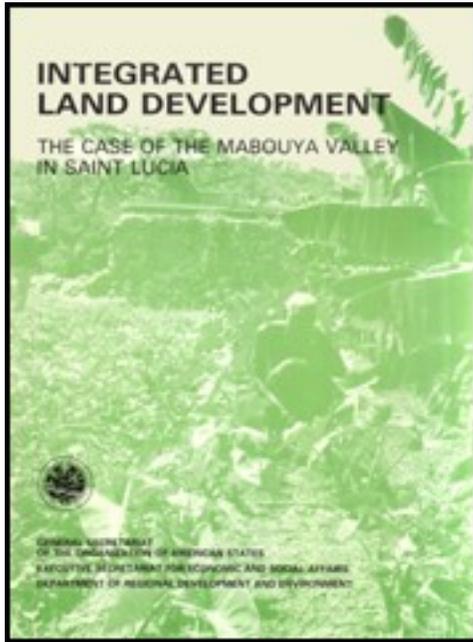


Integrated Land Development - The Case of the Mabouya Valley in Saint Lucia



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Department of Regional Development and Environment
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Preface

A critical problem facing agricultural development in the Eastern Caribbean is the acute scarcity of arable land. Concentrated ownership of best lands compounds this scarcity. The majority of the rural population is left to farm small holdings on unsuitable hillsides. In turn, this intensive cultivation of hillsides triggers a complex process of soil erosion and environmental degradation of entire watersheds. Isolated soil-conservation efforts have at best been palliative. The roots of the problem remain in land scarcity.

Since 1980 the Organization of American States has provided technical assistance to the Saint Lucia Government in its efforts to resolve this situation. The OAS publication, Saint Lucia Natural Resources and Agricultural Development Project: Studies and Proposals for the Implementation of a Land Registration Programme, outlined the preliminary research undertaken into the land tenure question. This research prepared the way for the Morne Panache Pilot Project, which in turn, led to the national Land Registration and Titling Programme (LRTP) and the Mabouya Valley Development Project. Development activities in the Mabouya Valley continue today.

This volume, designed as a follow-up to the original report, addresses the Morne Panache Pilot Project, the LRTP, and the Mabouya Valley Development Project. Together, the results of these projects illustrate the importance of an integrated approach to land issues, an approach that deals not only with the consequences of problems, but also with causes. The Department of Regional Development and Environment at the OAS is pleased to have cooperated with the Government of St. Lucia in this effort and believes that the following account may be helpful to other governments faced with similar development challenges.

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Introduction

The Mabouya Valley Development Project has become the most comprehensive, OAS-assisted development effort undertaken in the 1980s by the Government of Saint Lucia. The emphasis of this volume is directed toward these recent activities.

However, as stated in the Preface, the OAS began researching the Saint Lucia land problem in 1980. The OAS also helped design and implement the Morne Panache Pilot Project in 1982-83, and later assisted in the assessment of the national land registration programme in 1986. These efforts were all components of a long-term policy of integrated land development.

Committed to the realization of this policy, the OAS has provided continuing technical assistance, at times during periods of institutional change at the national level, funding and policy delays, and a changing political atmosphere. To achieve success, integrated development must be a cooperative effort that conforms to the character and needs of the people and the culture. It is often necessarily an educational and adaptive process.

To best demonstrate this process of integrated development, the following volume examines the development activities chronologically. The first three chapters outline the land problem, the Morne Panache Pilot Project, and the Land Registration and Titling Programme. Interested readers may turn to the appendices for greater detail concerning the Pilot Project and the LRTP. Chapter 4 addresses the latest work in the Mabouya Valley.





1. The land problem in Saint Lucia and the formulation of an agricultural land policy

An estimated 7,000 farmers in Saint Lucia actively cultivate bananas, the largest source of the country's employment and foreign exchange. Yet over 75 percent of these farmers own 10 acres of land or less.¹ This is not unusual in Saint Lucia, where 92.7 percent of all farmers control only 24 percent of the land (1973/74 agricultural census). At the opposite end of the scale, about 50 percent of all cultivable land is controlled by only 0.17 percent of the farmers, most of whom are absentee owners.² Skewed land distribution has long been recognized as a major constraint to agrarian reform and the alleviation of rural poverty.

¹ Latin America Bureau, Green Gold: Bananas and Dependency in the Eastern Caribbean. London, 1987, p. 68.

² Ibid., p. 67.

Until recently, attention has focused on tenure alone. During the colonial era, French and British laws on intestate succession created the family-lands system of inheritance. Entire families received lands, resulting over the years in multiple and ambiguous land ownership. Adding to this, the absence of a nationwide survey and registration system prevented accurate definition and identification of land parcels, particularly for the majority of the rural population.³

³ OAS, Saint Lucia Natural Resources and Agricultural Development Project: Studies and Proposals for the Implementation of a Land Registration Programme. Washington. D.C. 1986.

In 1980, the OAS developed an analytical framework to investigate the land problem. The following elements were identified as structural constraints on agricultural development in Saint Lucia:

1. Land scarcity.
2. Traditional land-distribution structure.
3. Excessive fragmentation of already small land parcels.
4. Unclear ownership and insecure tenure.
5. Sizable proportion of landless farmers and squatters.
6. Lack of a registration and titling system.

To remove these constraints, the OAS recommended the following actions:

1. Land survey and registration of title.
2. Institutional change to support a comprehensive agricultural development effort.
3. Improved management of natural resources to support agricultural development.

4. Economic and fiscal incentives to make agriculture viable for small farmers.⁴

⁴ Ibid., chapters 5-7.

In 1980 and 1981, the OAS carried out further studies to determine a comprehensive agricultural development strategy. By encouraging the positive aspects of existing trends (for example, the subdivision of large estates for resale to small farmers), it was hoped that the land-distribution structure could be transformed over the long term. The OAS also envisioned a number of short term interventions (direct and indirect) at the national and local levels.

The initial national-level interventions, regarded as prerequisites to further interventions at both levels, included the following:

1. Fiscal measures to encourage better land use.
2. Financial instruments to provide access to credit to small farmers.
3. Regulation of land development to prevent inefficient use of resources and excessive subdivision.
4. Full cadastral survey, land adjudication, and land registration.

By establishing an agricultural land bank and land credit facility, the Government could help regulate the land market. The bank could impose conditions on credit to insure appropriate land use and to prevent multiple-ownership upon inheritance. The bank could also extend credit to those shareholders of family-lands who were actually farming the land. This would enable these farmers to buy out disinterested co-owners.

The proposed local-level interventions were:

1. Consolidation of small holdings to reduce land scarcity as a constraint to small farmers.
2. Redistribution of unused or under-used land.
3. Expansion of the rural frontier (bringing marginal lands into production) partly through innovative technology.

Following these studies the Government of Saint Lucia requested technical assistance from the OAS to design and implement a pilot project. This project would serve as a possible model of integrated resource management in a discrete locality. The Government, together with the OAS, chose the village of Morne Panache, in the Mabouya River Valley, Quarter of Dennery (Maps 1 and 2). The Project was instrumental in preparing the way for the National Land Cadastre and Survey and the Mabouya Valley Development Project.

[Saint Lucia - Mabouya Valley development project - Location map](#)





2. First step in review: the Morne Panache pilot project

In August 1982 the Land Reform Unit of the Ministry of Agriculture, assisted by the Department of Regional Development and Environment at the OAS, began the Morne Panache Land Registration and Farmer Resettlement Pilot Project. While the Mabouya Valley had long been recognized as having great agricultural potential, the area embodied many of the issues of Saint Lucia's land problem: land scarcity, ownership disputes, uncertain tenure, encroachment of forest reserves, and soil erosion.⁵ The area was also representative of small-farm communities throughout the country. In choosing a specific site for the Project, the LRU and the OAS sought a locality that would provide the greatest opportunity for gaining experience during the Project activities. The LRU and the OAS used three specific criteria in their selection:

1. Land ownership uncertainties that could cause difficulties during survey and registration.
2. A land distribution pattern indicative of a dynamic farming region with restrictions posed by severe land shortages for small, full-time farmers.
3. Under-used estate lands available for redistribution.

⁵ *Ibid.*, chapter 8.

The Project team selected an area extending approximately over 1,500 acres on the left bank of the Mabouya River that included the farming communities of Morne Panache, Dubonnaire, Grand Riviere, and the Bosquet D'Or and Clavier sections of the Government-owned Landco Limited.⁶ 1980 Farmer Survey data showed that the area encompassed 246 private holdings, almost 60 percent of which were in the 1.0-4.9 acre size category. Interested readers should turn to Appendix A for an in depth socio-economic view of the Project area.

⁶ Landco Ltd. is an enterprise established in 1979 as a holding company for the lands acquired from the Dennery Factory Estate.

Initially, the OAS designed the Project to include a land registration and titling programme as well as a farmer resettlement scheme. It soon became clear, however, that these objectives could not be achieved during the Project's lifetime. New land laws drafted by the Land Reform Commission in 1979 and 1980, which needed to be enacted before the Project team could begin registration and titling, remained under discussion in the legislature until 1984. Secondly, the land shortage in the area was such that the 120 acres of Government lands available for redistribution were not enough to effectively alleviate land scarcity among the participating farmers. Thus, the Project was limited at the outset to the surveying of parcels, establishing legitimate claim (in uncontested cases), and the recording of all relevant information on social, economic, and agrarian conditions in the area. Field activities and further studies into the land tenure problems continued through 1983. Appendix B provides a detailed discussion of these activities

and the information and experience gained by the Project team.

The following is a brief discussion of the a few of the more pertinent findings:

Registration and Titling

Tenure relationships were found to be governed by both legal and customary definitions. Therefore, two sets of expectations existed in the communities regarding the conditions under which one could receive title. The Project team recommended that any future registration efforts be as flexible as possible. This flexibility would involve investigating in great detail the residents' understanding of tenure and as well as finding ways to minimize any detrimental effects that registration and titling might have on the interests of small farmers who are more familiar with the customary tenure system.

In the case of family-lands, the Project team recommended that registration and titling programmes consider the differences in individual situations. Because of variations in holding size, the number of potential and actual claimants, the social relations among claimants and, possibly, the legal status of the original ownership claim, no abstract notion of "fair partitioning" was found to be especially useful. What constituted "fair" depended on a number of factors, an important one being the opinions of the co-heirs. The team recommended that partitioning be determined on a case-by-case basis.

The Claims Process

Most of the occupants and owners who filed claims lacked accurate information on the location of their parcels, so that it was nearly impossible to identify a parcel based solely on the information given on the claim form. Consequently, when a claimant was absent at the time of demarcation and failed to send a representative or otherwise inform the team, the linkage between his or her claim and the demarcation information could not be established.

Of the 98 demarcated parcels, 16 were claimed by more than one person. Because of the identification problem, this is probably an undercount. Experience from the claims process reinforced the important role that land adjudication would play in the national LRTP.

Communication with Area Residents

At the beginning of the Project, a dialogue was established between the Project team and the community members at a number of town meetings and through a community liaison officer. Unfortunately, public understanding of the Project remained low. One misunderstanding involved the reduced scope of the Project. Although clearly informed that the Project would not include titling and land distribution, many residents believed that these activities were still forthcoming. These residents gradually lost interest when they realized this was not the case. However, the community liaison officer was able to reduce these negative effects as much as possible. The liaison also insured effective feedback from the community regarding specific problems and complaints.

This experience illustrated the importance of making available to the public precise information on Project objectives, especially at the outset of activities. Development teams need to make a considerable effort when informing the community of any changes in objectives. Emphasis should be placed on the Project limitations to insure their acceptance by the community.

Summary

The Project activities provided invaluable training and experience to the Saint Lucian professional and technical staff. In particular, the expertise acquired by members of the Lands and Surveys Department later became a critical ingredient in the institutionalization of the modern land-registry and land-information system. By testing a program of collaborative technical assistance at a local level and increasing awareness of the problems of land-tenure, the Morne Panache efforts prepared the way for a more equitable and rational utilization of agricultural lands throughout the society.

Although the Project, as an initial effort, was unable to address the wider issues of which Morne Panache is a microcosm - land scarcity, hillside farming, soil erosion, silting, water-logging, and perpetuation of economic hardship - the Project activities successfully focused on the needs of several hundred of the rural poor.

Following the demarcation survey, the Morne Panache Pilot Project came to an end. After national elections, the new Government dissolved the Land reform Unit and reoriented activities of the OAS. Of the initial Morne Panache objectives that were cancelled, nearly all were later achieved in the nationwide Land Registration and Titling Programme (LRTP) and in the integrated development project now underway in the Mabouya Valley.



61°05'

61°00'

60°55'

60°50'

SAINT LUCIA MABOUYA VALLEY DEVELOPMENT PROJECT LOCATION MAP

0 5 km

14°05'

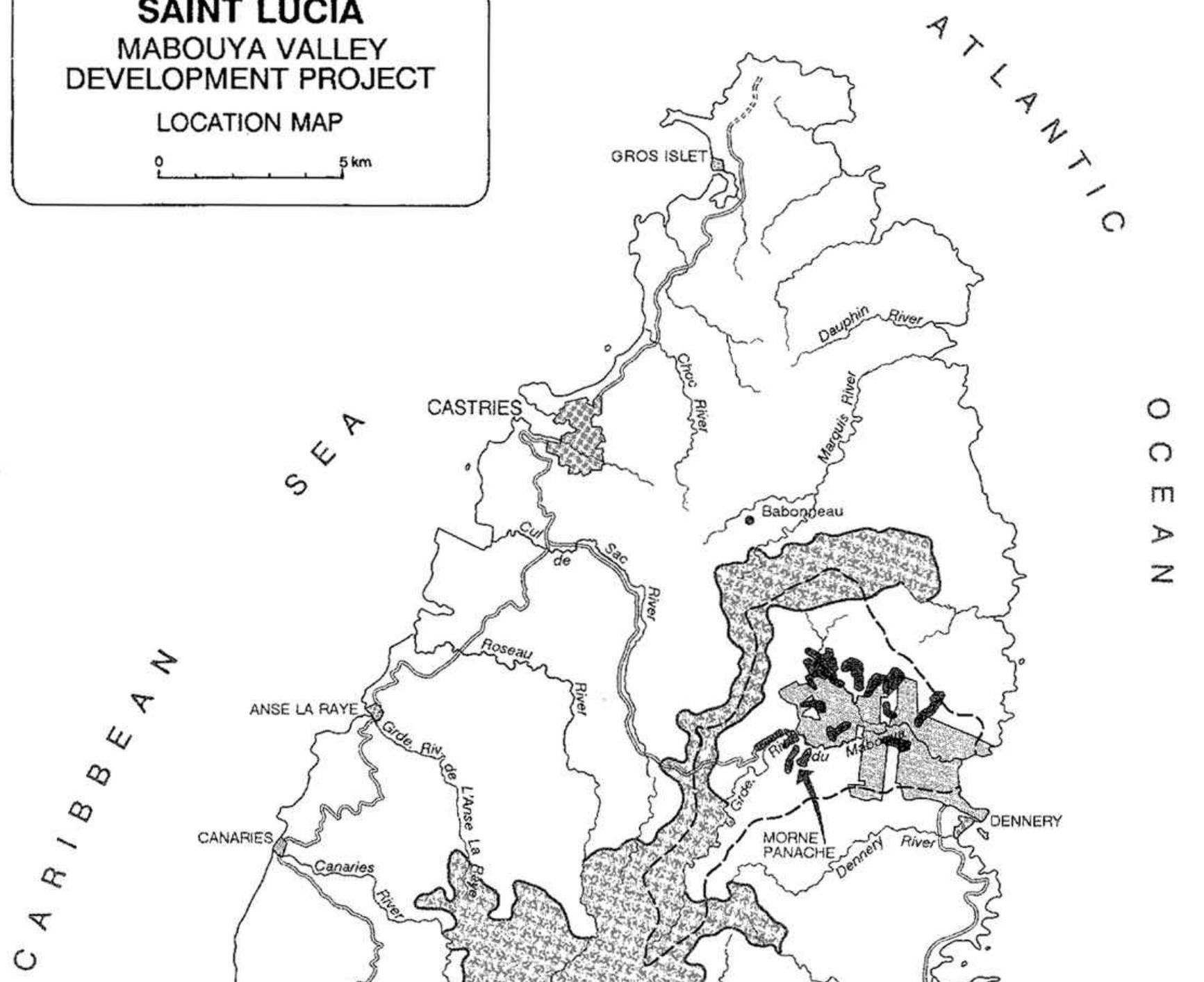
14°05'

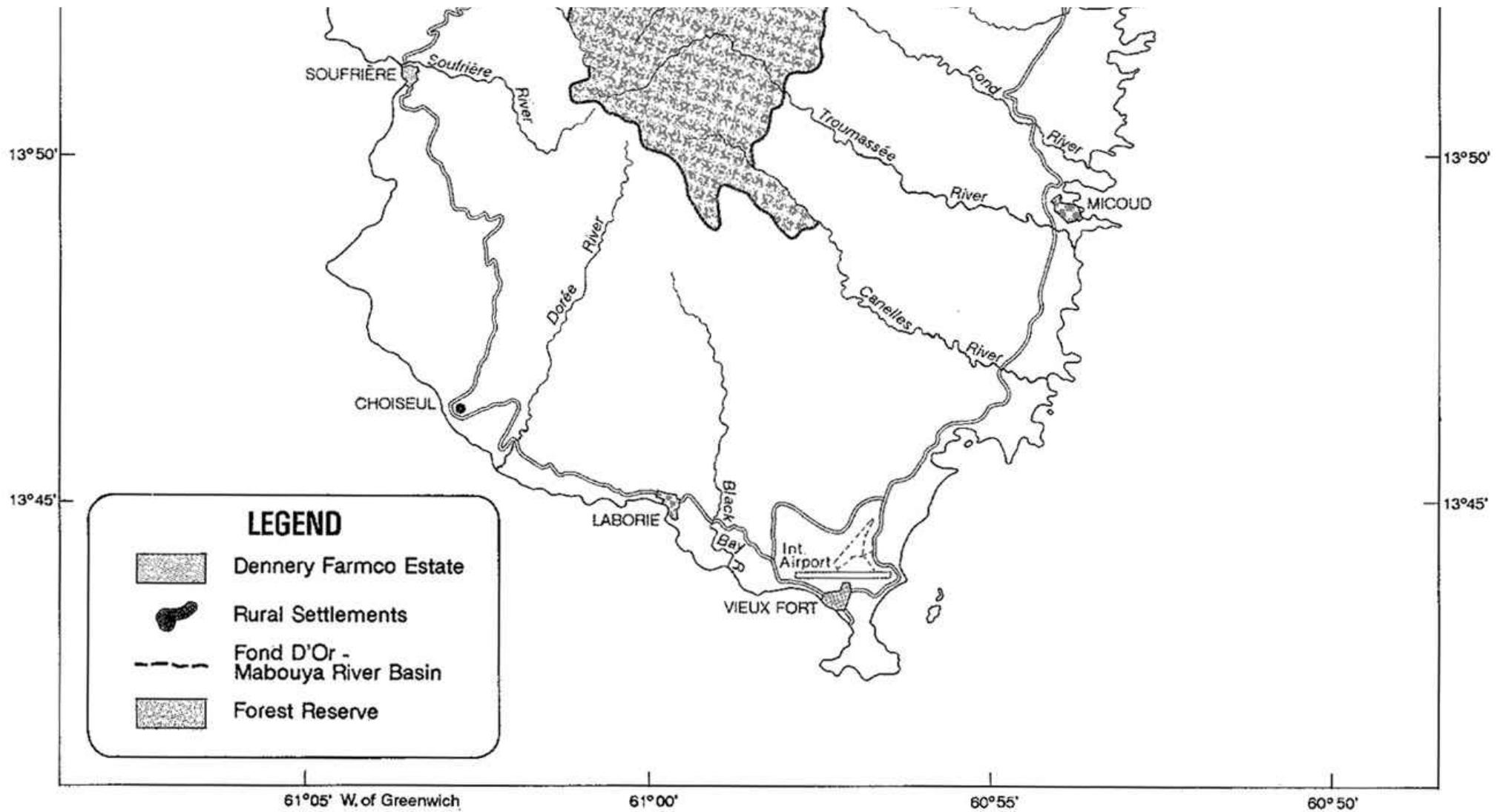
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3. Second step in review: a nationwide land registration and titling programme

[3.1 Rationale and request for USAID proposal](#)

[3.2 LRTP design](#)

[3.3 LRTP assessment](#)

Equitable and rational land use was one purpose of the Saint Lucia Agricultural Structural Adjustment Project (ASAP), agreed upon in March 1983 between the Government of Saint Lucia and the United States Agency for International Development (USAID).⁷ A grant of US\$ 8 million dispersed over the next three years covered the major costs of the Project. The ASAP originally included a banana-replanting programme, a market-promotion scheme, and land registration and titling programme (LRTP). However, for reasons explained below, the Government only implemented the LRTP.

⁷ USAID Project #538-0900, AID/LACP-129 (1983).

The Morne Panache activities of the OAS greatly facilitated implementation of the LRTP. At a midpoint in the programme, the OAS helped organize an international symposium on land registration and information systems to examine and discuss the progress and effects of the programme. The LRTP resulted in the establishment of a modern national land registry, an essential ingredient of integrated land development.

3.1 Rationale and request for USAID proposal

In 1983 the Government of Saint Lucia recognized the need for agricultural diversification to reduce the country's dependency on banana exports. This dependency was considered to be a serious barrier to the country's long-term economic stability. The Government's proposal to USAID forwarded the premise that the removal of four key constraints (outlined below) would allow international demand to stimulate a market-driven economy toward higher and more wide-ranging production. The constraints were identified as:

1. Lack of secure land title for a majority of the farmers, which restricted the functioning of both the land market and the market for long-term investments in land and agriculture.
2. Inadequacies in the agricultural marketing system, which failed to generate sufficient, reliable, and effective demand at the farm level to stimulate greater production of cash crops (particularly high-value tree crops that require a long-term investment).
3. Limitations of the plant propagation system,⁸ supporting the diversification effort, which

limited farmers' ability to respond to market demand for tree-crop products.

4. Decline in banana income, which reduced the availability of resources for investment at the farm and national levels.

⁸ A system providing small farmers with cash-crop saplings grown in a government-run nursery.

To relieve these constraints, the Government proposed structural reforms in three areas:

1. Land registration and tenure individualization. Provide all current landholders with clear title. Inaugurate an experimental programme to provide holders of family-land with the opportunity to consolidate ownership.

2. Market promotion. Strengthen the private-sector marketing system while supporting the expansion of high-value crops with strong market potential.

3. Short-term support. Increase banana production through a replanting programme, critically needed to halt the decline in banana shipments and to strengthen the agricultural-income base in the short term.

The Land Reform Commission of 1979-1980 had already contributed significantly to increasing the public awareness of the complexity of land reform issues.⁹ The commission's public hearings in Castries, Dennery, Vieux Fort, Micoud, and Soufriere; the documents the commission presented; and media coverage of the commission's work all helped to create a popular demand for new reforms. Not only did public opinion support the need for registration and titling, but large sections of the population, beyond partisan lines, began to take an interest in land use, the availability of good lands for agricultural and rural development, and the importance of zoning for specific industrial, residential, and recreational purposes.

⁹ Land Reform Commission, Land Reform Commission; Final Report, Castries, 1981.

The available experience and information gained from the Morne Panache Pilot Project enabled the Government to begin the first structural reform, or LRTP, as soon as possible.

The United Nations Development Programme provided financial assistance in the drafting of legislation for a new land registry, procedures for surveyors, and conditions for land adjudication. The costs of a nationwide titling exercise, however, required assistance from an external agency. Following a favorable response from USAID, the Saint Lucia Government signed a contract with United Aerial Mapping Inc., a consulting firm from the United States, to implement the LRTP.

3.2 LRTP design

Prerequisite to the implementation of the LRTP, was the passage of four new national laws. The first law, the Land Registration Act, replaced the legal code of the ineffective deed-registration system with new legislation allowing for the establishment of a modern system of land records and land rights. The Land Adjudication Act provided legislation to establish a systematic survey of parcels and a process of title adjudication. The Land Surveyors' Act provided for the licensing of surveyors, the conduct of surveys, and the preservation of survey marks. The fourth law, the Agricultural Small Tenancies Act, clarified the

rights and obligations of both landlords and tenants of small agricultural leaseholds. Appendix C discusses the legislation in greater detail.

The ASAP land registration and tenure individualization reforms were designed to produce four results:

1. A survey of all lands outside the National Forest Reserve and the metropolitan area of Castries, boundary demarcation of existing holdings, identification of land owners, and a recording of these data.
2. A new land registry system based on this survey.
3. A land tenure code embodied in the new legislation to regulate and record private land transactions.
4. A tenure individualization programme in the Saint Lucia Development Bank to finance the conversion of family-lands to individual ownership.

Due to a lack of funds and mounting cultural resistance, the Government could not go forward with the tenure-individualization programme. The budget for the programme included an initial capital of US\$ 100,000,¹⁰ with additional financing of US\$ 400,000 to be generated by the banana-replanting programme, and US\$ 970,000 in Government debentures. These monies were needed to carve 450 individual smallholdings out of existing family-lands. The Development Bank planned to offer 10-year mortgages at commercial interest rates of 11 to 13 percent for 80 percent of the holdings valued up to US\$ 20,000. The farmer's share in the family-land being purchased would count toward the 20 percent down payment, and family shareholders would receive the value of their shares in cash and debentures. However, without the banana-replanting programme, expected reflows were not available.

¹⁰ USAID, "Project Paper on Saint Lucia Agricultural Structural Adjustment Programme (Project #558-0090, AID/LAC/P-129)," Washington, D.C., 1983, pp. 12-21.

More fundamentally, there were cultural obstacles to such a programme. Many family members maintained their right to ownership for the sense of independence and long-term security it provided. This could not be measured in the monetary values set forth in the programme's original guidelines.¹¹

¹¹ D.G. Woodson, "Social and Cultural Aspects of Land Tenure in the Morne Panache Titling and Registration Pilot Project Area," Office of the OAS General Secretariat, Castries, 1982.

Moreover, given the known extent of family-landholdings in the society, the target of 450 holdings is not a substantial number. Successfully implemented, the programme would only have been a symbolic gesture. Even if some family members were willing to sell, poorer farmers would not have been able to buy their shares at the land prices being considered - up to US\$ 20,000, approximately EC\$ 52,000 - or to meet loan repayments of about EC\$ 7,000 a year.

Therefore the Government found it necessary to reduce the scope of the Agricultural Structural Adjustment Project to include only the LRTP. The LRTP activities consisted of land-registration, preliminary establishment of a modernized land registry, and adjudication of parcels throughout the country (except in the Forest Reserve). Activities continued through July 1987. Project savings eventually made possible the expansion of the LRTP to include the Castries area as well.

Legally identifying landowners does not, by itself, eliminate existing inequalities in the landowning

structure, nor does a reorganized registry, in itself, guarantee the end of ownership disputes over family-lands. However, as one component of an integrated development policy, the LRTP rendered a substantial service to the society of Saint Lucia: reducing the possibility of fraudulent transactions, providing the improved information base and organizational mechanism essential to efficient administration of land-tenure questions, introducing modern techniques, and training local personnel in the use of these techniques.

3.3 LRTP assessment

To appraise the on-going experience being gained through the LRTP, and in response to a growing interest among other Eastern Caribbean states, the Government of Saint Lucia, the OAS, and USAID jointly sponsored the Symposium on Land Registration, Tenure Reform and Land Information Systems in October 1986.¹² At this time, United Aerial Mapping had completed one year and nine months of its three-year contract, and had demarcated, surveyed, and recorded the information for 17,491 parcels amounting to 86,350 acres. Almost 50 participants attended the three-day symposium, representing a wide range of skills and expertise from the Eastern Caribbean, United States, United Kingdom, and international assistance agencies.

¹² Government of Saint Lucia. Proceedings of a Symposium on land Registration. Tenure Reform and Land Information Systems, Castries, 1987.

The Symposium sponsors cited the following long-term benefits to be expected from national land registration:

1. An alleviation of problems in the conveyance of real property.
2. A reduction of lands having multiple owners.
3. A substantial increase in agricultural production (after small holders receive clear title and obtain access to credit).
4. A rise in land values due to increased investments.
5. The use of the cadastral data base to systematically update the valuation of real property and to rationalize land and property taxation.
6. The expansion of the cadastral data base into a land information system to benefit development planning and implementation.¹³

¹³ Ibid., pp. i-ii.

As these benefits are long-term, they could not be evaluated at the time of the Symposium. The Land Tenure Center of the University of Wisconsin is currently examining the extent of these benefits for USAID.

During the Symposium, participants discussed the Saint Lucia LRTP "against the background of different needs and experiences in other OECMS member states and also in the context of selected regional and international experience in land registration and international experience in land registration and titling."¹⁴ Proceedings were divided into six modules. Appendix D offers a detailed discussion of the technical, legal, and socio-economic issues addressed in these modules.

¹⁴ Ibid., p.i.





4. The Mabouya Valley development project (MVDP)

[4.1 Background and origin of the project](#)

[4.2 Resources of the Valley: land and people](#)

[4.3 The socio-technical problems: four settlements in the Valley](#)

[4.4 Exploring development alternatives](#)

[4.5 Project reassessment and the first years of tenure rationalization](#)

4.1 Background and origin of the project

As stated in chapter 2, the Morne Panache Pilot Project team cancelled a planned resettlement programme because the 120 acres available for redistribution were insufficient to effectively reduce land scarcity in the Project area. In the wider context of the Mabouya Valley, a pilot exercise of this scale could not fully address the important link between demand for land by small farmers; the existence of near by, highly productive, yet under-utilized, flat lands; and the environmental degradation caused by increasing encroachment on forested slopes and the Forest Reserve.

Analysis of the Pilot Project suggested that the Mabouya Valley region would be a particularly good area in which to implement a larger integrated development strategy. Two further developments, discussed below, contributed to making this possible.

Early in 1983 the Central Planning Unit (CPU) of the Saint Lucia Ministry of Finance and Planning endorsed the subdivision of the 2,613 acre Dennery Farmco property that stretched westward into the valley from Fond D'or Bay. Formerly a single-family estate and historically the dominant local economic institution, the Farmco property had long been in decline. The property's financial situation and had not improved since its purchase by the Government in 1978. (see section 4.4.1).

Secondly, negotiations between the Saint Lucia Government and the Commission of European Communities resulted in the approval of a drainage and conservation project at three sites in Saint Lucia. Funding for the project came from a grant of EC\$ 3.803 million from the European Development Fund (EDF), under the Lomé III Agreement (which provides aid to former colonies in Africa, the Caribbean and the Pacific). One of the three sites selected was Fond D'Or, a sub-catchment in the Mabouya watershed, where silting, water-logging, and flash flooding had curtailed banana production on 272 acres of Farmco lands.

During the latter part of 1983, in anticipation of the Mabouya Valley Project then under consideration by

the CPU, the Land Reform Unit of the Agricultural Ministry and the OAS surveyed households in four settlements in the valley. (Section 4.3 looks at the results of the survey as well as the LRU/OAS recommendations for a resettlement programme.) In keeping with previous activities of the OAS in Saint Lucia, the survey was based on the principle that land, in addition to being a critical resource element in the socio-economic transformation of agrarian structures, is also an integral element of the total resource endowment of the society.¹⁵ This endowment is composed not only of environmental factors but also of people in communities, their history, culture, needs and aspirations. People are the most important part in any process of social transformation.

¹⁵ L. Strachan, Pilot Project of Land Redistribution in the Home Panache Area: Project Profile. Castries, Government of Saint Lucia and the OAS, September, 1981.

The CPU and the Office of the Prime Minister, to which the Ministry of Finance and Planning is attached, came to share this comprehensive approach. With the dissolution of the Land Reform Unit at the end of 1983, the CPU became the sole agency for technical cooperation in the valley. The CPU Physical Planning Department assumed a major role in developing a sound proposal for land use on the Farmco estate.

Along the same conceptual lines, the drainage problems on the floor of the valley, targeted by the EDF project, were inextricably linked to land scarcity. Shortages in land had induced small farmers to clear the steep slopes on surrounding hillsides for food crops and firewood. This clearing resulted in erosion and sedimentation of the drainage channels. Repairing the physical infrastructure on the valley floor, by itself, would be a temporary and economically wasteful measure, failing to address the cause of the problem.

Through the work of the OAS in the Mabouya Valley, the EDF became aware of the role that land scarcity had played in soil erosion. Hunting Technical Services, consultant to EDF, identified the need to expand the scope of their project beyond drainage relief. In their proposal, EDF adopted the view of the OAS and the CPU: although drainage repairs were needed immediately, an integrated approach to the development of the Mabouya Valley was the only rational and cost-effective solution in the long-term.

4.2 Resources of the Valley: land and people

Along hillsides areas where farmers had cleared the forest cover, soils were unstable and vulnerable to landslip. The flat, low-lying valley bottom (0.5-1.5 meters above sea level), a swampy area prior to its drainage for agriculture, contained soils made up of clays and clay loams allowing very slow internal drainage. Hunting Technical Services, the EDF consultant, concluded that closely-spaced field drains two-feet deep and collector drains 3.3 feet deep were needed for banana production on the valley floor. The depth of soil above the water table was considered suitable for most annual crops.¹⁶

¹⁶ Hunting Technical Services Ltd., The Roseau, Dennery and Cul de Sac Drainage and Conservation Project. CPU and Ministry of Finance and Planning, Castries, 1984.

Average annual rainfall ranged from 117 inches (2972 mm) at the head of the valley (Barre de l'Isle) to 77 inches (1956 mm) at La Caye. Depending on the intensity of the dry season (January to May), the base flow of the Mabouya and Dernière rivers could provide enough water to irrigate 100 to 300 acres. The core estate contained 200 acres (70 ha) under fixed-set irrigation. In 1978 an EDF-financed study had identified a reservoir site at Grand Ravine that could store 1.22 million cubic meters of water and

supply the entire valley by pipeline. This reservoir could provide enough water to irrigate the valley floor as well as to provide for an ample domestic supply.

One of the most appealing features of this catchment area, in terms of its development potential, was that it contained the largest expanse of flat fertile land on the windward side of Saint Lucia. During its most productive exploitation, the Dennery Estate was widely known as a source of tremendous wealth.

Map 2, shows the locations of Dennery Farmco estate and surrounding rural settlements included in the Project area.

Table 4-1 shows the land capability in the catchment area and on the Farmco estate.

Table 4-1: Land Capability and Potential Land Use, Mabouya Valley and Farmco Estate

Land capability classes and crop suitability		Mabouya Valley			Farmco Estate		
		Acres	Ha	%	Acres	Ha	%
I	Vegetables						
II	and						
III	bananas	1,203	487	12	724	293	28
V	Non-cultivable;						
VI	permanent crops	2,416	978	24	388	157	15
VII	Protection						
VIII	Forest	6,370	2,578	64	1,499	607	57
Total		9,989	4,043	100	2,611	1,057	100

Sources: OAS (1981) and HTS (1984).

A quarter of the estimated valley population (7,500) lived on Farmco lands at the beginning of the Project. Eight settlements (Riche Fond, Grand Ravine, Belmont, Despinoze, La Perle, Limiere, La Caye, and Au Leon) with an total estimated population of 4,000, were situated on or near the estate. The Project team included these communities in the Project area as these people would be most concerned about the drainage and land-use problems of the valley. Table 4-2 lists the main characteristics of these communities.

Historically, the communities were the source of wage labour for the estate. Local residents claimed that as many as 1,200 to 1,500 persons used to work for the estate. By 1985 there were fewer than 300 casual labourers on the estate and about 50 full-time employees, including a general manager, an accountant, and two section managers.

The results of the Land Reform Unit/OAS survey in four valley settlements may be considered reasonably applicable to the others. Table 4-3 lists the household incomes as reported by the survey. Respondents in the highest bracket received cash income from sources other than the sale of crops. The income figures show that the ability of the residents to pay for land would be extremely limited, as their incomes also covered household expenses.

Table 4-2: Rural Settlements in the Development Programme

4. The Mabouya Valley development project (MVDP)

	Number of households	Area (acres)	Density (households per acre)	Deficiencies and problems
Au Leon	230 a/	41.8	5.5	Erosion
				Devegetation
				Garbage disposal
				Footpaths
				Land tenure
				Public conveniences
Despinoze	58 b/	17.8	3.3	Mild erosion
				Footpaths
				Land tenure
				Public conveniences
Limiere	23 c/	8.5	2.7	Electricity
				Water supply
				Erosion
				Footpaths
				Land tenure
				Public conveniences
				Accessibility
La Perle	10 c/	8.5	1.2	Electricity
				Water supply
				Accessibility
				Footpaths
				Land tenure
				Public conveniences
La Caye	140 b/	34.4	4.1	Land tenure
Belmont	147 d/	22.4	6.6	Accessibility
				Footpaths
				Land tenure
				Public conveniences
Grand Ravine	139 d/	22.7	6.1	Land tenure
				Public conveniences
Riche Fond	123 d/	30.2	4.1	Public conveniences
				Land tenure (Belle Vie only)
Total	870	186.3		

- a/ Field estimate, 1985. b/ Identification of rural settlements (OAS, 1983 a).
 c/ House count in the field, 1985. d/ Socio-economic survey (OAS/LRU, 1983).

Table 4-3: Monthly Household Cash Income

AVERAGE INCOME (EC\$)	SOURCE OF INCOME			
	Sale of crops		Other	
	No. households	%	No. households	%
333\$			49	32%
150\$	41	53%	78	51%
33\$	25	32%	19	12%
10\$	12	15%	8	5%
	78	100%	154	100%

Source: OAS/LRU (1983).

A less concentrated settlement pattern had occurred outside the estate at Au Leon, on a narrow ridge mainly occupied by squatters on Crown land. Additional settlements, in a more dispersed and linear pattern, had grown along access routes. Construction of the Cul de Sac road across the island had caused the price of house-lots on adjoining land to rise.

All the villages were still affected by efforts of the Dennery Factory to sell land to factory workers in 1973 and 1974. Nearly all of these lots, although occupied, had not been paid for. In the Riche Fond/Belle Vie areas, where the Saint Lucia Housing Authority had conducted a subdivision programme in 1981, only 15 percent of the people had paid for the land they received. This created a dilemma: authorities were reluctant to evict persons who had not paid, but also reluctant to condone squatting which could lead to the occupation of private as well as Government land. With the completion of the land-registration programme, it was expected that legal title could be regularized.

4.3 The socio-technical problems: four settlements in the Valley

The development and growth or ultimate retrogression and decay of the villages of Riche fond, Grand Ravine, Belmont, and the settlement cluster of Morne La Silence/Morne Panache¹⁷ (see Map 2) were inevitably linked to the fortunes or failure of the surrounding Farmco lands. Within these four settlements were a little over 400 households and a population of about 1,600 persons.¹⁸

¹⁷ This is a different Morne Panache than the area denoted by the Morne Panache Pilot Project.

¹⁸ Report on the Socio-economic Survey of Rural Communities in Farmco Lands. Castries, December, 1983.

The household survey carried out by the Land Reform Unit and the OAS established that the primary

occupation of almost 64 percent of household heads was either own-account farming on small plots of Farmco land (37 percent) or employment as wage labourers for Farmco (26 percent). These were also the most important second occupations (57 percent and 24 percent, respectively) among the 27 percent who held two jobs. Almost 25 percent of the heads of household had previously worked as wage labourers at Farmco but had since been laid off. Nearly all the houses in Belmont and Grand Ravine, a third of those in Riche Fond, and almost none in Morne La Silence/Morne Panache were situated on Farmco lands.

Whether on or off Farmco lands, holdings were predominantly less than one acre: 83 percent in Morne La Silence/Morne Panache, 82 percent in Grand Ravine and in Belmont. In Riche Fond, only 49 percent of the parcels were less than one acre. However, 39 percent of the Riche Fond respondents indicated they did not know the size of their parcels.

Allowing for the fact that a number of household heads farmed more than one parcel, it remained striking that very few of the primarily farming-dependant households operated holdings of five acres or more. Five acres is usually considered the minimum viable farm size. The resulting low incomes from the sale of their crops explain why some 75 percent of the households expressed a need for additional land.

Nearly two thirds of the adult population of the four communities (546) were employed: 70 percent in Grand Ravine, 62 percent in Belmont, 61 percent in Riche Fond, and 54 percent in Morne La Silence-Morne Panache. Very few children helped with farming: 8 percent in Belmont and 9 percent in Morne La Silence -Morne Panache.

The information received on economic returns from farming activities may not be particularly reliable, given the relatively low response rate (less than 50 percent), yet it was certainly instructive that only 156 household heads (about 5 percent) stated that they received more than EC\$ 200 a month from crop sales.

A majority of respondents throughout the four settlements stated that their reason for wanting additional land was to provide for a "house and garden." (In Grand Ravine, where 74 percent of the respondents occupied rent-free house-lots on Farmco lands, the need for land was less pronounced.) The desired amount of land, however, averaged between one and two acres. Hence, what individual households wanted was simply a minimum additional holding that they perceived as adequate to improve their productive capacity and provide shelter for their family. Fewer than 15 percent stated that they wanted more than five acres of additional land.

On the basis of the amount of additional land requested, an effective subdivision of Farmco lands would require more than 900 acres. On a more realistic basis of an acre and a half for households having family labour to work additional land, 500 acres would suffice.

It was clear that most of the respondents would put additional lands to typical use: mixed subsistence and cash crop farming, and would use household labour to farm the land.

The great majority indicated a willingness to contribute towards the cost of the land. However, given the average low incomes in the communities, most would only be able to manage a down payment between EC\$ 100 and EC\$ 500.

Taking into account this preparatory study, the Land Reform Unit and the OAS recommended guidelines for a Farmco subdivision and land-distribution programme as follows:

1. The programme should satisfy as much as possible the high demand for house-lots through regularization and upgrading of present settlement structures, rather than through

expansion.

2. The programme should give priority for the acquisition of farmland to those whose first occupation is farming and who currently have access only to Farmco lands.
3. In determining farm size, the programme should place emphasis on the farmers' capacity, level of aspiration, and household labour supply over the more theoretical considerations of "economic" farm size.
4. The programme should require farmers to actively consolidate holdings in order to participate in the subdivision programme.

The study also presented a matrix of varying levels and locations of farming activity correlated with existing housing locations. This matrix was later used as a framework for assigning priority in the subdivision programme.

The study emphasized the necessity of a solid credit mechanism in enabling the poorer applicants to acquire land in a subdivision programme. As similar groups outside the Project area needed credit as much as the small farmers and farm labourers in the Mabouya Valley, the study recommended the establishment of a national institution such as a land bank (also recommended in the Morne Panache Project proposal and in discussions at the Symposium).

4.4 Exploring development alternatives

[4.4.1 The Institutional Framework](#)

[4.4.2 Development Proposals](#)

By the Spring of 1984 the first phase of the drainage project was under way. On May 22, at the initiative of the EDF, the Prime Minister appointed an Advisory Committee for Dennery Basin Development to pursue a comprehensive strategy for the valley and to advise the Government on the disposition of Farmco lands and all ongoing valley projects. To assist in formulating an integrated resource management strategy, the OAS provided two consultants - an agricultural planner and a human-services expert - for four person-months, in addition to the continuing services of the resident Project Chief.

Members of the Advisory Committee included representatives of the National Development Corporation; Saint Lucia Model Farms Ltd.¹⁹; Dennery Farmco Ltd.; the Extension Division, Forestry Division, and Agricultural Engineering Services of the Ministry of Agriculture; the Physical Planning Section of the Central Planning Unit; the Ministry of Community Development; and the local representative in Parliament.

¹⁹ A local company formed as a joint venture for a land development programme in the Roseau Valley, one of the other three large expanses of flat, fertile land in Saint Lucia. Shareholders included the UK-based Geest Industries, the Commonwealth Development Corporation, and the Government, which obtained financing for a high-cost EC\$ 22 million project to settle and provide 200 farmers with inputs for bananas and an exotic tree-crop programme of mangoes and avocados.

The Committee's specific goals were to define the core estate for Farmco operations, address the demand for housing and agricultural land in the area, advise on the resettlement of watershed squatters, advise on the protection and reforestation of the watershed, define the valley drainage project, and estimate the financial requirements of the entire programme.

Over the next year the Committee arrived at a series of recommendations (published in the Committee's Draft Report, April 1985) having four major interrelated objectives: increased production and income from the core estate of about 350 acres; improved living conditions for the resident population; access to suitable land for subsistence; and the introduction of essential soil and water conservation measures.²⁰

²⁰ Advisory Committee for Dennery Basin Development, Draft Report, April 1985.

The Committee's report provided a comprehensive analysis of the problems affecting agricultural production and the quality of human life in the Mabouya Valley. The report addressed: (1) physical resources, (2) human resources and rural settlements, (3) agriculture and forests (land tenure and use), (4) the institutional framework, (5) development objectives and strategy, (6) development proposals, (7) organization and management, and (8) programme costs and benefits.

To avoid the problems encountered by Farmco's previous attempts to redistribute land (section 4.2) the Committee recommended the following specific elements to be included in the development strategy:

1. Close consultation with community leaders.
2. To receive title, local residents should contribute resources to environmental improvements, such as the construction of retaining walls and drainage channels, and the realignment of tracks and roads.
3. Programmes should not give away land, but allow purchasers to pay according to their means. Subsidies should be available for disadvantaged people.
4. People should pay at least the survey costs.
5. Eligibility for benefits should be subject to residency of at least two years on site prior to 1984.
6. Programmes should not permit the transfer of title, except to heirs, within 10 years of the initial transfer.

The Committee subsequently specified the extent of the land area and accompanying mechanisms for regularization in its comprehensive programme.

For the purposes of the present study and in the light of the previous account of the OAS-sponsored activities in Morne Panache and surrounding settlements, the remaining discussion will focus on two sections of the Committee's report that dealt with the institutional framework and the development proposals.

4.4.1 The Institutional Framework

Any development strategy designed for the communities in the valley would need to take account of the available institutional services that could help implement such a strategy. Four institutions existed in the Mabouya Valley at the beginning of the Project:

1. Governmental services. To a limited extent, there were in place staff and services geared toward the critical areas of agricultural extension, forestry, and community development. Additional services from Castries - water, electricity, physical planning - served the area in an ad hoc manner. The overall coordination of Government services was left to the Parliamentary Representative. No local Government administrator possessed authority over environmental matters, building regulations, or community facilities.

2. Mother's and Father's Organizations. Although individual communities held strongly independent views, Mothers' and Fathers' Organizations were active in the area, having elected officers and pursuing educational and social welfare work among the disadvantaged. These organizations were particularly well placed by their strength and non-sectarian character to provide support for the implementation of local-level programmes.

3. Dennery Farmco Ltd. By 1978, when the Government purchased the lands and buildings, the Dennery Estate had been losing money for at least the previous three years.²¹ Although the valley was the largest banana-producing area in the country, the estate's share of the production had fallen to less than a third. The Saint Lucia Government established a state-owned corporation, National Landco Ltd., to lease the land to Dennery Farmco. Dennery Farmco then purchased the estate's operating assets.

²¹ L.J.T. Smallbone, Dennery Estate Valuation. Commonwealth Secretariat, London, 1978.

Farmco was to be financed by a combination of equity shares, overdraft facilities, and long-term loans. The 1979 national elections caused a delay of this financing and Farmco began operations in advance of the required capital. An ambitious plan prepared by the management in 1977 included items such as the expansion of vegetable-growing for export to the European off-season market and the installation of irrigation for 600 acres. Yet within a year it became apparent that the cost assumptions on which the plan was based were too optimistic, having ignored the run-down state of the infrastructure, especially the roads, drainage system, and buildings. Farmco abandoned vegetable production following repeated damage from flash foods. Cultivation practices declined and working capital remained short. Returns could not cover operating costs.

In early 1980, the 1977 plan was revised to include as an immediate priority an overhaul of existing operations - the rehabilitation of drainage, buildings, and farm roads; an improvement in labour efficiency; the expansion of the irrigation system installed in 1979; and pilot programmes for diversification into papaya, vegetables and livestock.

Hurricane Allen interrupted the implementation of the revised plan, destroying the banana crop and some mango, kola, limes, and coconuts. This, together with the continuing cash crisis, low banana prices (due to the falling pound sterling), and increasing input costs, culminated in a curtailment of normal agronomic operations in late 1981. A strike by estate workers in protest against lay-offs followed in February 1982. Later that year Farmco sold its cattle and closed its least profitable sections to reduce costs. In 1984 Farmco incurred an operating loss of EC\$ 652,000, and by March 1985 the liabilities were

in excess of EC\$ 3.5 million. Clearly, the Government would need to resolve the production difficulties on the "core" area of the estate if the estate was to play an essential role in the programme for rural reconstruction.

4. The Banana Growers' Association. There were two extension workers from the Association working in the Mabouya Valley. In addition to providing inputs, the extension staff played an important role in improving the quality of the fruit and in introducing field packing and other recommended practices. Following the boom in banana prices and production in late 1985 and, due to the strengthening of the pound sterling and improved technologies, the influence of the Association increased. The Advisory Committee concluded that the Association could make a decisive contribution to a comprehensive development programme, by teaching growers to avoid over production, providing crop insurance, and encouraging diversification.

4.4.2 Development Proposals

To meet its objectives through integrated development, the Advisory Committee designed six components to the Mabouya Valley Project: (1) a rural settlement scheme; (2) garden allotments; (3) hillside farms and erosion control; (4) a forestry programme; (5) coastal zone development; and (6) rehabilitation of the core estate.

1. Rural Settlement

The rural settlement scheme would accommodate population growth within the valley, upgrade the social infrastructure, and provide alternative residential sites for communities occupying lands at high risk of erosion. The Committee recommended increasing housing density to nine households per acre, with a minimum lot size of 3,000 square feet, and concentrating expansion in areas where development costs were lowest. The legal ownership of house-lots would be transferred to their current occupiers. The physical improvements would include retaining walls, domestic water supply, footpaths, public facilities, electricity, and garbage pits.

The Committee estimated the total cost of the upgraded social infrastructure, with varying costs per household, at approximately EC\$ 990,000 for the existing settlements. The housing expansions, at approximately EC\$ 13,208 per acre, would cost an estimated EC\$ 1.3 million.

2. Garden Allotments

The garden allotments were intended to help households feed themselves while providing an opportunity for cash income from marketing the surplus. The allotments, covering up to about 100 acres in all, would vary from one square chain (484 square yards) to a quarter of an acre.

The importance of these plots as a source of starchy vegetables (dasheen, tannia, yam, sweet potato, cassava, and plantain) has a long tradition, dating from the slave plantation era. These gardens were also found in the four settlements surveyed by the OAS in 1983. Farmco itself was still renting out small patches of land for this purpose.

The novelty of the Committee's proposal was that the practice would be formalized by strict controls on tenure, and would disencumber hillside lands that could then be leased as small farms and provide an alternative and more productive location to squatters who were cultivating small gardens in the Forest Reserve.

3. Hillside Farms and Erosion Control

The creation of viable hillside farms and the implementation of erosion-control measures in the valley constituted a dual strategy aimed at using appropriate resource management to facilitate increased production.

250 acres outside the core estate were considered suitable for hillside farms of 5 to 10 acres devoted to root crops, bananas, coconuts, mangoes, breadfruit, citrus, and pasture.

The Committee examined two approaches that were currently being followed in Saint Lucia:

1. The Roseau Valley approach, in which 10-acre hillside plots were developed by a local company, Saint Lucia Model Farms, and provided to farmers in a complex lease/purchase arrangement that included the provision of supporting services at a charge or "additional rent."
2. The Cul de Sac Valley scheme, based on free-hold purchase of 10 to 15 acre hillside plots, in which buyers raised their own capital and obtained the usual Government assistance available to the general farming public.

The Advisory Committee chose and modified the second approach to include a lease/purchase arrangement available to local farmers with specific income and residence qualifications. Lease/purchase, as opposed to outright sale, was rightly thought to allow for some control over land-use and building on hillsides. Landco would retain administrative and managerial functions. Conservation practices would be taught through extension programmes and additional measures taken to ensure good husbandry.

The question of farm size was the subject of much discussion. A Ministry study had recommended eight acres as optimum.²² Hunting Technical Services proposed in its report that a minimum of ten acres was required if families were to repay their loans over a 15-year period, hire labour, and keep a reasonable income for themselves. Due to the amount of land available, the number of farmers interested in buying land, and the fact that most of the farmers received secondary income from non-farming sources, the Committee chose to make five-acre lots available to the farmers.

²² Ministry of Agriculture and CPU, Optimum Farm Sizes for Resettlement Farms in the Mabouya Valley, Castries, 1983.

The transfer of hillside lands to individual farm holdings would require appropriate organizational arrangements and would be a major economic and social cost of resettlement. Additional costs would also be involved in upgrading tracks into roads for vehicular access to an area that would eventually contain about 147 households.

For environmental protection, sub-catchment committees would be formed to assist in the construction of graded terraces, storm-water drains, and grassed waterways, and to work on tree planting, intercropping and reforestation.

As the Extension Division of the Ministry would have a pivotal role, a pilot programme stressing greater community involvement through farmers' committees was under consideration.

Some of the proposed hillside farms or garden allotments would be offered to the estimated 107 squatters from the villages of Au Leon, Gadette, and Derniere Riviere who had been cultivating about 20 percent

of the 735 acres of Forest Reserve in the valley.

Because the Committee did not envision additional compensation, there were no expectations for any major direct expenditures by the Government, except to cover the cost of the replanting and maintenance of 150 acres of Forest Reserve over five years.

4. Forestry Programme and Coastal Development

The forestry component would establish village woodlots to provide charcoal and firewood, reforestation to create buffer zones between the hillside farms and the woodlots, and a nursery. The woodlots would be developed on five-acre plots in the vicinity of four communities. The Committee estimated the total cost of these activities at EC\$ 554,000.

The proposals for coastal development in the lower reaches of the valley offered the possibility to combine the concern of the Forestry Division to retain the natural beauty of the area, including beach, river estuary, and mangrove, with the desire of the National Development Corporation to develop the area for tourism.

5. The Core Estate

The decline of plantation agriculture began with the abolition of slavery in 1834. Decline continued through the increasing unionization of estate workers in the 1950s and the rising demands for land reform, with open aggression against foreign and absentee ownership. By the 1970s, the plantation system was disintegrating throughout the Caribbean.²³

²³ The seminal work on these issues by West Indian scholars is best portrayed in the Proceedings of the Third West Indies Agricultural Economics Conference. University of the West Indies, St. Augustine, 1968. The study by George Beckford, who subsequently chaired the Saint Lucia Land Reform Commission in 1979, entitled Persistent Poverty. (Oxford University Press, 1972), remains a classic statement on plantation agriculture.

Historically, the concentration of labour and resources on the better lands of the plantation provided the basis for the plantation economy and its accompanying social organization of production. This was the "core estate." Owners usually allowed labourers to use the marginal lands along the periphery for subsistence gardening. In the case of Dennery Farmco, while the deed of sale in December 1979 listed the total estate at 2,613 acres, the prime agricultural lands reserved for intensive cropping consisted of 825.43 acres in 15 sections.²⁴ Common to all plantations, the loss of control over labour and the lack of capital investment in mechanization and irrigation meant constantly diminishing output and a limited scale of operations concentrated mainly in the core estate.

²⁴ Advisory Committee for the Dennery Basin Development, op. cit. p. 10.

In this regard, a major contribution of the Advisory Committee was its assessment of the three possible options for the future development of the core estate. These options were: plantation rehabilitation, retention of a core estate and subdivision of outlying lands, and subdivision of the entire estate into small farms.

Option (a): Plantation Rehabilitation

Plantation rehabilitation would place the core estate into full production under a centralized management

system reminiscent of former days. The Government would inject capital and strengthen management to the level of competence necessary for an operation on a scale of more than 800 acres.

Rehabilitation constituted the least plausible option. The various attempts at revival in the preceding decade had led only to increasing losses.

More importantly, plantation operations on such a unwieldy scale, with a corporate structure that created alienation in the workers, were fast becoming obsolete. In addition, because of statements by political leaders, the OAS surveys in the area, and the failure of the estate management to prevent encroachment by squatters, local residents were under the distinct impression that the Project would include subdivision for the benefit of squatters, estate labourers, and other landless people.

In assessing this option, the Advisory Committee believed that "even if the necessary finance, market opportunities and management skills were forthcoming, it [was] unlikely that a large plantation could ever again operate successfully in the Mabouya Valley."²⁵

²⁵ Advisory Committee ... , op. cit., p. 46.

Option (b): A Nuclear Estate with Small-holder Satellite Farms

This option called for the maintenance of a core estate on 350 acres and small satellite farms spread over an additional 170 acres that were being reclaimed by the EDF-sponsored drainage project. This was essentially an interim proposal: while subdivision of the entire core estate might be the most desirable alternative in the long term, a decision on the 353 acres currently under banana production could be postponed for a few years. The Committee raised three counter-arguments:

1. Even though the Mabouya Valley Development Project might take the pressure off estate lands and reduce expenditures on security and maintenance, the Project was unlikely to overcome the structural problems of the Farmco operation.
2. Farmco's overhead of EC\$ 1.051 million in 1984 represented a charge of EC\$ 3,000 on every acre of bananas. The operation could not be profitable without a radical pruning of these costs and a significant increase in the productivity of management and labour. This would be difficult to achieve under any circumstances, but with the additional burden of smallholder development it would be impossible.
3. Once the decision had been made to go ahead with the subdivision of part of the core estate, there was no advantage to be gained from stopping half-way, no economies of scale that would justify retaining a nuclear estate in combination with smallholdings.

Option (c): Subdivision of the Entire Estate

Given the perennial financial problems of Farmco, the Advisory Committee considered that the question was no longer whether or not to subdivide, but when to subdivide. Furthermore, the successes reported to have followed the subdivision of the former Geest estates at Roseau and Cul de Sac made it tenable to suggest subdividing the core estate into five-acre farms within a few months. Including the land reclaimed in the Fond D'Or section, a total of 97 five-acre farms could become available between January 1986 and June 1987.

Farmco would have to be kept in operation until another organization could take over, if only to prevent a mass occupation of the core estate by local residents, as had occurred on the periphery. This new

organization, to be established with aid financing, would provide services to the settlers. These settlers would be local farmers with modest incomes and a readiness to farm according to acceptable standards. Landco would supervise land surveys, demarcation, allocation, and rent collection.

Under interim tenure arrangements, the Government would initially lease the plots for renewable one-year terms with rents assessed according to productivity. Subsequently, the farmers would sign a 15-year lease/purchase agreement, in which the rent would be used to amortise the costs of the land and of any land development or management.

The Committee could not agree on whether there should be a tightly controlled system of supervision, as practiced by Saint Lucia Model Farms, or a looser arrangement with a minimum package of services.

A minimum package would include services for land administration, irrigation and drainage, extension, input supply, marketing, and credit. These services would have both recurrent and capital costs. While the former were estimated, they were not considered programme costs because they would be recouped from tenants. Capital costs, on the other hand, might or might not be recouped and would have to be met before the programme could be started. Spread over the first two years of the programme, capital costs would amount to about EC \$ 1.24 million (See table 4-4).

Table 4-4: Capital Costs

Item	1986	1987
Survey	186,780	43,120
Legal fees	30,000	10,000
Roads	153,091	153,090
Irrigation	476,403	
Land preparation	39,000	47,500
Office equipment	10,000	
Transport	40,000	
Tractor and trailer	48,000	
Total	983,274	253,710

The Advisory Committee believed that a grant could legitimately cover these costs.

The Committee estimated the annual recurrent costs at EC\$ 340,000, or about EC\$ 580 per acre of leased valley-bottom land. This amounted to about half the current overhead of Farmco. Extension services provided by the Banana Growers' Association and the Ministry of Agriculture would cost an additional EC\$ 25,000 per annum, or about EC\$ 30 per acre.

In contrast to the minimum package, a Model Farms approach would consist (as it did in Roseau) of an array of services - land development, extension, input supply, credit, and marketing - for which a company (SERVCO) would be set up. Before each holding was turned over to a settler, the soil would be re-worked, new drains built, and bananas planted and cared for up to eight weeks before the first harvest. Previously, the settler would have been employed as a daily paid labourer and would have assisted in the preparation of his holding. Regular instruction in techniques of banana production would be given by

Servco staff, who would monitor settlers' input/output accounts on computer. Each farm would be inspected weekly, and farmers scoring low in any respect would receive further attention.

Servco's central store would provide all the necessary farm inputs on account and pay the farmers a regular advance of EC\$ 80 per week and EC\$ 1 per box of bananas delivered. Detailed statements would be prepared quarterly, itemizing all debits and offsetting these against banana sales. Individual settlers would box the fruit, but Servco would market the produce, delivering it in company trucks to the Growers' Association at the pier.

The essential difference between the minimum package and the Servco operation is that the aim of Servco would be to retain sufficient control over the production system to ensure high yields and repayment to the company of the land development costs. However, this would require large loan payments, EC\$ 1,028 quarterly or EC\$ 4,112 per annum for a five-acre farm, plus an annual management overhead charge of EC\$ 7,000, or a total of EC\$ 11,112 per farm. With the minimum package, using the costs estimated above and assuming a price of EC\$ 6,000 per acre or EC\$ 30,000 for a five-acre farm, the annual payments would be EC\$ 3,047 for basic rent and EC\$ 2,906 for overhead, for the substantially lower total of EC\$ 5,953 per farm.

Despite lower yields, the Advisory Committee considered the minimum package to be more secure and cost-effective.

The committee divided its recommendations between options (b) and (c) . These recommendations were delineated in a draft report of April 1985 and made known to the Prime Minister and Cabinet in a presentation in September of that year.

4.5 Project reassessment and the first years of tenure rationalization

Rather than leading to an early response by Cabinet, the Advisory Committee's submission turned out to be the initial step in a complex process of project reassessment.

Following a nine-month hiatus, during which time the views of the Government remained unknown, the Minister of Agriculture revived the Advisory Committee. At a meeting on June 27, 1986, the Advisory Committee appointed a Mabouya Valley

Development Committee, with representatives from several Ministry divisions, the CPU, Landco, and the community, to work on the following issues identified by the Minister: the size of the Farmco core-estate,²⁶ a distribution policy for lands outside the core-estate, a survey of occupied areas, the acquisition of private hillside lands, and the allocation of lands for specific uses. Meanwhile, the Economic Planning Section of the CPU proceeded with the preparation of the final document on the EDF project.

²⁶ By this time, enthusiasm to dispose of the core estate had waned due to increased banana prices in 1986, which continued in 1987, enabling Farmco to repay its debts, obtain improvement in capital costs, and realize a profit of EC\$ 250,000.

To keep alive the process for an integrated development strategy in the valley during this period, the

OAS contracted in September 1986 a local agricultural specialist to serve as a Programme Officer for twelve months. The Programme Officer would help design and implement Phase I of the Mabouya Valley Development Project by carrying out those activities that were possible without external funding. Secondary resources were sought and gained from other Government agencies, Farmco, community participation, seed money from discretionary sources, and technical assistance from the OAS on issues related to rationalizing tenure. Through these efforts the Programme Officer was able to establish an organizational infrastructure that could absorb a larger volume of resources when they became available.

The Mabouya Valley Development Committee was short-lived: within five months its responsibilities were shifted to the National Development Corporation. Another period of uncertainty ensued, during which time no further decisions were made. However, the effective coordination existing between the OAS and the CPU made it possible for the Programme Officer to continue his work on Phase I. This first phase contained four main components: (1) the rationalization and upgrading of existing settlements and the organization of expansion areas; (2) the demarcation of garden areas and village woodlots where appropriate; (3) a solution to the problem of squatting populations in the Forest Reserve and hillside farming areas; and (4) identification of areas to be kept forested.

It was only after a June 22, 1987 meeting with the newly-elected Prime Minister (national elections had been held in April) that the Mabouya Valley Development Project was given its final shape and the Mabouya Valley Development Authority (MVDA) was established to implement the Project.

Because the financial situation at Farmco had greatly improved since the Advisory Committee's original assessment, the operators of Farmco proposed at the meeting to maintain a carefully-managed core estate operation. This operation could serve as an initial investor in, and demonstrator of commitment to, agricultural diversification projects. The Government decided in favor of Farmco's proposal. The Government also determined that EDF funds would cover the Project components on the estate periphery: settlement upgrading, development of hillside farms, watershed conservation, garden allotments, and village woodlots. All lands outside the core estate would be vested in the MVDA. In turn, the MVDA would vest those lands currently occupied by rural settlements and earmarked for expansion in the Urban Development Corporation (UDC). The UDC would then implement the settlement-upgrading and tenure-rationalization components. Other suitable hillside lands would be developed by the Authority into small farms.

During his contract period with the OAS, the Programme Officer completed preparatory and initial activities in the following areas:

Settlement Regularization and Expansion. Development plans, subsequently approved by the Development Control Authority, were drawn up for eight settlements in the valley: La Caye, La Perle/Limiere, Au Leon, Despinoze, Riche Fond, Belmont, and Grand Ravine. Subdivision and surveys were undertaken in La Caye and Riche Fond as residents in these communities expressed the highest demand for house-lots. Lot sales were expected to begin following the installation of water, roads, and electricity by the UDC.

Housing Settlement Inventory. Household surveys were conducted in each settlement to identify non-squatting residents by form of tenure and length of occupancy and to learn the needs of these residents.

Hillside Farming. To assist in the resettlement and allocation of hillside farms, surveys to identify

squatters were conducted in the Glavier/Bosquet D'Or and Bara/Compere areas. Without the use of formal survey instruments, data were gathered on 32 persons cultivating crops in the Forest Reserve.

Village Woodlots and Garden Allotments. Four village woodlot sites were identified. Without external funding, the Forestry Division established one lot with the assistance of the OAS-funded Leucaena Project. At the time of this report the five-acre plot, near La Ressource and Despinoze, had been fenced and planted. Six vegetable garden sites were identified and demarcated in La Caye, La Perle, Grand Ravine, Despinoze, Limiere, and Riche Fond. The five-acre La Caye site was developed and the first gardens for eight house-holds were planted. Each household cultivated one-sixth of an acre.

Community Action Groups. By far the most critical task of the Programme Officer was to facilitate community participation. Despite the competing pressures of national elections, the Programme Officer successfully organized five community action groups in Belmont, Despinoze, La Caye, La Perle, and Limiere. A vibrant group already existed in Au Leon. Training was needed in the following areas: community leadership, problem-solving skills, parliamentary procedures, and needs assessment.

Credit Mechanism. The Programme Officer consulted all local commercial banks to discuss the possibility of a credit mechanism for the purchase of house-lots and the rationalization of tenure. With the exception of the Saint Lucia Cooperative Bank, the response was generally negative. The Programme Officer recommended that further inquiries be made with the Saint Lucia Development Bank.

As a result of well-developed contacts between the OAS technical assistance programme and the EDF, the advanced stage of financing negotiations, and the confidence he had earned from valley residents, the Programme Officer was hired by the EDF when his contract with the OAS expired in August 1987. With this continuity, and with the institutionalization of the Project in the MVDA, the foundation of the Project was ready to be built upon.





Epilogue

Although this report concludes with the activities completed by August 1987, with intensive technical assistance from the OAS during the tenure of the Programme Officer under OAS contract, the implementation of the Mabouya Valley Development Project continues. The EDF financing began coming on stream in the middle of 1988 with the approval of a five year project valued at nearly US\$ 4 million.

By the end of 1990, significant progress had been made in the implementation of all Project components. Forty-three hillside farms had been established, ten miles of rural roads built, and two village woodlots and more than forty gardens were being cultivated by the local residents. Social infrastructure in the villages was undergoing improvement, while newly-serviced lots were being readied to accommodate the growing demand for house-lots.

A second phase of the Project is currently being prepared by the Government of Saint Lucia for financing by EDF as the original Project comes to an end. This second phase will include the sub-division of some of the valley lands, the introduction of non-traditional crops and livestock, introduction of agro-industry and, in general, applying the Project's approach to development in other parts of the island.

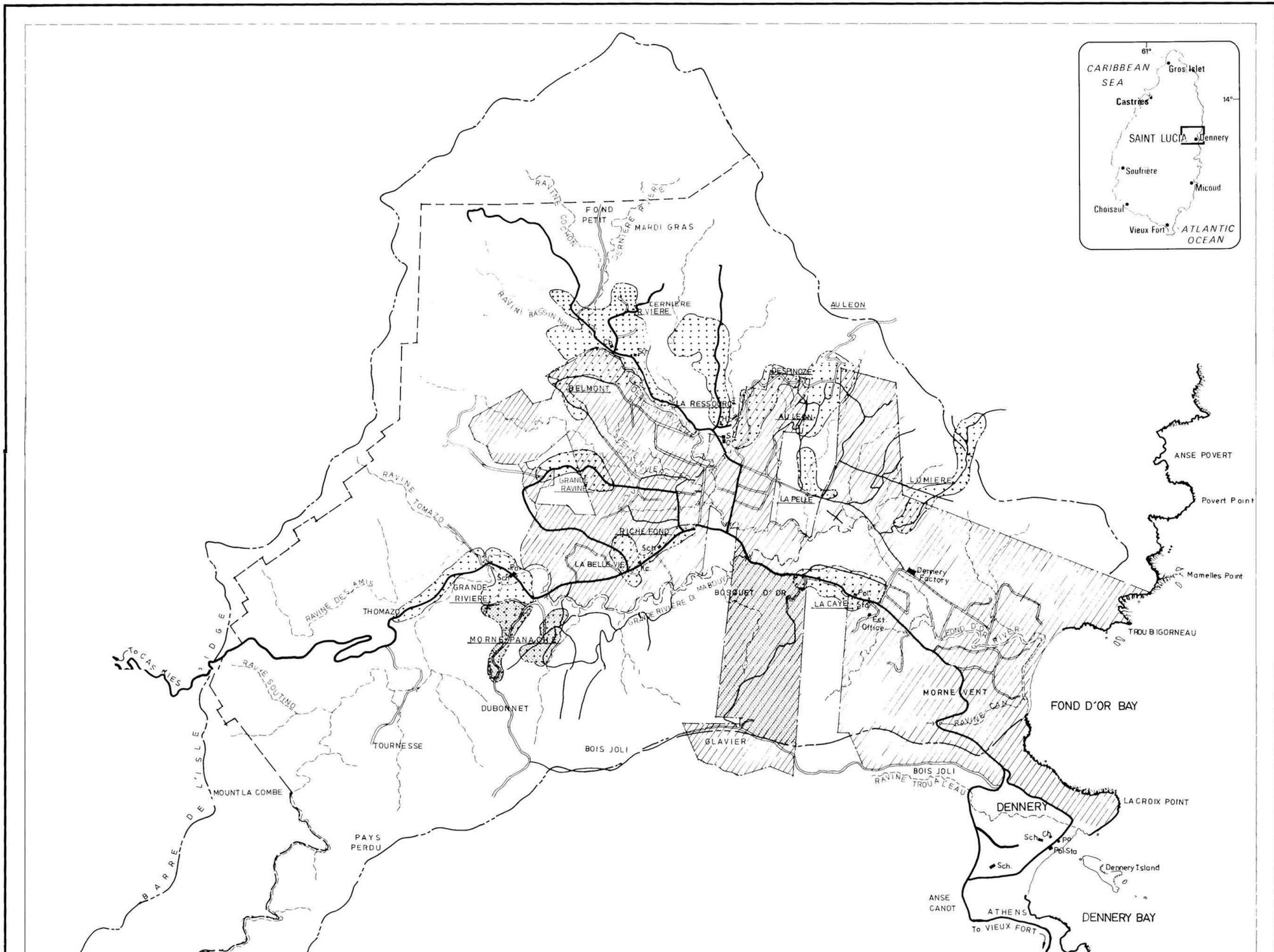
Since the start-up of the Project, the OAS technical assistance has continued, but on a different tack, targeting specific areas of agriculture with the development of a new, treatment-oriented classification of land capability, better suited for guiding hillside land use than the traditional classification scheme. The new system is now being used by the Project staff in laying out the hillside farms, and in preparing the cropping systems for each individual farm.

Nearly six years elapsed between the start-up of the Morne Panache Land Registration and Farmer Resettlement Pilot Project and the beginning of the EDF-financed Mabouya Valley Development Project. The long-term perspective which has been an integral part of the OAS technical assistance to countries in the region provided the necessary continuity and short-term flexibility to make the Mabouya Valley Development Project a reality.

Another important factor in the successful implementation of the Project has been the strong orientation of the OAS technical assistance toward institutional strengthening. Since initiating its activities in 1980, the OAS has worked closely with government ministries, project work-groups, and special boards created to promote and guide development in the country. Professional development, training and transfer of expertise and technology always received priority in the implementation of the technical assistance projects.

The OAS collaboration in the Mabouya Valley provides an interesting and successful case study in integrated regional development strategies. The lessons and experience gained in the Mabouya Valley should prove instructive and beneficial to continuing efforts in Saint Lucia, the Caribbean, and other countries with similar regional development needs.







LEGEND

- | | | | |
|--|---|-------------------|---|
|  Morne Panache pilot project area |  Watershed boundary | | |
|  Farmco boundary |  Forest reserve boundary | | |
|  Existing settlements |  Rivers/Ravines | | |
| Est. Office | Estate office | Hc. Health centre |  Roads |
| Pol. Sta. | Police station | Po. Post office | |
| Sch. | School | Ch. Church | |

JOINT GOVERNMENT OF SAINT LUCIA/OAS PROJECT
MORNE PANACHE PILOT PROJECT AREA AND FARMCO ESTATE
IN MABOUYA VALLEY WATERSHED

SCALE 1:25 000
KILOMETER

FEBRUARY, 1988

Prepared under the Technical Cooperation Project between the OAS, Department of Regional Development and the Government of St. Lucia Central Planning Unit.



Appendix A: The Morne Panache pilot project area: a socio-economic and agronomic overview

The Project area included the residential communities of Thomazo, Grand Riviere, Morne Panache, and Dubonnaire. Even though communities had retained their separate names, they had become linked over time by roads, paths, and the spread of residences into a single settlement commonly referred to as Grand Riviere.

An estimated 1,800 to 2,000 persons - 18 to 20 percent of the total population of the Dennerly Quarter - lived within the boundaries of the Project area at the commencement of Project activities. A household survey conducted as part of the preparatory work for the Project revealed that nearly three-quarters of the respondents were employed principally in farming on their own account. Retired or unemployed persons made up 6.8 percent of the population, and the rest worked either as hired farm labourers (5.7 percent) or as public employees (1.8 percent).

A.1 Social Amenities

Area housing could be described as substandard. Aside from a few modern concrete residences, most of the houses were small, crude, dilapidated structures perched on slanting poles. Most were of wooden construction and consisted of a common room, one bedroom, and a detached kitchen.

Saint Lucia Electricity Services supplied energy to the area. With 29 connections at Thomazo, 52 at Grand Riviere along the East Coast Highway, 23 at Morne Panache, and 10 at Dubonnaire, only a third of the houses in the area were connected to the central power lines.

There was no post office, community centre, or marketplace within the Project area. A small playing field was located near the junction of the Morne Panache, Dubonnaire, and East Coast roads. In the late 1970's the Ministry of Community Development, aided by the Rockefeller Foundation, had built two swimming pools in the area - one adjacent to the playing field, the other near the banana-boxing plant - but these were no longer in use due to inoperative pumps.

The main commercial activities in the Project area were small grocery and rum shops. Most of the shops also sold school supplies such as exercise books and pens. Altogether there were only three regular groceries. Area residents did much of their household shopping in Castries, where prices and services tended to be better.

Except for a privately-run pre-school (for 2-5 year-olds) at the St. Paul's Church Centre, there were no schools within the Project area. However, there was an infant school within walking distance at Riche Fond. The students at this school came from Riche Fond, Grand Riviere, Delaide (La Caye), and

surrounding communities. All students walked to the school, a recently built, modern, well-furnished building with recreation space inside and outside the compound. Most of the students who completed infant schooling at Riche Fond, including those from the Project area, attended either the La Ressource Primary School, about three miles away, or the girls' primary and boys' primary at Dennery, about five miles away. A small number of Project-area students attended secondary schools in Castries.

There was no hospital within the Project area, although two health centers were located outside the area at Riche Fond and La Ressource. The staffs consisted of a resident nurse who was a qualified midwife, one environmental health aide, three community health aides, one nursing assistant, and a public health inspector whose responsibilities covered the entire valley.

Two important local community organizations were the Farmers' Action Group and a Fathers and Mothers Development Group. Both promoted self-help and unity within the communities and advocated farmers' needs in the area.

A.2 Agricultural Activities

In the early 1960s Morne Panache was considered "unproductive", with only 10 percent of the area cultivated in bananas, coconuts, and breadfruit. Farming was mainly subsistence-oriented, consisting of such food crops as dasheen, tannia, and yams.

People who occupied lands in the 1960s did so because of known family ties, rather than through legal inheritance. In most cases the legal owners had died or migrated abroad, leaving no legal title to any specific heir. Consequently, relatives who occupied the lands could not separate or allocate land parcels to persons entitled by inheritance. (This situation still exists in certain areas in Morne Panache.)

In the 1970s serious problems posed by this kind of tenure prompted investigations by certain family members to ascertain who should possess legal title. Without title, the owner could not mortgage or sell the land, nor collect rent from persons occupying the land. Such investigations, requiring a laborious deed search by a legal practitioner, were too expensive for most people.

The following sections describe the main features of the current farming activities as found by the Project extension officer in his work with the farmers.

A.2.1 General Characteristics

The small-farming population in the Project area was more or less stable at 160 farmers and mostly middle-aged or older (23.3 percent of the farmers were over 60), possessing a wealth of farming experience on the lands they currently occupied. Their agricultural practices had changed little in recent years; more than 90 percent were doing nothing new in the way of land use or cropping patterns. The only innovations worth mentioning centred around fertilizer use, pest control, and some not very extensive soil and water conservation measures, including the construction of graded drains and contour drains, the planting of tree crops, and, to a smaller degree, reforestation and indiscriminate felling of trees. Those who had accepted these changes said that they had been persuaded to do so by the agricultural extension officer.

Twenty percent of the farmers stated that they practiced some form of crop rotation. 47.1 percent stated that they kept land fallow. The reasons these farmers gave for keeping land fallow were: lack of money, low production season, prevention of land exhaustion, no market, and the fact that the land was a part of

the Forest Reserve. About a third (36.4 percent) said they engaged in some form of intercropping, but it should be noted that non-systematic intercropping also existed - single-parcel gardens in scattered areas away from the main fields.

Almost every farmer cited marketing as the principal problem hindering production efficiency. The other factors mentioned were: agricultural credit (cited by 37.7 percent); lack of labour (15.1 percent), insufficient land (11.5 percent), poor price structure (7.5 percent), accessibility (13 percent), and poor drainage (5.7 percent). These factors alone did not fully account for the small farmers' plight; other factors included insecure tenure, crop pests and disease, timeliness and high cost of acquiring inputs, topography, and soil type.

A.2.2 Production and Marketing

The decline of the sugar-cane industry during the Depression of the 1930s and the restrictions on overseas trade during World war II contributed to the emergence of banana exports as the leading sector of the national economy.²⁷

²⁷ Latin American Bureau, *op. cit.*, pp. 29-44.

The introduction of bananas in 1956 and a steady outlet for the crop, coupled with low prices and irregular markets for other crops, resulted in the directing of all farming efforts towards banana cultivation. From January to June 1983 banana production in the area amounted to 1,638 tons. The boxing plant received a total of 114,468 cartons, 80 percent of them from the Project area. Theobald Estate (also in the area) produced 858 cartons per fortnight during the same period.

Coconuts ranked second in economic importance and in terms of land use. According to a survey made by an extension worker in 1982, copra production during the preceding year totaled approximately 25 tons. Cocoa ranked third, production having increased considerably during the year prior to the survey. Citrus, avocado, yams, and dasheen followed in importance, then plantain and breadfruit. Farmer grew many additional crops ere grown in the area, but these were insignificant. Most of the bananas and coconuts were sold as cash crops, whereas food crops were grown primarily for home consumption and the local market.

Nearly all the marketing of food crops was done by women, who also participated actively in weeding and fertilizing. Men were in charge of land preparation, planting, and harvesting. The young did not play any major role in agriculture except in harvesting.

A.2.3 Livestock

Only about 10 percent of the farmers raised animals for commercial purposes. Stock was fattened throughout the year for slaughter at Christmas. There was only one organized pig unit in the area. The majority of the farmers scattered their stock (cattle, sheep, goats) wherever they could find grazing land.

A.2.4 Marketing and Processing

Bananas, coconuts, and cocoa enjoyed assured markets. The bananas were sold in Great Britain through Geest Industries. At the time of the survey some farmers were doing their own field packing and others took the bananas to the boxing plant.

Copra was sold to the Coconut Growers Association and sent to the plant at Soufriere for processing.

Cocoa was sold at the community level to a local buyer, who in turn sold the cocoa to the Agriculturalist Association; because of field neglect over the years and the increasing emphasis on bananas, very few of the farmers could produce the minimum quantity necessary for selling direct to the Association.

There was no established outlet for yams, dasheen, vegetables, and other crops. Attempts to find buyers in the community, at the Castries Market, or at the hotels and supermarkets were usually unsuccessful. Now that an agro-processing unit had been established in the area, a policy to create a link between the unit and the farming community was being vigorously pursued: farmers were being encouraged to plant on the basis of the needs of the unit. Farmers complained about the poor distribution and marketing systems, which had led many of them to decrease their acreage or stop growing certain crops.





Appendix B: Morne Panache pilot project field activities: Household survey, land tenure study, parcel demarcation, and claims process

B.1 Preparatory Work

At the outset of the Project the Government formed a Steering Committee, consisting of a number of officials from the Ministry of Agriculture (the Minister of State as Chairman, the Chief Agricultural Officer, the Assistant Permanent Secretary of Agriculture, the Superintendent of Lands and Surveys, and the Chief of the Forestry Division), a Project Community Liaison Officer, a Project Extension Officer, and the OAS Project Chief for Saint Lucia. To introduce the Project to people in the area, create an awareness of its objectives, and facilitate field work on the preparatory surveys and studies, the Steering Committee mounted an information campaign, consisting of news releases in local and foreign newspapers serving communities of Saint Lucians, frequent announcements on the radio in English and Patois, community meetings organized by the Project staff, and an open-day activity at which a descriptive brochure on the Project was distributed. The preparatory work included the household survey, a study of the socio-cultural aspects of land tenure, a land capability study, and a study of appropriate farm sizes.^{28 29}

²⁸ L. Strachan, *op. cit.*

²⁹ D.G. Woodson, *op. cit.*

B.1.1 Household Survey

During September 1982, the Land Reform Unit of the Ministry of Agriculture carried out a household survey, covering every residence in the Project area. The survey gathered basic data on household units, land tenure, the use of labour and credit, and the residents' aspirations with respect to farming. The purpose of the survey was to develop a profile of the social and material circumstances in which small farming in the area took place and thus to signal potential problem areas confronting the process of land registration and farmer resettlement.

Directed to 300 heads of household, the survey consisted of 43 questions. Three members of the community (including the Project liaison officer), trained as interviewers, administered the survey. The interviews, usually conducted in Saint Lucia Creole (SLC) and recorded on the questionnaire schedules in English, took place either in the respondents' homes or in the Pilot Project field office. It took about two months to complete all the interviews and another two months to code and analyze the data.

The questionnaire elicited information on the age, gender, education, and occupation(s) of each respondent and on the size and composition of the households. The questionnaire recorded the size, location, and form of tenure for each plot in the respondents' landholdings. When a respondent reported that he or she held no agricultural land within the Project area, or owned no land at all, the interview was terminated. Thus, the entire questionnaire schedule was administered only to those 160 respondents holding some land within the Project area.

These 160 respondents were asked how they had acquired their land, whether they possessed legal documentation, whether they had sold land, and whether their land was in dispute. They were asked what types of farm labour they used, how many labourers they employed, and if they needed additional labourers; whether they had received agricultural credit in the past five years; what they hoped for in the way of additional farmland or the partitioning of family-land; and, finally, how they thought the Government might help to improve farming in the Project area.

In retrospect, one weakness of the survey was that it relied too heavily on respondents' ability to recall information. Data derived from responses at a particular point in time have inherent limitations that must be recognized if these data are to be interpreted without access to their historical context. Even so, the survey provided much useful information. The survey was highly instructive in the determination of how much land was necessary for successful resettlement and to what respondents could afford to pay for the lease or purchase of land.

Age, Gender, Education, and Occupation of Respondents

The age distribution of questionnaire respondents is shown in Table B-1.

The largest single group of respondents fell into the 60+ range and, excluding persons who did not know their age, 58.3 percent were 40 years of age and above.

The survey figures must be treated with caution because they refer, as was noted above, exclusively to heads of household rather than to all household members who might have been active farmers. Nevertheless, the data roughly confirm previous research that indicated that the age structure of the farming population was skewed toward the older groups.

Table B-1: Household Heads in Project Area by Age

Age Group	No. Respondents	Percent
Under 20	2	0.7
20-29	45	15.0
30-39	59	19.7
40-49	59	19.7
50-59	46	15.3
60+	70	23.3
Unknown	19	6.3
Total	300	100.0

Source: LRU/OAS, Household Survey, Morne Panache, 1962, Table 2.

The age distribution of the respondents may also be significant in relation to the importance they attributed to farming as an occupation and to the number of years they had been working in the area. A majority of respondents reported own-account farming as their primary occupation. 78.2 percent considered farming to be the most important of their occupations. Of the 160 respondents who farmed within the Project area, 30.1 percent reported having farmed for more than 30 years. Another 33.7 percent had farmed from 11 to 30 years.

It is common to hear that young Saint Lucians show a preference for non-agricultural occupations. Although the survey did not specifically determine the desires of young persons to acquire land, statements by informants during formal and informal interviews indicated that farming ranked low among younger males and females in the Project area. As one woman in her mid-40s explained, "Youth is the time to enjoy life," (SLC "Lajenes se le pou drive, pou joui lavi-ou.") and she specifically mentioned travel to foreign countries and non-agricultural employment in Castries as preferable alternatives. Thus, area residents may envision an ideal occupational cycle that includes farming only as one approaches middle age.

Of the 300 questionnaire respondents, 65 percent were male and 35 percent female. There appeared to be no significant differences between the sexes with regard to the importance they attached to farming as an occupation. However, the fact that more than a third of the household heads were female may be significant for the manner in which landholdings were cultivated. Although there appeared to be no formal distinctions between the sexes in regard to the inheritance of land or involvement in land-tenure relationships, it seems plausible to assume that the gender division of labour in agriculture and other aspects of gender-role differentiation influenced how female farmers managed their farms and the nature of their aspirations with regard to farming.

Only 18 respondents reported "housewife" as an occupation, and a mere 5 percent said this was their most important occupation. However, none of the survey categories were cross-tabulated for gender. It would be especially useful to have information on the distribution of legal and common-law marriages in the Project area, on the role expectations associated with different types of conjugal unions, and on the history of conjugal relationships. Such data would permit more well-founded generalizations on the implications of gender for landholding and land-use than are possible at present.

In the area of formal education, 65.3 percent of the respondents had attended primary school and 3 percent had attended secondary school. At the extremes, only one person had obtained post-secondary training, while 94 respondents, or 31.3 percent, had had no formal schooling whatsoever.

Household Size and Composition

Table B-2 shows the size and composition of the respondents' households by total size and by numbers of adults and children.

Table B-2: Household Size and Composition In Project Area

Household size			Adults per household			Children per household		
No. members	No. households	%	No. members	No. households	%	No. members	No. households	%
0	-	-	0	-	-	0	84	28.0
1	37	12.3	1	62	20.7	1	35	11.7

2	46	15.3	2	132	44.0	2	47	15.7
3	29	9.7	3	50	16.7	3	34	11.3
4	33	11.0	4	13	4.3	4	26	8.7
5	33	11.0	5	13	4.3	5	26	8.7
6	37	12.3	6	3	1.0	6	20	6.7
7	22	7.3	7	3	1.0	7	6	2.0
8	17	5.7	8	3	1.0	8	10	3.3
9	20	6.7	9	1	0.3	9	1	0.3
10	12	4.0	10	-	-	10	1	0.3
10+	13	4.3	10+	-	-	10+	-	-
Unknown	1	0.3	Unknown	1	0.3	Unknown	1	0.3
Total	300	99.9		281	93.6		291	97.0

Source: LRU/OAS, Household Survey, Morne Panache, 1982, Table 5.

Households in the Project area averaged 5.01 persons. While the majority, at 64.7 percent, contained no more than two adults, 35 percent contained three or more adults, for an average of 2.5 adults per household. Eighty-four households, or 28 percent of the total, contained no children, and 50.4 percent had four or fewer; the average number of children per household with children was approximately three.

No further information was elicited on relations of kinship and authority within households, or on the allocation of household and farm responsibilities. It is therefore impossible to deduce if any association existed between household size and the demand for land or household size and the extent of the respondents' aspirations to remain in farming. Household composition may have been just as important as household size in this respect, as 65 percent of the respondents holding land within the Project area reported using family labour to farm their plots.

Characteristics of Landholdings

Perhaps the most striking feature of the responses to survey questions concerning land was that nearly half of all respondents did not hold land within the Project area, and 20 percent held no land at all. It is pertinent to recall here the 21 percent who did not claim own-account farming as their most important occupation.

The fact that so many respondents held no land within the Project area may also be significant in another sense. Because Morne Panache residents held only 918.7 acres of the 1,500 in the Project area, it may be concluded that some non-residents worked land there and that some farmers working elsewhere chose to live there for reasons not pursued by the survey.

As Table B-3 shows, the size of the landholdings of respondents with at least one plot in the Project area was fairly evenly distributed across the selected holding size categories. More than half of the respondents held less than five acres.

Table B-3: Morne Panache Residents' Landholdings In and Outside the Project Area

Size of Holding	No. of	Percentage of Total
(acres)	Respondents	Respondents
< 1.0	25	10.4
1.0 - 1.9	47	19.6
2.0 - 2.9	21	8.7
3.0 - 4.9	33	13.8
5.0 - 9.9	47	19.6
10 +	35	14.6
Unknown	32	13.3
Total	240*	100.0

* Sixty respondents held no land.

Source: LRU/OAS, Household Survey, Morne Panache, 1982, Table 13c; NRADP, 1982-83; Castries, October, 1982.

Another significant feature of the data was the small number of plots per holding: 80 percent of the 240 respondents holding agricultural land in or out of the Project area owned no more than two plots, and 47.4 percent owned only one. Similarly, as Table B-4 shows, 59.3 percent of the landholdings within the Project area consisted of one plot.

These data are consistent with macro-level analyses of landholding size in the small-farming sector. However, the survey data on disputes (discussed below), the respondents' complaints about inadequate marketing facilities, problems with the credit system, and poor secondary roads, all reinforce the notion that holding size per se is only one of several constraints on agricultural production from the small farmer's perspective. Thus, while 45.6 percent of the respondents who held land within the Project area reported that they wanted to acquire both the land they were currently occupying and additional land to expand their farming activities, none of these respondents singled out the size of landholdings in open-ended questions as a problem for which Government might find a solution.

The data also raise questions about the validity of small-farming models that emphasize the importance of multiple plots and dispersed holdings for patterns of intercropping, crop rotation, and the intensiveness of agricultural production. Detailed data on cropping, labour allocation, and other factors related to land use in the Project area would help to place the "plots per holding" data in proper perspective. Additional data would also permit a test of the hypothesis that farmers tend to invest more in their own land than in family-land.

Table B-4: Number and Size of Plots in Project Area Held by Respondents

Number of Plots							
Size Of Plots	1	2	3	4	5	Total	%
< 1.0	25	3		-	-	28	17.5
1.0 - 1.9	24	7	-	-	-	31	19.4
2.0 - 2.9	2	5	2	-	-	9	6.0

3.0 - 5.0	6	3	2	1		12	7.5
5.0 - 10.0	17	8	3	1	-	29	18.2
10.0 +	9	9	4	5	-	27	16.4
Unknown					-		
Total	95	42	15	8	-	160	100.0

Land Tenure

The survey responses regarding land tenure underscored the distinction made between house-land and agricultural land. This further indicated the complexity of the differentiation of rights that would be necessary for any given landholding scheme that might be introduced. It also signaled the importance of flexibility in the customary definition and practice of landholding.

75.3 percent of the respondents reported that they did not use their house-land for farming. They planted the crops they raised for home consumption on agricultural land at some distance from their homes.

While 73.3 percent of the respondents owned their houses, only 27 percent owned their house-land. One hundred and fifteen persons, or 38.3 percent, used someone else's land by permission, 16.7 percent rented, 16 percent had built their homes on family-land, and the remaining 2 percent were squatters.

Aside from the fact that housing needs are satisfied quite frequently through amicable informal social relationships, it was difficult to judge precisely what this land-use for housing by permission meant, because of the ambiguity surrounding the terms "permission" and "family-land" (see next section). In some instances, a relative of the preceding generation who had a claim to family-land had allowed a respondent to build on his or her share of the landholding. In other instances, the person granting permission was a friend or neighbour who was not in need the land at the time of the survey.

While most informants felt secure about house-land tenure, several of them did not find it unusual for people to relocate their houses physically during the course of a lifetime. Informants suggested that disputes or the availability of better-sized or better-located land elsewhere were the main reasons for such relocations. Hence titling house-land might mean less flexibility for adapting to changing circumstances.

Among the respondents holding land within the Project area, 76.8 percent either held only one plot or held more than one plot under the same form of tenure. The distribution of tenure is shown in Table B-5. The tenure of single-plot holdings was distributed fairly evenly among all four tenure types, but without land-use data it was impossible to correlate this information with tenure security or the latter with crop allocation. In 37 cases multiple plots were held under differing types of tenure. Table B-6 shows the tenure combinations found.

Table B-5: Distribution of Tenure of Single-Plot Landholding and Multiple Holdings under Same Tenure Form

No. of plots	Own	Rent	Family-land	Permission	Total
1	14	18	12	16	60
> 1	24	12	25	2	63

Total	38	30	37	18	123
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Source: LRU/OAS, Household Survey, Morne Panache, 1982, Tables 13d and 13c. NRADP, 1982-1983; Castries, October 1982.

Table B-6: Combinations of Tenure Forms

Combinations	No. Respondents
Own/Rent	9
Own/Family- land	6
Own/Permission	1
Rent/Family - land	8
Rent/Permission	5
Family-land/Permission	6
Own/Family-Land/Rent	1
Rent/Family-Land/Permission	1
Total	37

Source: LRU/OAS, Household Survey, Morne Panache, 1982, Table 13c, Castries, October 1982.

Of all owned or family-land parcels, 61.8 percent were held with some form of documentation (usually a deed of sale), but only 48.5 percent had been surveyed. In the cases of the 65 parcels for which no documents could be produced, about half of these respondents reported that someone else was holding. While the reliability of these responses was difficult to evaluate, the percentage of farmers holding documentation was somewhat higher than expected. Of all these parcels 35.8 percent had been purchased and 56.5 percent inherited, but 83.6 percent of the respondents had never sold land themselves. Further investigation of these responses may indicate important changes in the land market over time and how these changes influence the degree and rate of land fragmentation.

Among those who rented land, 59.4 percent did not have written contracts. Ten of these respondents were sharecroppers. More than a third of the renters plus all the sharecroppers were in precarious tenure situations. The fact that only one respondent had experienced difficulty with his landlord suggested that rental tenure is much more secure in practice.

Regarding agricultural credit, 20.6 percent had applied to a lending institution and all but four had received loans. Only one respondent reported having obtained credit from a non-institutional source.

Land Disputes

About a third of the 170 parcels that were owned individually, or as a portion of family-land, were subject to some kind of dispute. However, this figure is perhaps not as dramatic as some accounts of small landholdings and family-land would suggest.

The land disputes were characterized by respondents as having to do with title in 45.6 percent of the cases, with boundaries in 31.6 percent, and with both in 22.8 percent.

During the field work, however, it was discovered that the substance of the disputes was somewhat more complicated. Boundary or title disputes related both to separate and to family-landholdings. Thus, they could result from encroachment by one landowner on the holding of a neighbour, from family-land co-heirs who feel that one co-heir is using too much of the common holding, that a co-heir has monopolized the best land or that the boundaries of plots allocated to each co-heir within the holding have been breached. Ostensibly, similar disputes could involve neighbouring landowners who had lived harmoniously until some land-related or non-land-related matter caused friction.

Disputes could be longstanding. Two had persisted for twenty years, and some had apparently been "inherited" along with the land they concerned. Several respondents felt that land disputes in general, and family-land disputes in particular, had increased in their lifetimes. They attributed this development to the declining influence of traditional authority figures such as elders, to an increased awareness of ways to manipulate the legal system, and these in turn to higher levels of formal education among younger Project area residents. Unfortunately, the survey data on education were too schematic to prove or disprove this assessment.

B.1.2 Socio-cultural Aspects of Land Tenure

In speaking of the "land-tenure system" of an agrarian society there is a tendency to focus on formal legal rights to land that functions as an economic good in society. Accordingly, studies of such systems usually focus on the laws concerning the occupancy and use of land and on legal processes, especially the activities of lawyers, surveyors, notaries, and judges.

The legal features of land-tenure systems, including the methods of documenting ownership and the rules of legal succession, are used to formulate hypotheses about relationships between tenure and other features of the agro-economic structure. For example, the distribution of landholdings in terms of form of tenure size and quality, or tenure security in the form of legal documents, can be related to the type of agricultural production and to differing levels of farm income. Also, legally-sanctioned inheritance rules, such as primogeniture or joint succession, may be used in support of propositions regarding ways in which land tenure constrains or facilitates agricultural development.

Legal and economic analyses call attention to important dimensions of land-tenure systems, but they do not take into account the subtle and equally important social and cultural factors that influence how land is held and used. A certain formalistic bias towards legal codes and documents and reliance on macro-level statistical information often leads to disdain of verbal agreements and other informal arrangements that may characterize tenure relationships at the micro level.

As in other Caribbean societies, land functions in Saint Lucia not only as a legally defined economic good but also as a medium through which social relations between individuals and groups are expressed and sustained. This adds credence to presumptions regarding the complexity of Saint Lucian land tenure, which is a socio-cultural domain whose features are subject to customary symbolic valuation as well as formal legal definition. Thus, investigations of the tenure system must consider the cultural values and social practices of local communities that, together with legal and economic factors, determine patterns of landholding and land use. It is in this broader and more complex sense that land tenure is discussed here.

Five distinct forms of tenure describe land in the Project area: ownership, leasehold, sharecropping, permission, and squatting. The customary - as opposed to the legal - definitions of these include a wide

range of circumstances and embrace a variety of informal arrangements that may distinguish tenure relations of the same tenure type. They connect individuals with plots of land (whose precise dimensions may be unknown) and involve them in a web of flexible interpersonal and social relationships that are distinctive in the management of limited material resources.

Ownership

Land may be owned individually (freehold) or jointly (family-land). The customary tenure definition permits land ownership without legal documents such as deeds of sale, titles, wills, or survey plans. While most respondents felt that the possession of legal documents legitimized ownership claims, and a substantial number possessed them, documents were not prerequisites for advancing claims or for recognition within the community. In the absence of legal documentation, the legitimacy of ownership claims is evaluated on the basis of public knowledge about the land and the reputed landowner. When evaluating ownership claims, community members refer to accounts of land transactions, the claimant's personal biography and work history, and his or her reputation and socioeconomic standing.

In freehold ownership an individual considers himself, and is considered by others, to hold exclusive rights of possession, use, and usufruct in a landholding. Freehold land may be inherited, purchased, or received as a grant, and the landowner (SLC "mette") may use and dispose of it as he or she sees fit.

In contrast, joint ownership limits the rights of the landowner. It is defined as a situation in which two or more people hold rights of possession, use, and usufruct collectively. According to informants, joint ownership occurred in the Project area only in the form of family-land.

Family-land (SLC "te fammiy") is created or perpetuated with intestate succession, and is the collective inheritance of possession, use, and usufruct rights by a group of persons who are related by blood. This group may contain only the deceased person's children but often includes a wider range of kin types - brother, sister, uncle aunt, cousin - as a result of previous instances of succession. In principle, all the deceased person's children inherit these rights and equal shares of all the land in question, and where the deceased is childless the inheritance passes to the other kin types.

The central features of joint ownership under family-land tenure are that all the co-heirs hold rights in equal shares and that no portion of the land may be permanently alienated by any of them without the agreement of the entire inheritance group. However, customary family-land tenure is more complex even in principle because there are further proscriptions on the exercise of rights and because the definition encompasses a variety of situations.

For example, not all theoretically appropriate kin types inherit land, nor are all members of those kin types that do inherit expected to exercise their rights. This may have to do with the size, location, and land-use history of the family-holding or the size of the inheritance group. The exercise of rights in family-land also appears to be influenced by the co-heirs' residence, by the priority accorded to the deceased person's proximate kin, and by assessments of the needs of the co-heirs for land in relation to the availability of other land or the possibility of non-agricultural employment. These aspects of the family-land definition support observations on the functions of the institution as a form of social and economic security.

Family-land is also considered an expression of kinship bonds between members of a localized group whose members maintain ties even though physically absent. However, they are expected to make use of these ties only in time of need.

Aside from inalienability, there is another important proscription on the exercise of joint ownership rights. Although co-heirs inherit possession rights and use in the entire family-landholding collectively, there is an individual allocation of rights of use and usufruct in specific portions of it. As opposed to the legal procedure of subdivision or partition, this allocation may take the form of "pre-inheritance plots" (land allocated to a potential co-heir for housing or cultivation before he has inherited it formally) or of an agreement among the co-heirs after the death of the person from whom the land is inherited.

Contrary to what several researchers have reported, this means that all co-heirs are entitled to equal shares of a family-landholding but do not hold equal rights of usufruct. Thus, informants reported that their co-heirs were entitled to reap annual and permanent crops planted by the person from whom the land was inherited, but that no co-heir had the right to reap any crop planted by another co-heir, either before or after inheritance, without permission. One of the main reasons some informants wanted the land partitioned was to stop actual disputes or avoid potential ones over conflicting rights of use and usufruct.³⁰ They considered this to be a form of theft that was not punishable by law because it involved family.

³⁰ The opinions of survey respondents about the desirability of partition, which were equally divided, depended on whether or not their own family landholdings were in dispute. They did not associate partitioning with improved or expanded farming - many on both sides were interested in expanding their operations.

Even this cursory description indicates the complexity of rights in family-land. Three areas of disagreement among respondents make it still more difficult to define unambiguously the principles underlying this form of ownership.

Informants held varying opinions regarding the status of illegitimate children (SLC "yich deyo," "yich bata") at inheritance. Most held that "tout yich se yich" (all children are children), entitled to the same inheritance rights, regardless of legal status, but several felt that illegitimate children should be provided for separately or at least were only entitled, to a much smaller portion of the inheritance than the legitimate children would receive. Perhaps the most important point about this sort of disagreement among informants is the extent to which the resolution of such inheritance problems depends on the attitude a parent took towards the "outside" children before he or she died and on whether or not amicable social relations exist among the parties involved.

Informants also disagreed on how long it took for inherited land to qualify as family-land. Some maintained that the land must be transmitted through at least two generations, while others held that any land inherited from the generation of one's father or mother was family-land. Among other things, this definitional discrepancy complicated the interpretation of questionnaire responses about family-land and permission. Plots held by permission may be part of family-landholdings, and some of those reporting family-land may not have inherited it at the time of the survey.

Third, informants had different assessments of the status of purchased land (SLC "te eritye") at the time of succession. Several contended that only inherited land (land acquired through intestate succession in the previous generation) is subject to the proscriptions affecting rights in family-land. Others stated that unless provision for the disposition of land purchased by the deceased had been made orally or in a will, both types of land become family-land upon the owner's death.

Leasehold

Leasehold or rental (SLC "loue te") refers to a situation in which rights of use and usufruct in land are granted by one person to another in exchange for a fixed cash sum. Land may be leased by a landowner to a tenant or sublet by a tenant. Leases, which may take the form of oral agreements or written contracts, vary in length from one crop to several years and may be renewed or terminated by agreement of the parties. Should a landowner decide to terminate a rental agreement unilaterally, he is expected to give his tenant notice. Depending on the nature of the lease and the relationship between the parties, according to the informants, the period of notice may range from the growing season of a short-term crop to the full term of a longer lease.

In principle, rent is supposed to be paid before cultivation begins. However, arrangements for partial or delayed rent payments are often made. Rental agreements also specify which crops may be planted or harvested. In several cases, informants reported that their rental agreements permitted them to harvest coconuts or fruit as well as to cultivate the land. Others said they were allowed to plant fruit trees or bananas but had specifically agreed not to seek compensation for these trees when their leases ended.

Sharecropping

Sharecropping (SLC "dimotyé") is defined as the exchange of use and usufruct rights in land against one-third of the crop harvested from it. Although the informants considered sharecropping to be a form of rental, the fact that the rent is paid in kind under most sharecropping arrangements led them to distinguish this form of tenure from leasehold.

In most cases only small amounts of land, usually cultivated with root crops, legumes, and other food, are sharecropped. However, a few informants knew of cases in which landowners had entered sharecropping arrangements to acquire labour to harvest fruit trees and coconuts.

It is noteworthy that the division of the harvest between the landowner and the sharecropper takes place while the crop is still in the ground. The standing crop is divided into three equal portions. The sharecropper has first choice, the landowner selects one from the remaining two, and the sharecropper gets the final portion. Informants maintained that this practice minimizes the possibility of disputes over the division of the crop and usually leaves the sharecropper with the best and worst parts of the harvest.

Permission

Permission (SLC "pemisyon") denotes situations in which a person who has access to land through one of the forms of tenure described above grants rights of use and usufruct to a second party usually a kinsman or friend, without expecting compensation. The land may range in area from a patch on the fringes of a plot to several acres, but is generally small and the permission is generally for short periods, often only long enough to harvest one crop. The person using the land often maintains the amicable nature of the relationship by giving token gifts of crops.

Squatting

Under both the customary and the legal definitions of tenure, squatting (SLC "twaway late en pa we") is the unauthorized occupation and use of land. But where as the legal definition stresses the abridgment of property rights in abstract terms, the customary definition focuses on a person's right to make a living within a particular context. Thus, informants felt that squatting should be judged in relation to the social identities of both the landowner and the squatter, their relative "need" for land, and the length of time the land has remained unused: squatting on long-unused estate or Government land was considered less

offensive than squatting on temporarily fallow land belonging to a fellow community member and small farmer. This evaluation distinguishes between "outsiders," land-rich institutions or people who are not thought to share the values and fate of the local community, and "insiders" or peers who participate in a common way of life.

All the tenure types except sharecropping apply both to agricultural land (SLC "te agwikilti", "te bitasyon", "te jaden") and to house-land (SLC "te anplaman kay"). However, the distinction between the two has special relevance for family-land inheritance.

In principle, how the rights of co-heirs in agricultural and house-land are exercised depends upon factors such as the size of the holding and the area within it considered suitable for housing. Where a house is part of the inheritance, a specific heir is often designated orally or by will. According to informants, this usually will be the deceased person's last child or a daughter who has lived in the house and cared for the parent at the time of death. Support and care of this sort are considered by the other co-heirs to confer special rights where houses and, in some cases, agricultural land are concerned.

Respondents ranked the four forms of tenure in terms of the security they provided. Because security influences the types of crops planted and the amount of labour, capital, and time that a farmer will invest, respondents also ranked the tenure forms by the degree of farming autonomy they permitted. Freehold was considered to be the most secure and the one permitting the greatest autonomy, followed by rental, family-land, sharecropping, permission, and squatting. However, the informants were quick to point out that other factors such as the specific nature of a rental or sharecropping arrangement and whether or not the parties involved were on "good terms" (SLC "ve byen") also influenced their ideas about security and thus their farming decisions.

When questioned about the potential impact of land titling and registration on farming, the majority of informants said it was necessary and long overdue. They felt that it would impose order on what was often a chaotic and troublesome situation and perhaps even pave the way for the future development of the area. Nevertheless, they were also candid about its limitations. A one elderly gentleman put it: "bay tit evek wejiste te se youn bel bagay, men papye pa vann fig banann eben dasheen, e i pa chanje mes piyes mounn." ("To title and register land is a very good thing. But papers don't change the attitude and behaviour of people.") Whenever they discussed the Pilot Project, land was always coupled with other factors such as consumption needs, markets, roads, and the character of social relations in the community, which define the socio-cultural milieu in which land is held and used.

B.2 Land Demarcation and Claim Recording

The studies described above were not meant to be an end in themselves. Rather, the data gathered were to furnish policy guidelines that would assist a local community-level exercise in land registration and resettlement of farmers on a limited scale. Therefore, the next activity in the 1982-83 biennium was a land-demarcation exercise.

Before the demarcation started, about six weeks were spent in inventorying and mapping all houses in the area. Occupants identified in advance were served notices to clear their boundaries and to be present on the date for which demarcation was planned.

The community liaison officer ensured adequate communication on the Project's objectives and procedures, promoted cooperation, and helped to avoid problems in the interaction between the community and the Project.

B.2.1 Registration of Claim Forms

Every claimant of a parcel was invited to fill out a claim form (see Appendix 2) at the field office, with the assistance of the Project officer. A receipt was issued, and its number was registered by the demarcation team when the parcel was being surveyed, thus establishing a link between the identifying information on the claim form and the parcel characteristics collected during demarcation and surveying. Some claimants refused to fill out the form either because they did not hold any title or other documents and believed they had no basis to claim even though they were encouraged to do so, because they did not believe in the exercise, or because they already held a recent survey plan of their property and therefore regarded the exercise as superfluous; hence there were parcels that could not be related to a claim.

Section B.2.2.3 addresses the information collected from the 155 completed claim forms.

B.2.2 Field Performance

During the 28 weeks of demarcation activities, a total of 98 parcels were demarcated, covering 350 acres, in three contiguous sections. Table B-7 shows the statistics for each of the three sections. Performance, in terms of acres per week, was lowest in Section I. This was the first section to be demarcated and also the most difficult: it had the highest housing density, the smallest average parcel size (1.5 acres), was the area that had been occupied longest, and had a high incidence of boundary and title conflicts.

Table B-7: Field Performance of Demarcation Team

Section	Weeks of field work	No. of parcels	Total acreage parcel	Average acreage/ per week	No. of parcels per week	No. of acres
I	10	45	68	1.5	4.5	6.9
II	9	29	131.3	4.5	3.2	14.6
III	9	24	150.4	6.3	2.7	16.7
Total	28	98	349.7	3.6	3.5	12.5

B.2.3 Claim Form Analysis

Analysis of the 155 claim forms revealed certain trends. More than half (91, or 58.7 percent) of the parcels were claimed for the person who filed the claim, 35 (22.5 percent) for someone else, and 29 (18.8 percent) for both. Self-claimed parcels include all owner-occupied parcels and those parcels claimed by a leaseholder or keeper. Parcels claimed for someone else included those claimed by relatives or by a friend or agent of the owner, and also included family-land parcels. In theory, parcels claimed both for oneself and for someone else should only consist of family-land. The median parcel size claimed was four acres, and almost a third of the parcels were less than one acre (Table B-8) .

The size of a parcel declared on the claim forms did not necessarily correspond to the actual size, which was not always known to the claimants as more than 60 percent did not have a survey plan. A deed of sale was the document most frequently held. In 15.5 percent of the cases, claims were unsupported by any kind of document (Table B-9).

The Pilot Project area had been settled many years. More than half the respondents had occupied their parcels for more than 20 years, and only about 10 percent for less than five years (Table B-8). Almost 60

percent of the parcels claimed contained one or more houses.

Most of the parcels claimed were cultivated with banana and coconuts. Only 9.7 percent were planted with staple foods such as dasheen, yams, and tannia (Table B-10).

Table B-8: Distribution of Parcels Claimed by Acreage and Length of Occupation

Parcel acreage (acres)	Number of Claimants	Percent	Length of Occupation (years)	Number of Claimants	Percent
< 1	49	31.6	< 1	1	0.65
1 - < 2	15	9.7	1 - < 2	4	2.6
2 - < 3	3	1.9	2 - < 3	1	0.65
3 - < 4	11	7.1	3 - < 5	6	3.9
4 - < 5	6	3.9	5 - < 10	22	14.2
5 - < 7	19	12.3	10 - < 15	12	7.7
7 - < 10	11	7.1	15 - < 20	8	5.2
> 10	24	15.5	20 - < 30	17	10.9
Unknown	6	3.9	> 30	55	35.5
Not given	11	7.1	No response	26	16.8
			Unknown	3	1.9
Total	155	100.1	Total	155	100.0

Table B-9: Land Titling Documents held by Respondents

Type of document	No. of respondents	Percent
Deed of sale	82	52.9
Crown grant	8	5.2
Deed of donation	3	1.9
Declaration of succession	6	3.9
Receipt	2	1.3
Will and testament	3	1.9
Other	11	7.1
None	24	15.5
Survey plan (only available document)	16	10.3
Total	155	100.0

Table B-10: Cultivation Pattern in the Project Ai

Crops grown	No. of parcels* (n - 155)	Percent
Bananas	86	55.5

Coconuts	98	63.5
Vegetables (dasheen, tannia, yams, corn, plantain)	15	9.7
Cocoa	34	21.9
Citrus	31	20.0
Fruit and tree crops (mangoes, goldenapple, sweetsop, cashew nuts)	39	25.2
Breadfruit	31	20.2

* A parcel usually has more than one crop.

B.2.4 Some Implications of Land Demarcation

The Pilot Project demonstrated the various problems of land tenure in small farming societies, and tested a methodology for demarcation of parcels. The demarcation team surveyed 350 acres, or one-third of the small-farming area. During the course of the exercise the rate of surveying more than doubled: rising from less than 1.5 acres to nearly 4 acres per day. The following factors were later considered in the design and implementation of the national LRTP:

Surveying

1. The hilly terrain, prevalent in Saint Lucia, is cut through by numerous small ravines and difficult to survey. Average slopes ranged from 20 and 30 percent. Parcels were small and boundaries were not well kept.
2. Adjoining owners or occupants waited until the demarcation team entered the field before clearing their boundaries. Clearing thick underbrush is difficult and time-consuming. Farmers were not enthusiastic, especially when the work required cooperation with a neighbour. Those who were uncertain of the exact nature of their mutual boundaries did not wish to begin clearing until the demarcation team could direct them.
3. Boundary disputes needed to be settled in some fashion before demarcation could start. A number of disputes were never resolved: two lines were cut and surveyed, or no lines at all. In other cases, an agreement reached in the presence of the demarcation team was later revoked by one of the parties involved. The cases for which no action was taken needed to be reviewed during the adjudication process of the LRTP.
4. The demarcation team used basic prismatic compasses and chain. This may have been the most appropriate method considering the team's previous experience and training, but it was also the slowest. With the necessary training, demarcation teams could be more efficient using equipment such as EDM-optic theodolites. Given the special nature of the terrain in the Caribbean, it would be advisable to include the automatic reduction of slope-distances to horizontal-distances with this equipment.

The Claims Process

Many occupants or owners lacked accurate information on the location of the parcel being claimed. A majority of the claimants could not pinpoint their parcels on a 1:5000 map of the Project area. Instead, claimants made references to no-longer-existing estates and area names, or to the owner of adjacent

parcels, some of which may have been aliases. Furthermore, a small number of participants claimed more than one parcel at the same time, all in the same general area.

It proved nearly impossible to identify a demarcated parcel based solely on the information given on the claim form. When a claimant was absent at the time of demarcation and did not otherwise send a representative or inform the team, the link between his or her claim and the demarcation information could not be established. 16 of the 98 demarcated parcels were claimed by more than one person.





Appendix C: Saint Lucia land legislation of 1984

The following four laws provided the legal structure necessary for implementation of the national Land Registration and Titling Programme (LRTP) and a modern land registry.

1. The Land Registration Act (No. 12 of 1984) replaced the laws governing the ineffective deed-registration system. Under the old legislation, the simple fact of registration did not ensure the validity of a deed. The registrar was under no obligation to scrutinize documents beyond seeing to it that they were in the form prescribed by law. The principle of "caveat emptor" applied. Reasonable assurance that a proposed seller had good title to convey could only be obtained through a laborious and exceedingly costly title search by a legal practitioner. The difficulties involved in such a search were enumerated by the Land Reform Commission:

1. The record is kept under the names of transacting parties without any effective designation and indexing of the parcels of land to which dwellings relate.
2. The record is incomplete, as many rights to land do not arise from deeds at all, as in the case of inheritances.
3. There is no assurance that deeds which are presented and registered are consistent with previously registered transactions relating to the same parcel of land, or that these deeds have been shown to possess legal validity and are accurate in the facts which they set out.³¹

³¹ Land Reform Commission, *op. cit.*, p. 22.

The cancelling of obsolete transactions and the weeding out of superseded documents was virtually an impossible task.

The registration system outlined in the new Act remedied these problems. Under the new system the state now examines each title to be registered and, having determined its validity, registers the land and guarantees the title. The title is then unassailable except on grounds of fraud. Once the system is in place, the accuracy of the register is maintained by a requirement that all transactions in land must be registered in order to be valid. The certainty of title is thus perpetuated and not permitted to deteriorate with the passage of time.

In addition, as suggested by the Land Reform Commission, the Act provides for a "trust for sale" mechanism to facilitate the transfer of family-land by assuring any purchaser that he or she is indeed acquiring clear title. Under a "trust for sale", the power to sell the parcel or subject it to a hypothec is vested in a family trustee or a limited number of trustees, who are shown as such on the register. The trustees are empowered to deal with the land and may convey good title. They remain accountable to the other co-owners for their share in the proceeds of the sale, but a purchaser's title is not affected by the fact that some of the co-owners were not consulted or did not agree to the sale. The "trust for sale" is a

concept referred to in the Civil Code's Section on "Trustees", but has not yet been used in Saint Lucia.

2. The Land Adjudication Act (No. 11 of 1984) provided for a systematic survey of parcels and adjudication of titles, which is now a precondition to registration of titles and their guarantee by the State. Because of the legal effect of registration, adjudication is a quasi-judicial proceeding. An area is declared an "adjudication section", and a team headed by an Adjudication Officer identifies all the parcels of land in the section and surveys their boundaries. Notice is given for all those with interests in those parcels to bring forward their claims. Both ownership and other interests in land, such as leases and hypothecs, are noted. Disputes are resolved by the Adjudication Officer, whose decisions may be appealed to a three-man tribunal and then to the court of Appeals. When the adjudication process has been completed for the section, the first Land Register and Land Registry Index Map are prepared from the adjudication record, and the new land-registration system can begin to function in that section.

3. The Land Surveyors' Act (No. 13 of 1984, with Amendments Nos. Land 8 of 1986) replaced the Surveyors and Boundaries Settlement Ordinance and the Colony Survey Ordinance. The new law provides, in a manner consistent with the Land Registration and Land Adjudication Acts, for the licensing of land surveyors, the conduct of surveys, and the preservation of survey marks.

Together these three acts created for the first time an adequate legal infrastructure for the functioning of the land market. Because registration confers a guarantee of title, a purchaser can now confidently rely on the information shown on the register in making his purchase, and a lender may do the same in accepting a registered parcel as security. The new system reduces land disputes and facilitates the resolution of those that still do arise. Moreover, computerization of registry records provides the Government with an automatically up-dated data base on land for a variety of planning purposes.

The benefits of this registration system are not conjectural: a wealth of previous experience has proven that the system helps. Similar systems have been introduced in several islands of the Eastern Caribbean and are in operation in many countries with a civil-law tradition (the registration system conforms even more comfortably with the civil law of property than with the English law within which it was developed). While the costs to Government of establishing the system are considerable, maintenance costs are relatively modest and can largely be met from fees.

4. The Agricultural Small Tenancies Act filled an important gap in the substantive law of Saint Lucia. Modeled on legislation currently in effect in several countries of the Eastern Caribbean, this law provides a legal framework for leases of small agricultural holdings, which have often been handled on a relatively informal basis and have thus been the object of considerable uncertainty for both landlords and tenants. The Act regulates the creation and termination of such tenancies, their assignment and subletting, compensation for improvements upon termination, and a variety of additional matters. The Small Tenancies Act does not regulate rents, and is intended primarily to provide both parties with that security of expectations which is so conducive to good husbandry.





Appendix D: The symposium on land registration, tenure reform and land information systems: a summary of issues

Chapter 3, Section 3 provides a brief discussion of the Symposium. The proceedings, conducted over a three-day period in October, 1986, consisted of presentations and discussions grouped into six modules. The following appendix details the proceedings according to the three general issue areas that were dealt with. These are: technical and methodological issues, legal issues, and socio-economic issues.

D.1 Technical and Methodological Issues ³²

³² A full treatment of these issues appears in B.E. Furmston, "Land Registration in Developing Countries: Technical Issues and Options," Proceedings ..., pp. 12-21.

The fundamental technical issues were identified at the symposium as pertaining to five areas: a new system of registration of title, accurately surveyed boundaries, the adjudication process, comprehensive documentation by mapping, and finally an information system.

The system of registration of title was compared at the symposium to the old system of registration of deeds. It was held that the old system contained the following deficiencies: (a) it did not provide an adequate description of the land involved; (b) it was not indexed by land parcel but by chronological sequence and individuals' names; (c) the additive method of recording transfers and other dealings could not cope with long periods of time. The new Saint Lucia registration method, based on the identification of ownership by a numbering system unique to each parcel of land, was considered to overcome these problems. However, symposium members found it essential that with any new system, the advantages should be well publicized, so that people would understand it and perceive it as beneficial.

In the discussion on **boundaries** - that element of the land record that describes the land to which title is held - the underlying issue was that of "fixed" versus "general" boundaries. While support was expressed for general boundaries, it was noted that this was not a technical question but one of **adjudication** (see "Legal Issues", below).

With regard to **the preparation of an index map** and the survey of boundaries, aerial photography was considered to be of undoubted value, but irrespective of the method, there was no avoiding high costs in a survey in hilly and densely vegetated terrain.

Much attention was directed to the maintenance of a land-registry system. The virtues of **the land information system** proposed under the Saint Lucia LRTP received many favourable observations. An information system based on unique parcel numbers affords opportunities for gathering data relevant to

national Government, local authority areas, parishes, and electoral districts. It could also permit the recording of information on land values, rents, and rates and on land use, land potential, and natural resources.

Originally, in fact, the collection of data on the physical characteristics of each parcel had been envisioned as part of the LRTP. Using a simple check-off form, the demarcation and recording officers were to obtain basic information on land use, the existence of buildings or other improvements, and the slope category of each parcel. The forms would be collected regularly by the Physical Planning Department and processed to form the basis of an information system in support of physical planning and development control. It would take little if any additional time for the demarcation officer to fill in the form.

Unfortunately this extra activity was never carried out. It was eliminated during negotiations between the funding agency and the future contractor because, in the words of the contractor, "severe downward pressure" on the overall cost of the contract was being exerted. Substantial long-term benefits were thus sacrificed for a minimal reduction in cost.

The argument of short-term cost savings should in fact be turned around. Adding a carefully designed data-gathering activity to the demarcation component of a land-registration project enables a Government to acquire a body of information without the massive financial outlay required to mount a nationwide effort solely for that purpose. Given the growing competition for aid funds, the additional product achieved by "piggy-backing" data collection on a land-registration project will become essential to justify the substantial financing required to undertake such projects.³³

³³ This argument was made by J.C. Vermeiren in "Land Registration in the Eastern Caribbean: An Opportunity to Resolve Traditional Land Use Problems," *ibid.*, pp. 35-40.

Finally, as the cost of maintaining a system is largely determined by its initial design, the extent to which it can pay its own way must not be overlooked. Registry fees and stamp duties are potential sources of revenue.

D.2 Legal Issues

The main legal issue concerned the question of general versus fixed boundaries. Clearly, this was basically a policy decision to be taken by the political authorities. Because general boundaries have been known to work in the Caribbean, it was accepted that the legal requirements need only be "for a level of accuracy chosen by the Government." Moreover, it was considered that the legislation must empower the registrar to readjudicate "on such evidence as he considers relevant". Boundary disputes could still be taken to the courts.³⁴

³⁴ *Ibid.*, pp. 15-16, 185-186.

With respect to adjudication, the major concern was that the necessary time should be spent to allow the parties to be heard and to ensure that they obtain a fair deal. The legal principle at stake here was that of natural justice. This implied that the whole question of adjudication was to be regarded "more as a public relations matter than anything else," so that people would have confidence in what was being done.³⁵

³⁵ *Ibid.*, p. 186. According to personal communications from participants in the evaluation of the LRTP currently in progress, it appears that a high proportion of the land has reverted to ownership by the state because of persons who may have had customary rights lacked

documentary and legally verification. Such an outcome is not conducive to confidence.

Discussions were also directed to legal issues pertaining to the efficiency of land registration. The committee considered it important that the law should permit a relatively quick response time to needs as they arise, particularly enabling transactions to be completed in a matter of days. Where necessary, the Government should amend the legislation to insure that the register remains up-to-date. In particular, successors-in-title of deceased land owners often neglect to register themselves within a reasonable period. When this occurs, the registrar should be allowed, with appropriate notice, to have the land registered in the name of his or her office as trustee of the deceased owner.³⁶

³⁶ *Ibid.*, pp. 54-55.

It was also noted that legislation that imposes unreasonable burdens on landowners will be self-defeating, for they will simply fail to observe its requirements. Moreover, new legislation must be carefully drawn to avoid subsequent litigation.

But the very concern for efficiency could prove counter-productive unless the public could be educated to have confidence in the new system. The deeply imbedded custom of retaining notaries as part of the conveyancing process showed that the popular mind placed more trust in a legal authority than in some official in a registry.

A related point that was made concerned the vested interest of professionals-lawyers, surveyors, or others - in maintaining the old system, with all its deficiencies. Discussions at the Symposium made it abundantly clear that more contact and negotiation between the legal profession in saint Lucia and the LRTP contractors was essential.

Taxation and fees were also identified as related to the efficiency of a registry system. The consensus was that the system should be maintained by fees. But again, it was recognized that unless the system is attractive and efficient and the charges are reasonable, the population at large is unlikely to use it enough to make it self-financing.

It was felt that an efficient land-registration system can undoubtedly contribute to economic development, as the cases of Antigua and the Cayman Islands demonstrate. An understanding of this relationship was thus of fundamental importance.

D.3 Socio-economic Issues

Three arguments were put forward in support of a title-registry system over a deeds-registry system from the socio-economic point of view:

1. The first was that the new system amounted to an investment in the infrastructure of the country because property rights constitute the basis of capitalism and of all the economic and social activities it fosters. Among these is a market for the sale, exchange, and transmission of property that enables land, as capital, to function in the production of goods and services and to assist the process by which value accumulates to those who own or hold property. Understandably, in a social system that attributes such fundamental importance to privately-owned land for economic well-being, conflicts are inevitable. A society so organized then attempts to provide a means of regulating the competing rights and conflicts.

2. Associated with this is the need to make a land-registration system an instrument for the

achievement of further social goals - one that encourages investment and transactions in land as a marketable commodity. As the old system had encouraged fragmentation and multiple ownership, the resulting parcels were difficult to treat as economically productive units.

In contrast to a mere increase in the number of transactions, the wider social good of preventing the monopolistic control of land also had to be a matter of concern. To the extent that a modern land registry opens the property system to the poorer segments of the population, it could be seen as achieving social benefits, bringing development that redresses inequality and the domination of the rich over landed property. At the same time, it must be recognized that any system is likely to be manipulated more in the interest of the rich and powerful than of the poor and underprivileged.

3. The third argument was that the registry system can be used to provide the state, through its monitoring of transactions, with the information necessary for land-use planning and zoning, and administration and the prevention of speculation in good farmland for development.

But the cardinal principle, not limited to the land alone, was that the social and economic benefits from the preservation, management, and development of all natural resources should accrue to the society.





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THE ORGANIZATION OF AMERICAN STATES

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