fluctuating prices are all common - inhibiting the incentive of farmers to expand production and reducing their ability to plan ahead. It was this market failure which inspired the birth of the co-op and encouraged its emulation in the three other communities where the SMRDP now operates.

Prior to the co-op, higglers connected Long Road farmers to the Annotto Bay Market (to which they also sell some produce directly) and other regional markets, but did a very poor job of connecting them to Kingston, as the nature of the relationship bred great distrust (as discussed in section 2.1). Thus, Long Road farmers were barely able to access by far the largest market on the island at the same time as much produce went to waste. Clearly, the failure of the marketing system was a fundamental barrier for Long Road farmers, as it remains today for many Jamaican small farmers.

However, even as the co-op has emerged and provided enhanced stability - widely acknowledged and appreciated by the farmers - higglers have remained as significant marketing agents in Long Road, not only for the profitable long mango (which the co-op does not market) but for many of the crops which the co-op does market. While some farmers look upon higglers with great suspicion and disdain - recalling their depiction by one as 'monstrous' and "living off the sweat of the farmers [and] choking the system" - the higglers have remained a valuable outlet in Long Road when the co-op has had to ration the produce it takes as well as providing, at times, better prices than does the co-op. This ability to out-price the co-op for the same produce has meant that some farmers have 'drawn away' from the co-op in favour of higglers whenever the price is better, lured by the immediacy of the higher payoff and seemingly irrespective of the long-term impact on the co-op, as this has impaired the co-op's growth (the

farmer's response to price signals conceivably to their longer-term detriment is discussed later in terms of education).

Ideally for the co-op the higglers would remain at an equilibrium whereby they would market long mangoes and other crops which the co-op and government marketing boards do not take, as well as taking some of the surplus production the co-op cannot handle, but they would not take the much needed production when the co-op cannot meet its order. However, in order to get to this state the co-op needs to provide better prices, which it has found somewhat elusive since they are inevitably linked to the co-op's ability to expand its markets. The expansion of markets is, in turn, dependent upon consistent and increased production, creating the 'production-price (chicken and egg) dilemma' discussed in section 3.0.

### **The Co-op and the St Mary Rural Development Project**

The emergence of the co-op since 1990 has dramatically affected how the produce from Long Road's is marketed, having connected the town's farmers to the once largely inaccessible Kingston outlets. In linking farmers to consistent purchasers such as caterers, grocers, schools and processors, the co-op has increased the volume of produce which now gets to market and the consistency with which it gets picked up. In turn, farmers now internalize the demand in Kingston through the prices and volumes that the co-op generates. Thus, two of the major constraints identified by the *Jamaica 5-Year Development Plan 1990-95*, the lack of "adequate marketing intelligence and physical facilities and appropriate agro-industrial linkages" (though the agro-industrial linkages are still quite modest) are beginning to be overcome through the process of co-op marketing. A positive example of this is plantain. Because the co-op has an open market for plantain with a chip producer, it has for some time been encouraging farmers to their expand production. As a result, plantain production has increased in the region and many of the young farmers grow plantain (as it intercroops well with coffee) from suckers supplied by the co-op. A bad example of this market internalization is pepper, as pepper production expanded owing to co-op reports of a growing market only to see the market collapse.

Nearly all respondents sell some or all of their produce to the co-op, and many expressed gratitude to it for having eased the process of sale. This advantage of increasing the ease of sale is significant from the farmer's perspective, especially given the labour intensity and infrastructural problems associated with carrying the produce into town (discussed in Part 2). It is obviously nice to know there will be a ready buyer when one hauls in a huge stem of plantain on their head.

Although volume is a significant area of complaint, many still noted an appreciation for the increased bulk purchase which the co-op provides and the increased range of marketable produce, and there is undoubtedly now the capacity for much more produce to get to the market than occurred before.

As well, the co-op has opened up an entirely new market for packaged goods, having secured access to tourist markets and a few exporters for spices, herbs and other dried goods produced in the region which have become the co-op's top earners.

However, the co-op's experience also demonstrates that even if the distribution barrier can be overcome through the facilitation of enhanced access to domestic markets, price can still be very problematic. Indeed, there was a significant amount of dissatisfaction expressed by farmers over the failure of the co-op to generate adequate prices, and this has caused commitment in the co-op to waver for some. Yet as the Board of Management admonished at the AGM, the co-op's long term survival and strength is dependent foremost on farmers becoming more loyal to it (as well as producing more), especially in those instances where it might be more expedient to sell elsewhere (i.e. to the higglers).

The fact that some are loyal to the co-op only when its price is better is suggestive that there is a common failure to understand the long-term ramifications of failing to support it<sup>2</sup> and an underestimation of the cost savings of having an easily accessible marketing agent which can often buy in bulk. However, many farmers were unequivocal in their praise for the co-op's help with marketing, and others who were more restrained in their praise (based on price and/or quantity issues) did nevertheless cite the need to support the co-op more in the future in order to 'keep it up' (as well, there is much general affection for the co-op's overall impact on the community, which will be discussed in Part 2 of this chapter). As one extension officer noted, this support must increasingly move from the rhetorical to the concrete in order for the co-op to grow, as those unequivocally behind the co-op must produce more and those prone to vacillation must become more loyal to the co-op in order that the co-op can stabilize present markets and secure increased ones in the future. From the farmer's perspective though (again, as will be noted later), it is difficult to rationalize behaving this way without the prospect of a more immediate pay-off.

### **Northern Agricultural Imports, Competition and Downward Pricing Pressure**

As discussed in section 1.1, imports from heavily subsidized, industrial Northern agricultural sectors have been cited as putting downward pressure on the prices domestic-oriented small farmers in the global South receive and in limiting the access southern farmers have to their own national markets.<sup>3</sup> The hypocrisy in agricultural trade was noted in section 3.1, as Jamaica has been forced to deregulate its prices as a contingency of the World Bank-IMF loans yet face competition at home and abroad from heavily subsidized Northern agricultural sectors. McBain (1992) argues that prices have fallen in the

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<sup>2</sup> One extension officer noted that if the co-op were to fail, it is unlikely there could be another attempt for 50 years as the legacy in the 'community's memory' of such a failure would be difficult to overcome. This raises the interesting analogy of 'national memory', and the question of how long the failure of the 'third path' will haunt any hope for a more socially conscious political ethos in Jamaica.

<sup>3</sup> Also noted in section 1.1 is the fact this downward pressure on prices has been augmented in some Southern nations by price controls for urban markets (owing to the concentration of political power there). However, the author could not find evidence of this in Jamaica in the literature.



deregulated agricultural marketplace as it has been flooded with cheap imports and food aid, in the process decreasing the incentive of Jamaican farmers to increase their production.

Although it is impossible to measure precisely, imports from Northern nations are no doubt related to some extent to both the price and market limitations that the co-op faces in Kingston, perhaps more so than what the higglers face in more remote Jamaican markets (possibly a reason for the prices from higglers being often higher). So to the degree that foreign imports have dampened price and/or market access for the co-op in Kingston,<sup>4</sup> Northern hypocrisy in food trade has been felt in Long Road in the price and volume frustrations voiced by the farmers with respect to the co-op, with the impact of decreasing the incentives to farmers which McBain describes and which the co-op has had to deal with.

The lack of access to the export market is owing not only to the inability to be price-competitive, but to the fact that Jamaican small farmers are generally unable to meet the consistency and quality standards (especially as most lack irrigation, pesticides, etc.) set by subsidized, industrial Northern agricultural sectors. The limitations in exporting fresh produce were also identified by Father Webb, and have meant that the co-op's limited export prospects centre around a small niche in the 'fair-trade' market for its packaged goods. As noted in section 3.0, one small farmer demonstrated an acute and indignant understanding of the unjust nature of the international food regime when he asserted that he would rather let his crop spoil than sell it for the cheap prices the exporters would buy it from him.

#### **Government Marketing Boards and Foreign Markets**

The Government of Jamaica provides the marketing agent for certain export crops, the most notable of these in the Long Road region being the Cocoa and Coffee Boards. All of the Long Road coffee growers do (or will when they begin to reap) market their beans through the Coffee Board, and most cocoa growers use the Cocoa Board, although the co-op does take and package some cocoa. Although cocoa was the third most commonly identified crop in the survey and is still very important for many farmers in Long Road, particularly the older ones<sup>5</sup> (as its importance is linked to historical trends),<sup>6</sup> it is the demand for Blue Mountain coffee in foreign markets (largely Japan) which has had the greatest impact on recent development and land use change in Long Road. Through the Coffee Board the

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<sup>4</sup> This would have required an examination of the co-op's buyers' purchasing records as well as a review of other potential buyers and the role that imported food plays. This was beyond the scope of time and budget in the field (to say nothing of whether such access would have been forthcoming).

<sup>5</sup> This was evident in the emotion displayed by the old farmers when a Cocoa Board agent discussed the new ratio the Board was paying to farmers at the co-op's AGM. Although the new terms appeared more favorable, the agent still felt the wrath of the old farmers who felt wronged by the old policies.

<sup>6</sup> The total value of cocoa exports fell by more than half from 1987 to 1996, putting it well behind some non-traditional exports such as yams.

farmer sees a tremendous payoff, minimal risk, and a guaranteed market (as well as improved access to credit and supplies, discussed later, and potentially with a road extension a direct pick-up service).

The enhanced marketing infrastructure for these crops as compared with domestic crops (at least before the co-op) demonstrates the government's desire to facilitate access to export markets, and it is no doubt reflective of Jamaica's dependent path and export orientation that while government marketing agencies for domestic produce have been phased out over the period of structural adjustment (Meikle, 1992) (which would enhance the import substitution capacity of the small farm sector), those Boards facilitating the marketing of export crops have remained.<sup>7</sup> Driven by fiscal pillars of external payments deficits and massive indebtedness, the Jamaican government - as discussed in section 3.1 - has been grasping at all potential sources of foreign exchange, and the strength of coffee in foreign markets has encouraged the government to be active in its promotion (also noted in section 1.3 in regards to CIDCO).

Although minor in the scheme of total exports, coffee is on a steady ascent in terms of total earnings *and* price (the soaring performance of latter being quite remarkable in the scheme Jamaica's historical experience with agricultural commodities). As noted, the price of Jamaican coffee has risen steadily over the past two decades and in 1993 was 2.4 times greater than it was in 1980, nearly ten times greater than Mexico's and Columbia's and nearly thirteen times Brazil's coffee prices. The result is that the government, eyeing to a growing foreign exchange earner, has established a strong marketing infrastructure through which these market conditions are internalized for the farmer. The guaranteed marketing in turn fortifies the pull of these strong market signals for the farmer.

Despite fears the market might be oversaturated, Father Webb notes that he was advised by someone in the coffee industry (the same person who deals with some of the highland coffee farmers directly) to expand production. Not a single coffee farmer noted any sense of risk, and any danger of oversaturation and price failure appears to have been minimized to the farmers by the government and industry agents. As a result of the rising prices and the government promotion (including enhanced access to credit, discussed in Part 2, and direct planting schemes noted in section 3.1), the production of coffee has soared with the value of total national production in 1996 rising 3-fold from 1988.<sup>8</sup>

The growth of coffee in Long Road very much reflects the national 'coffee boom' as 68.8% of coffee growers in the Long Road region and all of those growing Blue Mountain coffee had only established it since 1994, clearly traceable to its performance on the international market. As noted in

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<sup>7</sup> To say nothing of its comment on the SAP-driven fiscal agenda, which has rolled-back social spending and left in place or expanded export promotion agencies.

<sup>8</sup> An insidious impact of the 'coffee boom', which Wade (1996) notes, is the "the development of a new coffee farming subculture characterized by rich and powerful private interests which intervene in fragile social and ecological environments with little attention to continuity and sustainability as essential elements of success."

section 3.0, it is estimated that the growers of high mountain coffee in the Long Road region can expect to earn between US\$1900-3400 an acre, or an income three to five times greater than the average for rural areas, US\$640. As well, a small farmer will earn about seven times more per box if they operate their own farm than they would from picking coffee on regional plantations, where some also work. It is obvious why growing coffee is seen as a path to upward mobility, and explanations such as "when the coffee bear, me in poverty no more" give great insight into how it is perceived.

Clearly the Japanese market provides a very strong 'pull' for coffee production in the Long Road region, and it has both encouraged young farmers and motivated land use change. In addition to the obvious economic rewards, one of the most important development impacts that coffee has had is in encouraging a core of young farmers (discussed later), which is very important for the community's long-term health. In terms of motivating land use change, it is notable that of the recently planted coffee farms, 45% were cleared from previously forested (though largely ruinant) land. The remainder were converted from other farm lands as well as being intercropped with already established banana and plantain.

## **PART 2: Obstacles and Forces Affecting Development and Land Management in Long Road**

A key argument to emerge from sections 1.4 and 1.5 and which pervades a consideration of their development and land management is the fact that the Jamaican peasantry are an *underdeveloped* poor. That is, they are not a people at a naturally low-impact state of interactions with the environment with low material needs rooted in a historical equilibrium with the environment. Rather, they have been underdeveloped through a history of inhuman displacement, slavery, and marginalization on the periphery of a slave and plantation culture. Thus, material development is not antithetical to cultural norms,<sup>9</sup> nor is the peasantry's relationship with the environment inherently sustainable. This recalls a quote from Nehru, hero of India's Independence, which Sherlock (1997) relates to the Jamaican condition:

*Spiritual or other greatness cannot be founded on lack of freedom and opportunity or on empty stomach and misery...Nor do I appreciate in the least the idealisation of 'the simple peasant life'. I have almost a horror of it. What is there in 'the Man with the Hoe' to idealize over? Crushed and exploited for innumerable generations...*

As a result of the process of underdevelopment the peasantry are at once the source of much environmental change and in great need of real development, conditions which are intimately connected, for better or worse. There are a myriad of forces affecting the way land is used by the Jamaican peasantry and which impede their development, and the major problems identified in the literature and summarized in figure 1.50 include: the lack of access to good land and secure tenure, cheap food imports,

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<sup>9</sup> Indeed, much of the vibrant Jamaican culture is rooted in a resistance to this marginalization and a righteous anger against poverty and oppression. However, an African-Jamaican definition of development is unfortunately being eroded at the level of popular consciousness, as the *National Report on the Environment* (1992) notes that "recently, lifestyle has been influenced by the ready access to North American mass media and markets, as well as the general consumption ethic."

demographic limitations, poor infrastructure and transportation, poor marketing systems, and a lack of technology, irrigation, information, credit, and government assistance and praedial larceny. These are evident to varying degrees in Long Road, as seen in figure 4.00 which summarizes the problems cited by the respondents and those that were observed from other responses and other aspects of the field-work. The figure and the discussion which follows attempt to trace these obstacles and forces to the broader context in which they are embedded.

### **Demographics and the Lack of a Social Safety Net**

Age is a fundamental factor conditioning individual peasant decision-making (Newman and Le Franc, 1994), and when taken as part of a broader demographic picture it can be seen to be a key obstacle to development in peasant communities. It is axiomatic that given the arduous nature of hillside farming and the lack of help available (or that can be afforded), age and physical condition will limit or widen the range of what is possible in terms of land management and how farmers perceive their options.

Meikle (1992) suggests that small farmers in Jamaica tend to be risk minimizers rather than profit maximizers, and this is true of the older generations in Long Road. While two of the older farmers went heavily into cocoa and coconut long ago, most (including these farmers) grow a wide range of crops and explained their cropping decisions in terms which reflect a concern about stability between seasons, balance against a failing crop and market swings, and a desire to spread the labour burden throughout the year. Another way some conceive of security is in terms of livestock, largely cattle and goats.

The fact that many old farmers well into their 70s and 80s are still farming is reflective of the fact that even at an advanced age they are dependent on their farms as 'social security', recalling the pittance that one old farmer receives for his pension and the lack of support from children that others complained of (although some old community members are well looked after by their children). The marked retreat of the state over the past few decades only serves to dim the future prospect that the government will ever provide any effectual social assistance to the rural poor, meaning that this safety net imperative will seemingly persist. However, Newman and Le Franc (1994) argue (from section 1.5) that while the informality and balanced 'safety net' production system has historically protected small farmers, the 'darker side' is that it has also limited their future development into more commercialized systems and meant that traditional development strategies have not tended to address their needs.

The need to provide one's own safety net through continued production means that most older farmers cannot afford the lack of a crop for the time it would take between establishing a crop like coffee and its first harvest. This combined with the labour demands of planting and the inability to pay for workers makes old farmers either disinclined or unable to alter their crop mixture. Thus, the conservative

nature and physical limitations of older farmers means that they are not generally agents of contemporary land use change.<sup>10</sup> As Father Webb noted, at a certain age the desire for increased earnings is taken over by the desire for a less physically demanding lifestyle.

In contrast, the young farmers in Long Road have behaved as profit maximizers in their zest to plant coffee<sup>11</sup> and have effected the region's major land transformation in recent years, proving adaptable from the conservative, 'safety net' mould which Newman and Le Franc describe as inhibiting peasant commercialization. Nearly three-quarters of the new coffee growers are under the age of 35, as these younger farmers obviously have a much longer time horizon and are physically capable of planting and waiting for coffee. The goal of profit maximization is evident in quotes such as "coffee the best prices," "you get good money from it," and "coffee the most payable." So while the older farmers are limited in their ability to increase productivity or change production systems, younger farmers are central to the future development of agricultural communities like Long Road because they are not as conservative and have the time and physical capacity to expand production or plant new crops. Yet although the rural population pyramid shown in section 3.1 reveals that there are a great many young people residing in rural Jamaica (in 1991, 52.4% were under the age of 20), that does not necessarily translate into the future health of the small farming sector demographically.

A widespread phenomenon in rural Jamaica - as in Long Road, particularly before 1990 - has been the rejection of farming and the out-migration of the rural youth, evident in the increasingly urban nature of the population. As one old farmer from Morant-Yallahs remarked, "the young people don't want to get their hands dirty," and the lack of youth among many farming communities bodes very poorly for their future development, for obvious reasons (to say nothing of the intense urban poverty which has been exacerbated by rural emigration). Recognizing this, the co-op undertook as part of its mandate the need to encourage the development of the area's young farmers.

The co-op and the 'coffee boom' have helped to reverse the outflow of young men (although as yet, and to many young farmers' lamentation, unfortunately not nearly as many young women) from Long Road. Thus, at the community level the demographic and safety net barriers to rural development are beginning to be overcome in Long Road, attendant to which is the increased capacity for expanded

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<sup>10</sup> It is difficult to assess which of bitter experience (as noted by McDonald et al., 1992) or physical limitations is a more significant cause for the more conservative nature of older farmers in Long Road. However, in the case of the 'coffee boom' being dominated by younger farmers, physical limitations would seem to be the primary obstacle inhibiting older farmers from establishing it, as some noted an interest in coffee but the impracticality given the limitations of labour and money. It is notable that a 68-year old farmer who stressed balance in explaining his traditionally mixed cropping system has recently added one acre of coffee, as his remarkable physical condition and slightly elevated economic means allowed him to both put in the labour himself and hire some additional help to establish it. It is likely that more older farmers would do likewise if they could.

<sup>11</sup> Although the desire for profit maximization here does not necessarily imply a greater willingness for risk because coffee, as noted, and plantain (the common intercrop and which has an open market with the co-op) are not seen as risky crops.

production and adaptability to changing market conditions. Indeed, the co-op is now entrusting its hopes for expanded production with the area's young and middle aged farmers, who have also put themselves in a position to capitalize on the booming coffee market.

### **Praedial Larceny**

Praedial larceny, or farm theft, was an obstacle identified by some (especially older) farmers. It is also cited in the literature as being a significant disincentive to agricultural producers (PIOJ. 1990), and its role inhibiting the desire for expanded production was evident in responses such as: "gets discouraging [and] one time you want to give up" and "if you can't curb that you might as well lay down arms." Praedial larceny is inevitably linked to the complex of problems which surround rural poverty, and its ultimate resolution is no doubt linked to broad community development issues. However, for those who are suffering at the hands of thieves, such prospects are too abstract and the solution is understandably conceived of in terms of improved policing.

### **Labour Intensity and Lack of Help**

The most commonly identified problem by the farmers was a lack of help in farming, traceable to the labour intensity (affected by the nature of the terrain, in turn linked to the historically imbedded plantation matrix) and solitary nature of the work, and likely reflected to some degree in a preference for tree crops. While modest development and change has occurred in recent years in regards to the general method of farming in Long Road, most notably in easing the process of marketing, the arduous nature and plain physical difficulty of farming were not seen to have changed by most. Of those who have farmed long enough to judge whether it is any different, 73.1% felt that farming has not changed, and those who felt that it has tended to point out marketing changes rather than labour changes. For most, as one old farmer noted, "farming just the same."

Newman and Le Franc (1994) note how a crop's popularity is often related not only to its market value but to its labour intensity, as the popularity of tree crops are enhanced by the fact that they require less labour (except sometimes during harvest). Although semi-tree crops banana and plantain were the most commonly (76.7%) identified crops grown (in terms of times cited) and require more work than do tree crops,<sup>12</sup> and while no farmer made the link between growing a tree crop and the ease of labour as a motivation,<sup>13</sup> tree crops are very popular in Long Road and one extension officer made the same connection between their prevalence and their lighter labour burden as do Newman and Le Franc.

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<sup>12</sup> Because they have to be re-planted and grown with each crop they yield.

<sup>13</sup> Although one young farmer did note how he will eventually turn his coffee-plantain intercrop into pure coffee based not only on the earnings potential of coffee but on the fact that coffee is easier. While the coffee is still being established, however, plantain is desirable because it provides a quick crop.

Five of the top ten most commonly identified crops in Long Road are tree crops (cocoa, coffee, long mango, pimento and coconut) and the extension officer suggested that many Long Road farmers are too heavily dependent on tree crops because they are less work than cultivated ones. This, he lamented, works to the overall detriment of the co-op's productivity because production is less and tends to occur more sporadically, in gluts. In this light, expanding production could potentially run counter to the preservation of agroforests and the prevalence of tree crops in the area at the same time as much literature - as discussed in section 1.3 - suggests diverse agroforests provide tremendous ecological benefits in stabilizing the soil and hydrology, as well as being very efficient and economically viable (in the Jamaican case, by Barker and McGregor, 1988). However, while the extension officer sees value in intensifying the cultivation of the flatter land and feels that the reliance on tree crops has reduced the motivation of some farmers, he is also a strong proponent of agroforestry for the more steeply sloping lands. On the steeper hillsides he encourages only that more be cultivated *in addition to*, rather than *instead of* tree crops.<sup>14</sup>

In short, while labour considerations are likely linked to the extent of tree crops and might reduce the productive capacity of the district (and hence the co-op), the 'labour easing' nature of agroforests has the ecologically fortuitous effect of increasing their attractiveness, particularly as they are critical for steeply sloped lands. From both an ecological and developmental standpoint the problem arises, as the extension officer suggested, if the agroforests are not seen to be productive enough - meaning that either the conversion of the agroforests into a more intensively cultivated system or the further colonization of non-farmed land is required to increase production.

In addition to the labour intensity of hillside farming influencing cropping patterns, two other important ways that it affects land management are through the employment (of lack thereof) of soil conservation measures and through the use of fire. While some Long Road farmers employ soil conservation techniques and there is a moderate degree of consciousness over the potential danger of erosion (which is increasing as the extension officers and the Jesuits try to embed a soil conservation ethos), generally the employment of soil conservation measures could stand to be greatly extended - particularly on the steep, recently planted coffee highlands. The main barrier, however, is less ignorance than it is simply time, energy and a lack of help (discussed later in *Land Crowding and Tenancy Issues*), in accordance with Barker and McGregor's (1988) assertion that because certain types of soil

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<sup>14</sup> The extension officer suggested that land up to 20 degree slopes (while also encouraging soil conservation measures) could be farmed intensively, land with 20-35 degree slopes with tree crops, and everything over 35 degrees kept as forest to protect the watershed. In their assessment of necessary soil conservation measures, de Graaff and Sheng (1994) recommend a bit more conservative system whereby farmers apply hillside ditches with annual cropping systems for slopes less than 15 degrees, plant tree crops on slopes between 15 and 28 degrees, and plant (or keep) forest trees on slopes from 28 to 33 degrees.

conservation measures (i.e. bench terracing) are expensive to build and maintain, "planners should not be surprised...when small farmers on low incomes are reluctant to adopt such measures."

With respect to fire, observation, discussion and even participation in a (somewhat) controlled burn confirm Eyre's (1989) notion that it is widely used by small farmers not for the sake of its environmental benefits but because it reduces the labour involved in forest clearance. Given the tremendous effort required to clear forest, much of which is done with a machete (although the co-op has loaned some farmers a chain-saw), fire becomes a very attractive and labour easing way to subsequently prepare the land for planting.<sup>15</sup> Barker and McGregor's (1988) assessment would again seem right on the mark: "agronomic techniques like burning [and the insufficiency of soil conservation measures could be added] are symptomatic of low incomes and labour constraints rather than 'bad farming' *per se*."

### **Rugged Terrain and Elevation**

An obvious outgrowth of the plantation matrix in Jamaica is that small farmers, like those in Long Road, cultivate land in the rugged interior where slope has long made farming more difficult, but where market conditions are increasing the valuation attached to high lands. The natural outgrowth of farming rugged terrain is that elevation, slope and exposure will affect the land use pattern given the varying biological requirements of different crops. While all of these physical determinants are no doubt reflected in the individual cropping patterns of the farmers, for the Long Road the most significant of these factors shaping regional land use change is clearly elevation - most evident in the case of coffee. Coffee is grown on moderately to very steeply sloped lands and at different exposures, with elevation being the critical factor determining the desirability of land. The land most desirable is that which is high enough for the coffee grown to qualify as Blue Mountain, which commands a price (as noted in section 3.0), nearly three times greater than lowland coffee and 1.4 times greater than high mountain coffee.

While the desirability of high land means that steep slopes are generally a necessary circumstance for coffee growers, the interior terrain is not a necessary condition for any of the other crops grown (although it bears most in great bounty given stable soil conditions), and the hilly land of the region makes farming more arduous. It takes but a day's work to appreciate the tremendous energy and challenge inherent in working such terrain,<sup>16</sup> and twice as many of the farmers surveyed felt that they would be better off if they controlled flatter land than those who would prefer more land (while 20% felt that neither change would benefit them). The preference for flatter land also relates to the labour intensity

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<sup>15</sup> Although Eyre (1989) also notes the danger of the misuse and uncontrollability of fire, and as recounted in section 3.0 the implications of misuse and uncontrollability were present with great poignancy as one young farmer lost his entire coffee crop, fire is accepted as the norm by the farmers of Long Road. Only a few farmers raised it as a problem, and then it was seen as a problem of *carelessness* - not of the act itself.

<sup>16</sup> A fact which motivated the question of whether farmers felt their condition would be more improved to have flatter or more land.



of the work and the fact that a lack of help was the most commonly identified obstacle by the farmers, as many later noted how flatter land would make farming easier. The relationship to the land in terms of terrain has long been an obstacle for Jamaican peasants and is rooted in the colonial period, but recent market conditions have made high land suddenly less an obstacle than a development asset.

### Land Crowding and Tenancy Issues

Vayda (1983) points out that another guide for progressive contextualization is the use of comparative knowledge about similar contexts producing similar dynamics in the belief that there is some degree of universality in the experience of marginalization across regions and nations. However, just as Vayda did not find the 'contexts of desperation' typical of tropical deforestation as he had expected to in East Kalimantan, nor did this research find in Long Road the context of dire land hunger and tenure problems which are characteristic of much of the Blue Mountains and which was expected to be such a pivotal force guiding land use.<sup>17</sup>

Land tenure in Long Road is not nearly as intense as it is throughout the Blue Mountains, as 90% of those surveyed own or work family owned-land, and the remainder work on long-term leases. In comparison, it is estimated that levels of squatting in the adjacent Blue Mountains National Park are 40% (Berke and Beatley, 1995). At regional and national levels, tenancy and crowding problems combine with the rugged nature of the terrain to create the 'Haitian syndrome' described in section 1.2, where the high erodibility of the land forces crowding, subdivision, and continued resettlement onto new lands. However, none of the respondents noted the need to find new land based on erosion problems,<sup>18</sup> and the subdivision of land did not appear to be a problem as those with multiple plots tended to be more prosperous.<sup>19</sup>

In contrast to the short-term abuse of land which often accompanies an insecure tenure system (as discussed in section 1.3), because most Long Road farmers own their land and the remainder feel stable on what is leased, there is a natural disinclination against knowingly degrading it for short term gains. Rather, the widespread security of the tenure regime in Long Road means that it is in the farmer's best interest to employ practices which will conserve the productivity of the land over the long term. While, as noted earlier, soil conservation measures could be improved in many cases and serious measures like land terracing are uncommon - their absence most notable with the new coffee growers who occupy the highest and steepest slopes in the area and the most recently cleared land - this is owing

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<sup>17</sup> Fortunately, as Vayda notes, 'flexibility' or 'fluidity' in method allows alternative courses of inquiry to be pursued more easily than would have been possible if a more pre-formulated experimental design would have been used.

<sup>18</sup> Although, as noted in section 3.0, one old farmer did describe this dynamic, complaining that "the soil just wash away on the hillside, it gets used, worn out...year after year, generation after generation of working same land - need manure - after years of that just give up and find new land."

<sup>19</sup> Although conceivably, the subdivision which has allowed some to accumulate could have worked to the detriment of smaller-holders.

not to the wilful short-term abuse of land, obvious from the way coffee is perceived as a long-term investment. The lack of land terracing is owing to a combination of factors which include the labour intensity of doing so, a lack of understanding about the importance of soil conservation techniques (which, as noted, is less an issue than is labour, especially as awareness increases through extension), and in the case of coffee, the fact that the desire to plant as quickly as possible outweighed longer-term issues of erodibility.

In short, the land tenure situation in Long Road is relatively stable and is not a significant issue which constrains the long term outlook for most farmers, evident in the fact that the farmers possessing recently cleared land view it with a sense of long-term ownership. The plain labour intensity, rush to plant, and a lack of education, rather than tenure, have been the central issues in inhibiting serious soil conservation efforts like land terracing from being more widespread as yet. However, in contrast to the reckless conversion to coffee in the upper Yallahs valley noted by Barker and McGregor (1988) where "there had been no attempt to preserve individual trees for shade, nor to intercrop coffee with a productive shade crop like bananas," the young farmers of Long Road have preserved individual trees in their coffee fields for shade, some are intercropping with plantain (at least until the coffee gets established), and they have planted along contours leaving the potential to terrace in the future.

Although the extent of government-owned pine plantations in the region would seem to have heightened crowding pressures, land hunger is much less severe in Long Road than it is in Jamaica on average. In terms of farm size distribution, Long Road compares favourably with the national small farm sector, with 26.6% of farmers possessing land of 5 acres or more, as compared with only 5% of all small farmers in the nation. Long Road also compares favourably with the aggregate farm sector, as much fewer farmers (10% as compared with the national average of 26.5%) possess diminutive plots of one acre or less (see Figure 4.01).

**Figure 4.01 Long Road Farm Size Distribution vs. National Distributions**

Long Road vs. National Farm Distribution			Long Road vs. Small Farm Sector		
Farm Size	% of farmers		Farm Size	% of farmers	
(acres)	Nat'l Avg. (1993)	Long Road	(acres)	Nat'l Avg. (1987)	Long Road
<1	26.5	10	<2 acres	57.5	46.7
1-<5	52.2	60	2-5 acres	37.6	26.7
5-<25	19.5	26.7	6-10 acres	4.0	16.7
25-<100	1.3	3.3	10+ acres	1.0	10
>100	0.5	0			

source for Nat'l Avg.:

Ministry of Agriculture Data Bank (Aug. 1997)

source for Long Road: survey sample

source for Nat'l Average:

Newman and Le Franc (1994), from Gordon (1987)

source for Long Road: survey sample

In addition to ownership and distribution being superior to the national average and therefore suggestive that land hunger is not as intense in Long Road as in other areas, the farmers themselves did not identify land hunger and tenure issues as problems in the region. Only two farmers (6.7%) pointed to the size or the lack of access to land being a problem in the region, and in a different question only two said they felt there are too many farms in the region.

However, before suggesting that land hunger is an entirely negligible force in the area, it must be noted that one-third of the total survey sample operates first generation farmland, and three-quarters of the young farmers surveyed operate land on which they had to clear some or all in order to gain access. This recalls the comment by the extension officer that "what most young men do is go to Kingston and find out things are worse there than here and come back and clear land." Thus, the conversion of the land base has clearly intensified, and this intensity was evident in the ceaseless array of fires burning throughout the region for the duration of the fieldwork.

This suggests that a large part of the reason why landlessness is not, nor land hunger perceived to be a problem in the region is owing to the way that 'da bush' is perceived - as future farmland, seen to be 'there for the taking'. Consequently, land hunger must be seen as being relative to the way that land is perceived rather than as being non-existent. So while landlessness and tenure issues are not as severe in Long Road as in other parts of the Blue Mountains, land conversion in the region is still inevitably linked to the relationship between the peasantry and the land caused by the plantation matrix of the landscape and exacerbated by population growth (although this has been negated largely by the emigration from Long Road, as it has, no doubt in many other rural communities). The difference is that in Long Road, more so than in other areas, there remains more land still there for the taking. Land crowding and tenure issues were not, however, directly linked to the farmer's perceptions in the decision-making model because from the farmer's perspective this is more an issue of the way in which land is perceived.

### **Frontier Mentality**

Eyre (1989) notes how a 'frontier mentality' still pervades the Caribbean, and the material conceptualization and 'predatory' approach to the forests reviewed in section 1.3 was evident during the course of the fieldwork. This is best summarized in a comment by a young farmer, noted in section 3.0, who remarked that "whoever wants land can have it, they just need strength and ability." Such a view of land is further evident in the fact that not only did most farmers feel that there could be more farms in the region, many felt there *should* be more. Colonization and land settlement is seen as desirable because it would increase the production of the region, means that more people are working (and hence less 'idling'

and praedial larceny), and, as two farmers noted, could increase the potential for infrastructural extension.

When asked to assess the extent or change in the region's forests, the overwhelming majority of respondents said that there is no problem (93.3%), some feeling that the forests are no different and others noting that while they have changed or diminished, this was not a problem except for the fact that there had been a cessation of employment in logging. This recalls Blaikie and Brookfield's (1987) contention that a social element is inevitably what makes land use change degrading. Accordingly, it would then be wrong to consider the conversion of the forests in Long Road to be land degradation, as forests have little or no inherent worth but for charcoal and timber (although some also linked their role to the altered water regimes in the region), and their conversion is seen to be a beneficial process.

From the perspective of the farmer in Long Road then, land degradation really begins with soil erosion. The loss of the forests only becomes land degrading when the host of ecological issues associated with forest loss described in section 1.2 begin to impact negatively on the farmers, and only then if there is some awareness of the interconnection between forest loss and the ensuing problems. However, while some respondents revealed an awareness of the links between deforestation and changes in the hydrological system, the majority (70%) do not feel that soil erosion is a problem on their farms. Thus, there is at present very little sense of a problem with the surrounding environment, and as long as the soil continues to bear crops there will be no reason for any concern over the conversion of the region's forests.

Indeed, to suggest to a farmer that hillsides full of successful coffee farms represent land 'degraded' from previous forest cover is to be thoroughly contemptuous of their condition and their desire to better it. It would seem to be near impossible to expect that a poor, underdeveloped farmer - that is, one whose culture has not evolved in harmony with the forests<sup>20</sup> - to place an intrinsic value on them because the prospect for abstract thinking about their surroundings and conservation is subjugated by immediate concerns. Thus, the 'predatory' view of nature, as noted by the *National Report on the Environment* (1992) (as discussed in section 1.3), seems traceable to the relationship between peasant and land base engendered by Jamaica's colonial history and exacerbated by the persistent rural poverty.

As well, the government-owned pine plantations are very significant in the complexion of the Long Road landscape and no doubt a further contributing factor to this 'predatory' or material needs-based view of land. The planned conversion of so much land in the region to a pine monocrop to meet domestic timber needs (linked to import substitution goals of the government decades ago) and the fact

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<sup>20</sup> Rather whose place there has been rooted in marginalization and continues to be defined by exclusion.

that the harvesting provided much employment in the past would seem to have naturally fostered the frontier approach to the land in the minds of local residents, typified in the fact that many described the changes in the forest in terms of employment.

### **Climate, Seasonality and a Lack of Irrigation**

Climate and seasonality, like slope and elevation, overarch the discussion of development and land management in agriculture by setting the physical parameters. Although Jamaica's climate and soils make it a bountiful island, a few Long Road farmers did identify 'seasonality' as a problem. Because temperature does not vary much, the notion of seasonality as a problem is clearly traceable to the water supply limitations (particularly pertinent during the fieldwork as there was an acute drought). Yet because no Long Road farmer has irrigation and for most it is an unlikely prospect,<sup>21</sup> irrigation is not generally conceptualized as a possibility, and its absence is therefore not seen as the problem (only one farmer noted irrigation specifically as a problem). Rather, seasonality (noted by five farmers) is more commonly, if implicitly, linked to the water supply limitations by the farmers.

In terms of land use, the lack of irrigation and the dependence on seasonal changes for water is one factor that has encouraged the diversity of the cropping system, as different crops must be grown so that there will be something coming in throughout the year. However, the absence of irrigation means that harvest of certain crops inevitably occurs in gluts, and farmers are limited in their ability to plant out of season and harvest when the prices are stronger. On a regional level, the absence of irrigation also makes it difficult for the community's farmers to balance their production and the co-op to expand its markets. and Father Webb identifies irrigation as being a key developmental barrier and cites it as one key to expanding production in the region.

However, the desiccation attributable to the decline of the region's forests (noted by some of the farmers themselves with reference to the pine forests) bodes poorly for developing any future sources of irrigation. This would seem very much in line with the 'agents as victims' of deforestation notion put forth by Eyre (1987a). The hydrological impacts of deforestation and soil erosion were discussed in section 1.2, and include reduced moisture retention capacity of the land, increased speed of runoff, the decline of rainwater infiltration into the groundwater, and the increased seasonality of water yields and diminished dry season flows. Although these problems are of course evident to a much lesser extent with monocropped pine forests than they would be without any forest cover at all, soil is much more exposed in a pitch pine plantation than it would be in a more natural state with a multi-tiered canopy. Thus, it seems likely that Long Road farmers will continue to be subject to the seasonality of the rains.

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<sup>21</sup> Given that the town's water supply is rationed during the dry season when irrigation is most needed.

## **The Co-op and the St Mary Rural Development Project**

The dynamic which both distinguishes Long Road and makes it such a valuable example for other areas throughout rural Jamaica facing parallel obstacles to development is the St Mary Rural Development Project. From the surveys it is clearly evident that real, people-centred development has occurred in Long Road, addressing not only the critical issue of marketing, but a broader series of community obstacles. In terms of economic development, 88.5% of the farmers old enough to have farmed before the co-op feel that marketing has improved, and none that it has deteriorated. In addition, the overwhelming majority of Long Road farmers, regardless of whether they have been frustrated at times by price or quantity taken by the co-op, display affection for the overall impact that it has had on the community, with four-fifth's of the farmers indicating that the general condition has improved since the co-op's inception and only one farmer noting that his condition has declined over the past decade (owing to age).

In addition to providing an enhanced marketing capacity for Long Road's produce, the co-op has begun to successfully confront the district's demographic problem by helping to engage the youth in farming (as discussed earlier), working to secure improvement to the community's infrastructure, buying in bulk and supplying farmers with free or cheaper inputs, improving farmer's access to credit, and beginning to provide extension services and co-op education. Thus, the SMRDP has begun to surmount many of the traditional obstacles faced by small farmers.

### **Foreign Aid**

Father Webb noted the indispensable role that foreign aid has played in getting the co-op to where it is today, commenting that it is "hard to imagine how long it would take without some initial inputs." Foreign aid has helped to pay for the massive infrastructural improvements, the truck, a credit scheme for the farmers, some administrative costs, the two extension officers and the new education officer, and an extensive tree planting program. Yet while the SMRDP has been dependent upon foreign aid for much funding (and demonstrated a remarkable ability to secure it), it has never compromised its administrative integrity at the local level. As a result, it does not bear the faintest resemblance to an external development project with goals set by outsiders and funding agencies.

Rather, its directors are firmly embedded in the communities in which they operate and aware of their aspirations and challenges,<sup>22</sup> and despite the challenge of empowering the farmers themselves the co-op has a very strong commitment to de-centralizing the administration further. So although Father Webb does note that the money could conceivably have come from within Jamaica (although unlikely

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<sup>22</sup> As Michael Witter noted (1997b), Father Webb is a man with a thorough understanding of the process of community building in Jamaica.

given the retreat of the state), the SMRDP bears testament to the potential value that foreign aid can have if administered well from the ground by people rooted there. It was very poignant to hear one young farmer express tremendous gratitude to 'Canada country' for having paid for the long road improvements.<sup>23</sup>

It is hoped that the co-op will soon be self-financing and its experience with foreign aid provides a hopeful case of securing funds during a period when they have been significantly declining in Jamaica (as noted in section 3.1), as well as a testament to the importance of combining aid with community-driven, rather than externally managed, decision-making. However, the 'indispensability' of aid to the SMRDP's start-up and early growth combined with the fact that the outlook in the Caribbean is not promising for securing future aid would together seem to hinder replicability of the SMRDP, or at least make other attempts much slower in 'getting off their feet' (WB, 1993b).

### **The Retreat of the State**

As will be discussed with respect to extension services, the impact of the World Bank and IMF SAP-dictated retreat of the Jamaican state on a community like Long Road must be seen in the context of the services that existed beforehand, which in Long Road were quite limited. Thus, the difference between pre- and post-structural adjustment government services is not discernible to Long Road farmers, whose cynicism towards the government appeared to span both periods. Nevertheless, the retreat of the state described in section 3.1 means that the government is ever more impotent to bridge the huge void which exists between development needs and capacity building in rural Jamaica, such that the future dynamism in rural development must be taken by local collectives such as the SMRDP.

### **Poor Infrastructure**

The earlier improvement of the long road was owing to the SMRDP for initiative and securing the funds and its extension is also being driven by the SMRDP (although this time, it is national funding being sought). Thus, it is the SMRDP rather than any state agency which has had the most impact on infrastructural development, and just as one day's work in the hills is enough to make one appreciative of the challenge of the terrain, so also does it make one sensitive to the need for increased infrastructure in the region. The need for the road extension was the second most commonly identified problem in the region, and this is even more significant when it is considered together with the problem of 'carrying the load' and the 'need for beasts', the fourth most commonly cited problem. Getting the produce to market is an enormous physical burden for many, particularly when combined with the challenge of terrain, old

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<sup>23</sup> Although funding for the road actually occurred in conjunction with other agencies in addition to CIDA, CIDA (as noted in section 2.1) has played by far the most significant funding role in the SMRDP. If more Canadians would understand the effect that foreign aid can have on a community such as Long Road, perhaps aid budgets would not have declined so dramatically in recent years. Indeed, the poignancy of this expression of gratitude by the farmer was sullied only by an awareness that such funding continues to be sacrificed in Canada at the altar of fiscal conservatism.

age, and distance. From the perspective of the farmer, it is not very difficult to understand why the lack of roads are perceived as an obstacle and their extension as a necessary development.

The extension of roads - particularly that of the long road to the high interior - would not only ease the transport burden for those who farm this area, but would facilitate the expanded use of the highlands. As noted in section 3.0, one farmer commented that "if the road was there, I'd be there [to plant coffee]," while another saw increased coffee production in the region the way to encourage the road being built. Whichever is to come first, the road extension or the expanded production in the highlands, this recalls the discussion of section 1.2 about the insidious impact roads tend to have on the forests, with eminent botanist George Proctor lamenting of Jamaica's conservation prospects that "So long as the roads continue to be cut...the destruction of the forest will proceed accordingly" (from Eyre, 1996).

### **Lack of Farm Inputs and Technology**

As noted in section 1.5, the lack of farm inputs and technologies has long inhibited the efficiency and competitiveness of the peasant sector. In this respect, Long Road was a very typical peasant community before 1990 as most of the farmers lacked the capital to afford these investments. Yet while some farmers did still cite the lack of inputs and machinery as problems in the surveys, the access to fertilizers, pesticides, chemical sprayers and even chain-saws (for use in clearing land) has improved a great deal in Long Road since the birth of the SMRDP, which can pass on to farmers the cost savings achievable through bulk purchase. The co-op has been particularly attentive to the start-up needs of young farmers, to whom much of the free inputs have been supplied.<sup>24</sup> The majority of these inputs have been for plantain and coffee, including suckers, fertilizers and chemicals (as coffee is a chemical intensive crop) - so in the process of supplying start-up inputs the co-op has also effectively internalized the market for the farmers and encouraged certain types of land use through its understanding of market forces. As one young farmer noted: "the co-op enlighten us to plant things."

### **Irrelevant (Formal) Education**

The educational system in Jamaica has deteriorated markedly over the past two decades (as noted in section 3.1), hastened by the retreat of government spending under the dictates of structural adjustment. Yet even before structural adjustment the highly selective nature of the system meant that many - especially those in rural areas - left school with a very limited education. This lack of education can be linked to the struggle that the co-op has had with some of its members' tenuous loyalty when it provides weaker prices, which is in turn linked to the co-op's 'production-price' dilemma (noted above and in section 3.0) and is a significant obstacle for the development of the co-op.

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<sup>24</sup> Start-up supplies are generally given to the young farmers on the condition that they clear and prepare the land.



For a co-op to be successful it needs unwavering 'buy-in' - that is, its members must understand, appreciate, and behave according to long-term co-operative ideals and not self-centred opportunism. However, having received a limited education and with no experience prior to the co-op in thinking in communal terms - indeed their experience with the higgler system was completely to the contrary - it is rational why some, even as they profess an appreciation for the co-op, pursue their immediate self-interest and sell to higglers when they provide higher prices.<sup>25</sup>

In the past the co-op has sent Board members to training schools which teach them co-operative ideals and process, but this has not yet sufficiently seeped down to enough of the other members. In response, the Board noted its intent at the AGM "to put in place a formal training programme," and the co-op secured funding to hire an education officer in order to improve grassroots buy-in. The success of these efforts will have much impact on the long-term health of the co-op, as the one extension officer noted that "the Jamaican experience shows that those that fail to reach the ground fail."<sup>26</sup>

On another level, the limited opportunity provided by the education system is evident in Long Road, as not a single of the young farmers surveyed - intelligent men and with tremendous work ethics - had advanced beyond an all-ages school. They are very aware of the elitism of the school system, one noting that the educational system is "not for the poor man." However, not only is there tremendous inequity in the access to and provision of education - ideally a 'great societal leveller' (Sherlock, 1995: 1996a) - in poor rural areas, hence smothering the range of opportunities for rural youth, Newman and Le Franc (1994) point out that the Jamaican education system is utterly irrelevant to small farming.

This irrelevance is evident in Long Road, as farmers described having 'picked up' their knowledge and skills from either parents or elders and "outside of a formal educational environment," as Newman and Le Franc suggest. Yet while one extension officer pointed out the significant folk wisdom of many farmers,<sup>27</sup> the lack of extension services was identified by the co-op's Board a few years ago to be a major obstacle to increasing production (as noted in section 2.1), which inspired the hiring of the two extension officers in 1997 and provides another illustration of how the SMRDP has helped fill a major void in the development needs of the community.

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<sup>25</sup> This is not to suggest that uneducated human nature is self-interested - obviously a debate far beyond even touching on here - but that most of Long Road's farmers have lived most of their lives eking out a living within a higgler system, the nature of which fosters the rigorous pursuit of self-interest.

<sup>26</sup> Byombuka (1991) also notes that insufficient attention to co-operative education had a very negative impact on the Zairian co-operative experience.

<sup>27</sup> Noting one example of how he was encouraging some farmers to plant as quickly as possible, but they refused to plant after 'moonshine' (full moon) because the 'weebles' would eat the planted seeds. A Long Road farmer also explained this phenomenon to me.

## **Extension Services**

Several days spent accompanying the two SMRDP extension officers demonstrated their essentiality, especially as the Long Road farmers move further into the higher, steeper, and more erodible interior, and given that none in the community had previously intensively cropped coffee or grown the high mountain variety. The extension officers have taught such necessary planting techniques such as proper spacing and intercrop patterns, spraying procedures and pest detection and control, and have tried to instill the importance of soil conservation. Although no young farmers have yet physically terraced their land, some noted that they will as their coffee trees mature and most expressed an awareness of the importance of soil conservation.

One of the SMRDP's extension officers commented that "with SAPs, the government was forced to pull back on extension service...leaving farmers on their own," as was discussed in section 3.1. However, it was evident from the survey that the failure of government to reach the small farmers in Long Road extends beyond the two decades of structural adjustment, as the only extension service ever to reach any of the farmers surveyed occurred since the SMRDP had hired its two officers. But while the SAP-related retreat of the state cannot alone be linked to the absence of extension in Long Road prior to 1997, structural adjustment undoubtedly decreased the likelihood that extension services would ever have reached the Long Road community in the absence of the SMRDP.

Thus, the SMRDP is beginning to provide a valuable service for the small farmers of Long Road, and in so doing serves as a good example of how a local non-governmental development initiative has filled the void of extension support left by a state historically neglectful of the needs of the small farmers and whose neglect has only been entrenched under structural adjustment. In a neoliberal state like Jamaica, it is such development initiatives which will have to meet the needs of the small farmer.

## **Access to Credit**

Another of the problems cited in the literature as an obstacle to the peasant sector and which the SMRDP has helped the farmers of Long Road with is access to credit. As discussed in section 2.1, the SMRDP hatched a clever scheme through which farmers with no credit experience and little collateral could at once secure loans and develop a credit history at the People's Co-operative (PC) Bank. Yet while the pay-back record of the farmers has been tremendous and some have subsequently taken out additional loans, only 26.7% of those surveyed had taken out credit (some before the SMRDP's credit scheme), and the survey revealed mixed feelings amongst those who had, and a reluctance (more so than a sense of futility) of many who had not taken out loans. Nevertheless, the SMRDP has helped to break

down the obstacle of credit for many, increasing the capacity for farmers to expand production or make necessary investments when they so desire.

The role of credit as it relates to coffee is also notable. Three of the eight who had received credit have taken loans specifically to go into coffee, which have helped with the purchase of fertilizers, suckers and seedlings and given a long-term pay-back schedule based upon the harvest of their first crop. Another noted how he was told that he could get a loan on the condition that he would plant coffee. Because the PC Bank receives financial assistance for agricultural production loans from the government (GoJ. 1990), it is likely that there is enhanced access to credit for coffee production not only because it has proven to be a very good investment of late but because of the government's desire for foreign exchange. Yet while the ready access of credit for coffee production might potentially have a significant impact on the further conversion of the highlands to coffee, to this point most of the young farmers have got started based upon help from the co-op rather than through credit.

#### **Lack of Money**

'A lack of money' was the second most commonly cited problem by the farmers (along with a lack of roads). However, it is not included in the decision-making model because 'a lack of money' tended to be either in reference to another problem or a vague comment that things were difficult. The inability to more precisely articulate the obstacles faced could perhaps be related to the inadequacies of the educational system, to the fact that some may have never been asked to define their obstacles before, or simply to the fact that the obstacles faced are multifarious and are best encapsulated in money. However attributable, this inability to more precisely articulate obstacles - and hence set development priorities - as was evident in some, could contribute to the 'lack of self-confidence' that Father Webb describes and that is evident in the reluctance of the farmers to assume greater responsibility in the co-op's management. On a broader level, this inability to precisely articulate obstacles faced could contribute to the peasantry's 'lack of militancy' in advocating for change (noted in section 1.5 with reference to McBain, 1992).

#### **Gender**

As highlighted in the discussion of the survey sample in section 3.0, there are very few female farmers in Long Road. Thus, another source of comparative knowledge which was taken from the literature to the fieldwork - that gender would be key development issue and that the dual burden of work and home would impinge on women's empowerment and their potential role in fostering an environmental ethos - was not apparent. The most obvious refutation for gender as a significant development obstacle and force affecting land management in Long Road is the fact that women do not

do much of the small farming and do not appear to be disempowered. The number of women on the co-op's Board of Management is disproportionate to the amount of women in farming, a woman serves as the co-op's President and another formerly as its Produce Selector, and when asked to comment on whether gender presented any particular challenges each of the women farmers downplayed it, suggesting that the paucity of women in farming was owing only to an unwillingness to put in the work. The enhanced collectivist values of women noted by Shiva (1993) and Momsen (1991) could relate to women taking leading roles in the co-op, but with the women farmers themselves denying that differential gender impacts are a significant factor in understanding the challenge of farming, gender was not deemed to be relevant to the decision-making model.

### **PART 3: Conclusion**

The decision-making model used as the focal point for this chapter is of course a very simplified look at a complex and multi-tiered range of forces, but it is deemed to be a useful tool to demonstrate how development in Long Road and the land use decisions of the small farmers there are ultimately affected by an array of forces and conditions external to them. While modelling forces influencing behaviour with boxes and arrows and suggesting behavioural patterns follow certain mechanistic routes might appear at first to be a profoundly arrogant endeavour, in fact the task is utterly the opposite in intention, as it attempts to reflect the input of the each of its subjects in a composite for the community, and hopefully evident in the discussion was the respect and humility intended.

For an individual farmer, different forces, obstacles and markets will impact with varying pertinence (though there are many similarities that can be drawn between groups such as the young coffee farmers, or the oldest generation farmers, etc.). For instance, for a young farmer working part-time on a nearby coffee plantation, the most pertinent forces affecting land use might be the enormous pull of the coffee market, the desire for high land, a lack of help and time, farm inputs supplied by the co-op upon land clearance, and the need to harvest as quickly as possible. For an older farmer the most pertinent factors might not be related to the market but to obstacles such as the physical limitations brought on by their advanced age, the nature of the work, and a conservative outlook induced by the lack of a safety net, making the co-op attractive for its ease of marketing. To a middle-aged farmer frustrated with the prices and volumes of the co-op but lacking in the time and energy to establish coffee, higglers might appear to be increasingly attractive when they are paying a higher prices than is the co-op. This could go on and on, the essential point being that for each farmer specific markets impact on cropping decisions, different obstacles are perceived to be more limiting, and surmounting certain obstacles would

be more beneficial for some than others. But taken together, they give a picture of the major forces impacting on the community and how they are linked to broader political economic processes.

On the market side, the two key developments have been the co-op and the 'coffee boom' which have each served to increase the ability of the farmers to improve their well-being through expanded production, or (in the case of young farmers) new production. The SMRDP provides tremendous insight into how some of the critical obstacles constraining the Jamaican small farm sector can be overcome, the most obvious being how a systematic marketing approach can expand access to a series of consistent purchasers which would otherwise have been unreachable. The result is that despite the often frustrating prices, owing in part to a domestic market flooded with cheap imports and the inability of the SMRDP to expand its buyers (owing to the price-production dilemma), the SMRDP has nevertheless improved the ability of the farmers to benefit from expanded production - incentive which was previously lacking under the higgler-dominated system typified by gluts and wastage.

The 'coffee boom' has been spurred by the soaring price of Jamaican coffee in the foreign marketplace. While the strong and rising coffee prices have brought the growing commercialization of farms and control by big landowners and foreign interests (i.e. Japanese) in the region, what is occurring in Long Road is the increasing commercialization of the *peasant sector* in coffee. Although the commodification, specialization and export orientation of agriculture has been roundly condemned in the global South for its impacts on declining self-sufficiency, subjugating home needs for distant foreign markets and a range of other problems, Blaikie (1985) notes that small farmers who are direct producers of commodities in the global South are sometimes able to benefit from strong prices for commodities, as is clearly the case here (provided the market does not soon bottom-out).

In addition to the increased attractiveness of new markets, the SMRDP (aided by foreign funding) has also begun to break down obstacles to community development in terms of infrastructure, gaining cheaper access to farm inputs and technology, providing extension services, and helping farmers without previous credit history gain access to capital. The net result is that in addition to increasing the *incentive* to expand agricultural production, the farmers have seen their *capacity* to do so also increased as some of the limitations to development have begun to be broken down. And in this process of making farming more profitable, the co-op and the coffee development have also played a very important role stabilizing the demographic future of the community.

However, inherent in Long Road's success is an essential challenge or dilemma for the concurrent pursuit of environment and development goals (the standard, if abused, paradigm for 'sustainability' being that these must come together). Development has implied an expanded desire and

capacity to use the land, whether it be in the clearance of forest for coffee, in the looming extension of mountain roads, or in the conversion of agroforests to more intense cultivation systems. Yet while development gains of increasing profitability are widely deemed as necessary in order to reduce off-farm pressures, here they appear to have heightened the desire to use more land.

Although this recalls the question of what can really be considered 'land degradation', especially as the *National Forestry Action Report* (1990) points out that "in appropriate areas, coffee cultivation utilizing proper soil cultivation measures might be one of the best alternatives for the improvement of the living conditions of a segment of the rural populations," and the extension service will no doubt improve the soil conservation measures employed on the farms, on a regional level (where we can assume an equally intense market 'pull' is at work) the conversion of forests to agriculture, the spread of commercial coffee, and extension of roads all have very serious ecological ramifications, as noted in section 1.2. As Blaikie (1985) goes on to note in describing those instances where rising commodity prices actually benefit the direct producers, this often leads "to an ecologically unsound expansion of production onto marginal land."

So the essential problem for the environment is that as the obstacles to peasant development are overcome, they create a climate for expanded land use and ever more cultivation based on the marginalized nature of the peasants' relationship to the land base, which is inevitably related to the persistence of the plantation matrix. Reflection on Jamaica's interwoven social and environmental problems, then, as Witter suggests at the outset of this chapter, draws one to think about historical injustices and the scars that remain on the land, and the massive and pervasive inequities in land and society. These unaddressed, development of the small farmer sector - so critical - will seemingly develop the forests out of existence, draconian conservation measures notwithstanding.

## **5.0 Summary and Conclusions**

This thesis set out along a number of different paths, drawing from a wide disciplinary scope and examining an array of scales in the belief that the complex of socio-economic problems surrounding the development and environment interface demands this broad background, though it makes the task of summary a daunting one. Nevertheless, this chapter will attempt to pull together the essential elements of the research in Part 1, and explain the main conclusions drawn in Part 2. Long Road provides at once a very hopeful and important example of a development initiative, and a quandary for how to bring together development and environmental goals in so marginalized an area. Ultimate resolution seems rooted in changes at the national level, the most important of which is land reform.

### **PART 1: Summary**

#### **Background**

Introduced at the outset of this thesis was the premise that parallel and spiralling political economic conditions have tended to underdevelop and perpetuate commodity and resource dominated economies in the global South in an imbalanced trade dependent relationship with the industrialized North, and that this spiral is inevitably linked to the environmental problems and challenges Southern nations now face. As a result, it was put forth that research on environment and development issues in the global South must consider not only the local resource users, but the interplay between local, national and global forces.

Jamaica is a small, open, and commodity dependent economy with the highest rate of deforestation in the world, making it an obvious choice to explore the theorized links between political economy and land degradation - in this case through the land use pressures in the Blue Mountains. The Blue Mountains are a region where the colonizing and development pressures are acute and the fate of the unique forests is ecologically critical, not only as a reservoir of endemic species but for their vital role in stabilizing soils, preventing erosion, and protecting water regimes. Deforestation, it was shown, presents a dire threat to the region's 'total environment' from both an ecocentric and human-needs perspective.

As throughout much of the tropical realm, the deforestation problem is closely related to that of rural poverty, as the Jamaican peasantry are roundly identified to be the primary agents of forest colonization. But in order to assess their ultimate responsibility as well as to conceptualize alternatives (seen later with land reform), issues of agricultural land use efficiency and on- and off-farm de-pressurization must be considered. High-input, capital intensive agriculture is seen by some as potentially the best way to de-pressurize the total impact of agriculture in the landscape by concentrating on maximizing production in certain areas and hence reducing off-farm pressures by minimizing the total

amount of land needed to be under cultivation. However, such arguments miss the central role that ownership of the means of production plays, as the physical and economic marginalization of the peasant class associated with plantation systems - the typical form that high-input, capital intensive agriculture has taken in the tropics - makes the peasantry agents of off-farm pressure which must be factored into the impact that such systems have on the landscape. Further, much agroecological research in the tropics is now suggesting that intensive agriculture as it has traditionally been practised in high-input monocrops is also inferior in terms of *direct* efficiency. Thus, there can be no justification of capital intensive, industrial, monocropped plantations on the grounds of sustainability. The most sustainable systems for tropical agriculture are traditional systems, centred on the small-farmer and which can be intensified in terms of labour and degree of intercropping.

Another of the key points to come out of the literature review is that there is an fundamental distinction between *undevelopment* and *underdevelopment*, which is critical to how we conceive of development and sustainability - undevelopment being culturally pejorative, underdevelopment being an active process of historical marginalization. Critical perspectives on development also imply that equity in the distribution of resources is at the crux of bringing environmental conservation goals into harmony with the pursuit of development. In reviewing Jamaica's political economic history it was seen that the Jamaican peasantry has been underdeveloped through an exploitative colonial period, now faces a myriad of obstacles to their betterment, and remains in great need of development. One of the most salient obstacles that was noted was the severe geographic and market isolation of peasants, owing largely to the inadequacy of the higgler system and the infrastructural problems faced, both economically and physically. The result of this ongoing process of underdevelopment is that the peasantry cannot be seen to be at a naturally low-impact state of interactions with the environment, nor their relationship with their land base inherently sustainable. Rather, they remain mired in a struggle against their 'persistent poverty'.

In order to examine the relationship between an underdeveloped poor and the environmental pressure that is being levied, and ultimately its broader context, it was deemed necessary to begin at the local and be attuned to the aspirations, challenges and knowledge of the people whose actions are being considered. The admonition to 'learn from below' (from Edwards, 1989) is deemed to be particularly critical when at the confluence of environment and development goals the marginalized poor are also agents of environmental change and degradation, and the goal of the case study was therefore to understand how a community of hillside farmers perceive their challenges and constraints, and relate these to their land use decisions. Yet at the same time as the aspirations, challenges and decision-making process of individuals are considered, they remain constrained within land use and agricultural systems



which evolved in, and are affected by a much larger context. This larger context is therefore also seen to be a necessary level of inquiry to understand land use and development.

### Findings from Long Road

Long Road is a relatively isolated peasant community which prior to the co-op was in a state of prolonged decline. Beset with problems characteristic of the Jamaican peasantry - market isolation, stagnant production, and youth out-migration - Long Road's long-term health was not promising. However, the establishment of the co-op and introduction of coffee have played enormous roles in ameliorating the prospects of the community, reducing market isolation, increasing the profitability of farming and the incentives for farmers to expand production, and helping to ebb youth emigration. Although the co-op's progress has not been as swift as many would hope, it has undeniably improved the economic condition of Long Road farmers. This is evident in the fact that the large majority of the respondents felt that both their overall well-being in the community (80%) and the marketing system (88.5% of those old enough to judge) have improved over the past decade.

Before the co-op, the most obvious obstacle impeding a farmer's ability to improve their well-being was the fact they were not able to market all of their produce as the higgler-dominated system is characterized by erratic prices and quantities, leading to gluts and spoilage. As a result, the primary way that any farmer could hope to increase their income and well-being - expanded production - was essentially an exercise in futility. But by increasing the range and quantities of marketable products through linking farmers with previously inaccessible markets in Kingston, as well as providing technical assistance to overcome some of the production barriers limiting farmers, the co-op was able to increase both the *incentive* (though frustrated by some prices) and *capacity* of farmers to expand their production.

The fieldwork began with the assumption that the two primary agents of land use change at a study site in the Blue Mountains would be small farmers slashing and burning to meet subsistence needs and large, commercial planters growing coffee. While large commercial plantations do exist towards the interior from Long Road, neither of those two assumptions proved to be an accurate assessment of land use change in the Long Road region. Rather, what was found was the increasing commercialization of the *peasant sector* owing to improved market access, support services, and access to farm inputs and credit through the SMRDP, and in the case of coffee, the strong prices in foreign markets abetted by the SMRDP's support.

Small farmers are the key agents of the current environmental change in the Long Road region (although much of the lands surrounding them were converted long ago to pine monoforests by the government) as they are throughout Jamaica, with one-third of the total survey sample operating first generation farmland, and three-quarters of young farmers operating land which they had to clear. The

conversion of the land base has thus clearly intensified, and the most significant conversion has been to coffee as about 45% of the recently planted coffee farms were cleared from previously forest cover. However, rather than expanding cultivation out of desperation, this desire to cultivate more land is *concurrent with* the developmental progress in Long Road.

### **Jamaica's Economic Dependence**

Jamaica is a small, open and dependent economy with an intense colonial legacy and a land use matrix that has evolved little from colonial days. Plantations continue to dominate the flat, fertile coastal land producing sugar and bananas for export (albeit precariously so) and paying meagre wages, while the peasantry is marginalized spatially and economically, cultivating in the rugged interior largely for domestic consumption but with poor linkages to the national economy.

The analysis of Jamaica's political economy found it to be firmly embedded in a World Bank - IMF dictated neoliberal path, having been severely 'structurally adjusted' and now possessing of one of the highest levels of per capita debt in the world. The debt burden was shown to be a fundamental pillar directing the Jamaican economy, and Jamaica's acute trade dependence seen to have only been exacerbated over the period of structural adjustment. The commodity performance has been mixed over the past decade, with the traditional staples having been reasonably stable - though greatly imperilled by the end of preferential trading - and coffee standing out for its rising prices accompanied by soaring production levels (though still a relatively small factor in the scheme of total exports). Overall, Jamaica has had prolonged and growing payments problems, and has been unable to significantly diversify its historically commodity-export dependent economy. The result is that the government must continue to grasp desperately at potential sources of foreign exchange as the overall trade deficit has grown markedly over the past few decades, with the food deficit being very notable given the amount of land and labour devoted to farming.

As well, historic and current conditions have generated inequities as gross as anywhere in the world and have allowed much wealth to escape to foreign interests (either directly or through the systematic under-valuation of Jamaican commodities abroad or in home markets due to the 'dumping' of cheap commodities). Jamaica's rural communities have been left in extreme poverty and isolation and with the profound need for rural development, while the Jamaican state has been forced to retreat in vital areas of social spending, education, environment, infrastructure, agriculture and extension.

### **Understanding the Constraints to Peasant Land Use and Development Decision-Making**

The fieldwork results and the macro-level analysis were connected through the process of progressive contextualization, which was based on a decision-making model of the farmer's perspective. This simplified model, based upon the respondents' input and the fieldwork experience, shows how

farmers are linked to different markets by various agents (primarily higglers, the co-op, and government marketing boards) at the same time as they face a series of obstacles. The marketing conditions and the obstacles and forces affecting development and land management were presented as two ends of a spectrum affecting the outlook and constraints of an individual farmer. Taken collectively they summarize the major land use and development dynamics of the community.

The SMRDP was seen to have begun surmounting many of the traditional barriers impeding small farmers' development in Jamaica, specifically those relating to marketing (linking farmers to Kingston markets), demographics (engaging the youth), infrastructure (road improvements, and hopefully soon road extension), support services (extension officers), and access to credit and farm inputs. The 'pull' of coffee from international markets (internalized through the Coffee Board) was also seen to be very strong for farmers, making it the most powerful force affecting recent land use change in the region.<sup>1</sup> The SMRDP provides a good example of how farmers can begin to meet their development needs as a collective, which will be increasingly important given the retreat of the Jamaican state, and an instructive lesson on the importance and potential of development aid.

At the same time as some barriers have been partially overcome, the development and land use factors rooted in Jamaica's Plantation matrix remain. These include the rugged terrain and elevation (the high elevation having recently become advantageous due to the foreign demand for Blue Mountain coffee), the labour intensity of hillside farming, and the frontier mentality engendered by marginalization. The relationship between the peasantry and the land base has meant that even as the aforementioned development barriers have been broken down, development goals remain incongruent with environmental de-pressurization, because development necessarily implies an expanded use of land.

## **PART 2: Conclusions**

Long Road provides a hopeful example of a rural development initiative attuned to the needs of the people it is helping to 'develop' at the same time as it demonstrates the essential challenge that such development implies for the environment. That there has been development in the community in recent years is very evident in the surveys, and the presence of the co-op and the boom in coffee have brought much cause for optimism economically. Although it has not been without its limitations - externally most evidently in terms of prices, internally in terms of the consequent wavering commitment - in less than one decade the co-op has clearly begun to vitalize the Long Road community, particularly in helping to develop a core of young farmers. Concurrent with the development has been the increased incentive and capacity to expand land use - both of which are necessary for the farmer's economic development. So

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<sup>1</sup> In contrast to Schelhas' (1996) findings (discussed in section 1.3) that the use of cash crops in Costa Rica has had the ecologically beneficial impact of reducing the extent of land a farmer needs because of their high-value, case the introduction of high-value coffee in Long Road has increased the desirability to expand production and land cultivation.

while much literature, most famously *The Brundtland Report* (1987), has linked the environment's preservation with the need to develop the rural poor, the development of the peasantry within the current land use matrix is not a simple cure for Jamaica's environmental crisis.

#### **Development Lessons from Long Road and the SMRDP**

*Properly understood, development is a process by which people increase their human, institutional and technical capacities to produce the goods and services needed to achieve sustainable improvements in their quality of life using the resources available to them.*

-David Korten (1995)

Korten calls such development 'people-centred' because its benefits and process are centred in people rather than, for instance, production-centred development where process and quality of life goals are subordinate to economic targets. He notes that it is particularly important to involve the poor and excluded in the process, "thus allowing them to meet their own needs through their own productive efforts." Oakley (1994) similarly suggests that real participation in development implies an active role "in the decision-making and implementation procedures of projects and, most important, in the taking of action by rural people to confront and tackle issues affecting their own livelihoods." This kind of people-centred development is very evident in Long Road, even as increasing production has become a key objective of the SMRDP.

The fact that participation and process have not been subordinate to the SMRDP's production goals was epitomized at the AGM, as it was the co-op's democratically-elected Board which was calling for increased production as part of the overall economic development goals (necessary to stabilize and expand markets to strengthen the price and quantity the farmers receive). Because the co-op is rooted in the participation of the farmers (albeit frustrated somewhat by their lack of self-confidence), this process of economic development has begun to expand not only their market options, but their role in tackling one of the most critical obstacles affecting their livelihood, the marketing of their produce.

The SMRDP can also be seen to have made much progress towards Oakley's (1994) vision of a broadly defined extension service (noted in section 1.5). Although overall production still needs to be increased for the sake of the co-op's marketing efforts and "empowerment has been slow" (in the words of Father Webb), according to Oakley's criteria of extension needs the SMRDP has played a developmental role in increasing both production and participation. In terms of developing productive capacity it has provided technical advice and cheaper agricultural inputs for farmers, and in terms of developing participation it has emphasized basic educational goals, sought to raise the awareness and

ability of people to explain and analyze their own problems, and built up a genuinely democratic, representative organization.<sup>2</sup>

Korten argues that the need for people-centred development supersedes the (often highly ideological) debate between import substitution and export promotion, despite the fact that orienting a food production system towards foreign commodity markets has frequently been condemned for its impacts on small Southern farmers. For instance, Sandbrook (1982) (from section 1.1) notes the need to "increase the capacity of poor countries to satisfy their own basic needs, instead of launching into development strategies which subordinate the local economy to the international market." Similarly, Singh (1994) argues that "diversified agriculture to produce food for home consumption must take priority over export-led growth." Such calls are common by those critical of the international food regime, especially as local needs have often been submersed to the global marketplace amidst hunger and malnourishment.

However, where there has been a forced openness to food imports and a flood of cheap foreign produce (as in Jamaica, meaning that the peasants lack fair access to national markets), and on the occasion where exports like coffee can be so strong and the producers themselves can profit from these high prices, the debate becomes reshaped much in the way Korten suggests - with the process of development taking priority over its market destination in terms of local priorities. Such is the approach that the SMRDP has taken, focusing its functioning on inclusive democratic structures rooted in farmer participation and attempting to enhance the market not only for the predominantly domestic production of the community, but to develop the capacity to capitalize on potentially lucrative foreign markets - namely coffee - by aiding with inputs. The ability of small farmers to capitalize on coffee and the support they have received from the SMRDP suggests that the production of export cash crops should not be dismissed out-of-hand (as ideology might warrant) as a potential development tool, because in terms of the farmer's development coffee is clearly the most advantageous land use in Long Road.

There are many lessons which can be learned about people-centred development in isolated agricultural communities, in Jamaica and abroad, from the experience of the SMRDP. Among these potential lessons are: the value of a democratic process of governance centred on the farmers themselves (and the need for education to accompany it); the role a co-operative marketing system can play in overcoming an inconsistent higgler-based system by linking farmers with consistent buyers in urban areas; the potential to develop a niche market in easily produced and packaged dried goods (capitalizing on tourist and specific fair-trade export markets); the effect bulk purchasing can have on making farm

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<sup>2</sup> Although some of the farmers still lack the ability to clearly articulate their problems and others do not yet feel strongly enough that they are part of the co-op's development process (related problems), these problems are being addressed through the hiring of an education officer and a membership training program.

inputs more readily accessible to farmers: the need to emphasize and develop young farmers to ensure long-term community health; and the ability of a rural co-operative to take the initiative in state-left voids in infrastructure, extension, education and credit, while demonstrating the important contribution foreign aid can have in making these economically possible.

With respect to the use of foreign aid, not only are the inventive schemes the SMRDP designed for facilitating widespread access to credit and securing and recycling the money from a delivery truck worthy of emulation, there is much to be learned from the ability of the SMRDP to retain its control over the *process* of development while consistently securing significant amounts of its funding from external donors. As Oakley (1994) notes, the tendency of official lending agencies like governments and foreign donors to desire “physical targets and deadlines in project documents...doesn’t fit well with participatory approaches in which people themselves should be deciding what should be done, how and when.” Despite this tendency, the SMRDP is locally democratic in governance, and the directors are committed to a process of further devolution (slowed only by the reluctance of the farmers to assert themselves).

The Long Road experience supports Korten’s (1995) contention that while “real development cannot be purchased with foreign aid monies,” foreign aid nevertheless can have an important role in people-centred development if it is grounded in local initiatives which can “strengthen control of local resources by local people.” In such a case, as has occurred in Long Road, locally rooted, externally funded recipients have a greater potential to meet the needs of the people than do “large centralized public agencies” - witnessed by the fact that the SMRDP has taken the initiative in marketing, infrastructure, input support, extension, credit, and even a summer education program for children (also sponsored through foreign monies).

However, as Father Webb notes, the critical nature of foreign aid to the SMRDP is not an excuse for the state to retreat, as the funding for local development initiatives could conceivably have come from within Jamaica. As well, Korten points out the danger that “too much foreign funding can prevent real development and even break down the existing capabilities of a people to sustain themselves,” inevitably making them dependent on hand-outs. Although foreign funding has been critical to getting SMRDP ‘on its feet’, it is hoped that it will soon be completely self-financing as some of the administration already has already become, and there is clear recognition of the need to move beyond this financial dependency.

The declining role of the state in Jamaica (as throughout much of the South) and the shrinking foreign aid budgets in the North do nevertheless present a challenge for other local development projects seeking to replicate the success of the SMRDP but finding development aid harder to come by, especially

given the 'indispensability' of the funding in getting the SMRDP to where it is.<sup>3</sup> The SMRDP and Long Road experience highlights the important contribution foreign aid can have if administered well 'on the ground', as well as suggesting that there remains a much needed role of the state in rural development through the financial support - though not administration - of such initiatives. Given the near complete absence of government services in Long Road, but for the presence of a few marketing boards, the experience of the SMRDP in Long Road supports Oakley's (1994) contention that NGOs and other such local community organizations tend to be more fit than do traditional, top-down, official services in promoting a participatory form of extension and meeting the needs of smallholders and the rural poor. If government agencies<sup>4</sup> refuse to give financial support without control, there should be concerted efforts made to decentralize administration to the community level.

In addition to providing a model for other small farming communities in Jamaica, efforts to replicate scarce models of rural co-operatives like the SMDRP are very important in terms of national policy. Enhancing the linkages, productivity and profitability of the small farm sector is a matter of obvious national gravity to Jamaica given its food import dependency, the under-used import substitution capacity of the small farm sector, the potential for improved linkages with the food processing and tourism sectors,<sup>5</sup> the critical role that small farming plays in national employment (especially important with around one-quarter of the total work-force unemployed), and the high levels of rural poverty. It would seem to be in Jamaica's national interest to encourage the proliferation of such localized and community-driven models as the SMRDP.

### **Implications for Environment and Development**

*The impulse to achieve economic growth is natural and necessary in poorer countries.*

-Sir Shridath Ramphal (1997)

Section 1.1 concluded by noting that while the overarching political economy for the South is ominous and change must proceed from above, "innovation in defining and realizing alternative paths must also come from Southern nations and communities, as resistance against the debilitating spiral of dependence and environmental and social deterioration must proceed at various levels including from the bottom-up." Clearly the SMRDP represents such innovation, having brought socio-economic betterment to Long Road within the overarching constraints of Jamaican society.

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<sup>3</sup> Although Father Webb notes that competition to get funding is as yet far from intense in Jamaica, commenting that "We have never had a lot of trouble raising funds - in fact funding agencies have come to us asking us to submit proposals. I think they would often prefer to give to a Jamaican group rather than to what looks like a foreign group, but they don't exist. Our project suffers very little competition for funding - there are no more than two other such efforts in the country."

<sup>4</sup> The primary agency in Jamaica concerned with small farmers is the Rural Agriculture Development Authority, or RADA.

<sup>5</sup> While there are conflicting reports, as noted in section 1.3, about the degree of connectivity between small farm producers and the tourist sector, there is undoubtedly still much room for much improvement. The enclave sector is notorious for its dependence on imported food.

Development is of course a 'natural and necessary impulse' in Long Road and in Jamaica, like Ramphal notes, as it is everywhere where poverty is understood to be a product of the development-underdevelopment historical process. Development is also widely equated with any hope for poor peoples to achieve a sustainable balance with the environment - again with the critical distinction being that it is only the underdeveloped poor who need development. However, in contrast to this standard approach to sustainability, the process of development in Long Road has not tended to alleviate pressure on the environment because it implies the breaking down of barriers that had previously limited the incentive and capacity to expand land cultivation.

The SMRDP and the rise of coffee have increased the attractiveness of farming in the Long Road region, and particularly of high mountain land for coffee. In so doing, this has helped to increase the potential well-being of farmers and ensure the community's health, but its process seems inherently dichotomous with environmental protection, at least from an ecocentric perspective. Indeed, as was discussed in section 4.0, from the small farmer's perspective the conversion of forest to coffee could not possibly be fathomed as land degradation. Rather, the environmental concerns which have been raised in this context are of an instrumentalist nature (i.e. soil erosion and conservation).<sup>6</sup>

Thus, it is concluded that if development occurs where massive inequity is present but without concurrent changes in the fundamental structures of society (i.e. the peasant's relationship to land), then its process will not tend to have an environmentally benign or de-pressurizing effect. In other words, the severe marginalization of the peasantry is such that unless some effort towards redistributive equity takes place, their development cannot help but involve the continued conversion of land to more 'productive' uses. Sustainability consequently becomes a technocratic, instrumentalist task - largely one of conserving the soil and cultivable potential of the land. Protecting the hydrology through forest conservation is a seemingly more abstract task, and therefore more difficult to embed in farmers.

One of the motivations for the fieldwork, as noted at the outset, was Edward's (1989) admonition to 'learn from below'. In his critique on the process of development research, Edwards goes on to reproach 'armchair radicals' from the left for being no more relevant to the needs of the people than have the orthodox targets of their criticism, exhibiting the same fixation with technical, formulaic, rigid solutions, and the same neglect for local complexity, knowledge and emotion. Yet despite this warning and having done my best to 'dig in my heels' and understand the complexity, perspectives and emotion of a locality as Edward's suggested, the overwhelming feeling that I remain left with is that, characteristic of the radical left, contemporary problems are inexorably linked to historical processes. The environmental

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<sup>6</sup> With the SMRDP playing, as noted, an important role in this respect, emphasizing the importance of soil conservation (terracing and especially intercropping with tree crops) through extension.



crisis that is the rapid, incessant colonization of the Blue Mountains is rooted foremost in Jamaica's colonial history, and without efforts at redistribution of land the forests will be developed out of existence. For this, the desertification of Haiti provides a stark warning.

#### **The Value of Colonialism as Explanation**

*It seems fairly clear that the massive disruptions of society brought about under colonialism in Africa must bear the major share of any explanation of deteriorating quality of land management.*

-Blaikie and Brookfield (1987)

Such can also be said of Jamaica and the Caribbean. With pre-contact society annihilated and plantations based on chattel slave labour from Africa implanted in their stead, the socio-economic matrix which was entrenched in the Caribbean was an inhuman perversion on the magnitude of the African experience. These scars still remain, on the land and in the collective psyche. However, despite this reality there is clearly an immense danger in levying the total weight of blame for current problems on colonialism, as it breeds despondency and futility when, as Blaikie (1985) warns, "one of the most inappropriate responses to the possibilities of successful conservation is a catatonic pessimism." Indeed, after asserting the paramount role colonialism must play in explaining land degradation in the post-colonial South, Blaikie and Brookfield (1987) warn against "the tendency to use land degradation to attack the colonial as an anti-capitalist indulgence, one which does not spell out alternative paths to new and feasible social relations of production and land use."

However, it can also be argued that it is just as hopeless to believe that Jamaica's enduring colonial legacy cannot be overcome in a fundamental way. As Korten (1995) argues, "the idea we are caught in the grip of irresistible historical forces and inherent human imperfections to which we have no choice but to adapt is pure fabrication." The need for land reform has not lost its momentum in Jamaica, as elsewhere, because history was inevitably bound to march to a neoliberal drummer and pass it by any more than the slave history which necessitated it was a natural condition. Momentum for land reform was crushed in 1977 (and has remained submersed ever since) because a very specific agenda - that of the World Bank and the IMF - took command of the Jamaican economy. In the World Bank-IMF bred political economic consciousness that has since prevailed, inequities are peripheral to growth and an emphasis on exports supersedes the need for domestic production, and all impetus for land reform is hence undercut. Although the World Bank (1993b) does suggest that increasing "the poor's access to land, credit and public infrastructure facilities and services" could help spur economic growth and reduce poverty in the Caribbean, it does not raise the possibility of reforming the plantation sector. Rather, it suggests that land transfers and enhanced tenure and titling come from the divestment of public lands.

There is a certain complacency with historical legacies which prevails among policy makers. That is, rather than challenging problems ingrained by colonialism, they are accepted out of inertia. But if the historical legacy of the land use matrix as defined as the biggest determinant of the present environmental condition, then the conclusion which follows is that a reconstruction of the relationship between the peasantry and the land base is the most fundamental step needed to improve the environment. Despite the fact that such concern has long been absent from the political consciousness, the massive inequities in private land holdings simply cannot be seen as an immutable historical legacy in order that the environmental crisis in Jamaica be resolved in any sort of long-term manner.

Section 1.1 concluded that in order for the dependency spiral to be broken, action on international and national levels had to occur - with sustainability in the South ultimately dependent on concurrent progress at the local, national and international levels. The two nationally practicable actions that were noted were land reform and import substitution, which very much go together.

### **Land Reform**

*The nature of the historic struggle of our people was, and is, centred on the struggle to secure land. Solutions for dealing with the economic crisis must deal with the land question if the structural malaise within the economy is to be corrected with any degree of permanency...*

*Land reform remains the single most critical need for integrating the Jamaican economy... Without a land reform programme that redistributes land for the benefit of the peasantry, the society will continue to move from one economic crisis to another.*

-The People's Plan (1977)

*Wherever the plantation culture is still in tact, you'll find severe poverty.*

-Long Road extension officer

To speak of land reform as the most fundamental measure needed to protect Jamaica's forests and improve the socio-economic condition of the peasantry in Jamaica is to be neither original<sup>7</sup> - as the call for redistribution from plantations to peasants goes far beyond *The People's Plan* - nor to appear particularly relevant, given that plantation agriculture has survived numerous attempts at land reform. Even the 'third path' PNP of the 1970s was cautious here, recalling from section 1.3 how it never really threatened the plantation sector, choosing instead to convert and lease government land to the peasantry. But before a discussion of land reform is dismissed as being hopelessly removed from reality, impending circumstances may soon move discussions of land reform from the arena of the idealistic to that of the possible, as bananas and possibly soon sugar lose their position in preferential export markets.

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<sup>7</sup> Although land reform has largely been spoken of in Jamaica as a social issue, rather than as also a conservation one.

The looming collapse of the export markets which have for so long kept the plantation sector entrenched in Jamaica, as throughout the Caribbean, could well bring the massive rupture necessary to spur land reform. Banana export production in Jamaica appears doomed (with the September 1997 WTO ruling), and sugar may soon follow after the key preferential Sugar Protocol to the Lome Agreement (securing access to European markets) runs out in the new millennium and if US sugar quotas contract again. However, the short term pain of the looming crises in bananas and sugar<sup>8</sup> could potentially provide a healing, relevant 'shock therapy'<sup>9</sup> to the agrarian poor (peasant and agroproletariat alike) and the environment if it can induce the long needed land reform. And just as *The People's Plan* noted twenty-one years ago, reforming the plantation sector could also reduce the urbanization pressure, as "land shortage to the peasant sector is the single most important factor that led to excessive urbanization along with heavy unemployment."

Korten (1995) argues that a critical component in the development of Japan, South Korea and Taiwan was the fact that they carried out programs of 'radical land reform' accompanied by significant investments in adult literacy and basic education (the later of which in Jamaica, as noted in section 3.1, has taken serious steps backwards owing to the adjustment process). The result, Korten notes, was the:

*...creation of a thriving rural economy based on small farm production, and supported by the development of rural industries that produced things needed by small farm families. These became the foundation of large industries. The development of these countries was equity-led, not export led, contrary to historical revisionism of corporate libertarians.*

Figueroa (1994) also notes how land reform "was a major factor in the development of South Korea" but ignored in Jamaica, even as the critical need for land reform was one of the few points of convergence between left (Beckford) and right (Lewis) spectrums of the Caribbean development debate.

#### Land Reform as an Efficiency Issue

Land reform is an issue of efficiency as well as equity. Newman and Le Franc (1994: from Rao, 1990) support the notion that multicropped systems characteristic of the peasantry are also more efficient in Jamaica as they have been found are seen to be throughout the tropics (recalling the agroecological discussion of section 1.3). They argue that more total produce is yielded if small farmer methods are used than if "the same crops were grown in pure stands," and that "small farmer methods are much more efficient than plantation methods when calorie input-output is used to define efficiency."

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<sup>8</sup> Which will no doubt initially be very severe, especially for those agroproletariat who go from earning a consistent (albeit meagre) wage to being unemployed.

<sup>9</sup> In contrast, of course, to the infamous World Bank-IMF's 'shock therapy' of adjustment, indebtedness, deregulation, and government retreat.

Thus, the movement of small farming methods to the coastal plains would not only *not* tend to increase the off-farm pressures of agriculture by requiring more total land be put under some form of cultivation to produce the same amount (as proponents of high-input, capital intensive agriculture suggest), but the more labour intensive, multicropping approach of the peasantry could potentially reduce the total amount of land needed to produce the same volume. These efficiency gains, when considered with the socio-economic ones, mean that the settlement of small farmers onto reformed plantation lands would clearly reduce the pressure of agriculture on the overall landscape.

Further, if relocating some of the peasantry could help to alleviate the pressure on the hillsides and interior forests and watersheds, this could help stem the tremendous desiccation of the island and in the parish of St Mary (as described in section 1.2). As noted in chapter 4, irrigation is seen to be a significant obstacle to stabilizing small farm food production over the year and is therefore critical to meeting increased import substitution goals. Thus, preserving watersheds and irrigation supplies would seem to go hand-in-hand with the potential to increase the import substitution capacity of domestic agriculture.

#### Import Substitution

If the small farm sector were to operate reformed plantation lands it would obviously enhance the import substitution capacity of the national agricultural sector versus a system where inefficient sugar and banana plantations control the best land. This would, in turn, likely have a beneficial impact on Jamaica's food deficit (discussed in section 3.1),<sup>10</sup> provided that Jamaica could develop non-traditional exports such as tubers, vegetables and fruits,<sup>11</sup> and that the increased domestic production would not be undercut in national markets by cheap imports. While the government has frequently acknowledged the desire for the domestic food (i.e. peasant) sector to improve its import substitution performance, when faced with cheap imports the absence of a price incentive means that the peasant sector will not maximize its production. So to match policy with rhetoric, the government must give price support to domestic agriculture.<sup>12</sup>

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<sup>10</sup> Although the issue of animal agriculture remains very problematic in terms of food trade, and Jamaica would no doubt have to expand its export of 'non-trationals' to balance food trade.

<sup>11</sup> On the negative side ecologically, this could put even more pressure on coffee as a foreign exchange earner, and hence more government impetus to expand cultivation in the highlands. However, the threat of the over-saturation of coffee suggests that it may not be an unlimited market, despite the way the government is encouraging it. If it is not an open market and it becomes over-saturated, there is the potential that regional overproduction could potentially have a dampening effect on price - in which case logic would suggest a rationalization of production is in the long-term interests of the producers. However, given the government's payments problems and desire for foreign exchange and the immediate profits to be made by peasants and large landowners alike, such control seems unreasonable to expect.

<sup>12</sup> Given the limited financial capacity of the government, this would presumably have to come through tariff barriers - an unlikely prospect given World Bank-IMF doctrine and the fact that raising general food prices is an undesirable prospect, especially for the urban poor.

With the hyperliberalization of global markets, calling for import substitution as a goal in food policy might appear anachronistic. And yet there can be no justifiable reason why a bountiful island like Jamaica with a tropical climate, fertile soils, and nearly half of its land and 30% of its labour force in agriculture is running such consistently large food deficits. Reforming the plantation sector would seem to have a desirable impact in terms of the balance of food trade, and could become especially desirable in terms of overall national policy as food security concerns become ever more important.

### Conversion to Pasture

The conversion to pasture is sure to be considered for some of the obsolete plantation lands, particularly because of Jamaica's significant deficit in animal products which, as discussed in section 3.1, plays a pivotal role in the overall food deficit.<sup>13</sup> Thus, expanding animal agriculture might appear to improve Jamaica's import substitution capacity. However, Rao (1990) suggests that animal agriculture is not nearly as efficient as is the small farm sector,<sup>14</sup> and the import substitution capacity of expanding animal agriculture must be understood in the context of other potential uses.

As well, despite the fact that all social classes own livestock (in some cases even the landless) (McBain, 1992), promoting pasture use on the good coastal lands would not seem to provide the necessary redistributive element of reform nor the labour intensity required to meet an employment goal which should be part of any land reform policy. Ranching is synonymous with minimal labour requirements, and has been shown by numerous tropical cases to equate with great inequity in land-holding and the continued marginalization of the peasantry, most evidently in Latin American.

But most importantly, as countless other tropical areas can attest, the ecological consequences of expanding the amount of land in pasture are destructive (Durning and Brough, 1991; Rifkin, 1992).<sup>15</sup> As noted in section 3.1, total pasture in Jamaica decreased by one-quarter between 1962 and 1992, but the amount of cattle increased by nearly one-fifth between 1967 and 1987 and one-fifth of Jamaica's total land mass remains in pasture, even though "there is very little natural grassland in Jamaica" (GoJ, 1990). This is clearly not the way land reform should proceed from an ecological or a socio-economic perspective.

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<sup>13</sup> Indeed, the government has for some time been encouraging animal production. The *Jamaica Country Environmental Profile* (1987) states that "the Ministry of Agriculture has placed increasing emphasis on livestock production as an integral part of Jamaica's farm economy," and that "the livestock industry must be regarded as one of the stabilizing forces within the Jamaican economy." The *Green Paper on Land Policy* (1994) notes that "increased livestock production will be encouraged through agencies and departments such as the Livestock Department, RADA and other relevant Departments in the Ministry of Agriculture and related Organizations."

<sup>14</sup> As noted in section 1.3, Rao found sector yields in the early 1980s to be \$480/acre for domestic crops, nearly twice that of livestock and poultry, \$256/acre.

<sup>15</sup> Although beyond the realm of discussion here, the general environmental impacts of cattle grazing are also dealt with in Weis and Pace (1997).

### Land Reform and the Blue Mountain Small Farmer

The socio-economic benefits of land reform to many small farmers are obvious. Locating on good, coastal lands would reduce many of the land-related obstacles noted by the farmers (and those which create the intractable barriers to conservation). The fact that twice as many of the Long Road farmers surveyed felt that flatter land would be more beneficial to them than if they could have more land suggests that reformed plantation land would be very desirable for many.<sup>16</sup> Further support for this suggestion can be found in the high importance given to labour and roads as obstacles in the survey, because the labour burden would be reduced on less demanding terrain and with vastly greater infrastructure.

For others however, the desirability of possessing reformed land is far from obvious, most evident given the economic opportunity that highland coffee now represents. As well, it would be insensitive not to note the attachment to place many possess. Further, competition for land will be compounded by the population growth and the amount of agroproletariat who will be unemployed when the plantations collapse, and who will also need to be resettled.<sup>17</sup> Nevertheless, land reform would be a boon for certain peasants (albeit less so in Long Road, where land hunger is not as significant), and an ideal opportunity for relocating the landless squatters in the Blue Mountains region in a more just way.

### Institutional Support

Beckford (1972) and Plant (1993) also point out how land reform is not an end in itself, but to be effective must involve supportive rural economic institutions to provide marketing, credit, and technical knowledge,<sup>18</sup> for which the SMRDP could provide an ideal model. As noted earlier, the SMRDP provides an excellent example of how the major non-land related economic constraints of the peasantry can begin to be overcome, including helping with inputs, extension services (both of which the SMRDP is helping with for the captured plantation lands described in Enfield), broader educational goals, and helping to secure a means to credit. It will be very interesting and instructive to see what role the SMRDP plays in supporting the reform of the Annotto Bay banana plantations in the years to come.

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<sup>16</sup> This also recalls a comment of one young farmer who, on the prospect of running an errand one day with me down to Annotto Bay, suggested that he would like to go "because of the exposure," noting the chance that he might see someone he knows whereas in Long Road its "the same people day in, day out." Another lamented how it would be nice to be able to play soccer or cricket more easily. While these might seem trivial, for people living in such a small, enclosed world (with a radius of life's interactions of perhaps 10km) the lack of opportunity and 'exposure' would surely increase the attractiveness of living on more accessible coastal lands.

<sup>17</sup> The masses of urban unemployed are less a consideration given that a distaste for farming is what brought many of them there to begin with.

<sup>18</sup> Indeed, Beckford notes that one of the key reasons why most attempts at plantation land reform have failed around the world is owing to the fact that they lacked this supportive institutional structure, in addition to the tendency to give peasants only marginal lands (as occurred in Jamaica).

Blaikie and Brookfield (1987) note that great inequality of landholding, as is the norm throughout the global South, creates a 'functional dualism', which they define as though with Jamaica in mind:

*One side of this coin is pressure on the land, often steep and ecological marginal, by small peasant farmers. The other is commercial farming, often rapacious and short-sighted. Land reform is no sufficient condition for reducing land degradation, but it may be a necessary condition, hard to grasp though this nettle is for a great many governments.*

### **State Intervention and Neoliberalism**

*...historical conditions of property ownership are major determinants of income distribution and have little to do with either efficiency or justice.*

-Herman Daly (1991)

Blaikie and Brookfield (1987) assert that the distribution of land is one of the most important and "pervasive sets of social relations in production and exchange which the state can and does affect, and the nature of which even moulds the character of the state itself." Clearly, land reform as an issue of both efficiency and justice will require a large degree of market intervention by the government - even to the extent of challenging historical property rights (or, as in the case of the Enfield land reform discussed in section 3.0, government restraint in allowing the peasant appropriation of unproductive plantation lands). However, Daly (1991) suggests that neoliberal policy, as has for two decades prevailed in Jamaica, tends to 'finesse' the issue of distributive justice "by the claim that aggregate growth will do more for the poor than redistributive measures." Yet the dubious nature of this reasoning is evident in Jamaica in the fact that aggregate growth of late 1980s and early 1990s did little to affect the condition of the poor masses. The deep cleavages in Jamaican society did not evolve naturally, nor can they be 'evolved out of' in a neoliberal, laissez faire approach to development.

Political economic analysis inevitably leads to a concern about the role of government, and for those on the left, the curse of 'statism'. Because leftist criticism tends to focus on, in one way or another, the failure of capitalist development to address the needs of the majority (and the environment), the tendency has been to turn to the state as the defender of the majority's interests. Whether out of naiveté, idealism, or just plain hope in the benevolent potential of government, much faith has historically been placed by the left in the state's desire and ability to direct development in the interests of the majority.<sup>19</sup>

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<sup>19</sup> Blaikie (1985) warns against avoid falling into general 'socialist' utopianism because "this assumes that in a future socialist state there would be less tendency to have conflicts of interest over the use of the environment." In terms of the environment, the 'noteworthy' and 'discouraging' reality that Eyre (1989) points out in the Caribbean is that "the region's one totally planned society, Cuba, like all Marxist-Leninist regimes, continues to place high priority on exploiting resources."

The danger inherent in calling for state intervention - in Jamaica as elsewhere - is that as neoliberalism has displaced "all other policy perspectives" (Figueroa, 1994), such calls become easily dismissed as 'statist'. Attendant to the fall of socialism in eastern Europe, the ascendancy of fiscal conservatism, and the retreat of the state world-wide has been a global triumphalism of neoliberal policy amongst business and government elites. To them, the charge of 'statism' becomes an instant tag of obsolescence and irrelevance and the unpopular association with 'big government', the later of which is compounded (as in Jamaica) when the government is so roundly perceived as being corrupt.<sup>20</sup> Further frustrating the utility of a call for state intervention is Singh's (1994) assertion that to suggest "that power elites should change structures in which they revel might rightly be considered an exercise in futility."

Indeed, the over-reliance on the state for solutions has been cause of great reflection among scholars and advocates in the critical tradition, very evident in the comments of two of the pillars of the Plantation School. Best (1991) comments that "the valid charge is that the plantation economists...have naively believed that the kind of sensitive nationalism,...imaginative localization,...nuanced privatization," which are needed "to give power to the people, cannot be achieved without a costly political engagement." Witter (1992) laments that "perhaps the expectations that the state could sponsor the enfranchisement of property-less and small propertied producers were too high. And certainly in the context of the contemporary debt trap and the low prestige of state intervention in the economy, ways will have to be found to stimulate economic democracy outside of the aegis of the client state."

As the Plantation scholars have been forced to look beyond the 'aegis of the state' for 'sensitive nationalism', 'imaginative localization', and 'nuanced privatization', it is clear that action towards empowerment must proceed at a local levels alongside any more 'costly political engagement'. In this regard, the SMRDP is again very instructive. The SMRDP provides an ideal non-governmental decentralized model of community development along the lines which Best identifies, and yet is achievable within a neoliberal state. Further, as a model it demonstrates what could be possible if the government were to pursue land reform if (or more unlikely, regardless of whether) the plantation sectors collapses. It demonstrates that a 'big state' need not be the inevitable conclusion of land reform - only that it would take a one-time strong state action to set it in motion.

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<sup>20</sup> Levitt (1991) notes that the unpopularity of the 'Bank and the Fund' in Jamaica is surpassed only by the disdain and distrust of the government.



## **The Challenge of Sustainability**

*A view of social change has to be taken a priori to any consideration of soil erosion and conservation.*

-Piers Blaikie (1985)

Blaikie gives the important warning that we must not “make the tail (conservation policy) wag the dog (view on development and social change),” in essence cautioning against the futility of putting conservation ahead of human goals. This thesis has been pursued in such a vein, seeking to relate the urgent challenge of conservation in the Blue Mountains to the equally urgent challenge of development for the rural poor, and ultimately to the need for broad social change for which it is unabashedly hopeful. It has aspired to mesh critical perspectives on development and political economy with an understanding of Jamaica’s current environmental malaise, recalling Myrdal’s assertion (from Beckford, 1972) that “real objectivity in social research is achieved by explicitly stating the value premises on which a study is based.”

Without land reform, the potential for ecosystem conservation in the Blue Mountains can only be a terribly inequitable endeavour,<sup>21</sup> with the highly unlikely prospect that the recently established Blue and John Crow National Park take a human-exclusive or highly restrictive approach to management. This, of course, would exacerbate the already gross inequities in the region, would require policing far beyond the declining capacity (and no doubt political will) of the state, and is not compatible with social sustainability. Nevertheless, Blaikie and Brookfield (1987) suggest that “coercion may be necessary in cases where failure to protect remaining resources would lead to rapid overuse and degradation,” and warn that “there are no cornucopias awaiting even the most egalitarian reforms in such matters.”

In the absence of such strict management of the region, however, the fate of the Blue Mountain forests is desperate. As discussed in section 1.3 and with respect to the survey in chapter 4, the peasantry approaches the environment with a predatory or material-needs perspective conditioned by their circumstance and history. So crowding, and now increasingly economic opportunism - intensified by the extension of powerful large-landholding interests into the region - mean that there is no end in sight to the relentless conversion of the forests which for over a decade has placed Jamaica at or near the top of the world in rates of forest loss.

Jamaica faces an enormous task of providing an improved income and way of life for its rural people while ebbing the assault upon its resources and somehow forging a more sustainable relationship between the two (and for the government, earning foreign exchange all the while). However, Korten (1995) argues that “justice and sustainability are virtually impossible to achieve in an unequal world,”

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<sup>21</sup> Ecotourism and park monitoring cannot provide anywhere near the employment capacity that can agriculture.

and in essence that is what is being put forth here: that massive inequity deflates the potential for environmentally-benign development. Obviously, physical soil conservation measures (i.e. contour planting, land terracing, cultivating according to slope) are vital to the sustainability of hillside farming communities, and cropping patterns (i.e. agroforests, intercropping with tree crops) can also help protect the long-term productivity of the land. Yet these are only instrumentalist measures, and without addressing the 'big' societal questions of land and access to resources, substantive success on the forest ecosystem conservation front (i.e. arresting deforestation, protecting watersheds) cannot be made without exacerbating the inequities further (i.e. displacing or limiting the access of poor farmers to sensitive areas, preventing the extension of coffee farming, preventing road extension). Development for those so marginalized implies a more intensive use of the environment, although without advanced soil conservation efforts - which in the case of Long Road will hopefully improve through the SMRDP's extension efforts - erosion will eventually make any developmental progress only fleeting.

The case of roads is a good example of this basic environment-development dichotomy. Getting the long road extended would be synonymous with development in Long Road, as would road improvement and extension throughout most of the Blue Mountains region where the infrastructure is very poor and contributes to the inadequacy of market linkages. Many in the survey noted how the lack of a road extending further is their biggest obstacle. However, as Eyre (1996) and many environmentalists elsewhere have argued, road extension has a very pernicious effect on the environment by increasing access to the forests and their colonization, and it is a great threat to the remaining forests in the Blue Mountains.

This not to conclude without optimism, however, because the experience of the fieldwork was bursting with hope. In the SMRDP, there has clearly been people-centred development, and there remains tremendous potential for it to grow. In the young farmers, Long Road has a diligent, hard-working youthful core who brighten the community's future. In the coffee about to bear, there is much prospect for improved well-being. And in Enfield, there is an exciting farmer-driven 'reform' of the fallow SMBE plantation lands. The list could go on, but considering the constraints of an isolated hillside farming community one could hardly hope to find a more hopeful case study.

Nevertheless, to return to Blaikie's notion that a vision of social change should precede conservation policy, it is concluded that before development and the environment can go together in Jamaica, there must be some degree of equity with respect to the distribution of land. The view of social change then begins with a reformed plantation sector and envisages an agricultural sector driven by independent small farmers cultivating efficient multicropped plots on the best land, marketing in local co-operatives which provide extension service and accessible farm inputs, supplying local food producers

and national markets, and consequently de-pressurizing the hillsides (enhancing the potential for irrigation on the lowlands) where some (though less) farmers continue to farm and coffee production is driven by small-farm producers, all improving the balance of food trade. Idealistic perhaps, but if the plantation sector does collapse as expected a window for such change could soon open.

Witter (1992) advises that “whenever...the current fascination with laissez faire development strategy has run its course, the Caribbean will have to return to plantation economy and the other threads of the radical tradition, not to rehash old ideas, but to use them as a basis for forging a new vision of the future in which the people will be the subjects, instead of objects, of their history.” It is the belief here that just as with the persistent social condition, such threads will increasingly have to be picked up to understand and forge developmental solutions which remedy Jamaica’s environmental crisis.

## 6.0 References

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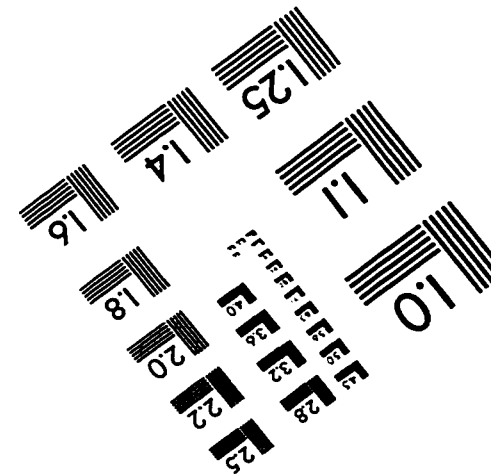
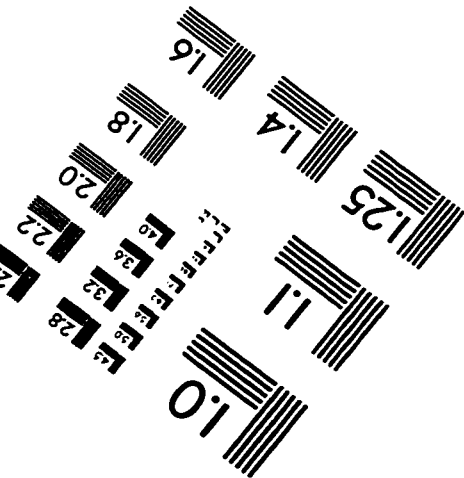
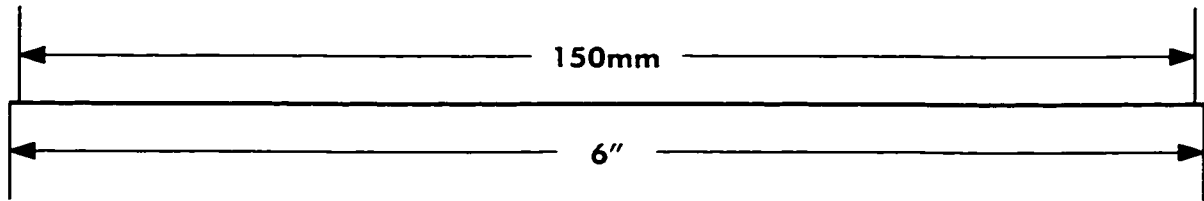
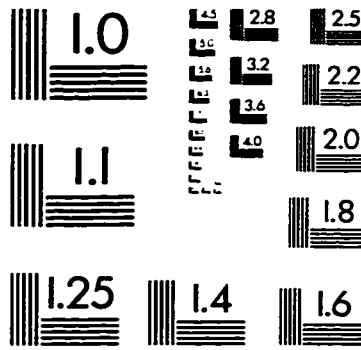
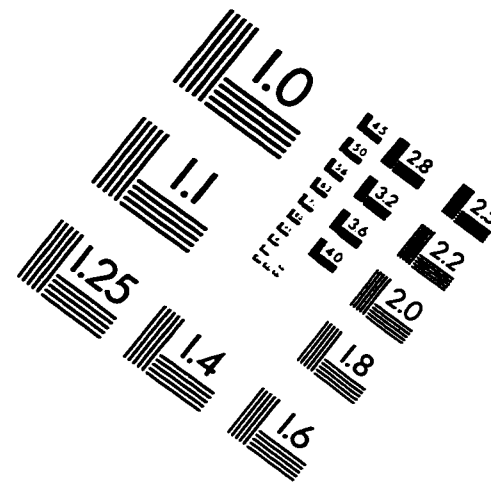
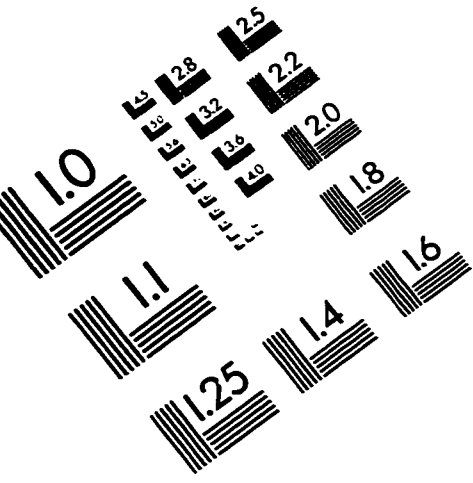
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