Research Paper

LAND TENURE AND LAND USE IN SOUTHERN HAITI:

Case Studies of the Les Anglais
and Grande Ravine du Sud Watersheds

LAND TENURE CENTER
Madison, Wis.

by

Rebecca J. McLain and Douglas M. Stienbarger

LAND TENURE CENTER

An Institute for Research and Education
on Social Structure, Rural Institutions,
Resource Use and Development

Land Tenure Center
1300 University Avenue
University of Wisconsin–Madison
Madison, Wisconsin 53706

Research Paper
U.S. ISSN 0084–0815

LAND TENURE AND LAND USE IN SOUTHERN HAITI:

Case Studies of the Les Anglais and Grande Ravine du Sud Watersheds

by

Rebecca J. McLain and Douglas M. Stienbarger

with

Michèle Oriol Sprumont

This report was produced for the U.S. Agency for International Development, Port-au-Prince, Haiti, as part of the services rendered under Contract No. DAN-5301-I-00-5025-00. All views, interpretations, recommendations, and conclusions expressed in this publication are those of the authors and not necessarily those of the supporting or cooperating organizations.

LTC Research Paper 95

Land Tenure Center
University of Wisconsin-Madison
April 1988

LAND TENURE AND LAND USE IN SOUTHERN HAITI:

Case Studies of the Les Anglais
and Grande Ravine du Sud Watersheds

CONTENTS

	Page
Executive Summary	vii
Introduction	1
Selection of Study Sites	3
Chapter 1. Agricultural Context for the Les Anglais Watershed	7
Physical Setting	7
Historic Setting	11
Settlement Patterns, Services, and Markets	13
Agricultural Setting: Plains	16
Agricultural Setting: Highlands	20
Livestock	22
Sources of Cash	23
Labor	23
Land	24
Chapter 2. Land Access Case Studies in Les Anglais	29
Data Collection Process	29
General Landholding Characteristics	34
Categories of Land Access	40
Patterns of Access and Tenure Security	61
Land Access and Land Use	64
Conclusion	74
Chapter 3. General Survey	79
Methodology	79
Community Profiles	82
Land Use	89

Stability of Land Access 100
Land Markets and Land Transfers 101
State Land 107
Conclusion 115

Chapter 4. A Preliminary Approach to the Agrarian Question in the Southern Watershed of Pic Macaya, by Michèle Oriol Sprumont 121

Introduction 121
Methodology 121
Landscape, Soil, and Agricultural Practices 127
The Habitation of Remarais: The Peasant Domain 137
The Coutard Plain: The Domain of the State 150
Summary and Proposals 162
Creole/French/English Specialized Terms 166

Chapter 5. Conclusion 173

Summary of Findings 173
Gathering Additional Information 175
Major Issues to Examine 176
Overcoming Access Constraints 177

Appendix A. Case Study Narratives 181
Appendix B. Case Study Questionnaire 222
Appendix C. General Survey Questionnaire 232
Appendix D. Block Study Questionnaire 237

Glossary for PST Baseline Study Report 243

Bibliography 251

FIGURES

		Page
Fig. 1.1	Projé Sove Te Okay Region (Study Sites)	2
Fig. 1.2	Overview of Les Anglais Watershed	8
Fig. 1.3	Profile of Les Anglais River	9
Fig. 1.4	Average Rainfall in Les Anglais	10
Fig. 1.5	Market Locations in the Les Anglais Watershed	14
Fig. 1.6	Agricultural Calendar for Plains Land in the Les Anglais Watershed	18
Fig. 1.7	Agricultural Calendar for Mountain Land in the Les Anglais Watershed	21
Fig. 1.8	Modes of Land Access	26
Fig. 2.1	Estimated Location of State Lands in the Les Anglais Watershed	51
Fig. 2.2	Access Security Continuum	63
Fig. 2.3	Land Access versus Land Use for Directly Farmed Parcels	70
Fig. 4.1	Location of Study Sites	128
Fig. 4.2	Remarais Region	129
Fig. 4.3	Land Use Patterns	131
Fig. 4.4	Agricultural Calendar at Remarais	132
Fig. 4.5	Agricultural Calendar for Coutard	133
Fig. 4.6	The Major Estates	138
Fig. 4.7	Estate of Belair Morice	139
Fig. 4.8	Estate of Pauline Polyte	140
Fig. 4.9	Estate of Precial Josselyn	141
Fig. 4.10	Tenure Possibilities	143
Fig. 4.11	Types of Land Ownership	145
Fig. 4.12	Rights to Land not Formally Divided	148
Fig. 4.13	Types of Land Access	149
Fig. 4.14	Tenure Security	151
Fig. 4.15	The Conflicts	152
Fig. 4.16	Access Modes to State Lands	160
Fig. A-1	Madame Jo's Land Portfolio	182
Fig. A-2	Edner Louis's Land Portfolio	184
Fig. A-3	Favori's Land Portfolio	187
Fig. A-4	Anastila's Land Portfolio	189
Fig. A-5	Excius Exile's Land Portfolio	191
Fig. A-6	Laience Brezeau's Land Portfolio	194
Fig. A-7	Toli Meance's Land Portfolio	197
Fig. A-8	Elie Page's Land Portfolio	199
Fig. A-9	Karonel Lubin's Land Portfolio	201
Fig. A-10	Yvalon Raphael's Land Portfolio	203
Fig. A-11	Odias Thelemarque's Land Portfolio	206
Fig. A-12	Arnold Val's Land Portfolio	209
Fig. A-13	Dorilas Simon's Land Portfolio	212
Fig. A-14	Iverdieu Vaute's and René Roblin's Land Portfolios	214
Fig. A-15	Guilbert Villière's Land Portfolio	217
Fig. A-16	Brunel Esme's Land Portfolio	219

TABLES

		Page
Table 2.1	Ecological Zones of the Les Anglais Watershed	31
Table 2.2	Comparison of Farmer Size Estimates with Measured Areas	36
Table 2.3	Distribution of Farmer Parcel Size Estimates	38
Table 2.4	Length of Rental Contracts	49
Table 2.5	Length of Tenure on Parcels Sharecropped from Others	58
Table 2.6	Number of Parcels under Each Access Type	62
Table 2.7	Erosion Level versus Crop Type on Mountain Parcels	66
Table 2.8	Summary of Land-Use Categories	66
Table 2.9	Indirect Forms of Working Land among the Case Respondents	68
Table 2.10	Land-Use Distribution on Mountain Land	68
Table 2.11	Land-Use Distribution on All Parcels	69
Table 2.12	Tree Planting on Directly versus Indirectly Worked Land	69
Table 2.13	Erosion Level by Land-Access Category on Mountain Land	72
Table 2.14	Stated Willingness to Plant Trees for Specific Access Types	72
Table 2.15	Incidence of Tree Planting versus Access Type	74
Table 3.1	Socioeconomic Profiles	83
Table 3.2	Landholder Access Breakdown	86
Table 3.3	Parcel Access Breakdown	88
Table 3.4	Land Given Out to Others to Work	90
Table 3.5	Land Access by Tree Planting	92
Table 3.6	Land Capability Classes by Tree Planting	94
Table 3.7	Land Capability Classes by Pasture	96
Table 3.8	Land Access by Land Capability Classes	97
Table 3.9	Land Capability Classes by Labor Groups and Access by Labor Groups	99
Table 3.10	Tree Planting: (1) By # of Land Tenure Changes, and (2) By # of Years in Current Tenure Status	102
Table 3.11	Land Access by Years in Current Tenure Status	104
Table 3.12	Land Purchase and Sales	106
Table 3.13	Years in Current Tenure Status by Owner Residence	108
Table 3.14	Land Capability Class by Owner Residence	109
Table 3.15	Tenure Breakdown of State Land in Rossignol	110
Table 3.16	Land Access: (1) By Years in Current Tenure Status, and (2) By Years Respondent Has Worked Parcel	112
Table 3.17	Rental Conditions on State versus Private Lands	114
Table 3.18	Land Access: (1) By Land Capability Class, and (2) By Tree Planting	116
Table 4.1	Conception of the Block Study and Comparison with Other Studies	124
Table 4.2	Summary Data on the Farm Enterprises	135
Table 4.3	Strategies and Objectives of Remarais Farmers	136
Table 4.4	Parcel Distribution According to the Legal Ownership Status	144
Table 4.5	Parcel Distribution According to the Access Mode	148

§ EXECUTIVE SUMMARY §

As a part of the Proje Sove Tè (PST) in the southern coastal region of Haiti, the U.S. Agency for International Development (USAID) commissioned the Land Tenure Center (LTC) at the University of Wisconsin-Madison to undertake a case study of the land-tenure structure and constraints to adoption of environmentally sound land-management practices and to develop and test a methodology for monitoring land tenure within the project. The two reports present the results of the case studies and a field-tested plan of work for the monitoring. The PST target zone encompasses 80,000 hectares in six major watersheds with an estimated 60,000 resident families.

The study team was composed of two junior researchers, from the University of Wisconsin, who lived in Les Anglais for five months between May and October 1987. They spent the final month of their field study in Camp Perrin working directly with the third team member, Michèle Oriol Sprumont, an ethnologist resident in Camp Perrin. The two principal sites for the case-study work were, therefore, the Les Anglais watershed in the western part of the PST zone and the Grande Ravine du Sur watershed in the eastern part. Both watersheds are considered priority intervention areas for PST due to the irrigation systems present in their lower reaches. Les Anglais was selected in part because it includes both plains and mountain agriculture and a wide variety of tenure types in a relatively small area. Accurate land-tenure access and use data are difficult to collect. In Haiti, the subject is particularly sensitive since land is a principal source of wealth in rural areas. The team developed and tested three methods for collecting this information: in Les Anglais, a modified ethnological case-study approach and a general survey; in Camp Perrin, a land block-study approach. The general survey was retested in Camp Perrin.

The Les Anglais study focused on the three agro-ecological zones within the watershed: the irrigated plains (about 600 hectares) where monoculture of corn, rice, and black beans prevails; the foothills/low mountains, with eroded basaltic soils and intercropping; the high mountains, with limestone soil and steep slopes, less erosion and richer soil, and intercropping emphasizing perennials. The Les Anglais commune has a population of about 30,000 people, many of whom live in scattered settlements in the hills. The city has a population of about 10,000. The modes of land access (the land-tenure structure) are governed by an intimately linked set of formal and customary rules, which both affect and are a reflection of a farmer's decision-making process about a plot of land. The system is defined in terms of primary modes of access (state-owned and individually owned through purchase or inheritance) and secondary modes of access (rental, sharecropping, and the like).

Case Studies

The first stage of the study in Les Anglais used a modified ethnological case-study approach, which included a series of in-depth interviews and garden visits with seventeen farmers who, together, own or work 132 parcels. The farmers were selected to represent the three agro-ecological zones and as complete a range of land-access types as possible. The unit of analysis for the case study was the landholder (owners and users of land). The researchers developed a semistructured questionnaire in Creole for the in-depth interviews. Data also were gathered through direct observation of parcels, boundary measurements (117 parcels were visited, 21 were measured), and informal chats with neighbors. The information included household composition, migration, livestock, tools, labor groups, tenure status and land access, land use and physical characteristics of each parcel, use of land owned but not worked by respondent, land sales, reasons for land fragmentation, and tree-planting preferences.

Parcels in the area are small, fragmented, and often have multiple decision-makers attached to them. Most landholders own land in more than one agro-ecological zone. Farmers make agricultural decisions on the basis of how much land they have, the quality of the land, the distribution of their parcels, and the types of access they have to the land. To implement a soil-conservation program in which farmers will be asked to make investments, it will be important to know what a farmer's land portfolio looks like, the degree to which the farmer has exclusive decision-making power over each parcel, and who and where the other decision-makers are.

The case-study method is essential for identifying the land-access categories which define the local tenure system. In Les Anglais, the primary land-access categories include individually owned land which has been purchased or inherited and state lands. Purchase is the preferred method for acquiring land, whether through the formal legal process or through customary practices which carry the legal process only part of the route.

About half of the respondents also own land acquired through inheritance. By law, a deceased person's property should be divided among all children and the surviving spouse, and the transfer is not complete until the land has been surveyed, divided, notarized, and registered. In fact, most peasants in the region lack the money to complete the formal division process, and inherited lands are informally divided or, in a few cases, remain undivided.

State land is concentrated in three areas: (1) house lots in the town of Les Anglais, (2) agricultural land in the highlands, and (3) agricultural land along the coast. Virtually all the state land is rented to individuals on an annual basis. Unlike private lands that are rented, there are no restrictions on how state leaseholders use their land, and the leases are inherited.

The most problematic category for investment in land improvement is informally divided or undivided family land. Decision-making on undivided family land is complicated by the fact that absent co-heirs often reserve some rights to the land. Also, the person currently working a parcel has no guarantee that he/she will receive that particular plot of land if formal division occurs.

Secondary access categories such as sharecropping and renting also pose problems for a soil-conservation extension effort. People with temporary usufruct rights to parcels are reluctant to make long-term investments because they will not reap the benefits. The researchers uncovered a particularly disturbing local example of the impact of secondary access. In the remote parts of the watershed, absentee owners hire managers to farm their coffee lands. These parcels are generally in the higher altitudes and tend to be the most fertile in the watershed. Managers farm the land and turn over a portion of the coffee harvest to the owners, who rarely visit their parcels and have no clear standard to judge the amount or quality of the harvest. The managers are gradually removing the owner's coffee trees and planting more profitable annual crops, which they themselves harvest and do not share with the owners.

The case-study method of investigation proved to be an effective means of identifying the range of land-access types and understanding the factors that affect farmers' land-use decisions. In-depth studies with a few informants also made it possible to visit the parcels directly and to obtain physio-geographic information that would have been impossible to gather by interviewing the farmers at home. The parcel measures made by the researchers showed that landholders have very inaccurate conceptions of the size of their parcels. The case-study method makes it possible to get a thorough understanding of the farmer's physical and social environment, which is required for realistic soil-conservation programs.

General Survey

At the same time, a broader sample of the PST region is needed to generalize about the impact of the project on the population and the region as a whole. For this purpose, a general survey questionnaire was developed and tested. This questionnaire, also in Creole, is considerably shorter than the case-study questionnaire, and only those questions are included which will elicit reliable, accurate information on land tenure without probing by the interviewer. To carry out the survey, communities should be purposively selected throughout the region, and interviewing done of all households within these communities. This method gives a complete picture of community landholdings and makes it possible to identify landless households. Since only people in the community are interviewed, however, it does not yield information on absentee landlords, who are often the largest landholders in the region.

For the general survey in Les Anglais, three communities were selected to represent the watershed subareas. The researchers also chose communities in which they had done some case studies, because they were known and trusted there and could check the validity of the survey information collected. Interviews were conducted with 212 people (153 households) from three communities in three weeks. Three local assistants administered the questionnaires. The topics included the types and conditions of land access and limited information on demographic characteristics, wealth, labor use, input use, and land-management practices.

In Les Anglais, the survey data were used to investigate several hypotheses drawn from the literature on Haitian land tenure. The data support the hypothesis concerning life-cycle changes in the forms of land access. Older farmers are more likely to own land and are more likely to give out parcels for others to work. On the other hand, there was no confirmation for the hypothesis that wage labor is more common on more valuable land. The use of wage labor varies primarily with the family labor and cash available to the landholder. Using tree planting as a measure of investment, the survey showed that farmers are more likely to invest in purchased land. Since a relatively small proportion of the parcels are purchased, other incentives will be needed to encourage adoption of such practices on inherited land. State lands are generally treated like inherited land in terms of management practices. However, because they tend to be located in the high altitude parts of the watershed, state lands are more likely to be sharecropped than private lands, which are more accessible. Adoption of practices on rented and sharecropped land will require working with both owners and users.

Block Study

The third method of analysis developed and tested was the land-based (as opposed to household-based) block study, in which all parcels within a selected area were mapped and key decision-makers were identified and interviewed. This method, tested near Camp Perrin, is important to a watershed-management program because the interventions will focus on an area such as a hillside rather than on scattered plots throughout the region. In terms of understanding land access, it is particularly useful to understanding family lands and the layers of use rights that affect the decisions of individual co-heirs, especially the conflicts which arise over generations on undivided family lands. On the other hand, because the method focuses only on particular parcels, it does not give a picture of the farmer's decision-making process and how he/she balances the various parcels in the individual "land portfolio."

The study shows the linkage between formal and customary access systems and asserts a strong grounding in formal law for all the uses, rights, and customs pertaining to the land. The research confirms the

existence of "master deeds" in this region. In looking at state lands, the study showed minimal correlation between the information on state lands in the local Contributions office and the actual land farmed. Conclusions include: the State does not know who its real clients are, the State does not know the extent of the land which it rents out, the State does not know the location of the land it rents out. In addition, the study identified a specific constraint to conservation investments on state lands, namely, that grazing rights cannot be restricted on state lands that are fallow.

Conclusions

The work indicates that land tenure is an important factor in peasant land-use decision-making and that PST technicians will need to be aware of how land use and land access are related to provide appropriate conservation advice and inputs. This information can best be gathered using a combination of methods.

Block studies should be used to map targeted hillsides and sub-catchment basins and to identify key decision-makers for each parcel. Landholder case studies should be used to develop land portfolios for each client farmer and to develop a conservation strategy for each farmer that takes account of individual needs and differences in access. Community surveys should be conducted to provide PST with census data that can be used for planning purposes to indicate the kinds and level of intervention that will be needed and to monitor the effects of the interventions on a regional basis throughout the project.

§ INTRODUCTION §

Accelerating rates of soil erosion and declining soil fertility caused by poor management of Haiti's steep mountain slopes threaten to undermine the already inadequate production levels of Haitian peasant farmers. In an attempt to enhance hillside agricultural production in Haiti, the United States Agency for International Development (USAID) has initiated a watershed-management program in the southern coastal region which will introduce soil-conserving technologies to peasants farming the mountain slopes between Cavaillon and Les Anglais (see Figure 1.1). Known as Proje Sove Tè (PST), the project will encourage farmers to adopt land-management practices, such as alley cropping and grass contour stripping, designed to stabilize or improve the mountain soils.

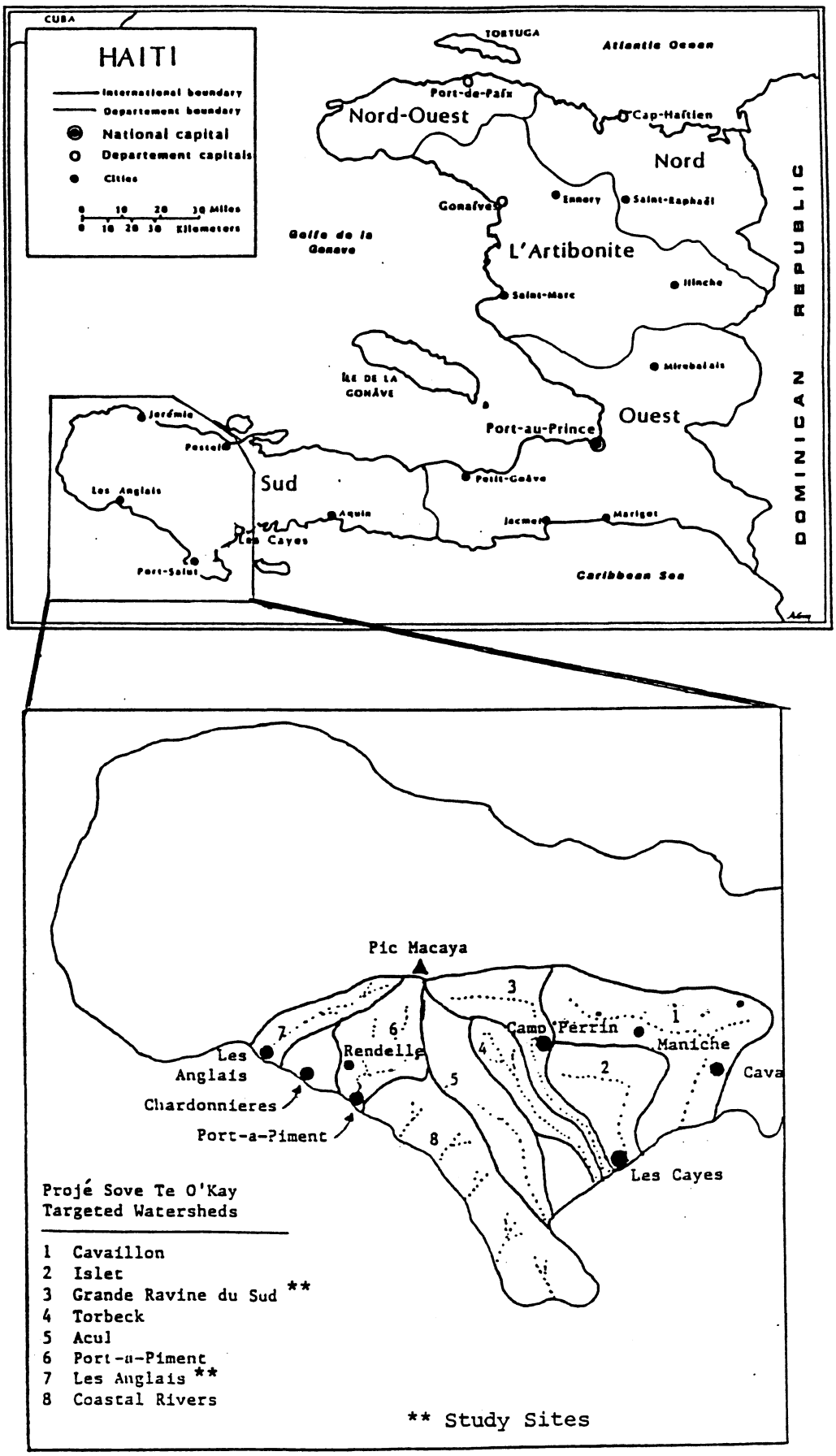
Previous work in developing countries has shown that land and tree access patterns play a significant role in the willingness of farmers to make substantial capital and labor investments in their land. In addition, increasing the value of land through such investments can radically change land-access patterns and precipitate conflicts over formerly worthless land. The need to understand the relationship between land access and land use is particularly important in Haiti where farmers typically farm several pieces of land under a variety of tenure arrangements. Since farmers may wish to use one type of soil-conserving technology on purchased land and another on rented or sharecropped land, the success of the project will depend, in part, upon the ability of project personnel to provide a range of suitable technologies. In addition, project personnel will also have to develop strategies for encouraging the participation of landowners who do not farm their land directly.

Both USAID/Haiti and the nongovernmental organizations involved in PST recognize that questions of land tenure, land access, and land use must be addressed if workable intervention strategies are to be developed for the southern coast. Since very little data have been collected on land tenure and land access patterns in the PST intervention zone, USAID felt it was necessary to fund a preliminary study of land tenure and its relationship to land use in the project area. This land tenure study had two major goals: to investigate land tenure patterns in the project area and, using that information, to design a baseline study that could be used to monitor the effects of land tenure on the project and the effects of the project on land-access patterns and the land market.

The study was conducted by a team of researchers working for the Land Tenure Center (LTC) at the University of Wisconsin-Madison. Fieldwork was conducted in two watersheds in the project area: the Les Anglais watershed located in the western zone of the project area and the Grande Ravine du Sud in the eastern zone (see Figure 1.1). Both watersheds are considered priority intervention zones due to the irrigation

Figure 1.1

Projé Sove Te Okay Region



SOURCE: ARD 1987 Proposal.

systems present in their lower reaches. Data for the study were collected during the six-month period from May to November 1987, with five months of fieldwork in Les Anglais and one month in the Grande Ravine du Sud near the town of Camp Perrin. The Les Anglais data were collected by Rebecca McLain and Douglas Stienbarger, land tenure specialists from the University of Wisconsin, while the Ravine du Sud data were gathered by Michèle Oriol Sprumont, an ethnologist residing in Camp Perrin.

Since the major purpose of the research was to design a suitable baseline study for the upcoming Sove Tè project, as part of the research process we experimented with several approaches for collecting land-tenure and land-use information. In the Les Anglais study, two basic methodologies were used: a case study and a general survey approach. For the case study, the primary unit of analysis was the landholder, with each land parcel controlled by the landholder (whether farmed directly or given out) representing the secondary unit of analysis. During the case study phase, officials, agricultural technicians, and local peasants were interviewed to establish a cultural context for examining land access and land-use relationships. An understanding of the environmental factors related to land access was obtained by frequent visits throughout the watershed. Once a context had been established, a limited number of farmers were chosen for in-depth interviews and garden visits.

The case-study approach enabled us to identify the major land-access categories present in the watershed. In addition, this approach also enabled us to collect detailed information about land-management practices and physical condition of each land parcel available to the informants. However, the approach was too time-consuming to gather information on a large number of farmers. In order to increase the coverage of the study, we used the case-study information to develop a short questionnaire for collecting data from a large number of people. All the landholders for each household in three communities (one community from each of the three major agro-ecological zones in the watershed) were then interviewed. The survey results were used to develop a picture of community landholding and land-access patterns. A discussion of each of the approaches used in the Les Anglais fieldwork, as well as an analysis of the data collected, is presented in Chapters 1 and 2.

A case-study approach was also used to collect land-tenure and land-use information in the Grande Ravine du Sud study area. Blocks of land, rather than landholders, were chosen as the primary units of analysis. Using the block-study method, we were able to identify the different tenure and access types present on a given slope. Interactions between owners and farmers of adjacent fields, as well as changes in land boundaries and land-access patterns, could also be studied. Since the PST staff may wish to target specific subcatchments for improvements, the block approach could be particularly useful for helping technicians choose technologies appropriate for each parcel of land in a targeted area. The general survey used in Les Anglais was also tested on landholders in the Grande Ravine du Sud study blocks. The approaches used in the Grande Ravine du Sud study and an analysis of the data collected are discussed in Chapter 3.

The relative merits and weaknesses of each of the methodologies for eliciting information about land tenure and land use practices are examined by McLain and Stienbarger (1988), who also discuss recommendations for integrating the baseline study into the watershed management project and approaches for future land tenure research for the project.

§ Selection of Study Sites §

According to the technical proposal (ARD 1987), Proje Sove Tè's potential zone of action encompasses approximately 80,000 hectares of mountainous terrain on the southern slopes of the Massif de la Hotte and Monts du Plymouth. Six major watersheds, as well as several minor drainages, are included in the project zone. An estimated 60,000 families reside in the area. Although there are no census data available for specific watersheds, settlement patterns suggest that population densities are greatest in the watersheds above the Cayes Plain. Farmers in these watersheds are also more heavily influenced by seasonal demands for agricultural labor in the Cayes Plain rice fields and are more closely integrated into the Cayes marketing and processing infrastructure than their counterparts in the western watersheds.

Two major soil types are found in the PST area: soils in the eastern watersheds and higher regions of the western watersheds are predominantly of calcareous origin, while soils in the lower altitudes between Roche-à-Bateau and Les Anglais are derived from basalt parent material. Precipitation varies considerably throughout the area. The coastal zone between Les Anglais and Coteaux is the driest region with an average of 1200 millimeters per year. In contrast, the upper slopes of the Massif are estimated to receive between 4000 and 6000 mm of precipitation annually.

During a preliminary visit to the project area in September 1986, we selected the Les Anglais watershed as the primary site for the land tenure study. This watershed was chosen for the following reasons:

1. Since both irrigated plains land and mountain land are found in this relatively small watershed, the Les Anglais catchment basin represents a microcosm of the much more extensive watersheds found in the Cayes area. Study of the relationship between the two agro-ecozones was thus facilitated.

2. With a functioning irrigation system and a relatively large population (estimated at 30,000), the Les Anglais watershed is one of the priority intervention zones.

3. Discussions with local officials and development workers indicated that a wide variety of tenure types is found in the watershed. Subsequent investigations revealed that nearly all of the tenure types mentioned in the Haitian land-tenure literature are present in the Les Anglais region.

4. USAID had requested the LTC to examine land-access and land-use patterns on state lands in the vicinity of Pic Macaya as part of the land-tenure research. Since state lands are found in the upper reaches of the Les Anglais watershed, the state-land issue could be easily studied in this area.

5. During an initial reconnaissance visit, staff from UNICORS (Union des Coopératives de la Région du Sud), one of the nongovernmental organizations involved in PST, expressed a willingness to help the researchers with their study. Subsequent support from this organization greatly facilitated our research efforts.

Due to the nature of the study, our data-collection efforts were confined to a limited area. However, the extent of the proposed intervention zone required that additional work be done in other regions of the watershed in order to verify the degree to which our results were representative of the region. Given the likelihood that the project will focus heavily on improving the watersheds above the Cayes Plain, additional research was carried out in the lower and upper slopes of the Grande Ravine du Sud. Areas within walking distance of Camp Perrin were selected for logistical reasons and because the researcher had contacts in Camp Perrin that gave her access to land documents generally unavailable to outsiders.

§ CHAPTER 1 §

Agricultural Context for the Les Anglais Watershed

§ Physical Setting §

§ Topography

Occupying an area of approximately 12,740 hectares, the Les Anglais watershed is one of the six major drainages in the PST region (see Figure 1.2). Three large watercourses are found in the watershed: the Rivière des Anglais and its two major tributaries, Rivière Nan Cosse and Rivière Bon Pas. These rivers are fed by springs and run-off from the slopes of the rugged Massif de la Hotte, which rises to elevations exceeding 2000 meters. The upper reaches of the watershed are characterized by steep mountainous terrain and narrow river canyons that make farming and transportation difficult. Limestone is the predominant bedrock at altitudes above 300 meters. The limestone cliffs and karst topography found on the upper slopes of the watershed also restrict farming activities in the upper altitudes.

At the village of Demapou, the Les Anglais River enters a large plain bordered by two chains of low mountains (see Figure 1.3 for a profile of the Les Anglais River). The plain covers an area of about 625 hectares, most of which is irrigated. The soils on the plain are derived primarily from alluvial materials. The lower slopes of the mountains above the Les Anglais plain are composed of a highly weathered basalt, which produces fine-grained, highly erodible soils. Although evidences of accelerated erosion are visible throughout the watershed, the lower slopes adjacent to the plain are clearly the worst affected. Large areas in the basaltic zone have deteriorated to the point where even grazing is infeasible. Most of the indigenous forest cover in the watershed has been removed or modified by cultivators. However, remnants of the once vast pine and broadleafed forests can still be found on the highest slopes and ridges of the Massif.

§ Climate

The amount of rainfall that falls in the watershed varies considerably, depending on the altitude and orientation of the slopes (see Figure 1.4). The average rainfall at the mouth of the river is 1366.1 mm. Although no figures are available for areas farther up the watershed, the average annual rainfall at Rendelle, a small town located at an altitude of 200 meters in the adjacent watershed, is 2321.1 mm. Rainfall on the upper slopes of Pic Macaya itself is estimated to exceed 4000 mm per year (ARD 1987).

The rains follow a bimodal pattern in all areas of the watershed, although the rains at higher elevations are both heavier and more frequent. The two periods of highest rainfall occur in March-May and September-October. The two driest periods occur in December-February

FIGURE 1.2. OVERVIEW OF LES ANGLAIS WATERSHED

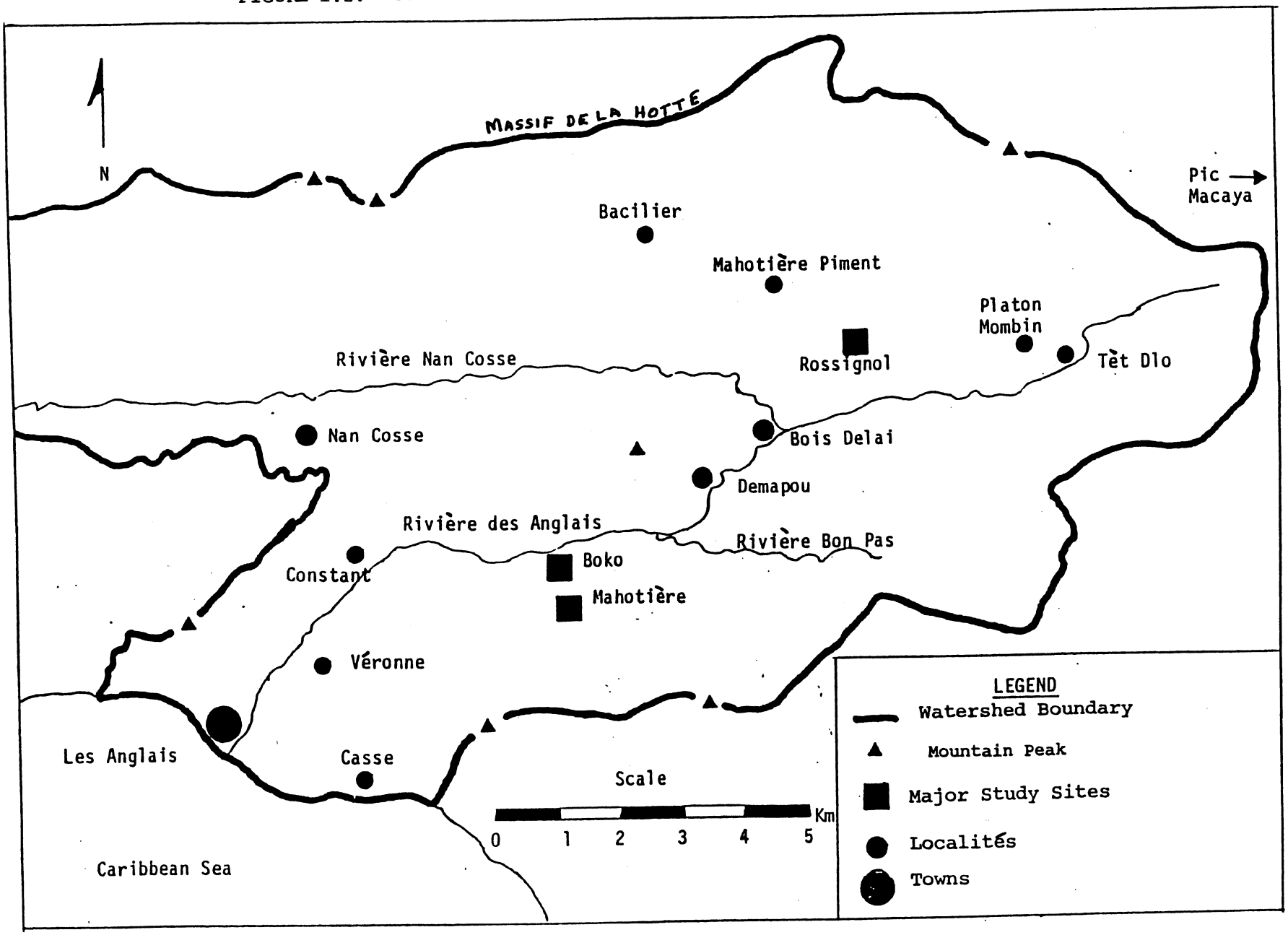


Figure 1.3

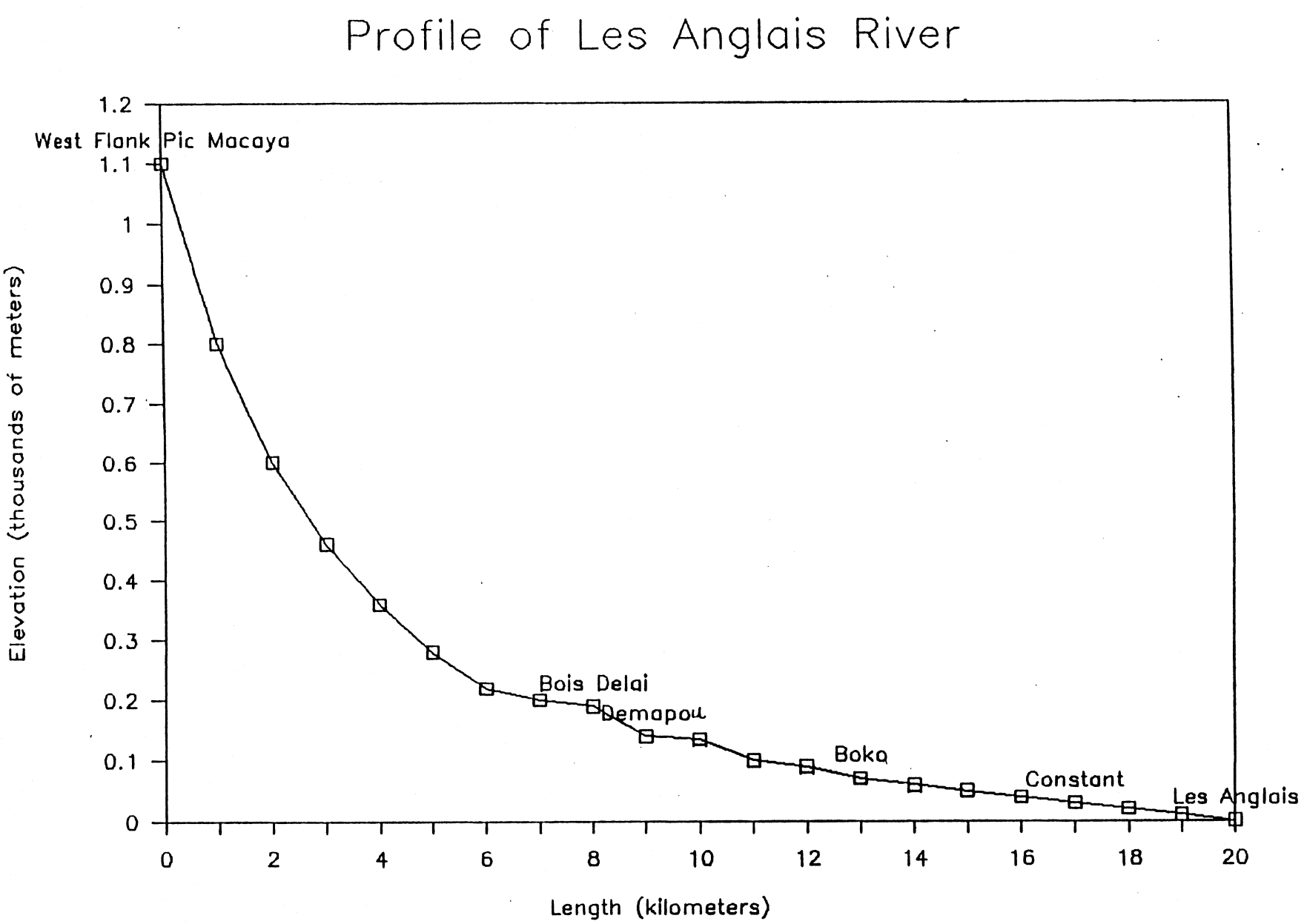
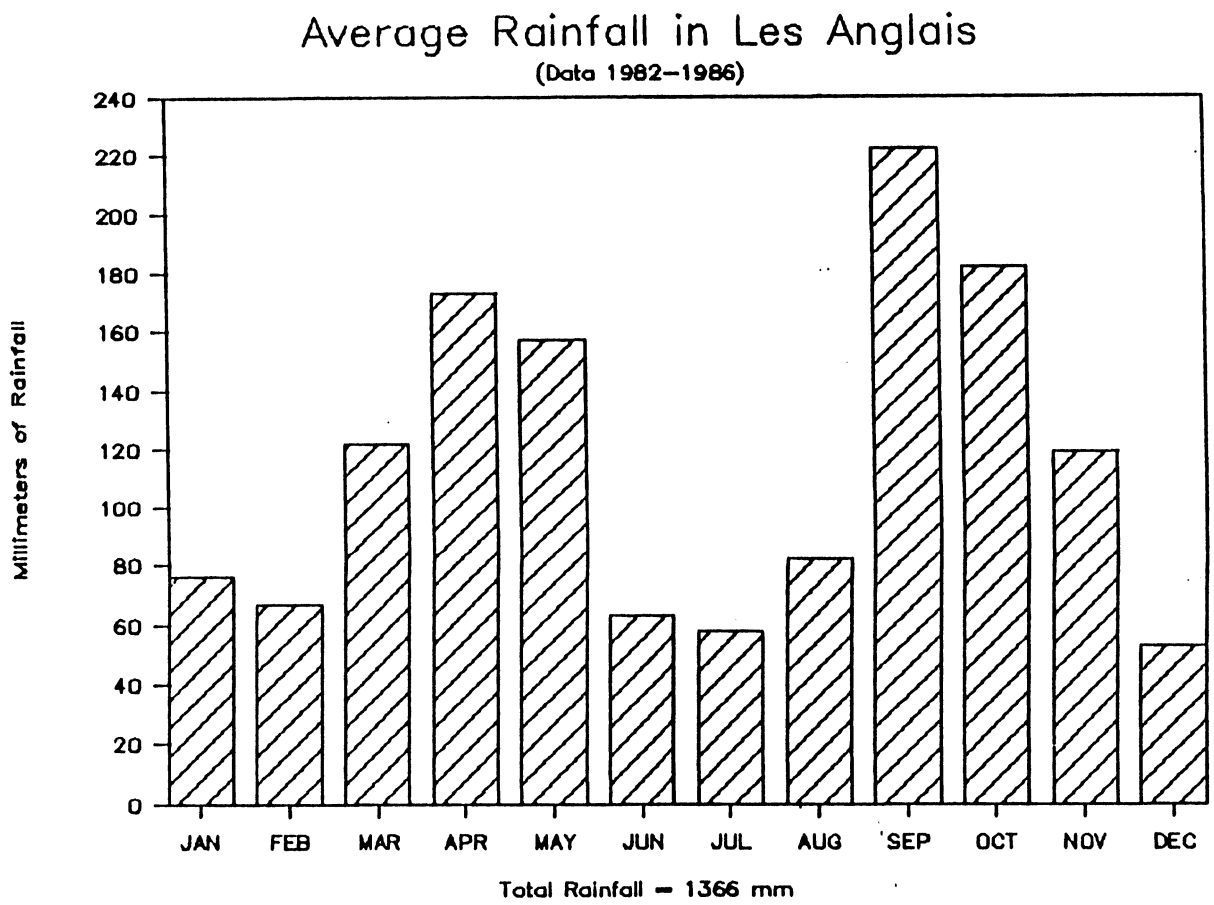

Profile of Les Anglais River
Elevation (thousands of meters)
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
West Flank Pic Macaya
Bois Delai
Demapou
Boka
Constant
Les Anglais
0
2
4
6
8
10
12
14
16
18
20
Length (kilometers)

Figure 1.4



SOURCE: UNICORS files.

and June-August. July is the driest month, with an average of 57.2 mm of rainfall in Les Anglais and 56.5 mm in Rendelle. Rains often come as cloudbursts that cause the Les Anglais River to rise as much as 3 or 4 feet in a matter of hours. The torrential nature of the rains exacerbates erosion problems since the thin soils cannot absorb the water quickly enough. Although the annual rainfall is generally adequate to support a wide variety of crops, seasonal droughts are not uncommon. Consequently, irrigated plains land is highly sought after by most farmers.

§ Vegetation

The upper slopes support a dense cover of coffee and cacao and a variety of fruit trees, while the lower slopes are typically covered with shrub acacia and other thorny woody species in uncultivated areas. North-facing slopes, which receive more moisture since the rains tend to come from the north, tend to be more heavily forested than south-facing slopes. Orientation thus offsets some of the effects of altitude, so that the north-facing slopes of Morne Sentimental support a heavier forest cover than the higher, but south-facing slopes of Rossignol and Boukan.

§ Hurricanes

The Les Anglais area is also subject to hurricanes, particularly during the months of August and September. The worst hurricane in the memory of the inhabitants was Hurricane Hazel in 1954. In addition to destroying homes and buildings, Hurricane Hazel devastated the coffee plantations on the slopes above Les Anglais. The decline of coffee prices relative to food prices led many farmers to shift their production focus to annual crops rather than rebuild the destroyed coffee plantations. As internal demand for food crops has increased, peasants in the Les Anglais area have continued to shift out of the production of export-oriented perennials, such as coffee and cacao, into the production of high-value annuals, such as beans and corn.

§ Historic Setting §

According to Moreau de Saint-Méry's description of Saint-Domingue in 1787 (Moreau de Saint-Méry 1789), the Les Anglais region was only sparsely settled at the time. Despite the agricultural potential of the Les Anglais plain, lack of a suitable anchorage off the coastal plain made the transport of goods to and from the region difficult. The eastern half of the watershed formed part of the Parish of Coteaux, while the western half was administered under the Parish of Tiburon. Saint-Méry notes the presence of two sugar plantations on the Les Anglais plain: one on the west bank of the river, belonging to the Count of Gravier, and another on the east side, run by a planter named Véronne. Ruins of these plantations are still visible, as are the remnants of an earthen dam and irrigation canals most likely of colonial origin.

Aside from producing sugarcane, the parishes of Coteaux and Tiburon were also known for their cotton, indigo, and coffee plantations. The red soils in the high mountains behind Les Anglais were particularly noted for their coffee production. Although St.-Mery observes that the upper regions of the Massif were heavily forested, he notes that soil degradation in the more accessible lower slopes along the coast had already begun:

> The first chain of mountains, exhausted by indigo and eroded by the rains, is, on the contrary, useful only for the herding of animals. (Moreau de Saint-Méry 1789, 1343)

If little is known about Les Anglais during the colonial era, even less is known about the watershed's history between the years 1804 and 1935. Other towns along the coast, such as Port-à-Piment and Coteaux, served as the administrative and market centers for the Les Anglais region. The area was part of the Commune of Chardonnières until the 1890s, when the Communes of Les Anglais and Tiburon were established as separate entities.

The town of Les Anglais became a more important production and marketing center with the development of a state-funded, earthen-canal irrigation system on the Les Anglais plain in 1935. The irrigated land was used to raise bananas for export to the United States. For a number of years Les Anglais enjoyed prosperous times, with as much as $30,000 being paid out to peasant farmers per week. According to informants old enough to remember the banana era, a highly organized system of water use and canal maintenance existed at the time. However, with the collapse of the banana export trade in 1942, the canal system deteriorated and the banana trees were replaced by cereal crops. Coffee once again became the region's primary export.

Coffee production in turn collapsed in 1954 when Hurricane Hazel devastated the mountain slopes. Several agricultural technicians were sent to the Nan Cosse area in order to rebuild the coffee land but the program met with little success. Although coffee remains one of the region's principal exports, production has dropped from about 20,000 sacks to 10,000 sacks since 1954 (one sack holds about 100 pounds of coffee).

In 1968, agricultural production in the watershed picked up again when a program to improve agricultural practices on the irrigated plain was begun. The project provided training in modern agricultural methods, including use of the plow, fertilizer, and systematic irrigation. The canals were cleaned out and the cultivation of rice, corn, beans, and millet became firmly established. Simultaneously, attempts were made to introduce other agricultural industries, such as vetiver and citron oil-processing plants. Both plants failed.

CADA (Coopérative Agricole des Anglais), an agricultural production and marketing cooperative, was established in 1974 to assist in the improvement of coffee production. CADA's efforts are aimed primarily

at increasing coffee production, providing small coffee producers with better access to markets, and providing coffee and cereal producers with better storage facilities. CADA ia a major force in the agricultural system as it provides members with training, credit, inputs, transport, and storage facilities. A road financed by FAO (Food and Agriculture Organization) and WFP (World Food Program) is currently being built by members of CADA to facilitate transport of coffee from the upper mountains.

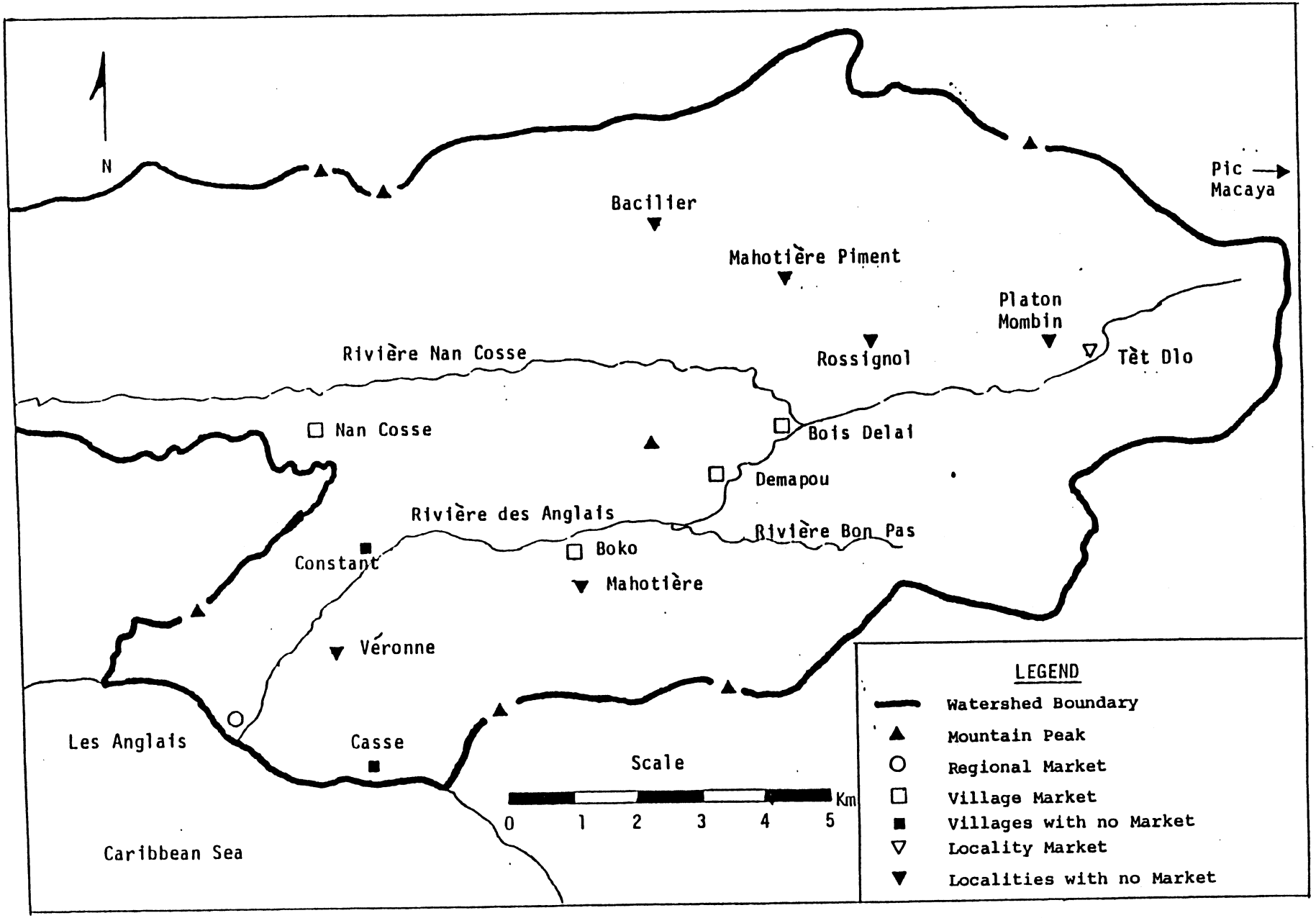
Another agricultural development project currently operating in Les Anglais is the PPPV (Projet Promotion de Produits Vivrières), a USAID-funded project begun in 1987. The goal of PPPV is to increase agricultural productivity on the irrigated plains. It is directed primarily at increasing yields of corn, rice, millet, and black beans. The project provides fertilizer at a reduced rate and also has a savings component designed to help facilitate the purchase of plows and tools for **groupement** members.

The Department of Agriculture has recently begun to implement plans for improving the earthen canal system. Construction of a diversion dam at Lozye, a small community located 5 kilometers upstream from Les Anglais, and cement irrigation canals was begun in February 1987. A torrential downpour destroyed the dam in May, bringing a halt to these improvements. However, FAO has just begun research on the technical feasibility of rehabilitating and expanding the irrigation system. One of the chief concerns is that the slopes above the plains be protected so that excessive siltation will not destroy the rehabilitated system.

§ Settlement Patterns, Services, and Markets §

According to health department estimates, the Commune des Anglais (which includes areas outside the Les Anglais watershed) has approximately 30,000 inhabitants. Many of these people are scattered in small, amorphous mountain settlements. However, there are also several towns and villages that serve as focuses for marketing and other activities (see Figure 1.5). The largest population centers are found on the edges of the Les Anglais floodplain. The town of Les Anglais, which has an estimated 4000 inhabitants, is the largest of these centers. Major villages on the plain include Digue, Constant, Casse, Véronne, and Boko. Five population agglomerations large enough to be considered villages are found in the surrounding mountains: Nan Cosse, Bacilier, Mahotière, Piment, Rossignol, and Platon Mombin. In general, the people on the plains tend to be concentrated in small villages next to major roads and paths. In contrast, mountain inhabitants are more dispersed. Houses in the mountains tend to be located singly or in small clusters on ridges or terraces close to a source of water. The majority of houses in the mountains are found in the 300-to-500 meter altitude zone. Below 300 meters, the soils are degraded to the point that even household gardens are unproductive, while above 500 meters very few permanent springs that can be used for household and livestock consumption are available.

Figure 1.5. Market Locations in the Les Anglais Watershed



§ Services

Like so many communities in Haiti, the Les Anglais region has been virtually ignored by the Haitian government. Although nearly everyone in the area pays taxes, very little of the tax money has found its way back to Les Anglais in the form of improved public services. The road to Les Anglais is a prime example of governmental neglect: located only 50 miles from Cayes, the trip to Les Anglais takes 3.5 hours by private car and 7 hours by public transport. In consequence, the potential for exporting agricultural products to more populous regions in Haiti is limited.

The surrounding mountain communities are even more isolated. Only the localities of Casse, L'Allée, Véronne, Digue, and Constant are accessible by road. More distant communities can be reached only by narrow trails worn down to bare rock through years of foot and animal traffic. Goods are transported to and from the mountain communities primarily by mule or donkey back.

Only two public primary schools, one in Les Anglais and one in Nan Cosse, operate in the watershed. There are also a number of church-sponsored schools, but these cannot meet the demands of the population. Students who wish to continue past the 6th grade must leave the region. The lack of public schools and the consequent need to pay tuition and boarding-school fees has a significant impact on land tenure in the region since many farmers rely on income from renting out land to pay for their children's schooling.

Other services are equally scarce: there is only one hospital for the entire commune. A few **ajan sante** (public health officers) are posted in the mountain localities to provide basic first aid, but these officers lack training and equipment. Public water pumps have been installed in Les Anglais and Casse, but the remaining communities must rely on springs and rivers for water. Except for a few private systems in Les Anglais town, there is no electricity in the area. Health-care costs have a significant impact on land tenure in Les Anglais, since farmers may have to sell or rent land to pay for medical care.

§ Markets

The town of Les Anglais is the major funnel for goods to and from the watershed. Although manufactured goods and local products are bought and sold every day by small traders and shop owners, the bulk of the trade takes place once a week at the town marketplace. Venders come from as far away as Cayes and Tiburon to sell their goods. The market ladies (**madam sara**) also travel into the mountain communities to purchase agricultural products which are then sold in Cayes or Port-au-Prince.

The Les Anglais market is the major source of all manufactured products and nonlocal agricultural products such as spices, garlic, and

flour. In addition, it is an important outlet for the more perishable agricultural products grown in the watershed. A few handicrafts (mats, hats, iron tools, rope) are made and sold locally, but the majority of nonfood items are brought in from Cayes or Port-au-Prince. The less perishable agricultural products from the watershed are shipped by truck to Cayes or Port-au-Prince. The scarcity of freight trucks (two private 5-ton trucks, two cooperative-owned 5-ton trucks, and three public buses) has made the cost of transport prohibitive for many area farmers. The majority of the farmers sell their produce to **speculateurs** (licensed buying agents for coffee export firms) or merchants who have the cash to pay transport fees. Those who can afford to transport their produce to Port-au-Prince can make better profits, as prices in Port-au-Prince are much higher than those in Les Anglais.

A number of smaller markets are scattered throughout the watershed. The most important ones take place in Nan Cosse, Bois Delai, Demapou, Boko and Tèt Dlo. In addition, many of the small merchants also buy and sell at the markets in Tiburon, Rendelle and Port-à-Piment. Women are particularly active in trade, although most frequently at the local level. The three coffee **speculateurs** in the area are all men and the transport business is run exclusively by men.

Storage and processing facilities in the Les Anglais are inadequate for local needs. Four mills (for coffee and grains) are located in the town of Les Anglais, but none exist in other localities. The coffee cooperative and the two coffee **speculateurs** operate these mills, as well as coffee decorticators. The cooperative and one of the coffee **speculateurs** have a limited number of storage silos. Other available storage facilities consist of sacks and wooden boxes. UNICORS technicians estimate that insects, rodents, and fungi destroy about 40 percent of the production on the southern coast (Dauphinais 1987).

§ Agricultural Setting: Plains §

§ Irrigated Lowlands

With an irrigated area of about 600 hectares, the Les Anglais region has received the nickname, "Granary of the Southern Coast." The Les Anglais irrigation system consists of a series of primary, secondary, and tertiary earthen canals. Farmers divert water into the three primary canals (Constant, Betete, and Véronne) by building barriers of rocks and vegetation. At the secondary and tertiary level, they direct water flow by constructing or removing mud and leaf barriers at appropriate places. No organized water-user associations exist and there are no formal water-use schedules. Maintenance is done on an informal basis except in cases where the Department of Agriculture has provided funds for clearing canals.

During slack seasons there is enough water for everyone, in spite of the leaks in the system. However, in November, when the black-bean

plantations require water, conflicts over water rights often erupt into violence. The scarcity of water is such that many farmers will water their fields at night to avoid the daytime rush. Others hire people to watch their gates or, alternatively, to destroy gates that prevent water from reaching their fields. One informant reported paying $3.00 per night for the entire month of November to have someone watch his gates.

The short supply of water is exacerbated by the silt-laden run-off from the mountains. The silt is deposited in the canals, increasing the need for maintenance and decreasing the supply of water the canals can carry. Several secondary canals located near the badly eroding foothills near Constant have been silted in completely during the last twenty years.

The major crops grown on irrigated land are corn, rice, and black beans. Some millet is also grown, as are a variety of tubers (see Figure 6). Monoculture is the predominant agricultural practice on irrigated parcels, with the exception of rice which is usually intercropped with **mazombel**, a yam-like tuber. Beans and corn are commonly grown in rotation: beans are cultivated from November to January, corn from February to June. The land is then left fallow between July and October, until the land is prepared for the next bean planting. Sometimes farmers will grow a second corn crop (**derniyè sezon**), but low corn prices and high bean prices in recent years have tended to discourage this practice. Perennials, including plantains, bananas, mangoes, coconuts, breadfruit, and, occasionally, coffee, are also grown on irrigated land. The low prices for rice and corn in 1987, however, have shifted the emphasis to bean production.

§ Unirrigated Lowlands

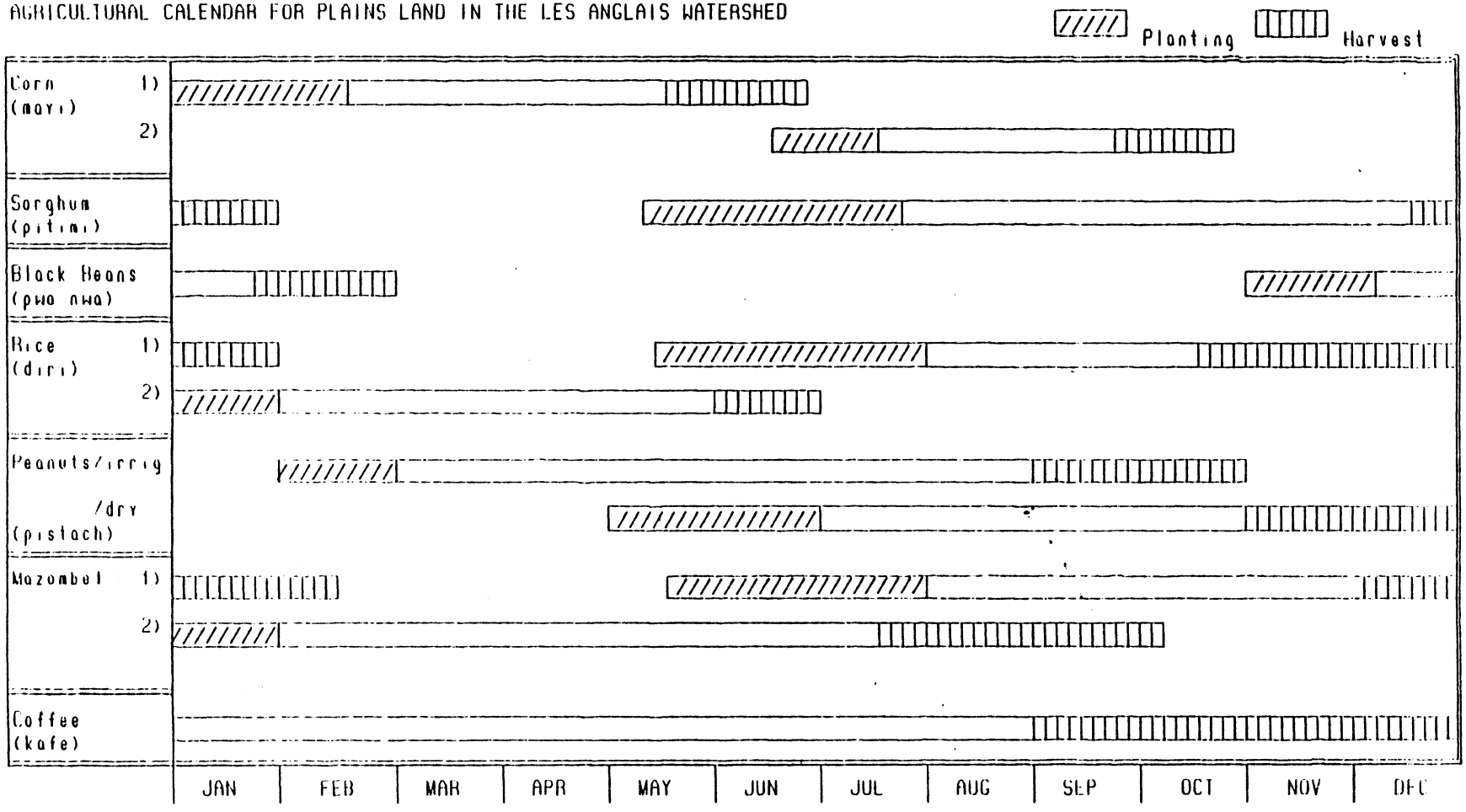
The unirrigated portions of the plain and surrounding foothills are generally planted in peanuts, sorghum, and congo peas. Typically, these crops are grown in association with each other or other crops. Manioc, various squashes, okra, eggplants, leafy vegetables, tomatoes, and carrots are grown on house plots, as are tubers such as **malanga** (a yam-like tuber), yellow yams, and sweet potatoes. A variety of fruit trees, including oranges, lemons, avocados, grenadines, soursop, papaya, and quenepes, are found on house plots or adjacent fields. Limited quantities of sugarcane, tobacco, and cotton are also grown on the plains.

§ Lowland Soils

Haitian peasants have developed an indigenous soils classification system, but the relationship to the categories developed by Western soil scientists is not clearly understood. It is very common to hear peasants referring to a soil as either **tè gra** (fat) or **tè meg** (thin), terms which appear to be related to the fertility of the soil. Soils that are labeled **gra** are more fertile, capable of producing black beans, yams, and coffee. Soils characterized as **meg** are less fertile and are used to grow such crops as peanuts, sorghum, and congo peas.

Figure 1.6

AGRICULTURAL CALENDAR FOR PLAINS LAND IN THE LES ANGLAIS WATERSHED



NOTE: Perennials are planted year-round, as are yams, sweet potatoes, malanga, manioc, and congo peas.

Soils are also classified as either **tè cho** (hot) or **tè frèt** (cold), terms which appear to refer to the level of moisture availability in the soil rather than to soil temperature as one might expect. The **cho/frèt** distinction thus takes into account a number of factors--including slope orientation, soil parent material, and the amount of vegetative cover--that affect how much moisture is available to plants. **Frèt** soils have a greater level of moisture available to plants, while **cho** soils have less moisture available to plants. Since the terms **gra/meg** and **cho/frèt** refer to different soil properties, it is possible to hear a peasant label a soil both **meg** and **frèt** or **cho** and **gra**. A rich black clay soil, while fertile and thus categorized as **gra**, has a low level of moisture availability and is thus labeled **cho**.

Soil quality varies considerably throughout the plain. Soils immediately adjacent to the foothills are relatively fine, thin soils derived from weathered basalt. These soils are quite clayey and are categorized as **tè cho** by farmers. Unless irrigated and fertilized, such soils will support only peanuts, millet, and manioc. The swampy low-lying areas predominant in Casse, L'Allée, and Véronne have thick black soils with a lower percentage of clay than the weathered basalt soils. These soils are highly suited to the production of irrigated rice and sugarcane. The local farmers label these soils **tè frèt**.

Plots immediately adjacent to the river and those further upstream between Lozye and Demapou have fine brown soils mixed with large gravel and cobbles. These soils may be either **tè cho** or **tè frèt** depending on the amount of rocks in the soil and thus the water availability (more rocks = **tè cho**). The farmer has to devote quite a bit of time to removing rocks from these parcels if he wishes to plow the land. When irrigated, these soils support both corn and beans.

Finally, a thick brown soil with no gravel or rocks is present in LaBessière and parts of Constant. The soil in these areas has a clay loam texture and appears to hold moisture quite well. It is found primarily in those areas that are cool and wet enough to support coffee and bananas.

§ Lowland Farming Technology

Farmers on the irrigated plain rarely use hand tools to prepare the fields, although such tools are used in all other phases of cultivation (weeding, harvesting, and so on). Instead, they rely on ox-drawn iron plows to break up the soil prior to planting. Since few farmers own plows, the plow and operator (and often the oxen as well) are hired on a contract basis to break up the soil. Hoes, machetes, and pickaxes are used to till the land if the farmer lacks the means to hire a plow. Plows are used on both irrigated and nonirrigated lowlands.

Fertilizer is also used by many farmers on the irrigated plains. The fertilizer is obtainable in Cayes or, more recently, through the Department of Agriculture if one is a participant in the PPPV project. In addition to using chemical fertilizers, farmers also fertilize fields

by allowing cattle and sheep to graze on the land during fallow periods. Nonirrigated land on the plains is not generally fertilized with chemical fertilizers. Instead, fallow and crop rotation are used to maintain soil fertility. The use of insecticides, herbicides, and pesticides is extremely rare in the region, although the PPPV project is trying to encourage more use of such products.

§ Agricultural Setting: Highlands §

§ Lower Slopes

The dominant soil-parent material on the lower mountain slopes is a highly weathered basalt. When broken down, this rock produces a fine grained, easily eroded soil with a high clay content. Whereas monoculture predominates in the plains, nearly all crops in the mountain gardens are planted in association with one or more other crops (see Figure 1.7). On the drier soils of the lower mountains, sorghum, congo peas, peanuts, and manioc predominate. Peanuts are grown primarily as a cash crop, whereas the other three are used primarily for subsistence. According to local farmers, the productive capacities of the lower mountain soils have dropped considerably in the last forty years. Many of the areas that now support only dryland crops, such as peanuts and sorghum, used to produce rain-fed rice, yams, **malanga**, and coffee. Hurricane damage, deforestation, and poor farming practices have caused these soils to deteriorate to the point where only a few crops can be grown. In some areas, erosion is so extensive that the land can no longer be used for anything. According to local reports, large tracts of land on the lower slopes near Les Anglais have been abandoned entirely during the last thirty years.

The more fertile, low mountain soils support corn, black and red beans, yams, sweet potatoes, **malanga**, coffee, cacao, and a variety of fruit trees. Such soils tend to be localized in north-facing ravines where soil moisture level is the greatest. As on the plains, the house gardens produce a variety of crops grown in association: eggplants, okra, squashes, fruit, sugarcane, and so on.

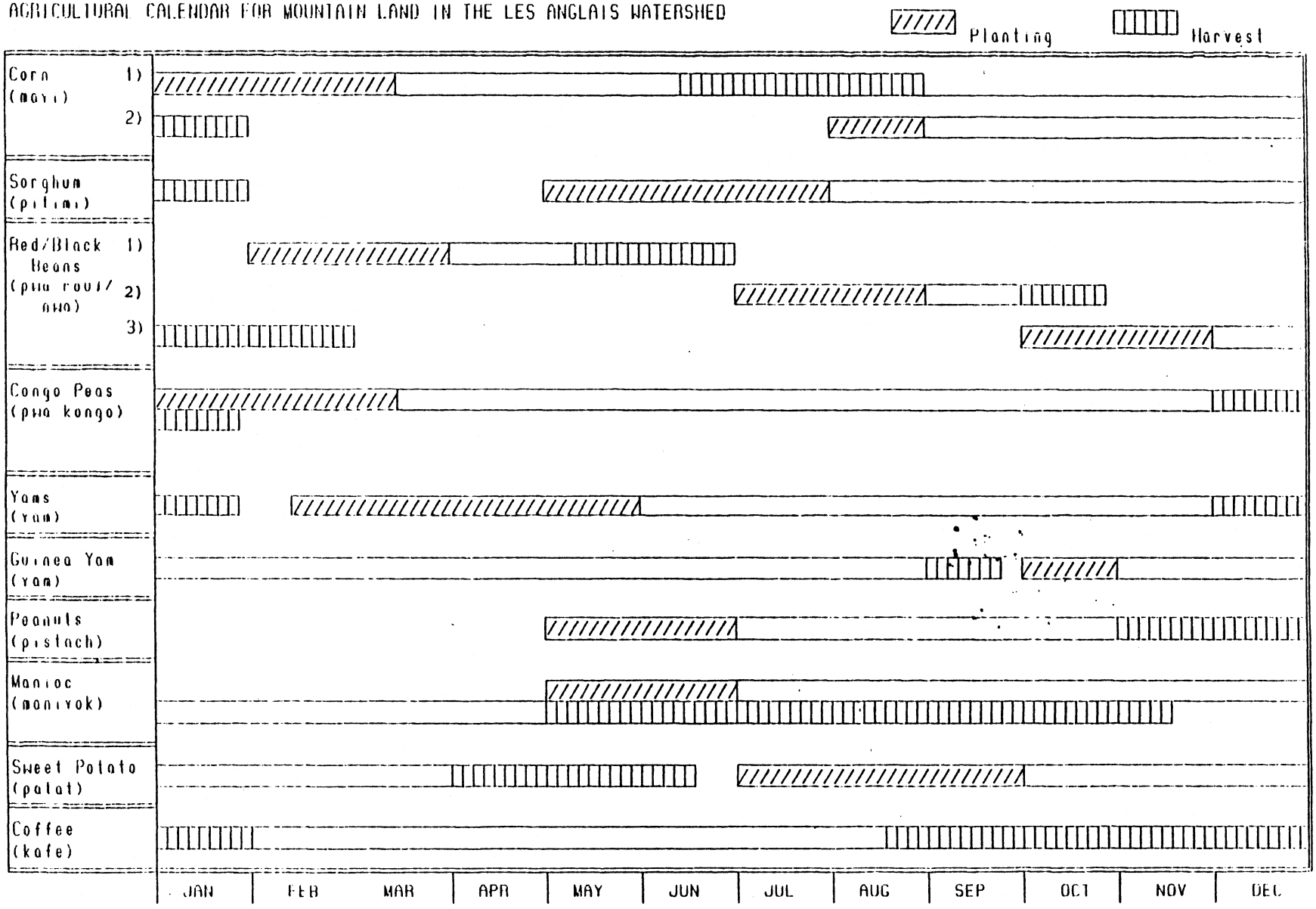
§ Upper Slopes

The soil parent material in the upper mountains is predominantly a limestone which produces a coarser-grained, less erodible soil than that found on the lower slopes. The difference between these soil types is readily visible after a rainstorm. The day after the rain, the basalt soils are bone-dry, whereas the limestone soils retain moisture for a day or more. The presence of large limestone boulders which inhibit the cultivation of annuals has also helped prevent extensive erosion on many of the upper mountain slopes.

Because of the more fertile soils, most of the higher altitude fields support a greater variety of crops than is found at lower altitudes. In the upper mountains, crops are also normally grown in

Figure 1.7

AGRICULTURAL CALENDAR FOR MOUNTAIN LAND IN THE LES ANGLAIS WATERSHED



NOTE: Malanga, mazombel, and various household vegetables are planted year-round with virtually no slack time.

association. Major food crops include black and red beans (three harvests per year), corn (two harvests per year), tubers, congo peas, and plantains. The major cash crops are coffee (grown in association with other fruit trees and yams) and black beans.

Farmers with mountain land very rarely employ modern agricultural techniques when farming their mountain gardens. In general, the slopes are too steep for animal-drawn plows. All soil preparation is done with hand tools, usually limited to machetes and pickaxes (and occasionally hoes). Fertilizer is virtually never used on mountain land, even if a farmer uses it on his fields in the plains. The two reasons most commonly cited for not using fertilizer are (1) unavailability of fertilizer, and (2) lack of cash to purchase fertilizer. Herbicides and insecticides are not used at all on mountain fields. Given the risks involved with rain-fed agricultural production, the economic returns of using capital-intensive technologies in the mountains are not sufficiently high to justify such investments. Farmers thus prefer to concentrate investments on their irrigated lowland parcels (if they have them). Crop rotation and crop/fallow rotations are the norm in mountainous areas, with portions of some fields being left in fallow for up to three years.

§ Livestock §

Livestock is an important component of both plains and mountain farming systems. Most households keep a few chickens in order to sell the eggs and meat at local markets. Pigs are highly valued but difficult to obtain and maintain since the eradication of the Creole pig population in 1983. After the eradication of Creole pigs, many farmers shifted emphasis from pig production to goat and sheep production. Both animals require far more care than the Creole pigs and are far more destructive of the land. Sheep and goats are generally pastured on fallow land during the day and are returned to the house for safekeeping at night. Farmers in the Les Anglais watershed often express a preference for raising sheep instead of goats, which can be more destructive, because the penalty for goat trespassing is much higher than for sheep. In addition to sheep and goats, four other grazing species are raised by Haitian farmers: cattle, horses, donkeys, and mules. Cattle are raised primarily for meat (many are herded to Cayes and Port-au-Prince where demand is higher) and for traction purposes. Most lowland farmers try to purchase at least one ox to reduce plowing costs. Mules and donkeys are used primarily as pack animals and horses are used solely for riding.

Grazing rights are an important aspect of Haitian land tenure. It is possible to rent out only grazing rights to a piece of land, and it is also possible to rent out a piece of land without giving up one's rights to graze animals on the land during fallow periods. By law, the animals are supposed to be kept tethered when not in a corral. However, the animals often get loose from the stakes and wander into neighboring fields. Livestock disputes are reportedly some of the most common cases heard in the local courts.

§ Sources of Cash §

Chronic shortages of cash severely limit Haitian peasant agricultural investments. To obtain large amounts of cash, a farmer must rely primarily on the sale of crops and animals, land rents, and, more rarely, land sales. To meet the need for small amounts of cash, farmers sell labor or produce. No formal credit institutions for disbursing funds to individuals currently operate in the Les Anglais area. Farmers belonging to **group man senkant** (peasant groups organized by UNICORS) or **group man PPPV** (peasant groups organized by PPPV)) have limited access to funds for purchasing fertilizer, seeds, and livestock on a group basis. These projects, however, are still in the beginning stages. Farmers can borrow from private individuals. Interest rates are very high, up to 20 percent per month. Farmers can also borrow from **madam sara** and the local **speculateurs** against the expected harvest of coffee or beans. Under these agreements, the farmer agrees to supply the moneylender a certain amount of either beans or coffee at a fixed price. Even if the price rises, the farmer is still obligated to sell his produce at the rate fixed at the time of the loan. Since the decline in coffee prices, even these types of loans are difficult to obtain. A form of land pawning, known as **vente à remeré** in the courts, and referred to as **bay kenbe papye pou kob prete** (allow land papers to be held in return for a loan of money) by peasants, is reported to occur. In such situations, a merchant or moneylender will hold a peasant's title to his land as collateral for the loan. When the loan is paid off, the lender is supposed to return the paper. If the loan is not paid off in the specified time period, the land reverts to the person holding the title. The **vente à remeré** was outlawed by the Rural Code published in 1962. Peasants in Les Anglais indicated that the practice of land pawning has declined considerably during the last thirty years.

§ Labor §

The amount and type of labor that a farmer can draw upon throughout the year also greatly influence his land-use decisions. Most peasant farmers in the Les Anglais watershed rely heavily upon household labor to assist in production and processing tasks. Depending upon his age, the number of available workers in the household, and his capital supply, a farmer can supplement the household labor supply with external labor. In addition, farmers short of cash may sell their labor in various forms. The two most important labor groups are the **eskwad** and the **atribisyon**. **Eskwads** are usually made up of four-to-five farmers who work on each other's fields in rotation. **Eskwads** also work on nonmembers' fields for a daily wage of 2-2.5 gourdes. If a member wishes, he can sell his **eskwad** day to an outsider and keep the money for himself. There are both male and female **eskwads** in Les Anglais, although female **eskwads** are less common. Most **eskwad** members tend to be relatively young due to the relative land and cash poverty of young peasants.

Atribisyons are groups of five-to-fifteen members who work together twice a week (Thursdays and Fridays). The **atribisyon**

is more structured than an **eskwad** and has an elected **presidan**, **gouvènè**, **kartiye-mèt**, and **kwizinye**. The **presidan** is in charge of overall administration, the **gouvènè** plans the day of work, the **kartiye-mèt** supervises the workers and the distribution of food and **klaren** (a form of rum distilled from sugarcane), and the **kwizinye** prepares the meals for the group. The **atribisyon** also does work for nonmembers. For each worker, the person engaging the **atribisyon** pays 4-4.5 gourdes. **Atribisyons** may also choose to work on a contract basis (**anpeyan**) rather than on a wage basis. The **atribisyon** workday is longer than the **eskwad** workday. In addition, the **atribisyon** pays for the food and **klaren** out of the money received. The money that is not used for food is collected by the **gouvènè**. At the end of the year, the money is usually used to buy a steer, which is then roasted and eaten by the group members and their families during the holiday period. Alternatively, the group may decide to split the treasury among the members. Unlike **eskwads**, **atribisyons** are exclusively male (except for the **kwizinye**). In general, both **eskwad** and **atribisyon** members tend to be farmers with a shortage of cash or land.

A third labor arrangement, the **envitasyon**, is also found in the Les Anglais watershed. If a farmer needs work done but has no money, he will invite a group of people to help him. In return, he will provide food and **klaren**. He is also obligated to return the favor if one of the invitees needs work done. The **envitasyon** differs from the **eskwad** and **atribisyon** in that members of an **envitasyon** are not paid in cash and the membership is not fixed. Most farmers participate in **envitasyons** at some time during the year. Participation in the **envitasyon** is not viewed as socially demeaning.

Two ways in which individual labor is bought and sold are important: **anpeyan** and **jouné**. If a farmer needs cash, one option available is to sell one's labor on a daily basis (**vann jouné**). Again, the price is usually 2-2.5 gourdes per half-day. People who must sell labor on a daily basis are usually the poorest members of a community. Those who **pran jouné** (buy labor on a daily basis) must have some surplus capital available. Another way to obtain cash is to work **anpeyan** (perform agricultural tasks on a piecework basis). Certain tasks, such as plowing and irrigation, are almost always done on a contract basis. Taking work **anpeyan** is viewed much less negatively than selling **jouné**.

§ Land §

§ Modes of Land Access

Land, labor, and capital are crucial ingredients in peasant agricultural decision-making. However, the most essential factor is the peasant's access to land. Over time, Haitians have developed a variety of mechanisms for allocating and regulating individual and group rights to land. Some of the mechanisms are codified in law while others carry force through customary usage. Together, the formal and informal rules governing the ways in which people have access to land and the use that

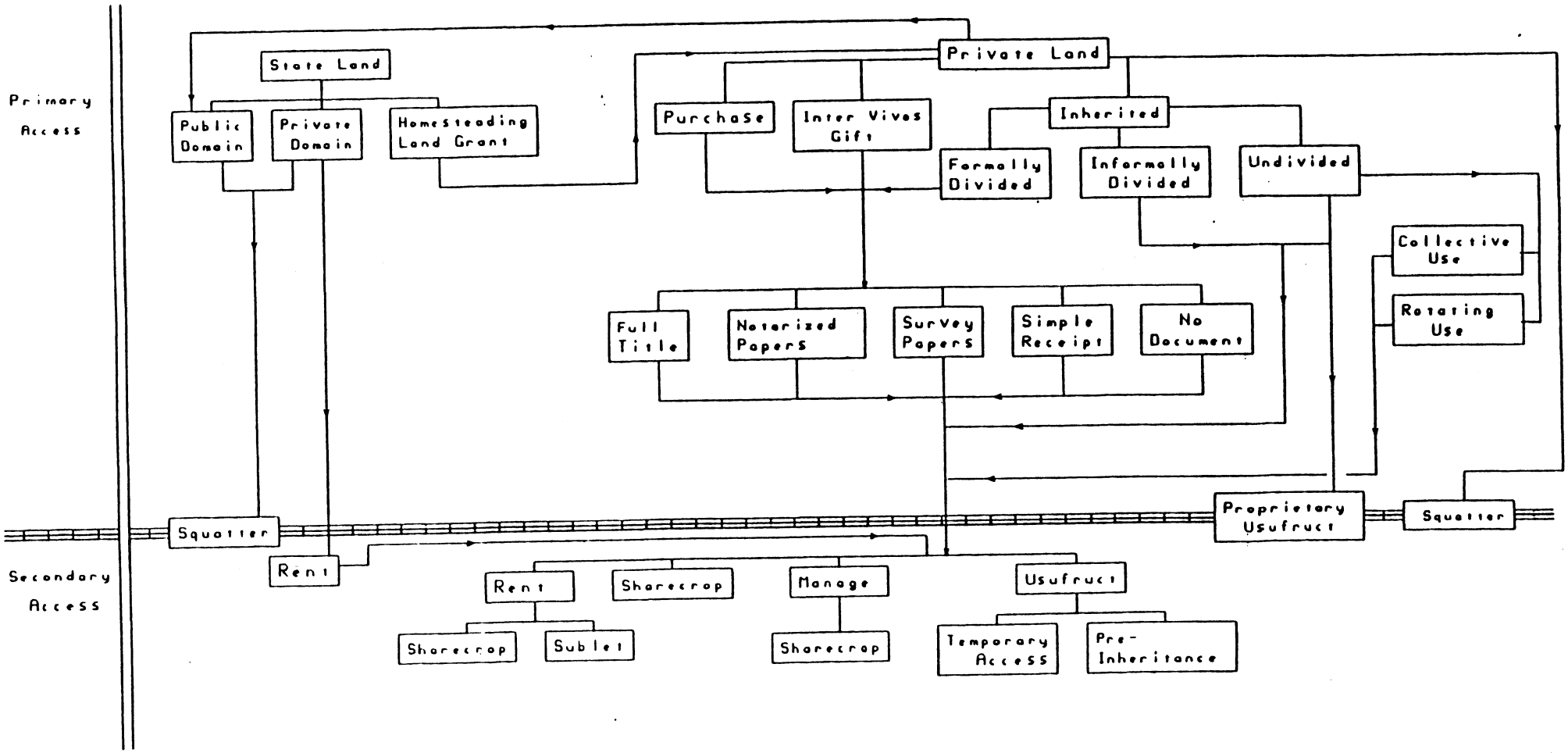
can be made of the land constitute the Haitian land-tenure system. It is important to stress that the formal and informal land-tenure rules do not form two mutually exclusive tenure systems. The Haitian landholder can and does operate in both systems, so that any given land parcel may be directly affected by legal rules as well as customary rules simultaneously. In our study, the Haitian land-tenure system is not defined in strictly juridical terms. Our use of the term "tenure" should not be confused with legal "ownership." To avoid confusion, we will discuss various modes of access to land, including outright legal ownership. Thus, the system of Haitian land tenure includes a broad range of considerations and various categories of access in actual use by the peasant farmers studied. The study takes as its basis the decisions of peasant smallholders in relation to land access and land use. This process of decision-making may well include more than one decision-maker in relation to a specific plot of land, for example, owner, tenant, co-heir, and so on.

The following diagram of land-access categories illustrates the different ways in which Haitians have access to land (see Figure 1.8). The diagram uses the legal framework as its foundation so that any given parcel of land belongs either to the state or to an individual or group of individuals who have acquired title to the land. However, it accounts for the informal structure as well--a person's access to a parcel of land may be through an informal purchase, that is, purchase which was not fully documented according to legal specifications. A second distinction is made between primary and secondary access. Primary access can be equated to ownership, whether individual or joint, formal or informal. Secondary access includes all forms of tenancy, caretaking arrangements, and certain forms of usufruct. The chief distinction between the primary and secondary access forms is that a person with primary access to the land can sell or will his rights to another party and use the land as leverage for loans. A person with primary access thus has more potential control over the use and disposition of the land than a person with secondary access. A person with primary access to a piece of land theoretically also has greater assurance that he will be able to continue farming that land.

§ Formal and Informal Rules

In the Haitian land-tenure system, many of the formal and informal rules are concerned with the establishment and transferal of landownership. The degree to which transfers follow the formal guidelines is generally believed to influence the landowner's perception of tenure security. All things being equal, land acquired via the formal rules is commonly perceived as being more secure than land acquired via the customary rules or a mixture of the two. Tenure security, in turn, is felt to be an important factor in agricultural decision-making: owners with more secure land are often more willing to make long-term investments, such as building terraces or planting trees, than owners whose land is less secure. Consequently, the use to which a parcel of land is put is likely to be heavily influenced by the way in which the owner acquired the parcel.

Figure 1.8. MODES OF LAND ACCESS



Land-tenure rules do not simply provide guidelines for the transfer and use of owned land. In addition to ownership, they also govern other types of land access and land use. Thus, the Haitian land-tenure system includes rules governing the conditions under which people acquire rights to use land which they do not own. Informal and formal rules have also been developed to regulate how tenants can use land. Just as different forms of ownership vary in the security provided to the owner, different forms of tenancy also provide different degrees of tenure security to the tenant. For example, tenants who have written contracts for long-term use of a parcel generally feel more secure than tenants with short-term use rights and no written contract. Consequently, the conditions of tenancy can be expected to influence the type of investments that tenants are willing to make in the land under their control. Moreover, since tenants have less control over the disposition of the land than owners do, one would expect a farmer to make different kinds of investments on owned land than on land acquired through tenancy.

Whether a farmer owns his land or obtains it through a tenancy arrangement may influence the way in which he uses that parcel. However, from the standpoint of farm-tenant decision-making, the juridical status of land held in tenancy is less relevant. A farmer may make very different kinds of investments on land for which he has an up-to-date title versus land that is informally divided. He is much less likely to take the ownership status of the land into consideration when making land-use decisions on rented or sharecropped land. On such land, there is shared decision-making whereby both the tenant and the owner can potentially influence land-use decisions. In order to understand how tenure and land use are related, it is therefore necessary to focus on how individual landholders have access to the different pieces of land rather than simply categorizing plots by juridical status.

§ CHAPTER 2 §

Land Access Case Studies in Les Anglais

In the following two chapters, we will examine the ways in which Les Anglais farmers have access to land and how land-use decisions are related to land access. The first part of the discussion consists of a case-by-case analysis of land access and land use for seventeen peasant farmers in the Les Anglais watershed. Using the data from the case narratives, a list of the different types of land access is developed and a description of the variations found within each of the access categories is given. Aggregate patterns of landholding and land-use behavior for the seventeen landholders are then presented, and the implications for soil-conservation efforts are discussed.

The second part of the analysis draws upon land-access and land-use information collected from all the landholders in three communities in the watershed. Aggregate patterns of landholding and land use are analyzed for each community. The results from the three communities are then compared in order to provide some indication as to how intervention strategies might differ for each of the communities.

§ Data Collection Process §

§ Methodology

During the first phase of the Les Anglais study, we chose to use a modified ethnological case-study approach. This method was considered most appropriate for collecting the data necessary to categorize the different ways in which peasants in the project zone have access to land and to examine the interaction between land-access and land-use decision-making for individuals. The first two months of fieldwork were devoted to establishing the social and environmental context needed to understand the agricultural systems in the Les Anglais watershed. The bulk of the information was gathered from informal interviews with local notables, agricultural technicians, and peasant farmers. The major topics discussed were landholding patterns, land conflicts, land transfers, cropping systems, agricultural labor systems, area history, and problems encountered by local farmers. Numerous trips throughout the watershed also gave us the opportunity to observe differences in settlement patterns and environmental conditions. Although time-consuming, this type of fieldwork was essential in that it helped us identify the land-access categories and land-use behaviors likely to be encountered during our more formal study. Contacts made as a result of these initial visits also greatly facilitated later research efforts.

After establishing a context for exploring land-tenure issues, we conducted a series of in-depth interviews and garden visits with seventeen farmers in the watershed. From these interviews, we wished to establish the range of possible land-access categories as well as

differences within categories. We also wanted to determine how farmers' land-use decisions are shaped by the type of access they have to land. At the same time, we wished to develop an approach as well as a set of information-gathering instruments that could be used by PST to evaluate and monitor pertinent land-tenure issues during the course of the project.

§ Selection of Respondents

1. Unit of Analysis: Landholders

For the Les Anglais case study, landholders rather than parcels of land were chosen as the primary unit of analysis. We use the term "landholder" in the basic Anglo-Saxon sense of the word, "an owner or occupant of land." Thus, the term "landholder" as used in this report refers to both owners and users of land. Since the investments that a farmer is willing to make in one parcel are likely to be influenced by the conditions under which he works other parcels, we felt that the landholder approach would best permit us to study the relationship between land access and land use for each individual. The individual parcels available to each landholder comprised a secondary unit of analysis. By focusing on the landholder rather than just on specific pieces of land, we were able to develop land-access profiles for each farmer. Land-use behavior could thus be evaluated in light of the access and environmental characteristics of each farmer's complete land portfolio.

2. Environmental Stratification

Since part of our assignment was to compare land-tenure and land-use behavior in different eco-zones, we stratified the study area into agro-ecological zones prior to selecting respondents. On the basis of the information obtained from our field trips and informal interviews, we identified three major agro-ecological zones in the Les Anglais watershed (see Table 2.1).

Originally we had planned to limit our study to five farmers chosen from each of the three agro-ecological zones. However, an additional two cases were added from the plains zone in order to increase the number of farmers with both plains and mountain land and in order to enable us to measure the landholdings of an additional farmer. Ultimately, we interviewed seven farmers residing on the plains, five residing in the foothills, and five residing in the high mountains.

Within each environmental zone, we chose farmers so as to maximize the amount of variation in the types of land access and control represented. For example, in the Rossignol area we deliberately selected informants with several different kinds of access to state lease and private land. Using this method, we were able to obtain information on most of the land-access types reported in the Haitian land-tenure literature.

****

Table 2.1. Ecological Zones of the Les Anglais Watershed

ZONE	CHARACTERISTICS
1. Plains (mostly irrigated)	Altitude less than 100 meters; soil parent material mostly alluvial; generally less than 15 percent slope; natural moisture generally low (but modified in irrigated areas); monoculture of corn, rice, and black beans prevalent.
2. Foothills/Low Mountains	Altitude between 100 and 299 meters; soil parent material mostly weathered basalt; generally over 30 percent slope; moderate moisture regime; polyculture emphasizing sorghum, peanuts, congo peas, and manioc in drier areas, and corn, beans, tubers, and coffee in wetter areas.
3. High Mountains	Altitude greater than 300 meters; soil parent material mostly limestone or basalt with limestone cobbles; generally over 30 percent slope; high moisture regime; polyculture emphasizing perennials (coffee, breadfruit, avocado, mango, cacao, orange, and so on), black and red beans, and various tubers.

****

§ Data Collection

Information about the seventeen farm households and their landholdings was obtained through in-depth interviews, direct observation, boundary measurements, and informal chats with neighbors and relatives. A semistructured questionnaire was used, with room being left for explanations and supplemental information on each page. The instrument was written and administered in Creole. In developing the interview instrument, we were faced with the problem of designing an instrument flexible enough to gather information from farmers with extremely diverse land-access and land-use behavior while compact enough to avoid tiring the informants. To overcome this problem, we divided the instrument into subsets of questionnaires, each designed to collect different information about the farmer and his holdings. Some of the modules were administered to those farmers with only certain kinds of landholdings (that is, undivided family lands) or who exhibited certain kinds of land-use behavior (that is, giving out land to be worked by others or selling land). The following types of information were collected using the questionnaire (see Appendix A).

1. Information on household composition, age, sex, migration status of the head of household and his/her spouse, types of livestock, tools used, and participation in agricultural labor groups.
2. Information about the tenure status, access conditions, land use, and physical characteristics of each parcel of land available to the farmer.
3. Information about use conditions, relationships to tenants, and reasons for giving out land for parcels owned but not worked by the respondent.
4. Information about land sales.
5. Information on distances, bearings, and percent slope readings for surveyed parcels.

Early on in the interviews we discovered several important types of information that were not being collected by these instruments. Consequently, a subset dealing with reasons for land fragmentation, landownership preferences, and tree planting preferences was added. Questions dealing specifically with family lands that had not been formally divided and questions designed to elicit a list of all of the farmer's holdings near the beginning of the interview were also added.

Once the number of parcels worked or controlled by the farmer had been established, each parcel was visited and direct observations about the physical characteristics and location of the parcel were noted. The main purpose of these garden visits was to obtain environmental, land-use, and locational information that would have been difficult or impossible to obtain from interviews at the informant's house. For example, such things as altitude, percent tree cover, soil parent material, and percent slope were obtained. For six of the farmers we also

marked the location of each parcel on a topographical map. These maps allowed us to determine the physical distribution of each informant's holdings. Unfortunately, the scale of the topographical maps available was too small to permit very accurate mapping of small parcels. The only parcels not visited were those located too far away to be reached on foot. We were able to visit 117 parcels or 89 percent of the 132 parcels worked or controlled by the 17 informants.

Since the PST project is likely to be concerned with the relative effects of the project on farmers in different holding-size categories (that is, how the project affects smallholders as opposed to large landholders), we felt it would be useful to crosscheck farmer estimates of parcel size by surveying a number of parcels. A total of twenty-one parcels belonging to four farmers was measured during the garden visits. Parcel boundaries were measured using a 30-meter cloth tape, a Silva Ranger hand compass, and a Suunto clinometer.

The case-study phase took approximately six weeks to complete, including the initial contact visits, training of assistants, farmer interviews, garden visits, and parcel measurements. The interviews, garden visits, and parcel surveys were conducted by two teams of two people--a researcher and an assistant. Both assistants were local farmers and were able to help the researchers establish contacts in the watershed. Because of the fragmented nature of farm holdings in the watershed, each case study took an average of two days to complete.

§ Farmer Response and Data Verification

Questions about land ownership, land access, and land transfers are touchy questions in most societies. Informants may be reluctant to reveal specific details about their holdings for fear that the information may be used to increase taxes or confiscate the land. The present political turmoil in Haiti is not conducive to alleviating these fears: the belief that Communists want to confiscate land for redistribution is prevalent in many Haitian communities. Given these fears, one of our greatest worries was that farmers would refuse to provide information about their landholdings. However, once we began working in the Les Anglais watershed, we discovered that most farmers were not particularly reluctant to answer questions about their landholdings and the conditions under which they worked their land. We attribute the willingness to provide land-tenure information to a number of factors. First, we spent the first few weeks of our stay traveling through the area with UNICORS and CADA technicians and leaders, who introduced us to farmers and explained the purpose of the research. Second, before beginning the case studies, we had already spent several weeks talking to farmers in the watershed and thus were already known to the respondents. Third, since farmers were picked from limited geographical areas, people became even more familiar with our work as time went on. Fourth, our assistants were local farmers with ties to other farmers in the study zone. Fifth, the farmers clearly respected our willingness personally to visit each garden rather than just asking questions at the house site.

Although reluctance to answer questions was not a problem, we had to anticipate the possibility that the information collected might be incorrect or incomplete. To minimize incorrect and incomplete responses, we designed crosschecks into the questionnaire. For example, the question about animals owned by the informant not only gathered information about the informant's wealth but also clued the interviewer to ask about land in pasturage if the informant had several grazing animals. Similarly, the head of household was asked for his birthplace both to gather information about his migration status and to remind the interviewer to ask about inherited land rights the informant might have in another locality. To the extent possible, information about land use and physical characteristics of the land was acquired through direct observation.

§ Limitations of the Data

Certain limitations are inherent in these case studies. First, although the farm case studies provide an idea as to how land use and land access are related for certain individuals, they cannot be used to make any statements about overall community land-access patterns or land-use behavior. For example, they cannot be used to determine how many people in a community own land that they farm directly, or how many people have sold land during their lifetimes. Second, while the case studies provide valuable information about the types of land-access categories found in the Les Anglais watershed, it is possible that other land-access categories are present in other watersheds. Third, because of the difficulty of getting large landholders to discuss their holdings (a problem compounded by current calls for agrarian reform measures that would redistribute land to the tiller), no larger landholders (that is, those with holdings over 10 **carreaux***) were included in the case studies. Thus, the information is biased toward smallholders. To overcome this problem, we conducted less structured interviews with several large landholders in Les Anglais.

§ General Landholding Characteristics §

§ Fragmentation and Diversity

A common characteristic among peasant farmers in this part of Haiti is extreme fragmentation** of landholdings. With the exception of one woman respondent, Anastelia, who farms one 5-cx block of land rented from the state, all the respondents farm or control at least three distinct parcels. The degree to which individual landholdings are

---

* The **carreau** is the standard land measurement unit used by peasant farmers; 1 **carreau** (abbreviated cx) = 1.29 hectares, or about 3.1 acres.

** As used here, fragmentation means that farmers' holdings comprise several noncontiguous, spatially scattered parcels.

fragmented varies considerably. One woman farmer owned or had access to fourteen parcels, most of which she farmed herself. Only four of the seventeen landholders had fewer than six parcels. One of these was the state leaseholder with 5 cx, one was the youngest landholder in a household with two landholders, one was a town peasant not very interested in farming, and the fourth was reportedly one of the poorest farmers in his community.

§ Holding Size: Should Farmer Land-Size Estimates Be Believed?

Virtually all land-tenure research throughout the world includes a section addressing the question of land area, whether the area be for individual parcels or total farm holdings. Average parcel sizes, average size of holdings, and the size distribution of holdings are used to describe and distinguish between different segments of rural populations. More often than not, the data for the farm and parcel sizes are obtained by asking farmers to provide aerial estimates. Only rarely does the ethnographer, sociologist, census taker, or economist bother to verify these estimates by measuring the land. Considering that very few Haitian peasants have ever had their land surveyed, we felt that it would be wise to verify the degree to which farmer size estimates deviate from the actual areas farmed. Since both the researchers working in Les Anglais had had prior experience surveying mountainous land, the decision to survey parcels could be implemented without difficulty.

Because parcel measurement is a time-consuming process, we limited the surveys to twenty-one parcels owned by four farmers. Parcels were measured using a 30-meter fiberglass cloth tape, a Silva Ranger hand compass, and a Suunto clinometer. Distances were chained horizontally except on steep slopes. On steep slopes, slope distances were chained and the slope angle was measured with a clinometer, so that horizontal distances could be calculated in the office. Areas were calculated using a computer program developed by the World Bank. The surveyors were accompanied by the farmers, who pointed out the boundaries for each of the parcels. Closing error for the surveys ranged from 0.9 percent to 5 percent, an acceptable error in view of the steepness of the terrain and the often dense vegetation.

Comparisons of estimated area with measured area and the error of the estimates expressed as a percentage of the measured area are provided in Table 2.2. The results clearly indicate that farmer land-size measurements are dubious at best. Errors in estimates ranged from as little as 0 percent to as much as 410 percent. More than half of the estimates exceeded or fell short of the measured area by more than 20 percent and nearly one-quarter were off by more than 100 percent. We had expected farmers to underestimate their land area; however, the survey data indicate that farmers are just as likely to overestimate as they are to underestimate the size of their holdings. Inability or unwillingness to provide accurate size estimates is particularly true for family lands that have never been formally divided. For family lands, there is the added problem of interpreting to what block of land the size estimate refers--has the farmer interpreted the question "**ki valè**

****

Table 2.2. Comparison of Farmer Size Estimates with Measured Areas

Farmer and Plot Number	Estimated Area (in carreaux)	Measured Area (in carreaux)	% Error [(E-M)/M]
Laience			
L-1	0.50	0.57	-12
L-2	0.25	0.22	+14
L-3	1.00	1.38	-27
L-4	0.25	0.52	-52
L-5	1.00	1.47	-32
L-6	0.31	0.36	-14
Total	3.31	4.51	-27
Guilbert			
G-1	0.125	0.085	+47
G-2	0.50	0.38	+32
G-3	0.125	0.12	+5
G-4	0.25	0.37	-32
Total	1.125	0.955	+17
Toli			
T-1	0.50	0.10	+400
T-2	0.25	0.13	+92
T-3	1.00	0.63	+59
T-4	0.19	0.23	-17
Total	1.94	1.09	+78
Brunel			
B-1	0.25	0.29	-14
B-2	0.125	0.105	+19
B-3	0.25	0.15	+67
B-4	0.02	0.02	0
B-5	0.25	0.30	-17
B-6	0.19	0.07	+171
B-7	0.31	0.12	+158
Total	1.395	1.055	+32

****

tè sa-a" (what is the size of this land?) to mean the original family block, the sub-block belonging to his branch of the family, or the sub-sub-block which he and his wife and children farm? The discrepancy between estimated and measured areas is sufficiently large for us to conclude that parcel-size and farm-size data based solely on farmer estimates are likely to be erroneous.

For the four farmers for whom we have most of the land measurements, it is clear that total holding sizes are small. Two of the farmers have just slightly more than 1 cx (about 3 acres) on which they support their families. We were not able to measure all of Toli's holdings due to potential conflict from co-heirs. However, he probably has 1/4-1/2 **carreau** in addition to the 1.09 cx measured during the study, giving him access to a total of 1.3-1.6 cx. Of the four farmers, Laience had the largest holdings. In addition to the 4.5 cx measured during the study, he also has a **carreau** of land that was recently surveyed as well as an unknown amount of inherited land to which he does not exercise use rights. Laience thus has access to more than five times as much land as Brunel and Guilbert and to about three times as much land as Toli. Nonetheless, his total holdings are still small--approximately 15 acres--of which a portion is badly eroded. Lacking similar measurements for the remaining landholders, it is impossible for us to draw any substantial conclusions as to total farm-size and land-use decision-making among the Les Anglais farmers.

Having visited most of the parcels belonging to the case study farmers, we are in a position to state that most of the parcels visited are small, and that most of the total holding sizes are small as well. Just how small parcels and total holdings are, however, is a question that we feel cannot be adequately answered without on-the-ground measurements. Nonetheless, our field visits confirmed that parcels tend to be small, often fractions of a **carreau**. The small size of parcels is evidenced by the fact that most farmers use 1/4 **carreau** (**yon ka, yon demi-ka**) rather than **carreau** as the standard unit of land measurement. Although the terms "**sèziem**" and "**vensenk**" (both equal to 1/16 **carreau**) are understood, farmers in the Les Anglais watershed did not use these terms when making land size estimates. Thus, it would appear that parcels tend to be larger in Les Anglais than in other areas of Haiti, where smaller subunits are incorporated into the terminology.

For the 109 parcels for which farmers were able to provide a size estimate, almost half were estimated at 1/4 **carreau** or less, and about one-fifth were estimated to have an area of less than 1/8 **carreau** (see Table 2.3). Slightly more than three-quarters of the parcels were estimated to be 1/2 **carreau** or less. Only 10 percent were estimated at over 1 **carreau**, and this included three parcels of managed land where the manager farmed only the portions not planted in coffee. The largest single block of land farmed by these respondents was reportedly 5 cx (about 15 acres) in size. Even allowing for a very large margin of error, one can only conclude that microparcels are the rule rather than the exception.

Although most farmers in Les Anglais farm very small parcels, cases of large single holdings do exist. A rich merchant in Port-à-Piment is

****

Table 2.3. Distribution of Farmer Parcel Size Estimates

Parcel Size Estimate	# Parcels
1/8 cx or less	23
> 1/8 - 1/4 cx	30
> 1/4 cx - 1/2 cx	33
> 1/2 - 1 cx	12
> 1 cx - 2 cx	6
> 2 cx - 5 cx	5*
Don't know	23
Total	132

* Includes managed parcels and one state land lease.

****

said to own 240 cx in the foothills west of Les Anglais which were acquired largely through a series of foreclosures in the 1920s and 1930s. Such large holdings appear to be the exception, even among larger landholders in Les Anglais.

The largest single block of land owned by one individual on the Les Anglais plain is a 10-cx block that one of the local **speculateurs** acquired through a series of smaller purchases. The largest block of mountain land that we encountered controlled by one individual was a state lease reportedly measuring 10 cx. The same individual had also purchased 7 cx adjoining the state lease, thus making the block 17 cx in all. Farmers in the Rossignol area pointed out several larger blocks (20-40 cx) of land owned by families residing in Chardonnières and Port-à-Piment (again reportedly having been acquired through foreclosures), but these were all owned by more than one individual.

Not only are landholdings made up of many small parcels, but the parcels are also usually scattered over a large area. Most of the farmers had at least one plot located an hour's walk or more from their residence, and six had at least one parcel more than three hours away. Only one farmer, Guilbert, worked land located more than three hours' walk from his home. Other farmers with distant land preferred to let co-heirs, sharecroppers, renters, or managers farm the land. The fact that a parcel is one or two hours' walk from the farmer's house is less of a problem in terms of management if the parcels are spaced fairly regularly so that a number of them can be visited during the day. Efficient management becomes a problem when parcels are separated from each other or the residence by a major drainage or if the farmer must climb and descend several times to reach the land.

§ Ecological Diversity

Most of the farmers interviewed owned or farmed land that encompassed several eco-zones. Only two farmers, Brunel and René, have access only to irrigated plains land. Two other farmers, Iverdieu and Dorilas, also have holdings concentrated on the plains. Several farmers owned both irrigated plains and mountain land (low or high). These farmers tended to reside either on the Les Anglais plain or in the foothills. None of the five farmers in the high mountain zone had access to irrigated plains land, although the wife of one of the landholder's had purchased a house lot in Les Anglais. Farmers residing in the low mountain zone also had a wider range of mountain land than those in the high mountains. The former tend to have plots located in both low and high mountain regions, while the latter tend to have only high mountain land. However, the high mountain zone contains a wide range of habitat types so that the farmers cultivating only in the high mountain zone still have access to a wide range of soil and microclimatic possibilities.

Although some of the farmers mentioned risk minimization as a reason for farming land in different eco-zones, most landholders said they had ecologically diverse holdings because that was where the land

they inherited happened to be. When farmers were asked whether or not they had deliberately looked for a certain type of land prior to renting, sharecropping, or buying a parcel, most of the time the answer was "No, I took what was available." Land, particularly good-quality land, is scarce and expensive so that farmers cannot afford to be too choosy about its location. However, farmers clearly do seek out particular types of land when possible. Odias recently purchased his aunt's "**dwa e pretansyon**" (rights and claims) to an informally divided plot in order to increase his irrigated plains holdings. Yvalon recently began renting a piece of land specifically for pasturage because most of the land he had previously used for pasturage had become a virtual wasteland. Excius began renting land in the high mountains in order to have access to land suitable for black bean production.

§ Categories of Land Access §

§ Primary Access Categories

1. Purchased Land (Té acha/Té achte)

When possible, peasant farmers in Les Anglais prefer to acquire access to land through purchase. Such land is called **tè acha** or **tè achte**. In some cases, the term "**tè acha**" is used more generally to describe land which originally entered the family through purchase but which has since passed to the descendants of the purchaser. To determine if the land was purchased by the farmer being interviewed, it is best to ask who purchased the land rather than assuming that a parcel labeled "**tè acha**" was bought by the farmer.

Formal Procedures for Land Sales and Purchases. The procedure for selling land is clearly spelled out in the Civil Code. The seller and the prospective buyer must go to a local public notary (**kay note**), who draws up a **deklarasyon vann** (declaration of sale) stating the name of the seller, the origins of the land (back to at least two owners), the name of the buyer, addresses for both parties, and the names of neighboring landowners. The seller must provide a deed (**titre** or **pyès**) to the land as evidence of ownership. If the seller cannot produce a deed, the notary undertakes an investigation to determine if the seller, in fact, has had rightful possession of the land for at least one year. If all the above requirements are met, the two parties sign the **deklarasyon** in front of at least two witnesses. The next step in the sale is to have the land surveyed by a surveyor (**apantè**) licensed to survey land in the Commune des Anglais. At the present time, there is one such surveyor. After completing the survey, the surveyor draws up a document describing the boundaries of the land and provides the names of the two parties involved in the transaction. He calculates the area of the parcel and draws a map indicating the bearings and distances between boundary markers. Once the survey is completed, the sale is registered with the Bureau des Contributions (tax office) in Les Anglais and the Contributions' District Office in Les Cayes.

For each of the three steps involved in the land sale--notary, surveyor, Contributions--money is required. In many cases, the cost of the survey may exceed the value of the land, particularly in remote areas where the surveyor must spend the night. Notary fees vary depending on the sale price. One farmer paid $70 for both the notary and contribution fees for coffee land sold for $1000/cx, while a second farmer paid $27 worth of notarial fees for coffee land valued at $260/cx. Most peasant farmers lack the money to complete the land registration process. In addition, the peasant farmer in the Les Anglais watershed must go to considerable trouble to complete the process since the only notary and surveyor are in the town of Les Anglais, often a half day's walk from the farmer's residence.

Formal Purchases. Not surprisingly, the vast majority of the parcels purchased by our case study informants had not been fully registered according to the law. Out of twelve land purchases, only three had been surveyed, notarized, and registered with the Bureau des Contributions. The three farmers who owned these parcels (Odias, Laience, and Mme. Jo) all appear to be fairly well off. Odias and Laience have both purchased three parcels of land each, an indication that they must have access to a relatively large amount of cash. An interesting feature of these purchases is that only Odias had his land surveyed and registered at the time of purchase. Both Mme. Jo and Laience waited several years to accumulate enough cash to pay for the survey and registration of their land. Discussions with three of the larger landholders in Les Anglais revealed that all three have had their purchased land surveyed. Two of them indicated that they had the land surveyed to avoid conflict. Since many of their purchases consist of undivided family lands that cannot support all the co-heirs, a survey is probably the only way to clearly establish rights to the land.

Informal Purchases. Most of the parcels purchased by the landholders in the Les Anglais case study had been purchased through the informal land-sale process. Although we had been told that one can purchase land without obtaining a written document, all of the land buyers had some kind of document describing the transaction. Eight of the purchases were backed up by "**deklarasyon note**," a document issued by the local notary giving the location of the parcel, neighboring landowners, the names and addresses of the seller and buyer, and the date of sale. The document is signed by the two parties and two witnesses. Such **deklarasyon** are inexpensive: $2.00 each as compared to the much higher notarial fees for a fully registered transaction. One purchase had been made in which a simple receipt (**resu**) was the only documentation. The receipt provided the location of the land purchased, the names of the buyer and seller, the date of sale, and the signatures of the buyer and seller.

The incidence of land purchase, whether fully documented or not, is relatively low among the case study respondents. Land is scarce and expensive compared to the value of the crops that can be produced on the land using the normal agricultural practices. Most farmers avoid selling land unless they have no other option. Only three of the

farmers interviewed had sold land. Brunel sold some mountain land in the Tiburon area to finance his move to the Les Anglais area. René and his co-heirs sold a parcel of family land too small to support all the heirs and, from René's standpoint, too far away to farm. Iverdieu sold a portion of an inherited plot to pay for the formal division of the land in order to strengthen his claim to the land.

Among the 132 parcels belonging to the 17 landholders interviewed, only 12 (about 9 percent) had been purchased. Less than half the respondents had purchased land (7 out of 17). Most of the parcels had been purchased from family members (8 compared to 4 from nonfamily members). All were purchased from people living either in villages and towns on the Les Anglais plain or outside the watershed entirely. It appears that the most likely sellers of land are those people who are more closely linked with the outside world, and who are less dependent upon the land for survival.

2. Inherited Land (Tè Eritaj)

Approximately half of the respondents had access to land via inheritance rights. Such land is known as "**tè eritaj**", regardless of whether it has been formally or informally divided among the heirs. Inherited land that has been formally divided is referred to as "**tè eritaj devise,**" while land that has not been formally divided is referred to as "**tè eritaj poko devise**" or "**tè mine**" or "**byen mine.**" People also speak of their "**dwa e pretansyon**" in referring to their claim to an undivided estate. Care must be taken when interpreting the term **tè eritaj** since farmers also use the term to refer to lands that they will eventually inherit from still-living parents.

Formally Divided Land. Formal inheritance laws require that a person's property, including real estate, be divided among all of the deceased's recognized children and surviving spouse. By law, the transfer is not complete until the land has been surveyed and divided and the division notarized and registered with the Bureau des Contributions. Most peasants in the Les Anglais region lack the money to complete the formal division process. Often when asked why a block of family land remains undivided, the peasant's answer is "**nou pa gen kob**" (we don't have the money). The cost for an individual to have his or her land surveyed greatly increases if the land is part of a block of family land that has not been formally divided for several generations. In such cases, the surveyor must reestablish the boundaries of the original parcel, establish a genealogical chart detailing each successive generation of heirs and the portion allotted to each heir, and measure off a parcel of the correct size for the heir wishing to sell the land. The high cost of formally dividing inherited land--coupled with the low value of production that can be obtained from the land--is a major reason why peasant farmers in Les Anglais fail to obtain updated titles to their inherited plots. Another common explanation peasants gave for not formally dividing inherited land was "**nou pa bezwen, nou byen ansam**" (we don't need to, we get along fine). Thus, it appears that as long as no arguments over the use of the land

arise among the co-heirs, formal division is not worth the financial outlay required.

Only one of the case study respondents, Iverdieu, had an inherited parcel with a fully up-to-date title. Iverdieu had received the land via the informal division process after his father's death. However, his uncle questioned Iverdieu's right to occupy the parcel. Rather than losing the entire parcel, Iverdieu paid to have the land divided and surveyed according to the provisions in the Civil Code. Although he had to sell half the parcel to pay for the survey, he preferred to have a secure claim to 1/2 cx rather than a disputed claim to 1 cx. Thus, Iverdieu was willing to pay for formal division only in order to avoid further conflict with his uncle.

Full or partial formal divisions of **tè eritaj** appear to occur when two types of situations arise: (1) when there is a conflict among the co-heirs, and (2) when all or most of the co-heirs wish to sell all or most of the land. René Roblin and his co-heirs paid for the survey and division of an inherited block so that they could sell the land, which was not large enough to support all eight heirs. Similarly, Yvalon's wife's family paid for the survey and partial division of a block of family land in order that a number of the co-heirs could sell their land as a block to a buyer in Les Anglais. We encountered no cases of heirs using the formal division process where there were no existing conflicts or plans to sell the land.

Inherited Land Not Formally Divided (**Tè eritaj poko devise**). Two categories of **tè eritaj poko devise** are represented in the case studies: (1) inherited land that has been informally divided among the heirs, and (2) inherited land that is used or given out on a joint basis by some or all of the co-heirs. When land has been informally divided, each co-heir is given a designated portion of the parcel to work. Often each heir may receive several smaller portions rather than one large portion in order to account for differences in land quality on the original block. The division may be done with a rope in front of community witnesses, or the person from whom the land was inherited may have pointed out the portions for each heir before his or her death. The **eritaj** is then said to be **divize pa dwèt** (divided by finger) or **devise pa koup machet** (divided by machete). If trees are not spread out evenly across the parcel, co-heirs without trees may be given rights to specific trees located on the treed portions. However, trees that are planted belong only to the person who planted them. These trees then pass on to the planter's heirs at his death rather than to all the co-heirs. Co-heirs have the right to graze animals on any portions of the block not under cultivation.

Informally Divided Lands. Nine of the seventeen landholders in the case study had access to informally divided family land. Most of the land was inherited either from the landholder's parents (**sou dwa mama-m/papa-m**), or a spouse (**sou dwa mari-m/madam-m**). Landholders also had rights to land inherited by their spouses (**sou dwa mama madam-m/papa madam-m**). One landholder was a co-heir to a parcel of land

that had belonged to a childless aunt. At her death, the land was divided between her surviving siblings and the children of the siblings who had predeceased her. Out of the 132 parcels owned or farmed by the respondents, 31 (24 percent) were inherited parcels that had been informally divided. Thus, farmers were much more likely to have access to inherited land than to purchased land. The number of generations that informally divided parcels had been in indivision varied from 1 to 4 generations. The number of co-heirs also varied considerably: from 2 on Yvalon's wife's partially divided parcels to over 50 for several of Yvalon's, Odias's, and Arnold's parcels. Unlike the purchased parcels, which were generally located within easy walking distance of the farmer's home, many of the informally divided parcels were located some distance away. Several of the landholders whose parents had come from other regions on the southern coast had "**dwa e pretansyon**" to **tè eritaj poko devise** in those regions. Although none of the **tè eritaj** located outside the watershed was farmed by the respondents, some of the respondents rented or sharecropped out their portions of the **eritaj**. In other cases, the co-heirs residing on the land were given use rights to the land. Sometimes the users sent a portion of the crop to the absent heirs; in other cases, they sent nothing. Respondents farming land with absent co-heirs all stated that the co-heirs retained the right to reestablish themselves on the land if they wished to return.

Undivided Lands. Although most inherited land in the Les Anglais area is probably informally divided, we did encounter a few cases of inherited land which had not been divided, either formally or informally. The Val brothers and sisters have kept five parcels left to them by their parents undivided. Three of these parcels are farmed jointly by the two brothers, Arnold and Joseph. They split the costs and labor of farming the parcels and then divide the harvest equally. The sisters do not exercise their rights to these parcels, but do receive an unfixed share of the produce grown on the land. Arnold refers to this arrangement by saying "**nou travay tè sa-a ansamb**" (we work the land together). The other two undivided parcels are rented out by the co-heirs on a rotating basis. This is referred to as "**tou de rol**" (taking turns). A similar rotating rental system had been set up by another respondent (Toli) and his relatives for a piece of inherited land under dispute. Finally, Arnold's wife and her sister share the **lakou** (house compound) left to them by their mother. Although they live in separate houses, the compound belongs to both of them. The distinction between informally divided and undivided family land is complicated as there may be portions of the **eritaj** that are informally divided and portions that are farmed or used jointly. For example, Yvalon Raphael and his co-heirs each have designated portions on a **tè eritaj** in Mahotière, but jointly graze the parts of the **eritaj** that are too worn out to cultivate. A similar situation occurs with the Vals on one of their family parcels in Mahotière. Shared **lakous** also are common among mountain families. In other parts of Haiti, family burial grounds are also shared and are not considered alienable. This phenomenon is less apparent in the Les Anglais watershed because most people use the Les Anglais or Boko town cemeteries instead of private burial grounds. Out of the parcels we visited, only one had a cemetery and it was no longer being used.

3. Inter Vivos Gifts (Don, Kado)

Aside from purchasing or inheriting land, Les Anglais peasant farmers can acquire land ownership through gifts. According to the formal rules, a landowner may transfer ownership of land by giving another person his rights to the land. The consent of any heirs must be obtained before a gift of land can be made to a nonheir. When making a gift of land, the landowner must go to the notary to register the transaction. The person making the gift may reserve use rights to the land until his death. If that is the case, the receiver of the gift cannot sell the land while the person making the gift is still living. Land is scarce in Les Anglais, while heirs are generally plentiful. Gifts of land are thus a rare occurrence. The only case of an inter vivos donation that we encountered was for Guilbert's wife, whose father had purchased a piece of property in his daughter's name while reserving use rights to the parcel until his death. The father initiated the gift in order to ensure that his daughter would receive her inheritance upon his death. We did not encounter any gifts of land to nonheirs, although people insisted that such gifts are made. They indicated that gifts to nonheirs are generally made to friends or relatives working the land when the landowner has no children or surviving spouse.

§ Categories of Secondary Land Access: Usufruct, Tenancy, and Caretaking

1. Usufruct [**kado** (gift), **travay sou dwa mama/papa** (work under the rights of the mother or father), **tè patiraj** (pastureland), **tè lage bèt** (land for grazing animals), **bay sakle** (literally, give the right to weed but can be translated as give the right to farm or garden)]

Farmers in Les Anglais may enjoy "free" use of agricultural land, trees, and grazing land under several kinds of circumstances.

Proprietary Usufruct. Proprietary usufruct rights stem from the users' proprietary interests in a block of family land and include the rights of co-heirs (1) to cultivate or graze animals on uncultivated portions of a **tè eritaj**, (2) to construct a house on an uncultivated portion of the **eritaj**, and (3) to collect fruit, gather firewood, and cut timber on specified portions of the **eritaj**. This type of usufruct right is reasonably secure since the user retains those rights until the parcel is formally divided or until he sells his "**dwa e pretansyon**" to the **eritaj**. Although his use can be restricted by the way other co-owners use the parcel, his right to use the land or collect fruit cannot be taken away.

Nonproprietary Usufruct. A second type of usufruct right is based on use rights granted to the user by another individual who has superior rights to the land (or trees). Unlike the first type of usufruct rights, the second type can be taken away by the individual who grants them. Among the case study farmers three major kinds of secondary usufruct rights were found: (1) preinheritance grants, (2) temporary usufruct based on family ties, and (3) temporary usufruct based on nonfamily ties.

We encountered several cases of farmers or their spouses who had access to land belonging to parents who were still living. The conditions for the use of the land were generally negligible—the child would provide the parent with a small part of the produce from the land, would help the parent farm another plot, or would provide the parent with a home. The land farmed by the child will then become his when the land is informally divided upon the parent's death. Distinguishing preinheritance land from inherited land and temporary usufruct rights to family land requires careful questioning since farmers refer to all of them as **tè eritaj**. Follow-up questions are needed to determine whether the parent or parents are still alive and whether the respondent stands to inherit that particular piece of land upon the parent's death.

Approximately 10 percent of the parcels held by the case study farmers were farmed or used on a preinheritance basis. Six of the farmers had access to land under preinheritance rights. The number of parcels each farmer had varied from seven for Excius to one for most of the other farmers. A number of such parcels were either **lakous** or land including a house.

A few of the case-study farmers also have access to land via temporary use agreements. Again, many of these agreements are for house sites: René and his wife reside with his wife's father and Brunel resides with his mother under such agreements. Others are for agricultural land: Toli's mother lets him farm portions of her land without demanding a fixed payment, and René farms a portion of his father-in-law's land under a similar agreement. These cases differ from the preinheritance grants in that the farmers or their spouses are not certain to receive the land upon the death of the parents.

Only two cases of temporary use rights on nonfamily land were encountered. One farmer had grazing rights to a parcel of land managed for an absentee owner, and another farmer had been given use rights to a plot where he had constructed a home in anticipation of purchasing the land at a later date.

2. Rentals (Tè Fèm)

Private Land (Tè Abitan). Rental (**anfèmen tè, pran fèm nan mèn yon lot moun**) is one option the farmer has for increasing both the quantity and the quality of his holdings. Renting is a very common means by which Les Anglais peasants acquire access to land. Nearly 20 percent (26) of the parcels worked or owned by the case study farmers were rented, mostly from private individuals. Twelve of the seventeen landholders rented land or **jaden kafe** (coffee gardens) from others.

For the farmer with sufficient cash to make the rental payment, renting is much preferred over sharecropping, and generally over managing agreements, because the renter retains all of the produce (except for fruit in some cases). Renting out land (**bay tè afèm**) is usually avoided when possible, with most farmers preferring to sharecrop or manage out their lands if they lack the capital or labor to farm the

land themselves. People usually will not rent out land unless they need cash immediately. The main reason people rent out land is to obtain cash for paying medical expenses, school fees, and funeral expenses. The length of a rental contract is often determined by the amount of cash needed by the owner: he will rent out the land for whatever period is required for him to obtain the exact amount of money needed. Rents in Les Anglais are hardly ever paid in a series of installments, but rather the entire amount is paid at the time the contract is made (**paye yon seul kou**).

We encountered one case (Brunel) where a rental agreement was cancelled by the owner prior to the end of the term. The owner had sold the land and the new owner wished to farm the land himself. Rather than bring a case before the Tribunal, Brunel chose to accept a refund for the years still remaining on the contract. In another case, Odias purchased a piece of land which was being rented at the time of purchase. He agreed to let the renter continue farming the parcel for the two years remaining on the contract.

Documentation of Rentals. According to the Civil Code, a lease may be written or oral. The Rural Code also places restrictions on the terms of the lease according to the type of crop grown on the land. Few farmers appear to adhere to the restrictions listed in the code. Among the farmers interviewed in Les Anglais, the majority of rental contracts were documented. Of the 26 parcels rented from others, 17 had a paper known as a "**bay afèm**" or "**resu.**" For the 12 parcels rented to others, rental documents exist for at least 8 of the parcels (no information is available for 2 parcels). Out of the 12 landholders who rented land, only 2 (Brunel and Mme. Elie) did not have rental documents. In Mme. Elie's case, she rents the parcel from her aunt and does not feel that she needs a written document because the transaction is a family matter (**zafe fanmi**). Brunel rents from both family and nonfamily members and insists that he does not need a document because the contracts are made between friends (**zafe antre zami**).

Most people evidently feel more secure with a written rental agreement, as it provides them with evidence of access rights if the owner should decide to terminate the contract early. One woman in Les Anglais cited a case where she and her husband had rented a piece of land on the Les Anglais plain at a very low rate because the land was full of river cobbles. The first year they rented the land, they removed many of the cobbles in order to improve production. When the owner saw that the land was no longer rocky, he took back the land. Although the tenants were not able to regain possession of the land when the case was taken before the **Tribunal**, the court did make the owner reimburse them for the remainder of the contract.

Use Restrictions. Unless use restrictions are included in the contract, the renter has virtually total decision-making power as to what he may do with the land. The major restrictions are the following: (1) the renter cannot erect a house except with the owner's permission; (2) the renter usually cannot cut trees down without first obtaining

permission, and, in some cases, the renter may not enjoy the fruits of certain trees (breadfruit and coconuts are the two most commonly restricted trees); and (3) the renter usually does not have rights to coffee unless such rights are specified in the contract. Although we did not encounter any cases where renters had agreements giving them permanent usufruct rights to trees they planted on rental property, a number of informants maintained that rental contracts sometimes include such conditions.

House and House Lot Rentals. Peasants may also rent houses (**anfèmen kay**). Renting a house is to be distinguished from renting the land on which the house is located (**anfèmen emplasman**). In the former case, the renter generally does not have rights to plant crops in the **lakou**, nor does he have rights to any fruits from trees growing in the **lakou**. If a person rents both the house and the **emplasman**, he has rights to any fruit trees specified in the rental agreement. Again, certain fruit trees such as coconuts are often reserved by the owner.

Tree and Pasture Rentals. Peasants may also rent specific trees, usually fruit species. Coconuts, breadfruit, mangoes, and coffee are some commonly rented species. Finally, peasants may rent grazing rights on parcels or portions of parcels. These contracts give them the right to graze their animals on those portions of the land not under current cultivation.

Rental Contract Lengths. In most parts of Haiti, private rental agreements fall into two categories: **potèk** (multiyear contracts), and **fèm** (one-year contracts). In the Les Anglais area, the term "**potèk**" is not employed for long-term rentals, and no other term is used to distinguish between annual and multiyear rental contracts. In fact, with the exception of state leases, which are always on an annual basis, very little land is rented on a yearly basis. Among the case studies, the shortest rental contract (given or taken) was two years. Most of the rental contracts were between four and six years in length, and several were for more than seven years (see Table 2.4). Rental contracts also tended to be fairly stable. Nine of the rental contracts for the twenty-six parcels rented from others had been renewed (**redouble**) at least once, and three others had been sharecropped prior to the current rental agreement. Six of the rental contracts on the twelve parcels rented out had also been renewed at least once.

Slightly more than half (16 of 26 or 61.5 percent) of the parcels rented from others were rented from nonfamily members. Eleven of the twelve renters rented from nonfamily members (including three state leaseholders), while seven rented land from family members. Only four tenants rented from both family and nonfamily members. The number of parcels rented to others was split equally between family and nonfamily tenants. Rentals to others also tended slightly to favor nonfamily members: only three of the eight farmers rented to family members (compared to eleven out of twelve who rented from nonfamily members). Thus rentals appear to be somewhat more likely to occur among nonfamily members (**etranjè**).

****

Table 2.4. Length of Rental Contracts

1) Parcels Rented In

Contract Length (years)	# of Contracts	% of Contracts
1	3	11.5
3	1	3.9
4	6	23.1
5	4	15.4
6	6	23.1
7	4	15.4
8	1	3.9
10	1	3.9
Total	26	100.2*

* Totals do not add to 100% due to rounding.

2) Parcels Rented Out

Contract Length (years)	# of Parcels	% of Parcels
2	1	8.3
3	2	16.7
4	2	16.7
5	3	25.0
7	1	8.3
8	1	8.3
9	1	8.3
Unknown	1	8.3
Total	12	99.9

****

The majority of private land rented from others is rented from people living either in Les Anglais or in the smaller villages on the plains. Most (15 out of 21) of the landowners are located more than an hour's walk from the parcel being rented out. However, only two live outside the watershed (one in Port-au-Prince and the other in Tiburon). Classic absentee landlords appear to be fairly rare in the Les Anglais watershed. Only one of the informants rents out land that is located outside the watershed.

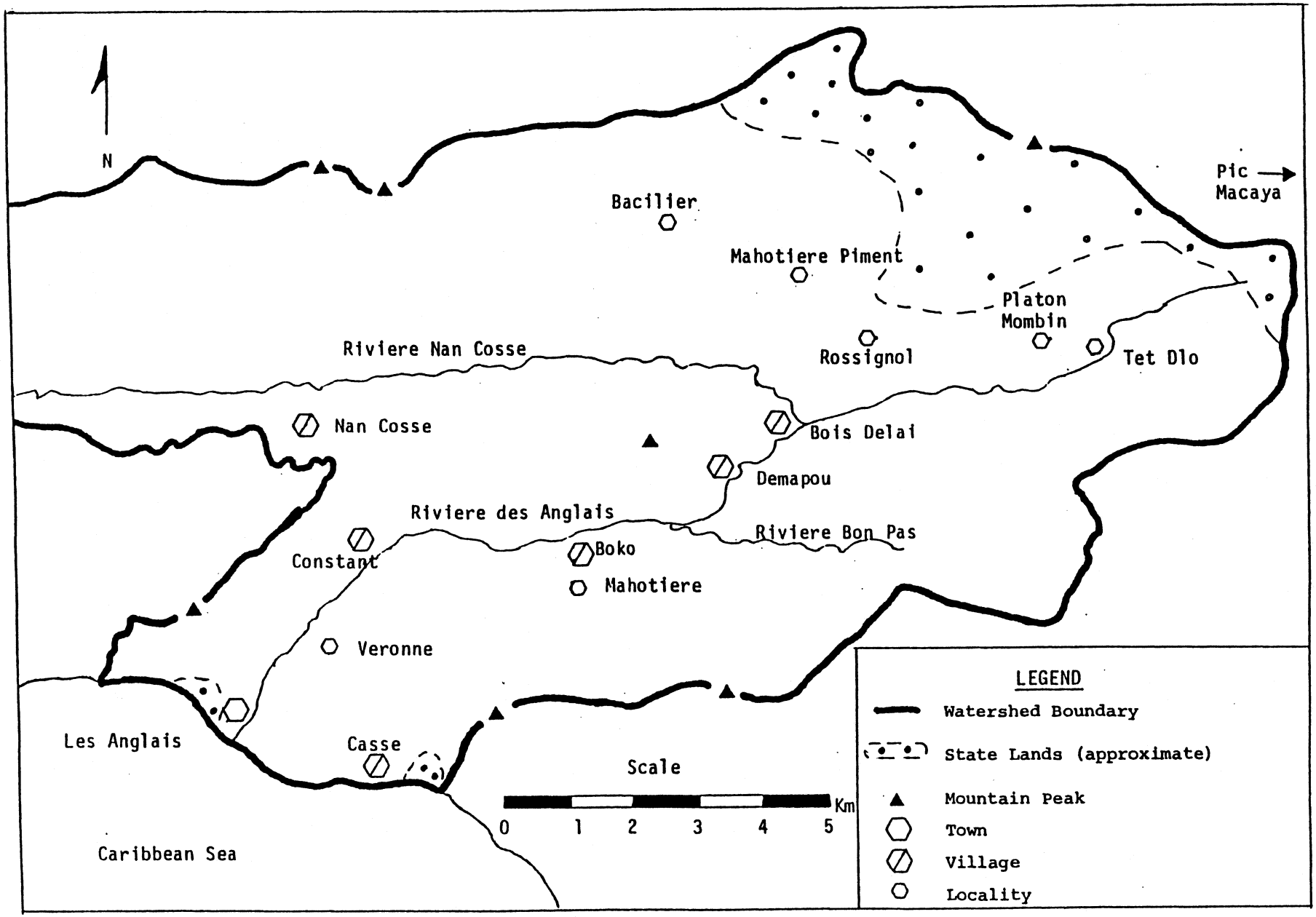
State Land Rentals (Fèm Leta, Tè Leta). State land is concentrated in three areas: (1) in the town of Les Anglais, (2) in the highlands of the Massif de la Hotte, and (3) along the coast (see Figure 2.1). State lands fall into two broad use categories: house lots in Les Anglais, and agricultural land in the highlands and along the coast. As far as we could determine, virtually all of the state land is rented to private individuals, known as **fèmye leta**, on an annual basis.

Three of the case study farmers rented parcels directly from the state. Their state leases consisted of both coffee and noncoffee lands on the slopes of Boukan above Rossignol. The other two farmers interviewed in Rossignol also had access to state lands via sharecropping, private rental, and management agreements with nonresident state leaseholders. Leasing of state agricultural lands appears to be a highland phenomenon: the only farmer outside of Rossignol with access to state land was Guilbert. He has usufruct rights to his father-in-law's house, which is located on state land adjacent to the ocean. In all, the case study farmers had access to a total of fifteen parcels of state land (about 11 percent of the parcels studied).

State Rental Conditions. State land is rented on a yearly basis. The leaseholder must pay the lease amount to the Contributions Office in Les Anglais every year between the months of October and March of the following year. Upon payment of the rent, the leaseholder is given a receipt and the transaction is recorded in the Contributions Office. If the leaseholder fails to pay on time, he is given up to a year before the Contributions begins proceedings to remove him from the leasehold. As long as the leaseholder pays the yearly rent, he retains possession of the lease. The lease passes to his heirs upon his death. Since only one person can be marked as a leaseholder, the heirs may choose a "**responsab**," or manager, whose name is then written in the books. The other heirs each pay their share of the lease to the **responsab**, who then pays the Contributions officer and keeps the receipt. In some cases, the heirs never bother to change the name on the lease, and the lease remains in the name of the original leaseholder long after his or her death. If the leaseholder or his heirs give up the lease (**renounce fèm**), someone else may take over the lease. The leaseholder or his heirs may designate the person to take over the lease if they wish. Mme. Yoyo Despinasse, a leaseholder of a 10-cx block of state land, acquired her lease in this way.

House lots are reportedly more expensive (per unit area) to rent than agricultural land. Les Anglais house lots on state lands rent for $13-14 (U.S. dollars) per year. According to the Contributions officer

Figure 2.1. Estimated Location of State Land in the Les Anglais Watershed



(Prépose), the rental price for land outside Les Anglais town is a function of land quality, with coffee lands being rented at a higher rate than noncoffee land. However, he refused to provide the criteria by which the rent is determined. For the two cases for which we were able to obtain rental prices for an entire block leased directly from the state, the rent per carreau varied enormously. Mme. Yoyo Despinasse pays $48 each year to rent 10 cx of state land in the mountains, while Anastelia, who rents a 5-cx block, reportedly pays $40 per year for similar land.

According to the **Prépose** in Les Anglais, there is currently no state land that is not already being rented. In our field visits we did encounter uncleared and recently cleared land in the highlands above Rossignol. Peasants referred to this land as **tè sans mèt** (land without an owner), rather than **tè leta**. Interestingly, uncleared land along the coast was referred to as **tè leta**.

All of the state leaseholders we talked to seemed to view state leases in a favorable light, preferring such leases to longer-term private rentals as well as sharecropping and management arrangements. Part of the preference is due to the perceived lower costs. Without reliable land measurement data, it is difficult to assess the validity of this claim. However, the rents do appear to be lower than comparable private rentals.

State Lands as Family Lands. Although the state leaseholder is required to renew the lease each year, it is difficult to equate these annual state leases with short-term private leases for several reasons:

1) Unlike tenants on private land, the state tenant can do as he wishes on the state land. Although the Rural Code places restrictions on the uses to which state lands can be put, the state leaseholder uses the land as he or she sees fit since the Code is not enforced. The tenant thus enjoys full rights to any fruit, timber, minerals, or crops on the land. He may also make improvements, such as constructing a house, without obtaining permission of the owner.

2) The likelihood that a state leaseholder will be removed from the land is very low, provided that the lease is paid on time (we heard of no such cases). Thus, the annual lease becomes, in effect, a lifetime lease and is, therefore, preferable to private leases which are generally for a 4-7 year term and not always renewable.

3) Unlike private lease lands, state lease lands can be inherited by the tenant's heirs. State lands can thus be viewed as a special type of inherited land and, in fact, are likely to be referred to as "**tè eritaj.**" To the state leaseholder, state lease lands fall first into the category "**eritaj**" and secondly into the category "**fèm.**" If you ask a state leaseholder in Rossignol, "**sou ki dwa ou genyen tè sa-a**" (under what rights do you have access to this land), he will answer, "**se yon tè eritaj sou dwa mama-m/papa-m**" (it is land inherited from my mother/father) rather than "**se yon tè leta**" (it's state land). Only by asking whether it is state or

private land ("**eske sa yon tè leta ou yon tè abitan?**") is it possible to tell if the "**eritaj**" is a state leasehold.

Surveying of State Lands. State leases in the Rossignol area appear to have originated in the mid- to late nineteenth century. In theory, all of the state land was supposed to have been surveyed prior to lease by private individuals. State surveyors (**arpantè leta**) are charged with the survey of state lands in Les Anglais. The nearest state surveyor is located in Cayes. No one we talked to in the highland areas had ever seen or heard of anyone surveying state lands in the vicinity and, given the rough topography and remoteness of the region, it is highly likely that no surveys were ever conducted.

State Land Latifundia: Myth or Reality in Les Anglais? In certain political and development circles, the state lease system has come under increasing criticism in recent years by proponents of agrarian reform. A large quantity of state land is said to be rented by a few large landholders at very cheap rates. These large landholders reportedly sublet the land to many smallholders at a much higher rate than the original lease rate. Although subletting of state lands (as well as sharecropping and managing) is fairly common on the state lands in the upper reaches of the Les Anglais watershed, most of the subletting appears to be intraclass rather than interclass. Moreover, although some of the state leases are large by Haitian standards (5-10 cx), most of them appear to be shared by a number of co-heirs. The largest state leasehold we encountered that was controlled by a single individual was the 10-cx parcel leased by Mme. Yoyo Despinasse. She does not rent out the land, but rather has engaged a manager to supervise coffee production and placed sharecroppers on the portions planted in annuals. The rent is $48 per year, and it is likely that she receives much more than $48 from the manager and sharecropper arrangements. However, both the sharecroppers and the managers are likely to gain control of the state leasehold upon Mme. Yoyo's death, so the current arrangement is difficult to classify as exploitative.

Transferring State Land to Private Hands. According to the Civil Code, Articles 2030-2032, a person can file for title to certain state lands if he or she has farmed that land for twenty years and if all rent has been paid on time. No one we talked to could recall a case in which a state leaseholder had applied for prescription rights prior to 1987. Early in 1987, however, the **Magistrate Communal des Anglais** (the person responsible for overseeing the administration of the commune) initiated an effort to provide title to holders of state house lots in the town of Les Anglais under the provisions of **grande prescription**. Holders of state lots who could show rental receipts for the last twenty years and who could demonstrate that they were rightful occupiers of the land were allowed to file for private title. A person who had paid rent for twenty years on the lot had to initiate the proceedings by going to the Bureau des Contributions. The **Prépose** then verified that the rents had been paid without fail. If the person fulfilled the twenty-year requirement, the **Prépose** would issue him or her a paper authorizing a survey. The prospective landowner then had to pay the surveyor to survey the plot ($25) and the surveyor would

provide him with a "**Proces Verbal.**" The next step was to have the survey and transfer of title registered with the Bureau des Contributions via a notary. According to town residents, no one has yet completed the process. A total of seventy-six town-lot renters have begun the process and an additional seven state-land leaseholders in Rossignol have also filed for title. Whether this effort to transfer state land to private hands will be successful remains to be seen. It would be useful to monitor this effort to transfer state lands to private hands over a period of several years.

3. Sharecropping (Tè Sosye)

In the Les Anglais region, the term **sosye** rather than **demwatye** is used to refer to sharecropping. If a farmer lacks the capital needed to rent land, sharecropping is one option used to obtain additional land. It also is a means by which a farmer can share risk rather than assuming full risk as with a cash rental. In general, people with the means to rent prefer not to sharecrop for the following reasons:

1) A larger proportion of the net returns goes to the owner than under a rental agreement. The shortness of the contract is usually less of a constraint than the issue of control over the harvest. Sharing the harvest is particularly onerous if the crop is poor, since the farmer may not be able to reserve enough to meet basic household needs.

2) Sharecropping is also considered less desirable than renting because the user has less decision-making power over land use.

3) The sharecropper is less likely to have use rights to fruit and timber than a renter.

Sharecropping is a common means by which Les Anglais farmers acquire access to additional land. Ten of the seventeen landholders interviewed sharecrop at least one parcel of land. Most sharecrop only one parcel, but others sharecrop as many as six tracts of land. A total of twenty-two parcels or 16.7 percent of the parcels held by the case study farmers were acquired via sharecropping agreements.

Harvesting on Sharecropped Land. Informants mentioned several ways in which the division of the harvest was made:

1) In some contracts, the sharecropper is responsible for harvesting the entire crop. When grains, beans, or coffee are involved, the landlord will frequently require the sharecropper to inform him of when the harvest will occur so that he can supervise the harvest and ensure that he gets his full share.

2) Other landlords, particularly town peasants with land in the highlands, require the sharecropper to harvest the crop and then send his share down to town. This system of division is particularly open to abuse, as the sharecropper can easily avoid sending the

landlord's full share. At the same time, if the landlord does not visit the plot during the cropping season, he may have unrealistically high expectations since drought and insect damage cause yields to fluctuate widely.

3) A third method of dividing the crop is based on a percentage of the surface area planted rather than a percentage of the yield. In this method, the landlord designates which portion of the field is for him and which portion is for the sharecropper. The boundary is marked with sticks (**pike**), but the sharecropper farms both sections. At harvest time, the landlord is responsible for harvesting his own section. The aerial method is normally used for crops such as sweet potatoes, yam, and **malanga** that grow below the ground, while the yield method is used for grains, beans and coffee.

Sharecropping Conditions in Les Anglais

Division of Expenses. In the majority of sharecropping arrangements, the sharecropper pays for all cultivation expenses. A few exceptions were encountered where the landlord either provided the seed or paid for half of the estimated cultivation expenses in advance. Both of the above cases involved landlords living in Les Anglais with holdings exceeding 10 cx.

Division of the Harvest. The percent of harvest going to the landlord varies considerably depending upon the types of crops involved, the extent to which the owner is involved in coffee and grain marketing, and the relationship between the owner and the sharecropper:

1) Coffee included in the contract: In the two sharecropping agreements where coffee was included in the contract, the landlord was entitled to approximately two-thirds of the coffee harvest. In one of these agreements, the respondent was sharecropping only the coffee and none of the other fruit trees on the parcel so that his share of the produce was limited to coffee. In the other instance, the sharecropping agreement gave the sharecropper the right to one-third of the coffee and a full share of everything else produced on the parcel.

2) Fifty-fifty split of cereals and beans: One respondent (Edner) split cereals and beans equally with the landlord on parcels where the owner supplied seeds. This same landlord had come to a slightly different arrangement with Mme. Jo on her five sharecropped parcels. Four of the parcels are located on very productive soils on the slopes above Rossignol. For these parcels, the owner received 50 percent of the harvest (mostly corn, black beans, and sweet potatoes) but provided no inputs. The fifth parcel is located on much poorer soils on the slope below Rossignol. Again, the owner provided no inputs, but received only three-eighths (about 38 percent) of the harvest (mostly sorghum, manioc, and congo peas).

3) Owner share less than 50 percent: In most of the sharecropping arrangements, the respondents received from 75-57 percent of the

cereal harvest. Respondents with sharecropping contracts on irrigated plains land (Iverdieu and Dorilas) tended to receive greater shares than respondents sharecropping mountain land. This difference may be a function of the larger investment that the farmer must make in fertilizer and irrigation inputs on the irrigated land. Owners did not provide inputs on these parcels.

4) Rights to fruit, fuelwood, and timber: The division of fruit grown on the plot is usually less regulated. Often the landlord will not set a fixed percentage but will expect to receive a stem of plantains, a sack of mangoes, or a basket of yams periodically. In some cases, the sharecropping arrangement applies only to annual crops and does not include all or certain fruit trees and coffee bushes. Out of the twenty-two parcels sharecropped in by the case study respondents, five did not include rights to fruit and six of the twenty sharecropped parcels with trees did not include rights to cut timber without permission of the owner.

Documentation on Sharecropped Parcels. In contrast to rental contracts which are often documented, sharecropping contracts are rarely written down. The only case we encountered of a documented sharecropping agreement was a contract between Mme. Jo and Mme. Yoyo Despinasse covering both the management and the sharecropping agreements for all the parcels Mme. Jo works for Mme. Yoyo. None of the respondents had signed sharecropping agreements for land they sharecropped out.

Sharecropping Land to Others. If a farmer has an insufficient supply of capital or labor, he may sharecrop out land (**bay sosye**) as a way to keep the land in production. Unless a peasant has an immediate cash need, sharecropping is preferred to rental because it is usually more profitable and because it provides him with a continual source of food and cash crops with very little investment required. Among the seventeen landholders studied, nine sharecrop out at least one parcel of land. The most common reasons for giving land out in sharecrop were (1) lack of either time or labor to farm the plot, and (2) need by a relative for more land. In three of the cases where relatives needing land was cited as a reason for sharecropping out a plot, the landholders either had plenty of good quality land (Odias) or suffered from lack of household labor (Favori). Thus, one could classify these under the "too-much-work" category. In the other two cases where relatives needing land was given as a reason for sharecropping, the relatives had been sharecropping the land for many years before the respondent inherited the parcel. Other reasons given for sharecropping out land were (1) excessive distance from other parcels (over 3 hours), and (2) to avoid a conflict of interest on a parcel managed for CADA (Favori).

Conditions under which land was sharecropped to others also varied considerably. In no case did the respondent supply inputs or pay any production expenses. The user's share varied from 50 to 75 percent, but no clear pattern seemed to emerge to explain the difference in harvest division on these lands. In virtually all of the agreements, the users had the right to collect fruit on the parcel. Rights to collect

coffee were excluded on one of Favori's sharecropped parcels, but included by Odias and Edner on their parcels. The latter two parcels are sharecropped by co-heirs to the parcel while the former is sharecropped by a nonfamily member (**etranje**). Rights to cut timber are generally included for relatives sharecropping the land. In many cases, the relatives are co-heirs to the block of land to which the parcel belongs and thus may have tree-tenure rights in any case.

In contrast to rental contracts, which have a tendency to be made with nonfamily members, sharecropping arrangements occur more frequently with family members. Out of 22 parcels sharecropped from others, 14 (about 10 percent) were sharecropped from family members. Half of the sharecroppers sharecropped from family members (compared to 11 of 12 renters). Landholders are also more likely to sharecrop their land to family members. Seven of the people who sharecropped land to others (9) had made arrangements with family members, compared to only 3 of 8 renters. Of the parcels sharecropped out, 10 out of 14 were farmed by family members while only half of the parcels rented out were rented to family members.

Owners of the land sharecropped by the respondents came from the towns of Les Anglais, Tiburon, and Chardonnières and the village of Nan Casse, all with populations of 300 or more. None of the respondents sharecropped land from rural residents.

The sharecropping arrangements we encountered were fairly stable (see Table 2.5). Although sharecropping contracts are generally made from season to season, only four of the twenty-two parcels sharecropped from others had been sharecropped for a year or less. Half of the sharecropped parcels had been worked by the respondent for 5 years or more and nearly one-third had been worked for 10 or more years. Sharecropping arrangements can evidently last for decades. Two of the respondents had sharecropped parcels out to the same people for 20 and 24 years, while one respondent has sharecropped the same plot of land for 21 years and another has sharecropped three plots on a relative's state lease for 20 years. One case of a sharecropping agreement passing from parent to child was also encountered (Excius's cousin on the state lease).

4. Managed Land (Tè Jeran)

Farmers in the Les Anglais watershed may take part in a management arrangement as a means to acquire additional land for raising food crops or to obtain access to coffee or fruit trees. People who manage land are usually referred to as "**jeran,**" although the term "**responsab**" is also used. People who turn land over to managers (**moun ki bay jeran**) are referred to as either "**mèt tè-a**" (owner of the land) or **mèt jaden-an** (person in charge of the garden, not necessarily an owner). If the managed plot contains a portion in coffee and a portion in annuals sharecropped by the manager, the manager may be considered "**mèt jaden-an**" for the portion in annuals, but he is the "**jeran**" for the "**jaden kafe**" (portion in coffee).

****

Table 2.5. Length of Tenure on Parcels Sharecropped from Others

# of Years Sharecropped	# Parcels	% Parcels
1	4	18.2
2	5	22.7
3	1	4.5
4	1	4.5
6	1	4.5
7	2	9.1
8	1	4.5
10	2	9.1
12	1	4.5
20	3	13.6
21	1	4.5
Total	22	99.7

****

Most "**jeran**" arrangements occur on land that is located at some distance from the landholder's residence and which usually contains a coffee or fruit plantation. The landholder (often the owner, but sometimes a renter) may engage another farmer (usually a resident in the **localité** in which the land is located) to oversee production on the parcel. Our case studies indicate that "**jerans**" may be either family or nonfamily members. In the Les Anglais area, most "**jeran**" arrangements occur between private individuals, but we did encounter one case (Favori) of a man who managed a coffee plantation belonging to the coffee co-operative.

Approximately 8 percent of the parcels held by the case study respondents were held under management contracts. All but two of the managed parcels were located in the mountains above 300 m in altitude. Since no reliable land-size data are available, it is difficult to determine how much of the watershed's land area is occupied by managed lands. We encountered one case where a manager was said to be responsible for a 50-cx parcel, another case of a manager responsible for 10 cx, and two cases of coffee **speculateurs** who had engaged managers for a series of smaller parcels totaling 40 and 25 cx, respectively. It thus seems likely that a disproportionately large area of land in the mountains may be covered under management contracts.

Division of Expenses. In most management arrangements, the landowner is responsible for paying all of the expenses for the production of coffee (or fruit on a fruit plantation). Five of the six managers interviewed had arrangements in which the owner paid for coffee or fruit production. The owner provides the manager with the money needed to hire laborers to weed (**sakle**) and harvest (**keyi**) the coffee. He may also provide banana cuttings and fruit-tree seedlings if he wishes the manager to plant more coffee bushes (**pike kafe**). If extra help is required to expand the plantation, the owner will pay for any incurred labor costs. The manager's role is to supervise all production activities. On coffee plantations, the owner will frequently spend several days or weeks on the managed land to assist with the harvest and ensure that he gets his share of the coffee.

Remuneration for Managers. The rights of the owner and the manager to the land and its products vary considerably:

1) In cases where the owner pays for coffee and fruit production expenses, he usually receives most or all of the coffee or fruit harvested. For his work, the manager is allowed to cultivate all portions of the plot not planted in perennials. The harvest from these subplots may be split with the owner, but often the manager gets the entire crop. The manager may also be entitled to a small share of the coffee or fruit produced on the parcel.

2) A less common practice is for the owner to cover all production expenses and pay the manager a wage rather than giving him the right to cultivate portions of the land not in coffee. Edner was the only manager among the six managers interviewed who received a wage. In that contract, the owner also received 100 percent of the coffee, although Edner did have the right to gather fruit on the parcel.

3) One of the respondents who engaged a manager used the term "**jeran**" to refer to a cousin charged with cultivating a coffee garden located some distance from the landowner's residence. Unlike other people who managed out land, the owner did not pay for any of the coffee cultivation expenses. The **jeran** in this case was obligated to send the owner only 25 percent of the coffee and an unspecified portion of the other crops.

Peasant Rationale for Taking Part in Management Agreements. From the owner's viewpoint, management is beneficial because it enables him to retain control of all or almost all of the crop that interests him the most--coffee or, more rarely, fruit. This aspect of management is particularly important for **speculateurs** and **commerçants** who deal in coffee, as it maximizes the amount of coffee they will receive compared to what they would receive under a sharecropping agreement. At the same time, the owner will have access to a share of the annuals produced on the land.

From the **jeran**'s viewpoint, the management arrangement is often perceived as being preferable to sharecropping for several reasons:

1) One advantage of being a manager rather than a sharecropper, is that the **jeran** contract is likely to be more long-term since an owner usually will not get rid of a manager if the manager does a good job.

2) Since the owner is generally not interested in farming directly, there is also less chance that he will decide to take back the land and farm it himself.

3) Another advantage to managing is that managers will get at least half the harvest of annuals, and they often get all or nearly all of the annuals harvested. The fact that they do not get much, if any, of the coffee is unimportant since sharecropping agreements rarely include rights to coffee produced on the land.

4) Peasants also consider management better than sharecropping because the **jeran** position can be passed on from father to son.

5) Finally, peasants in the area feel that being a manager puts one in a better position to purchase the land if the owner decides to sell.

Owners of Managed Land: The Absentee Landlord. Many of the landlords of managed land in the Les Anglais area reside in the town of Les Anglais or in neighboring villages rather than in the mountain **localités**. The **mèt tè** often differs from the **jeran** in that he or she may have a profession or trade outside of farming (**speculateur**, civil servant, or merchant). The two landholders in our study who engaged managers appeared to be wealthier peasants. Wealth, or at least some extra capital, is often needed for managed lands since the **mèt tè** is generally responsible for paying coffee-production expenses. This contrasts to the general practice for sharecropping where the owner provides no inputs.

5. Squatting (Tè San Mèt)

None of the case study respondents were squatters on private or state land. However, we did encounter an area in the pine forest region (**bwa pen**) above Rossignol and Platon Mombin where people had started to clear land (**ekrase rak bwa**) unclaimed by other farmers. The legal classification of portions of the pine forest are under dispute: the state claims it, and one of the rich families of Port-à-Piment also claims it as a **don de l'état** from the nineteenth century. Timber cutters (**siyè**) continue to cut timber in this area without obtaining permission either from the state or from representatives of the area. One former timber cutter residing in Les Anglais reported that he had purchased 1/2 cx in the **bwa pin** region in order to avoid conflicts over ownership. Other portions of land covered with a dense secondary growth (**rak bwa, tè rak**) are not included in this dispute. Farmers in the area say that anyone has the right to clear this land, which is known is "**tè san mèt.**" The extent of the **tè san mèt** is not known.

§ Patterns of Access and Tenure Security §

Individual patterns of access to land among peasant farmers in the Les Anglais watershed are extremely complex. It is impossible to categorize farmers as just owners, renters, sharecroppers, or managers since most of the farmers interviewed had access to land in a variety of ways. Seven major categories of land access were represented among the case study respondents: purchase (both documented and undocumented), inheritance (informally divided, formally divided, and undivided), inter vivos gifts, usufruct (preinheritance grants from family members and from nonfamily members), rentals (private and state), sharecropping, and managing. An eighth category, squatting, was encountered during the parcel visits. The distribution of land-access types among the case-study landholders is given in Table 2.6.

The different access categories can be seen as representing a continuum of tenure security (see Figure 2.2), ranging from most to least secure. Security is defined here as the assurance a landholder possesses that he will continue to have access to the land. The most secure access category (other things being equal) consists of owned land that has been acquired through the formal system (surveyed, notarized, and registered purchases, inheritances and inter vivos gifts). Lands purchased without benefit of a title can be considered the next most secure (in terms of individuals, if not the family). Informally divided and undivided family lands would provide more security than lands acquired via a second party, but less than that provided by purchased or formally inherited parcels. In the secondary access category, usufruct lands occupy an ambiguous position, depending on the user's relationship to the landholder and the likelihood that the user will eventually inherit the land. For example, Karonel's access to grazing lands belonging to an unrelated absentee landowner is much less secure than Excius's access to portions of his father's land that Excius is likely to inherit upon his father's death. Rental lands, and particularly state rentals,

****

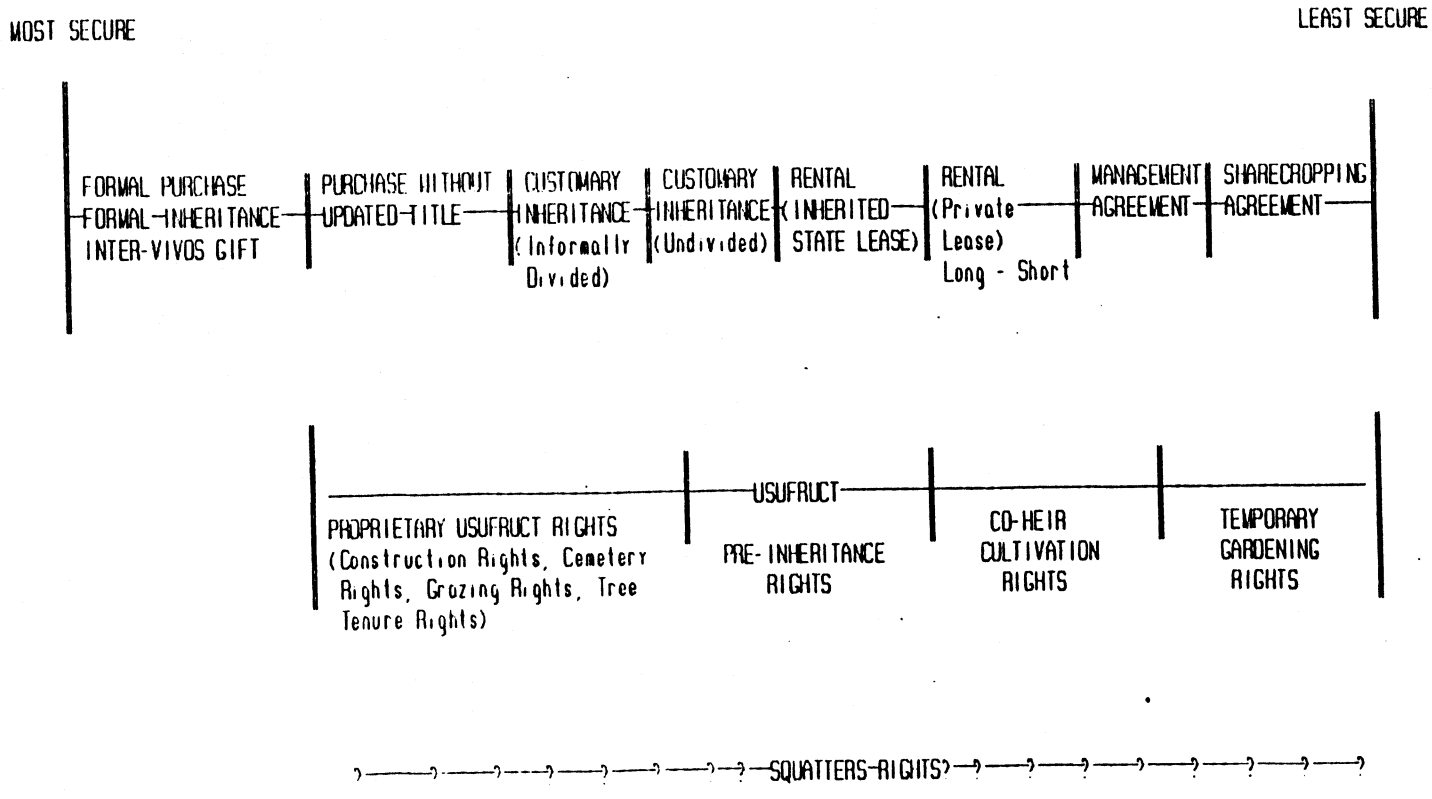
Table 2.6. Number of Parcels under Each Access Type

Respondent	Access Type: Purchase/ Gift/Formal Inheritance	Informal Inheritance	Usufruct	Rent	Sharecrop	Manager
Exclus			7	2		
Favori		1		4		1
Mme. Jo	1		2	2	5	4
Anastelia				1		
Edner	1	1			6	1
Yvalon	1	6		1		
Karonel	1		3	2	1	2
Odias	3	4				
Elie		8		1	1	
Toli		1	2	3	1	1
Laience	3	2			4	
Guilbert	1*		2	2		
Dorilas		3	1		1	
Iverdieu	1**	1	1		1	2
René			2	1	1	
Arnold		11		1	1	
Brunel	2		1	6		
Total (%)	14 (11%)	38 (29%)	21 (16%)	26 (20%)	22 (16%)	11 (8%)

* Inter vivos gift **Formal inheritance

****

FIGURE 2.2. ACCESS SECURITY CONTINUUM



are the most secure type of secondary access (except for preinheritance grants). Rental agreements are long term and most agreements are documented. Managing is a somewhat less secure form of access than rental, but more secure than sharecropping. Unlike the renter, the manager has only limited control over the land. His term is also not fixed and he can, theoretically, be removed at any time. In this sense, the manager resembles the sharecropper. However, most farmers interviewed felt that management agreements were preferable to sharecropping because they are perceived to last longer and may be heritable.

§ Land Access and Land Use §

§ Individual Land Portfolios

The case-study data indicate that farmers in the Les Anglais area tend to have access to several small, noncontiguous parcels encompassing a wide range of eco-types and soil conditions. In addition, the farmer is likely to own some parcels while simultaneously farming others under tenant arrangements. Individual farmers use the different parcels in different ways. The farmer will decide to farm some parcels himself while giving out others. On one parcel he may cultivate coffee and a variety of fruit trees; on another he may grow black beans, corn, and congo peas; a third may be used primarily for pasturage. He may plant trees on some parcels and remove trees and bushes on another. A soil-conservation project that seeks to change the way that farmers use the land must include a means for understanding why different types of land are used in different ways. Clearly, ecological factors affect the use to which farmers put land. However, the landholder case studies suggest that the type of access a person has to land also enters into his land-use decisions. Thus, Karonel, who has access to several parcels capable of supporting fruit and timber trees, plants trees only on those lands to which he feels he has a secure claim. Mme. Elie sharecrops and rents out parcels that are too far away and rents in another, closer parcel. Yvalon uses his rented land for pasture rather than his purchased land. By looking at a farmer's entire land "portfolio" and comparing the different uses to which each parcel is put, one is in a position to understand better why a farmer may be willing to make certain investments on one of his parcels and not on another. A summary of each of the case farmers' holdings as well as a discussion of how land access and land use are related for each individual are provided in Appendix B.

§ Aggregate Land-Use Patterns

While looking at individual holdings and differences in land use within individual holdings is essential to an understanding of a farmer's decision-making processes, it is also important to know to what extent these individual patterns hold true for other farmers. The following section discusses some of the aggregate patterns of land access and land use that emerged from studying individual farmers' holdings. Three major questions were examined: (1) What kinds of land do farmers tend to give out to others and under what circumstances? (2) Is there a

tendency for certain access types to be associated with specific land-use practices? (3) Are farmers more likely to plant trees on land in some access categories?

To answer these questions, it was necessary to assign each parcel a land-use category. During the field work, as many parcels as possible were visited for each farmer and the types of crops grown and the erosion level were noted. A cross-tabulation of crop type versus erosion level showed that certain crops could be used as indicators of the level of soil erosion (see Table 2.7). For example, moderately to severely eroded parcels had a relatively high incidence of peanuts and millet, whereas slightly eroded lands had a very low incidence of both of these crops. In contrast, severely eroded lands had a very low incidence of yam cultivation, whereas slightly eroded lands had a very high incidence of yam cultivation. Some crops, such as corn, manioc, and congo peas, appeared to be grown with equal frequency on parcels of all erosion levels. Using this method, crops were placed into four categories: annuals occurring primarily on highly eroded soils (millet and peanuts), annuals occurring predominantly on slightly eroded soils (yams, black beans, **malanga**, **mazombel**), annuals occurring on a wide range of soils (corn, manioc, congo peas, and so on), and coffee. Each parcel was then placed into one of four categories: (1) parcels with low-fertility annuals only, (2) parcels with high-fertility annuals only, (3) parcels with a mixture of low-, high-, and multi-range annuals, and (4) parcels with coffee as well as annuals (see Table 2.8). These categories were then used to compare land uses among the land-access and land-exploitation categories.

§ Who Farms What Land?

One of the first questions to ask about land use is whether the farmer uses the parcel himself or whether he gives it out to someone else to work for him. Most of the farmers (14 out of 17) give out some land to others to work. The reasons for not working a piece of land vary greatly. In some cases, the land may be too far away for the landholder to work the land efficiently himself. Parcels more than 2.5-3 hours away are usually not farmed directly. Informally inherited lands may also be given out jointly by the co-heirs to avoid an outright dispute over who has rights to what land. If a parcel is too small to support all recipients, the co-heirs may opt to rent or sharecrop the land to an outsider and split the proceeds equally rather than sell the land. Inherited parcels which had previously been given out by the current owner's parents may continue to be given out under the same conditions. Lack of household labor or sufficient cash to purchase labor is also cited as a reason for giving out land. Finally, if cash is needed to pay expenses (school fees, funeral costs, medical costs, and the like), land may be rented out.

All of the case-study landholders work at least some of their land directly, although the two oldest landholders, Anastelia and Yvalon, rely heavily upon informal usufruct arrangements with their children to work their land. Fourteen of the farmers give out land to others to

****

Table 2.7. Erosion Level versus Crop Type on Mountain Parcels
(% of parcels in each erosion level with specified crop)

Crop	Overall Frequency	Parcel Erosion Level: Slight	Slight-Moderate	Moderate	Moderate-Severe	Severe
Peanuts	8.2	0.0	6.7	13.0	12.5	28.6
Millet	21.2	9.4	6.7	34.8	50.0	28.6
Manioc	48.2	50.0	46.7	47.8	50.0	42.9
Maize	50.5	53.1	66.7	43.5	37.5	42.9
Congo peas	61.1	53.0	73.3	65.2	50.0	71.4
Black beans	41.2	37.5	46.7	56.5	37.5	42.9
Rice	3.5	3.1	0.0	8.7	0.0	0.0
Mazombel/ Malanga	8.2	12.5	20.0	0.0	0.0	0.0
Yams	32.9	46.9	46.7	17.4	12.5	14.3
Coffee	43.5	68.8	46.7	26.1	0.0	14.3

Note: Figures are for mountain land, visited parcels only.

****

Table 2.8. Summary of Land-Use Categories

Land-Use Category	Indicator Crops	Associated with Erosion Level
Low-fertility annuals only (LFA)	millet, peanuts	severe, moderate-severe, moderate
High-fertility annuals only (HFA)	black beans, yams, rice mazombel/malanga	slight, slight-moderate, moderate
Multi-range annuals (MRA)	maize, manioc, congo peas	all categories
Coffee (with or without annuals)	coffee	slight, slight-moderate

****

work (see Table 2.9). Age appears to be related to the giving out of land: all of the older farmers give out some land, whereas only younger farmers work all of their land themselves. Land is given out in a variety of ways. Nine of the farmers give out land in usufruct, receiving no fixed payment or share of the crop in return for the use of the land. Renting and sharecropping occur with nearly equal frequency: eight farmers rented out land, and nine farmers sharecropped out land. Managing out land was the least common way in which these landholders gave out land--only Odias and Mme. Jo managed out land.

On a parcel basis, usufruct was the most common way in which land was given out to others. Twenty-three of the plots were given out in usufruct to relatives (sons, daughters, nephews, cousins, brothers, sisters, and so on). Such informal arrangements were particularly common for informally inherited lands located more than 3 hours from the farmer's residence. Sharecropping and renting were the next most common forms of giving out land, with thirteen and twelve plots, respectively. Managing was very rare: only two parcels were given out under management agreements.

We had expected to find a tendency for farmers to give out their least productive land. A comparison of exploitation type with land-capability class indicates that parcels given out are less likely to be parcels on which high-fertility annuals can be produced and are slightly more likely to be parcels with low-fertility annuals only (see Tables 2.10 and 2.11). Lands which can support the most remunerative crops (beans and yams) are thus most likely to be farmed directly. Surprisingly, coffee was also grown on a larger percentage of parcels given out. However, one should keep in mind that although one parcel managed out and one parcel sharecropped out had coffee, the users did not receive a share of the coffee. In addition, nonecological factors such as travel time and land conflicts also affect the decision as to which parcels a farmer will choose to let others farm.

Farmers are much less likely to plant trees on land that they do not use themselves (see Table 2.12). Eleven of the thirteen landholders who planted trees planted them only on land they farmed directly, while only two (Mme. Jo and Dorilas) planted trees on land that they gave out. In Dorilas's case, the trees were planted while he was still farming the land himself. Mme. Jo's parcel is managed out and she receives all of the coffee harvested on the parcel. Informal interviews with other farmers in the area revealed that many landlords will not plant trees on land given out in tenancy. However, there are exceptions to this rule: two of the largest landholders in the area indicated that they sometimes provide sharecroppers and managers on their lands with tree seedlings.

§ Access Category and Land Use

A breakdown of crop category by access type for directly farmed land indicates that cropping patterns do, indeed, vary with the type of access a person has to the land (see Figure 2.3). For example, no

****

Table 2.9. Indirect Forms of Working Land among the Case Respondents

	..... Indirect Farming Arrangement			
	Usufruct	Rental	Sharecropped	Managed
# of respondents	9	8	9	2
# of parcels (includes partial plots)	23	12	13	2

****

Table 2.10. Land-Use Distribution on Mountain Land

Land Use	Parcels Worked Directly		Parcels Given Out		Total # of Parcels	
Low-fertility annuals only	9	(12.3%)	2	(14.3%)	11	(12.6)
High-fertility annuals only	15	(20.5%)	2	(14.3%)	17	(19.5)
Annuals only	18	(24.7%)	4	(28.5%)	22	(25.3)
Coffee (with or without annuals)	31	(42.5%)	6	(42.9%)	37	(42.5)
Total	73	(99.9%)	14	(100%)	87	(99.9)

Note: Figures are for visited parcels only.

****

****

Table 2.11. Land-Use Distribution on All Parcels

Land-Use Category	Parcels Worked Directly #	(%)	Parcels Given Out #	(%)	Total #	(%)
Low-fertility annuals only	9	(8.8)	2	(12.5)	11	(9.3)
High-fertility annuals only	34	(33.3)	4	(25.0)	38	(32.2)
Mixture of annuals	24	(23.5)	4	(25.0)	28	(23.7)
Coffee (with or without annuals)	35	(34.3)	6	(37.5)	41	(34.7)
Total	102	(99.9)	16	(100.0)	118	(99.9)

Note: Figures include visited parcels and one coffee plantation that was not visited.

Table 2.12. Tree Planting on Directly versus Indirectly Worked Land (includes both mountain and plains land)

Form of Use	Informant Plants Trees	Informant Does Not Plant Trees	Total
Parcels worked directly	24 (92.3%)	80 (76.2%)	104
Parcels worked by others	2 (7.7%)	25 (23.8%)	27
Total	26 (100.0%)	105 (100.0%)	131*

* One house lot with no surrounding lakou was not included in the analysis.

****

Figure 2.13. Land Access versus Land Use for Directly Farmed Parcels

Land Use Category	Purchase, Formal Inheritance, Gift	Non-formal Inheritance	Usufruct	Rented	Sharecropped	Managed	Total
Low Fertility Annuals Only	0 (0.0%)	2 (10.0%)	0 (0.0%)	2 (8.3%)	5 (22.7%)	0 (0.0%)	9 (8.8%)
High Fertility Annuals Only	4 (33.3%)	5 (25.0%)	3 (16.7%)	11 (45.8%)	9 (40.9%)	2 (33.3%)	34 (33.3%)
Mixture of Annuals	4 (33.3%)	5 (25.0%)	10 (55.5%)	1 (4.2%)	4 (18.2%)	0 (0.0%)	24 (23.5%)
Coffee (with or without annuals)	4 (33.3%)	8 (40.0%)	5 (27.8%)	10 (41.7%)	4 (18.2%)	4 (66.7%)	35 (34.3%)
Total	12 (99.9%)	20 (100.0%)	18 (100.0%)	24 (100.0%)	22 (100.0%)	6 (99.9%)	102

purchased land was used to grow only low-fertility annuals. Instead, purchased land was used to produce high-fertility annuals or a mixture of low-, high-, and multi-range annuals. Coffee was grown on four purchased plots (however, Mme. Jo also cultivates coffee on the purchased land she manages out). A large percentage of informally inherited parcels (40 percent) included at least some coffee. Approximately one-quarter of the informally inherited plots were used to grow high-fertility annuals only, while another quarter were used to grow a mixture of annuals.

Two plots were used to grow low-fertility annuals only. Thus, informally inherited lands appear to be used for a wider range of crops than purchased parcels. A farmer purchasing land is unlikely to purchase poor quality land, whereas he will have no choice as to the quality of land that he inherits.

Land use on lands acquired in usufruct contrasts greatly with land use on both purchased and inherited lands. Less than one-third of the usufruct plots contained coffee groves, and the majority of them were used to grow a mixture of annuals. Land taken in usufruct thus is generally of poorer quality than owned land. It also appears to be of poorer quality than lands rented in. Rental lands fell into two cropping categories: either they were used to grow only high-fertility annuals or they included both coffee and annuals. Thus, it would appear that rental lands tend to be of fairly good quality. This result is hardly surprising since renters are unlikely to pay cash up-front for poor-quality land. Landowners in need of cash must be willing to rent out land that is productive enough to justify the additional outlay of capital. In contrast, lands sharecropped in tended to be of relatively poor quality. Nearly a quarter of the sharecropped parcels were planted solely with low-fertility annuals as compared to only 8.3 percent of the rental parcels. A much lower percentage of the sharecropped lands included coffee (18.2 percent compared to 41.7 percent of the rental lands). Moreover, for several of the sharecropped parcels with coffee, the sharecropper did not have rights to the coffee. A high proportion of sharecropped lands were used to grow only high-fertility annuals (41.0 percent). This result is heavily influenced by the presence of state-land sublessors in the Rossignol area. Most of these state lands are located on fairly productive high mountain soils that can be used to grow black beans and yams as well as coffee and fruit trees. The owners of the state leases often prefer to sharecrop or manage out these lands rather than subletting them, because the former arrangements permit them to maintain a continual supply of both coffee and food crops. Managed land fell into two use categories: the majority of the managed land supported a combination of coffee and annuals, while those parcels without coffee were used to grow high-fertility annuals (these parcels also included coconut and mango groves). Thus, managed lands tended to be of better quality than sharecropped and usufruct lands.

A comparison of parcel-erosion level with the type of access the respondent has to the land reveals that higher erosion levels are associated with certain access categories. Table 2.13 provides the distribution of erosion level among six access categories for mountain land.

****

Table 2.13. Erosion Level by Land-Access Category on Mountain Land

Erosion Level	Access Category					
	Purchase	Informal Inheritance	Usufruct	Rented	Share-cropped	Managed
Slight	5 (71.4)	8 (40.0)	2 (15.4)	7 (36.8)	7 (38.9)	3 (37.5)
Slight-moderate	1 (14.3)	4 (20.0)	2 (15.4)	3 (15.8)	3 (16.6)	2 (25.0)
Moderate	1 (14.3)	3 (15.0)	3 (23.1)	8 (42.1)	5 (27.8)	3 (37.5)
Moderate-severe	0 (00.0)	1 (5.0)	4 (30.7)	1 (5.3)	2 (11.1)	0 (00.0)
Severe	0 (00.0)	4 (20.0)	2 (15.4)	0 (00.0)	1 (5.6)	0 (00.0)
Total	7 (100)	20 (100)	13 (100)	19 (100)	18 (100)	8 (100)

Note: Erosion categories were not assigned to three mountain parcels that were visited (two house sites and one field). These three parcels were left out of the above calculations.

Table 2.14. Stated Willingness to Plant Trees for Specific Access Types

Willing to Plant Trees?	Type of Access to Parcel				
	Purchased n=16	Inherited n=16	Rented n=16	Sharecropped n=16	Managed n=12
Yes	16 (100%)	16 (100%)	3 (19%)	3 (19%)	9 (75%)
No	0 (0%)	0 (0%)	13 (81%)	13 (81%)	3 (25%)
Total	16 (100%)	16 (100%)	16 (100%)	16 (100%)	12 (100%)

****

Purchased parcels tend to be the least eroded (71.4 percent fall into the slightly eroded category and none exhibits signs of severe erosion). Managed parcels also tend to be in fairly good condition. Since most of the managed lands in the mountains are at least partly planted in coffee, the soils tend to be better protected and the likelihood of erosion is decreased. In contrast, the informally inherited, usufruct, rental, and sharecrop categories all include some severely eroded parcels. Nearly half the usufruct parcels are moderately-to-severely or severely eroded (46.1 percent) compared to only one-quarter of the family lands, 16.7 percent of the sharecropped lands, and 5.3 percent of the rental lands. The high incidence of severely eroded lands in the family and usufruct categories is likely due to the unwillingness of farmers to rent or sharecrop in extremely poor-quality lands. However, if the farmer is not required to deliver much, if any, of the harvest, he may be willing to farm less productive land.

§ Land Access and Tree Planting

One aspect of the PST soil-conservation program includes encouraging farmers to plant trees. Thus, one of our goals was to see whether the type of access a farmer has is related to his or her decisions to plant trees. During the interviews, farmers were asked if they would plant trees on a given type of land (that is, **tè acha, tè eritaj poko devise, tè fèm,** and so on) and why they would or would not plant trees on such land. The results of those interviews indicate a clear preference for planting trees on purchased land (see Table 2.14). A number of respondents said that they would be hesitant to plant trees on informally divided family land because they could not be sure that the portion planted with trees would become theirs when the land was divided. Most farmers indicated that they would not plant trees on rented, sharecropped, or managed land because the mature tree would not be for them. Although several farmers indicated that rental contracts could include a stipulation giving the renter the rights to the trees he plants, we were not able to find any specific cases where this had actually happened.

The type of access a farmer has at least partly influences his or her decision to plant trees on the land. For example, Mme. Jo has planted trees only on the land she purchased several years ago. Similarly, Karonel has planted trees on the land he purchased in 1980 and on the land he is likely to inherit upon his mother's death. As indicated in Table 2.15, definite patterns exist between land access and willingness to plant trees. Respondents had planted trees on a total of 26 out of 132 parcels (approximately 20 percent). The relative incidence of tree planting is highest on purchased land (36 percent) and informally inherited land (34 percent). Usufruct lands are the next highest, with 20 percent of the usufruct parcels planted with trees. The incidence of tree planting on tenancy lands is very low: 8 percent of the rental lands, 9 percent of the sharecropped lands, and none of the managed lands.

Of the thirteen landholders who planted trees, five had planted on purchased land, five had planted on informally inherited land, two had

****

Table 2.15. Incidence of Tree Planting versus Access Type (all parcels)

Has Planted Trees on Plot	Purchased	Informally Inherited	Usufruct	Rented	Share-cropped	Managed
Yes	5 (36%)	13 (34%)	4 (20%)	2 (8%)	2 (9%)	0 (0%)
No	9 (64%)	25 (66%)	16 (80%)	24 (92%)	20 (91%)	11 (100%)
Total	14 (100%)	38 (100%)	20 (100%)	26 (100%)	22 (100%)	11 (100%)

Note: One house site which did not include a yard was not included in the above tabulations.

****

planted on usufruct land, two had planted on rental land, and two had planted on sharecropped land. Both farmers who had planted on usufruct land had planted on land they received as preinheritance grants from their mother or father. The two farmers who planted trees on rental lands planted on state rental land that had been in their family for several generations. In Anastelia's case, the state parcel is the only land she has. In Favori's case, the state rental land is his most secure holding, with the exception of a distant informally inherited parcel. Exceptional circumstances also are found for the trees planted on sharecropped land. In Laience's case, the trees were supplied by the owner of the land while, in Edner's case, he enjoys the use of the residence on the land and is also likely to inherit the parcel upon the owner's death.

§ Conclusion §

The case-study results indicate that Les Anglais farmers make agricultural decisions at least in part on the basis of how much land they have, the quality of the land, the distribution of their parcels, and the type of access that they have to the land. In order effectively to implement a soil-conservation program, agronomes and technicians need to understand how these factors influence a farmer's ability or willingness to participate in such programs. Equally important, they need to

know (1) what each farmer's land portfolio looks like, (2) the degree to which the farmer has exclusive decision-making power over each parcel, and (3) if there are multiple decision makers, who the decision makers are.

§ Problematic Primary Access Categories: Family Lands

An analysis of land use and land access among the Les Anglais farmers suggests that disincentives to agricultural investment are present for most of the land farmed by a typical peasant. Much has been made of the fact that the majority of Haitian peasants own at least some of their land. Indeed, most of the people we interviewed were landowners. However, the form of ownership is such that most farmers have restricted decision-making powers over the land to which they have primary access rights. The bulk of the parcels owned by peasants in Les Anglais was acquired through the informal inheritance process. As we have seen in the case studies, holders of informally inherited land must share their land-use decision-making powers with their co-heirs. The extent to which one individual controls the use of the parcel or a part of the parcel varies considerably, depending on the relationship of the individual to the original owner and the other co-heirs, the number of generations the parcel has remained legally undivided, and whether the parcel has been informally divided or is farmed collectively. Even if an inherited parcel has been informally divided so that each heir has the right to one specific parcel, two factors discourage long-term investments. First, for some types of informally inherited land, the co-heirs retain the rights to gather fruit, collect wood, and pasture their animals on uncultivated sections of the original block. In Les Anglais, it appears that rights to gather fruit and cut wood do not extend to trees planted by other co-heirs. However, the inability of farmers to control grazing by co-heirs is problematic for any vegetative conservation efforts. Second, if the parcel were to be formally divided, the co-heirs may not receive the parcels they currently farm. As a result, there is a strong disincentive to plant trees on **tè eritaj** since the planter may not receive the benefits. Conservation technicians and program planners are thus faced with two choices: either they must find ways to overcome the disincentives to improvements on family lands, or they must include programs that will enable farmers to gain fuller control of their parcels, perhaps through a subsidized survey and land-registration program.

§ Problematic Secondary Access Categories

Disincentives to long-term agricultural investments also exist for land farmed under secondary access rights. Although preinheritance grants are more secure than other secondary access forms, most such grants are for land that has not been formally divided, and thus the same constraints as for informally inherited land apply. Incentives to make long-term investments on land farmed under temporary usufruct rights are even fewer, as the owner may decide to take back the land at any moment. While state leaseholds were found to be controlled by smallholders rather than by a few absentee leaseholders, disincentives to investment are still present since state rentals that have passed

through several generations of an original leaseholder's descendants are subject to the same constraints as other inherited land. Unless special conditions have been written into the lease, renters of private land also have no assurance that they will benefit from any long-term investment such as tree planting. Sharecroppers are in a similar position. Among our case-study farmers, even sharecroppers who had sharecropped the same land for twenty years did not plant trees on their sharecropped parcels.

§ The Manager Paradox: Incentives to Remove Perennials

Managers also have a disincentive to make long-term investments since they, too, are subject to removal. Even more serious, many manager arrangements are structured in such a way as to encourage actively the removal of perennials in order to expand black bean and corn production. The practice of clearing coffee bushes to make room for annuals is particularly a problem if owners are not interested in inspecting or supervising their **jaden kafe**. Over the years, the manager gradually expands the "**vides**" (empty spaces) until only a few coffee bushes are to be found in the ravines. Decreases in the coffee harvest are blamed on hurricanes, droughts, or rats. The owner may switch managers in the hopes of improving coffee production, but, unless he is willing to spend the time visiting the parcel every few weeks, the process of devegetation begins anew. At the present time, managed lands are among the least degraded lands in Les Anglais. They are also likely to comprise a disproportionate share of the land targeted by PST for improvement. The likelihood that these soils will remain in good condition is low as long as black beans remain the most "interesting" crop for Les Anglais peasants. Until peasants are presented with realistic alternatives, they will continue to remove coffee and plant the land to annuals. Although the limestone soils on which most of the managed lands are found are more resistant to erosion than the basaltic soils further down the slope, the removal of the protective tree cover will, nonetheless, greatly accelerate the rate of erosion on the limestone soils as well. Unless the manager paradox is resolved, the relatively well-vegetated upper slopes in Les Anglais will resemble the deforested slopes found on the Cayes side of Pic Macaya within a decade or two.

§ The Utility of Landholder Case Studies for PST

Given the crucial role that land access plays in agricultural decision-making, soil-conservation technicians need to be aware of the types of access farmers have to their land as well as the implications for land use and long-term investments. Reliance on experimental plot data and general census data will not provide the kind of information needed to deal with land-access issues. However, the modified ethnological method used to study land access and land use in the Les Anglais watershed proved to be an effective method for identifying the range of land-access types found in the watershed as well as the variations within each access type. By concentrating on the landholder rather than individual parcels, we were able to see how farmers balance off land uses among the various parcels that they hold and how access conditions affect farmers' land-use decisions. Ideally, such case studies

would be continued over a longer period to enable us further to explore the factors that motivate a farmer to, for example, rent out one parcel while simultaneously sharecropping in another. By choosing a small number of farmers, we were able to gain a better understanding of the decision-making processes than would have been possible if a larger number of farmers had been interviewed. Moreover, by limiting the number of informants, we were able to visit a large number of the parcels owned or farmed by the case-study farmers. Thus, we were able to obtain physio-geographic information that would have been impossible to collect by interviewing farmers at their homes. From the standpoint of project implementation, the garden visits have the added advantage of providing field workers with the opportunity to become familiar with each client farmer's landholdings as well as with the neighboring landholders. Since a thorough understanding of the farmer's physical and social environment are required if realistic soil-conservation programs are to be developed, similar case study work would provide an excellent opportunity for project personnel to gain an on-the-ground understanding of the constraints faced by farmers in the project area.

We also discovered limitations to the landholder case studies. Certain problems, including family lands and land conflicts, would be better addressed with a land-based rather than farmer-based study. An example of how the land-block study can be used to explore these issues is provided in Chapter 4. Given the inaccuracy of farmer land-size estimates, future studies of this nature should include a parcel measurement component for each farmer, particularly since farmer strategies are likely to differ at least partially as a function of the amount of land available. Finally, future case-study work should extend the focus of study from the landholder to the household in order to determine the extent to which land-use decisions are made with the welfare of the household--rather than the individual landholder (and his immediate family)--in mind.

§ CHAPTER 3 §

General Survey

§ Methodology §

§ Approach to Data Collection

The rationale for developing and administering a general survey as well as the household and block case studies is directly related to the size of the PST project area (80,000 hectares). The general survey can be used to profile a larger population or area than is practical using a case-study approach. This type of survey can also detect changes brought about by project intervention that ripple out from the immediate zone of implementation but which may not be apparent if information is gathered from geographically limited studies.

However, while our general survey gathers information on more people than the case and block studies, less information is gathered about each person. We chose not to include farming systems and socioeconomic data that were not directly applicable to developing profiles of land-tenure systems and their interaction with land use. To gather such data would have both prolonged interviewing time and complicated unnecessarily the analysis of land-tenure patterns.

§ Unit of Analysis

Since no reliable census of the watershed population exists, there was no way randomly to sample individuals. Communities were thus chosen as broad units of analysis, and a census of all households in the selected communities was made. Lacking a good aerial or list frame of the watershed, communities were purposely selected on the basis of several other factors. We first limited ourselves to communities containing no more than about fifty households, which was a size consistent with our time constraints. We also wished to select communities in which some case studies had been done in order to have some basis for recognizing inconsistent responses. Further, by conducting the surveys in communities in which we were already known, we obtained a relatively high response rate. Finally, we selected communities from the three agro-ecological zones we had delineated, thus enabling us to study general land-access patterns for each zone, as well as make comparisons of patterns across zones.

Households

We chose households instead of a geographical (block) area as the more specific unit of analysis in order to get a complete idea of community landholdings. By focusing on the household, landless households in the communities will also be included in the survey. Although the landless are often invisible to a land-based project such as PST, they nevertheless exert influence on the land through their efforts to acquire land and by their availability as labor input on others' land.

Furthermore, PST interventions could potentially cause the number of landless peasants to increase or decline. Consequently, a land-tenure monitoring study would need to include methodologies that would permit data to be gathered about both landed and landless peasants.

In defining the household, we realized from the case studies that there can be more than one household in a given house or in a compound (**lakou**). These households eat and sleep apart. In addition, we found that other (usually younger) family members often work a few parcels of land distinct from those of the household head. Therefore, these family members were also surveyed in an attempt to provide a complete picture of current land access for each household as well as for the community as a whole.

Using the household as the level of analysis assures compatibility between the case-study instrument and information gathered from the general survey. This facilitates moving from the survey's "snapshot" of land-access patterns to the case study and block study to assess the dynamics behind those patterns. It is these dynamics that will shape and be shaped by participant response to PST interventions.

The use of the household as the unit of analysis also produces the range of variability to be expected both within and between communities. Intervention strategies must partially depend on the range of variability encountered. One would not want to concentrate extension efforts only on farmers (as opposed to owners) of land if that particular area has a preponderance of people with secondary land access such as renting, sharecropping, and managing.

§ Site Choice

Three communities--Rossignol, Mahotière, and Boko--were chosen as suitable locations to carry out the survey. Two factors influenced the decision to situate the general survey in these three communities. First, the case-study interviews already conducted in each of the three communities allowed us to use the information from the case studies as a context for interpreting the general survey results. In addition, farmers in the communities were already familiar with the researchers and seemed very receptive to participating in the survey. Lastly, the three communities represent the different environmental zones we had chosen.

Boko, the most concentrated agglomeration of inhabitants, with fifty-five households and the only community that could be called a village, is located on the Les Anglais River plain about 7 km northeast of Les Anglais. Boko rests at the base of the foothills and is thus situated in a primarily depositional environment. Located in the foothills above Boko, the forty-eight households of Mahotière are dispersed over four small ridges. This area is characterized by moderate to severe erosion of its basalt-derived soils. Rossignol, a mountain community located 12 km from Les Anglais at about 360-450 meters in elevation, marks the boundary between predominately basalt-derived soils on the lower slopes and the more limestone-derived soils on the upper slopes.

The fifty households in Rossignol are less dispersed than those in Mahotière but more so than those in Boko. Evidence of accelerated erosion is much less apparent than in Mahotière. Rainfall is also much greater in Rossignol than in the other two communities. These three communities represent three distinct physical zones that will be encountered by PST.

§ Data Collection

This general survey is designed to be administered in one pass taking 1-2 hours per household, depending on the extent of landholdings encountered. We used three enumerators to survey a total of 212 people (153 households) in three weeks. For the farthest community, the enumerators lived in the community for five days. For the two closer communities, the enumerators commuted by horseback each day. Two to three supervisory and control visits were made to each community. Since coffee harvesting was at its peak during this time, people were generally interviewed early in the morning or after 2 p.m.

The questionnaire used (see Appendix C) was very structured but had sections on each page for remarks concerning problems or interesting differences. The questionnaire was written in Creole to minimize enumerator error in translating from French. The structured nature of the questionnaire and its administration in Creole permitted the employment of minimally educated people who could be quickly trained. The training emphasized the importance of collecting information on all parcels of land, whether directly worked or not. Using local enumerators greatly facilitated the gathering of information since they were already familiar with the area and had informal contacts established from living in the area. We also found it beneficial to use people who actively farmed themselves as they already possessed an understanding of the farming system and could thus look at responses with a critical eye.

The type of questions asked were limited primarily to questions concerning types and conditions of land access, although a limited number of questions on census information, wealth, labor use, input use, and land-management practices were also included.

Certain limitations manifested themselves in the data-collection process and in the data themselves. First, although we found people to be generally receptive to answering land-oriented questions, a number of people refused to participate in the survey. In Rossignol, the farthest community from Les Anglais, we had eight refusals, which still left us with a 90.5 percent response rate. These people expressed concern that we might be Communists interested in taking away their land. Boko had one person unavailable for a response rate of 99 percent, while we rejected one person for confirmed false responses in Mahotière for a response rate of 98 percent. Second, we emphasize that our survey cannot be generalized to all PST watersheds, but rather reflects land-access patterns present in the mid- to upper reaches of the Les Anglais watershed. As such, the findings cannot be generalized to all PST watersheds, although they do provide a starting point for evaluating

land-tenure issues in other areas. Finally, this survey provides patterns only of household and individual landholdings. It does not establish absolute land area in each category of land access. Lastly, large landholders are underrepresented in the survey results since most large landholders tend to live in coastal towns or out of the region. To understand the dynamics underlying large landholders' decision-making, one would have to address specific questions to them as was done in the large holder surveys conducted in connection with the case studies.

§ Community Profiles §

§ Community Settings

A more complete description of the three communities mentioned above is necessary to establish a framework in which to assess the data generated by the survey. Although all three communities are isolated, Boko and Mahotière are accessible by four-wheel-drive vehicles for over half of each year, while Rossignol can be reached only by foot or horseback. To reach Boko and Mahotière, one must cross the Les Anglais River once while eleven crossings are required to arrive at Rossignol. The isolation factor certainly structures the flow of people and materials back and forth to these communities, especially during and after heavy rainstorms.

Only Boko has its own weekly market. Residents of Mahotière must make the half-hour walk to this market while the residents of Rossignol must walk a minimum of one-half to one hour to the market of Bois Delai or Platon Mombin to do their buying and selling. The largest regional market is in the town of Les Anglais, a one-and-a-half hour walk from Boko and a two-and-a-half to three-hour walk from Rossignol. Thus, the inhabitants of Rossignol are much more isolated from outlets for their produce.

The communities also differ in terms of their topographical attributes. Topography varies from the flat plains around Boko to the moderate slopes of Mahotière to the very steeply sloping terrain of Rossignol. This factor affects the amount of work necessary to work a parcel or implement conservation practices. Settlement patterns also mirror these physical differences. Both Mahotière and Rossignol extend over several ridges in a relatively wide geographical area, contrasting with Boko which is relatively concentrated and can readily be defined as a village. In addition, physical characteristics such as soil and rainfall differ among all three communities. The basalt-derived soils in Mahotière are easily eroded by the cultivation of annuals, whereas the soils in the immediate vicinity of Boko are alluvial and located in a depositional zone. Rossignol has the more easily eroded basalt-derived soils on its lower slopes while its upper, steeper slopes are limestone-derived soils. Rainfall in Rossignol is higher than in the Boko/Mahotière area of the watershed, and temperatures are more moderate. However, these topographical characteristics only partially influence community/landholder land-use practices because most farmers have land distributed throughout different microclimatical zones.

§ Households and Landholders

The three communities display many similarities vis-à-vis their sociological profile (see Table 3.1). However, wealth variables in the data indicate that Boko is relatively the best off while Mahotière is relatively the poorest. Judging from the average number of children per household sent to school, a valued yet expensive undertaking, Mahotière households appear to have less available cash on hand. More household heads from Mahotière seek off-farm employment (19 percent compared to 12 percent and 15 percent) and they are much less involved in the local coffee cooperative (UNICORS) than those in Rossignol and Boko. Mahotière also appears lower on the economic scale since no households live in houses with tin roofs (an expensive item), whereas 16 percent of Rossignol households and 36 percent of Boko households had tin roofs. More Mahotière households also find it necessary to sell their labor on a daily and piecework basis, a sign of relative poverty.

****

Table 3.1. Socioeconomic Profiles

	Rossignol	Boko	Mahotière	Total
# landholders	76 (36%)	73 (34%)	63 (30%)	212
# households	50 (33%)	55 (36%)	48 (31%)	153
Mean # in household	5.6	5.6	5.6	
Mean # over 18	2.6	2.7	2.4	
Mean # 12-18	0.6	0.5	0.6	
Mean # of children in school	1.4	1.1	0.8	
Household Head				
% male	87	82	91	
% female	13	18	9	
Mean age of males	45	44	48	
Mean age of females	50	50	53	
Birthplace				
-In region	84%	93%	81%	
-In region towns	3%	0	10%	
-Out of region	13%	6%	13%	
With nonfarm job	15%	12%	19%	
Co-op members	26%	48%	5%	
Aver yrs in region	33	34	36	

[continued]

[Table 3.1, Socioeconomic Profiles, cont.]

	Rossignol	Boko	Mahotière	Total
Spouse				
Birthplace				
-In region	95%	85%	90%	
-In region towns	3%	0	3%	
-Out of region	5%	15%	10%	
Aver yrs in reg	31	29	30	
With nonfarm job	10%	9%	13%	
Coop member	32%	34%	28%	
Other Household Landholders				
% male	92%	94%	93%	
% female	8%	6%	7%	
Mean age of males	28	36	33	
Mean age of females*	33	20	36	
# households w/ other landholders	15	16	12	
Mean of people w/separate land	1.8	1.1	2.0	

Labor Use (by the household on at least one parcel)

	Buy	Sell	Buy	Sell	Buy	Sell
Eskwad	99%	70%	97%	31%	98%	65%
Atribisyon	96%	70%	95%	29%	95%	67%
Jouné*	82%	32%	80%	9%	87%	49%
Anpeyan*	30%	16%	52%	6%	44%	27%
Invitation	82%	86%	90%	51%	86%	71%
Family	98%	---	98%	---	100%	---

Animals (% of landholders who own at least one animal)

Horses	4%	15%	5%
Mules	5%	12%	5%
Burros	8%	21%	16%
Cattle	32%	44%	43%
Sheep	42%	69%	65%
Goats	46%	30%	38%
Pigs	3%	16%	8%

* Very few values.

****

In contrast, Boko households exhibit signs of greater wealth than their mountain neighbors. These households not only sell their labor the least but also participate less in **eskwad** and **atribisyon** work groups (one-third compared to two-thirds of the households in Rossignol and Mahotière). Furthermore, Boko households owned more horses, mules, burros, sheep, and pigs than did households in Rossignol and Mahotière. This is especially true for horses, which are used almost exclusively for personal transportation rather than for transportation goods.

§ Landholder Tenure

Certain forms of land access occur more often than others. Two of the more common forms of land access found in the study area are inheritance and rental (see Table 3.2). Over 55 percent of the landholders in all three communities have access to at least one inherited parcel. Rossignol's lower proportion, 58 percent, compared to Boko's 71 percent and Mahotière's 68 percent, can again be explained by the presence of state land which limits the amount of land in Rossignol available for ownership. The reader should note, however, that state leases are frequently "inherited," so that management of the land may not differ.

Landholders who have purchased land are also fairly common. In Boko, 37 percent of the landholders owns at least one purchased parcel. This rate surpasses that of both Rossignol (12 percent) and Mahotière (16 percent). Furthermore, Boko has fewer people who sharecrop (26 percent compared to 73 percent in Rossignol and 65 percent in Mahotière). The high rate of sharecropping in Rossignol may be partially explained by the existence of state land in Rossignol, land which is most often sharecropped out by state renters who reside elsewhere in the watershed.

While not rare, managed parcels are somewhat uncommon and exist almost exclusively on coffee lands owned primarily by people living closer to Les Anglais. The fewer number of managers in Boko (1) can be attributed to the fact that managers usually live on or near the land that they manage, and very little coffee land is located in Boko. There is a much higher incidence of managers in Rossignol (10) and Mahotière (15), both of which are closer to the coffee lands. People with preinheritance grants also are relatively infrequent, but, due to the difficulty in separating preinheritance rights from temporary usufruct rights, the evidence is inconclusive. Certainly, if usufruct and preinheritance rights are consolidated, each community then has over 30 percent of its landholders with at least one parcel in the combined category.

Certain forms of land access occur only rarely in all of the communities. Rare access forms include inter vivos gifts, which account for only 2 out of 1097 parcels, as well as squatter parcels (**tè sans met**), which account for 6 out of 1097 parcels. All of the gifts and squatter parcels are in Rossignol. The presence of squatting in Rossignol probably stems from its proximity to uncultivated mountaintop land, which is presumably the property of the state.

****

Table 3.2. Landholder Access Breakdown
(# of people with at least one parcel in each category)

Type of Access	Rossignol	Boko	Mahotière	Totals
Purchased	9 (12%)	27 (37%)	10 (16%)	46 (22%)
Inherited	44 (58%)	52 (71%)	43 (68%)	139 (66%)
Preinherited	8 (10%)	3 (4%)	15 (24%)	26 (12%)
Rentals	34 (45%)	37 (51%)	41 (65%)	112 (53%)
Sharecroppers	56 (73%)	19 (26%)	41 (65%)	116 (55%)
Managers	10 (13%)	1 (1%)	15 (24%)	26 (12%)
Usufruct	26 (34%)	22 (30%)	19 (30%)	67 (32%)
Squatter	6 (8%)	0	0	7 (3%)
Inter vivos gift	1 (1%)	0	1 (2%)	2 (1%)
Mean # of access types per person	2.5	2.2	2.9	
Hold at least one parcel in:				
Primary access	46 (61%)	59 (81%)	44 (70%)	150 (70%)
Secondary access	72 (95%)	50 (68%)	58 (92%)	180 (85%)
Holdings consist of only:				
Primary access land	4 (5%)	23 (32%)	5 (8%)	32 (15%)
Secondary access land	30 (39%)	14 (19%)	19 (30%)	63 (30%)
Tenancy arrangements	13 (17%)	4 (3%)	10 (16%)	26 (12%)

Note: Primary access = inherited and purchased land.
Secondary access = rental, sharecropped, managed, usufruct, and squatter land.
Tenancy arrangements = rental, sharecropping, and management.

****

Overall, Boko also has a higher incidence of landholders with primary access to at least one parcel of land (see Table 3.2). More importantly vis-à-vis landholder interaction with PST, Boko has many more landholders who do not participate in tenancy arrangements (1). Boko also has the lowest number of landholders who only have secondary access (2) to land as well as the lowest number of landholders who only hold tenant lands (4 percent). This compares to Rossignol's 17 percent and Mahotière's 16 percent. However, just two of these tenants are household heads, a pattern consistent with the life-cycle notion of land

access that, as peasants get older, they tend to move from predominantly secondary forms of access to ownership. Indeed, for each community, over half (51-59 percent) of the household heads who own parcels are over 43 years of age, while over half (52-67 percent) of those who have secondary access rights to land are under 43 years of age. Thus, as peasants age, they tend to acquire more secure access to their landholdings through inheritance and purchase.

It is often stated in the literature that Haitian peasants are both owners and tenants. With over half of the respondents having both primary and secondary access to land, this is certainly true of the Les Anglais area. This pattern of landownership has implications for the formulation of PST strategies. Programs will need to account for the interests of both tenants and owners, who will frequently be the same depending on what part of a hillside one targets.

§ Parcel Profile

The 212 landholders described above have access to 1097 parcels. On the average, landholders in Mahotière have access to more parcels despite their relative poverty (Table 3.1). This apparent anomaly can probably be explained by the more severe erosion found on the lower and middle slopes of Mahotière, which would force peasants to farm more parcels to obtain an agricultural production level similar to that in Rossignol and Boko.

Parcel access patterns are consistent with landholder access patterns (Table 3.3). In Boko and Mahotière, the majority of parcels were inherited while in Rossignol, where the supply of private land is limited, sharecropping was the most frequent access category. Sharecropping is the second largest access category in Mahotière, but only 9 percent of the parcels in Boko are sharecropped. Instead, nearly 20 percent of the parcels held by Boko landholders were purchased and nearly 20 percent were rented. The percentage of parcels rented in is approximately the same in all three communities, while the percentage of purchased parcels is almost five times greater in Boko. Aside from the preinheritance and usufruct categories, which together account for 13 percent of the parcels in each area, other access categories have few or no parcels in them.

The incidence of documentation on purchased parcels is higher in Boko than in either Rossignol or Mahotière. Rentals are the only other form of access usually documented, although four documented sharecrop-agreement parcels in Rossignol were recorded. While rented parcels occur at a similar level in all three communities, the incidence of documentation varies. Twelve percent of Rossignol's rented parcels are undocumented compared to 6 percent for Boko and 4 percent for Mahotière. Respondents in all three communities pay and receive rent in advance and in one lump sum. Only rarely do renters stagger their payments or rent for less than two years.

Access to state lands is limited almost exclusively to landholders in Rossignol. State lands constitute 16 percent of the parcels in

****

Table 3.3. Parcel Access Breakdown

	Rossignol		Boko		Mahotière		Totals
# Parcels	341		347		409		1097
Means:							
# parcels/landholder	4.4		4.7		6.4		5.2
# parcels/household	6.8		6.3		8.5		7.3
# parcels/household head	5.2		5.3		7.4		
# parcels/nonhead	3.2		3.2		3.7		
Land Tenure Information							
Purchased parcels	10	3%	58	17%	13	3%	
Inherited	86	25%	151	44%	159	39%	
IV Gift	1	0%	1	0	1	0	
Preinheritance	14	4%	4	1%	21	5%	
Usufruct	29	9%	41	12%	32	8%	
Rentals	56	16%	61	18%	71	17%	
Sharecropped	121	36%	31	9%	86	21%	
Managed	17	5%	1	0	26	6%	
Squatters	7	2%	0	0	0	0	
	341		347		409		
% primary access parcels	105	31%	208	60%	172	42%	
% secondary access parcels	236	69%	139	40%	237	53%	
# state parcels	53	16%	1	0	0	0	
Have Document for Parcel	71	21%	116	33%	84	21%	
Purchased parcels		91%		98%		86%	
Rental parcels		88%		93%		96%	
Sharecrop parcels		3%		0		0	

****

Rossignol while only one Boko landholder and none in Mahotière have access to state land. Land use on state land will be compared with private land use later in this chapter.

§ Land Use §

The above outline of land-access patterns of landholders and parcels is useful to PST only if something is known about how these access types are related to the way in which peasants utilize and manage their land. The following analyses use the general survey data to examine some of the hypotheses raised by the case studies. The following questions will be addressed: (1) What types of land do farmers work directly and what types of land are given out, and under what conditions? (2) Does tree planting occur more often within certain access categories? (3) Are certain land-access types associated with specific land-use practices? (4) Are certain access types more stable and/or more secure than others? (5) Are state lands treated differently than private lands? (6) How active are land markets and what are their characteristics in each community?

§ Indirect versus Direct Land Utilization

Before examining the relationships between access and specific land-use practices, one must first determine if the farmer works the land himself or whether he gives it out to others to work for him. As stated in the case-study analysis, reasons for giving out land vary: distance from the house, conflict avoidance, need for cash, insufficient labor, and so on may all influence the decision not to work land directly. While over 55 percent of all landholders and over 66 percent of all household heads give out at least one parcel, only about 20 percent of all parcels in these communities are given out (see Table 3.4). Thus, land given out is spread fairly uniformly throughout each community. Consistent with our findings in the case studies, age is related to the giving out of land. Older farmers are much more likely to give out parcels while the younger farmers are more likely to work their land themselves. Farmers prefer to give out land that they have inherited rather than purchased. In Boko, inherited land represents 89 percent of parcels given out while 78 percent of the parcels given out in both Rossignol and Mahotière were inherited. In contrast, land worked directly by the farmer tends to be more evenly spread through the various access categories.

In all three communities, parcels given out are farther away from the house than are directly worked parcels. Most directly worked parcels are within an hour's walk of the house site while indirectly worked parcels are over an hour's walk from the house. The only possible exception is Mahotière, where the given out land is split evenly between the closer and farther away land, but this may have been affected by the fact that no information was available for 24 percent of the parcels.

More than half of the parcels are given out in usufruct. The next most common forms of indirect use are rental and sharecropping

****

Table 3.4. Land Given Out to Others to Work

	Rossignol	Boko	Mahotière
% of landholder who give out land	59%	58%	70%
% of household heads who give out land	74%	66%	81%
Parcels worked directly by farmer	80%	84%	77%
Parcels given out to others to work	20%	16%	23%
Parcels given out to others	n=68	n=56	n=92
Sharecrop	19%	14%	18%
Rental	24%	25%	30
Manager	1%	0	1%
Usufruct	55%	61%	50%
With documented arrangement	20%	23%	13%
Where respondent planted trees	12%	14%	20%
% in Age Group:			
Giving out land			
Younger than 41 years of age	42%	46%	34%
41 years of age or older	58%	54%	66%
Directly working land			
Younger than 41 years of age	84%	77%	79%
41 years of age or older	16%	23%	21%

****

arrangements, with rental slightly more frequent than sharecropping. Parcels given out under management arrangements are a rare phenomenon in all three communities.

The quality of land given out and land worked directly also tends to vary. In Rossignol and Mahotière, over half the land worked directly supports high-fertility annuals (HFA) and/or coffee. In contrast, only about one-third of the parcels given out in these two communities are used to grow high-fertility annuals only or coffee. In Boko, the contrast is somewhat less marked: 42 percent of directly worked land compared to 27 percent of given out land falls in the two higher capability classes. Farmers, therefore, tend to keep their best land to work directly while giving out land in the moderate capability classes. The poorest land is split fairly evenly between indirectly and directly worked land.

§ Tree Rights and Tree Planting

The case studies indicate that farmers are very unlikely to plant trees on land given out. The general survey demonstrates that the incidence of tree planting on indirectly worked land varies from between two-thirds to one-half the incidence of tree planting on directly worked lands. Thus, although tree planting on indirectly farmed parcels is more frequent than indicated in the case studies, it is still less than the incidence on directly farmed land. In addition, peasants were found to be much less inclined to plant trees on land held under secondary access rights than on that to which they had primary access (see Table 3.5). Farmers are more willing to plant trees on purchased land, inherited land, and usufruct land while the incidence of planting on tenancy lands was less than 17 percent for the parcels in each tenancy access category, except for managed parcels in Mahotière. Thirty-eight percent of these had trees planted on them, but we know from our case studies that several Mahotière managers received tree seedlings from the landowner who wanted trees planted. Given that owners are less likely to plant trees on land they give out and that tenants are also unlikely to plant trees on tenant land, it is therefore likely that land that is given out will be a problematic area for PST conservation efforts and will require developing and directing programs aimed at the owners of land as well as at the peasants farming the land.

Based on our case-study analysis, we developed land-capability classes based on crops and erosion which we then used as a proxy for various situations. As described in the case-study analysis, we developed five categories of land capability: (1) Low-Fertility Annuals (LFA only) land is highly eroded and indicated by the presence of peanuts and/or millet; (2) Multi-range Annuals (MRA) land includes a wide range of soils and erosion levels and is indicated by the presence of corn, manioc, and/or congo peas; (3) Coffee and Annuals land also includes a wide range of soils and erosion levels and is indicated by the presence of the annuals in #2 plus coffee; (4) High-Fertility Annuals (HFA only) land is slightly eroded and indicated by the presence of yams, black beans, **malanga**, and **mazombel**; and (5) High-Fertility Annuals and Coffee (HFA/Coffee only) land is also slightly eroded land indicated by the same crops as #4, but with the addition of coffee. Each parcel was then placed in the appropriate category to allow the various comparisons which follow.

In applying this variable to the parcel data, we found that farmers in Rossignol and Mahotière tend to plant trees on their best land, which supports high-fertility annuals (HFA) and coffee (Table 3.6). In Boko, tree planting also occurs on the most fertile land, but is split more evenly between land supporting HFA and that supporting both high-fertility annuals and coffee. In all three communities, less than 24 percent of the parcels with trees planted on them had poorer-quality soils. This pattern of tree planting coincides with PST's stated intention to begin project activities on land that is not yet severely eroded.

Conversely, it is apparent that animals are pastured on a higher percentage of moderate-to-low quality land than on coffee and high-

Table 3.5. Land Access by Tree Planting

Rossignol

PLNTTREE-> Count / Row Pct	Yes	No	Row Total
TENURE1			
Purchased Parcel	5 / 50.0	5 / 50.0	10 / 2.9
Preinheritance G	6 / 42.9	8 / 57.1	14 / 4.1
Inherited	30 / 34.9	56 / 65.1	86 / 25.2
Usufruct	9 / 31.0	20 / 69.0	29 / 8.5
Rentals	3 / 5.4	53 / 94.6	56 / 16.4
Sharecrop	10 / 8.3	111 / 91.7	121 / 35.5
Managed Parcels	3 / 17.6	14 / 82.4	17 / 5.0
Squatting	1 / 14.3	6 / 85.7	7 / 2.1
Inter Vivos Gift	1 / 100.0		1 / .3
Column Total	68 / 19.9	273 / 80.1	341 / 100.0

Chi-Square	D.F.	Significance
46.53345	8	.0000

Min E.F.	Cells with E.F.< 5
199	6 OF 18 (33.3%)

Boko

PLNTTREE-> Count / Row Pct	Yes	No	Row Total
TENURE1			
Purchased Parcel	43 / 74.1	15 / 25.9	58 / 16.7
Preinheritance G	1 / 25.0	3 / 75.0	4 / 1.2
Inherited	47 / 31.3	103 / 68.7	150 / 43.2
Usufruct	10 / 24.4	31 / 75.6	41 / 11.8
Rentals	4 / 6.6	57 / 93.4	61 / 17.6
Sharecrop	1 / 3.2	30 / 96.8	31 / 8.9
Managed Parcels		1 / 100.0	1 / .3
Squatting		1 / 100.0	1 / .3
Column Total	106 / 30.5	241 / 69.5	347 / 100.0

Chi-Square	D.F.	Significance
81.11394	7	.0000

Min E.F.	Cells with E.F.< 5
.305	6 OF 16 (37.5%)

Mahotiere

PLNTTREE-> Count / Row Pct	Yes	No	No Response	Row Total
TENURE1				
Purchased Parcel	10 / 76.9	3 / 23.1		13 / 3.2
Preinheritance G	7 / 33.3	14 / 66.7		21 / 5.1
Inherited	54 / 34.0	104 / 65.4	1 / .6	159 / 38.9
Usufruct	8 / 25.0	24 / 75.0		32 / 7.8
Rentals	10 / 14.1	61 / 85.9		71 / 17.4
Sharecrop	9 / 10.5	77 / 89.5		86 / 21.0
Managed Parcels	10 / 38.5	16 / 61.5		26 / 6.4
Inter Vivos Gift	1 / 100.0			1 / .2
Column Total	109 / 26.7	299 / 73.1	1 / .2	409 / 100.0

Chi-Square	D.F.	Significance
45.36490	14	.0000

Min E.F.	Cells with E.F.< 5
.002	11 OF 24 (45.8%)

[continued]

[Table 3.5, Land Access by Tree Planting, cont.]

* * * A N A L Y S I S O F V A R I A N C E * * *

PLNTTREE Planted Wood or Fruit Trees on Parcel
BY LTLNGTH1 Years in Current Tenure Status
TIMEWRK1 Years Respondent Has Worked Parcel

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	10.954	7	1.565	10.130	0.0
LTLNGTH1	1.223	4	.306	1.979	.096
TIMEWRK1	3.407	3	1.136	7.351	.000
2-way Interactions	4.024	12	.335	2.171	.011
LTLNGTH1 TIMEWRK1	4.024	12	.335	2.171	.011
Explained	47.677	19	2.509	16.244	0.0
Residual	135.935	880	.154		
Total	183.612	899	.204		

1097 Cases were processed.
197 CASES (18.0 PCT) were missing.

* * * A N A L Y S I S O F V A R I A N C E * * *

PLNTTREE Planted Wood or Fruit Trees on Parcel
BY TENURE1 Land Access Type
LANDUSE Landuse Indicators

Source of Variation	Sum of Squares	DF	Mean Square	F	Signif of F
Main Effects	41.333	11	3.758	24.412	0.0
TENURE1	29.063	7	4.152	26.974	0.0
LANDUSE	7.874	4	1.969	12.790	0.0
Explained	41.333	11	3.758	24.412	0.0
Residual	160.540	1043	.154		
Total	201.873	1054	.192		

1097 Cases were processed.
42 CASES (3.8 PCT) were missing.

Due to empty cells or a singular matrix,
higher order interactions have been suppressed.

Table 3.6. Land Capability Classes by Tree Planting

Rossignol

PLNTTREE-> / LANDUSE	Count / Row Pct	Yes	No	Row Total
LFA Only		1 12.5	7 87.5	8 2.4
HFA only		5 5.0	95 95.0	100 29.9
Multi-Range Annu		6 8.0	69 92.0	75 22.4
Coffee + Annuals		28 40.0	42 60.0	70 20.9
Coffee/HFA Only		27 32.9	55 67.1	82 24.5
Column Total		67 20.0	268 80.0	335 100.0

Chi-Square	D.F.	Significance
47.15777	4	.0000

Min E.F.	Cells with E.F. < 5
1.600	1 OF 10 (10.0%)

Boko

PLNTTREE-> / LANDUSE	Count / Row Pct	Yes	No	Row Total
LFA Only		8 23.5	26 76.5	34 10.0
HFA only		23 33.3	46 66.7	69 20.3
Multi-Range Annu		22 20.4	86 79.6	108 31.8
Coffee + Annuals		21 32.8	43 67.2	64 18.8
Coffee/HFA Only		32 49.2	33 50.8	65 19.1
Column Total		106 31.2	234 68.8	340 100.0

Chi-Square	D.F.	Significance
16.90803	4	.0020

Min E.F.	Cells with E.F. < 5
10.600	None

Mahotiere

PLNTTREE-> / LANDUSE	Count / Row Pct	Yes	No	Row Total
LFA Only		6 23.1	20 76.9	26 6.8
HFA only		3 5.8	49 94.2	52 13.6
Multi-Range Annu		19 19.6	78 80.4	97 25.4
Coffee + Annuals		22 30.1	51 69.9	73 19.1
Coffee/HFA Only		51 38.1	83 61.9	134 35.1
Column Total		101 26.4	281 73.6	382 100.0

Chi-Square	D.F.	Significance
23.73232	4	.0001

Min E.F.	Cells with E.F. < 5
6.874	None

fertility land (Table 3.8). This may assist the project in its initial stages since animal pressure will be a major concern for vegetative conservation processes envisioned by PST.

The issue of who has rights to fruit and wood is also related to tree planting (Table 3.6). The data show a strong relationship between secondary access parcels with trees planted on them and those on which farmers had the right to cut trees for wood. This suggests that farmers are more likely to plant trees on secondary-access land if they perceive that they will have the rights to harvest the trees for their wood. The relationship between tree planting and the right to collect fruit is less strong but still apparent. Hence, farmers' willingness to plant trees on secondary-access parcels will depend upon their perceptions that they will retain some rights to the trees they plant. At the same time, the owner must be assured that he will not lose his control over the land itself.

Aside from being strongly associated with forms of primary access, the right to cut wood is also highly related to usufruct access. Since usufruct access is predominantly granted by family members, this relationship shows us that tree-cutting rights on family lands extend beyond the current user of the parcel and could affect willingness to participate in vegetative conservation efforts planned by PST.

§ Land Access and Land Use

Using the same land-capability indicators for directly worked land, we found that cropping patterns and land-capability classes vary according to the type of access a person has to the land (see Table 3.8). For instance, purchased parcels are used primarily for growing high-fertility annuals and coffee. Inherited parcels, however, tend to be used for multi-range annuals (MRA) or a mixture of coffee and annuals. Thus, inherited parcels tend to fall in the moderate land-capability class while purchased land is more likely to fall into the higher capability classes.

Contrary to the findings in the case-study analysis, usufruct land among landholders in these three communities does not differ much in quality from inherited land, although it is generally poorer in quality than purchased land. In Rossignol and Mahotière, rented land appears to be of better quality than both inherited and usufruct land. In Boko, rented parcels are primarily planted with a mixture of annuals or with high-fertility annuals. The lower incidence of high-quality coffee/annual land in Boko can be attributed to the higher proportion of plains parcels held by Boko landholders.

The quality of sharecropped land varies by community. In Rossignol, where much sharecropped land is on state land, the quality of the land is fairly high. Nearly 39 percent of the sharecropped parcels support high-fertility annuals, and an additional 17 percent support a mixture of coffee and high-fertility annuals. In Boko, however, 45 percent of the sharecropped parcels support multi-range annuals, with a further 19 percent supporting only low-fertility annuals. Sharecropped

Table 3.7. Land Capability Classes by Pasture

Rossignol

PASTURE-> / LANDUSE	Yes	No	Row Total
LFA Only	Count 5 / Exp Val 2.7 / Row Pct 62.5% / Col Pct 4.5%	3 / 5.3 / 37.5% / 1.4%	8 / 2.4%
HFA only	29 / 32.8 / 29.6% / 26.4%	69 / 65.2 / 70.4% / 31.5%	98 / 29.6%
Multi-Range Annu	34 / 28.7 / 45.9% / 30.9%	40 / 49.3 / 54.1% / 18.3%	74 / 22.5%
Coffee + Annuals	18 / 23.1 / 26.1% / 16.4%	51 / 45.9 / 73.9% / 23.3%	69 / 21.0%
Coffee/HFA Only	21 / 26.7 / 30.0% / 21.8%	56 / 53.3 / 70.0% / 25.6%	80 / 24.3%
Column Total	110 / 33.4%	219 / 66.6%	329 / 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
10.08941	4	.0267	2.675	1 OF 10 (10.0%)

Bolo

PASTURE-> / LANDUSE	Yes	No	Row Total
LFA Only	Count 21 / Exp Val 13.2 / Row Pct 61.8% / Col Pct 16.0%	13 / 20.8 / 38.2% / 6.3%	34 / 10.1%
HFA only	13 / 26.7 / 18.8% / 9.9%	56 / 42.3 / 81.2% / 27.1%	69 / 20.4%
Multi-Range Annu	43 / 41.5 / 40.2% / 32.8%	64 / 65.5 / 59.8% / 30.9%	107 / 31.7%
Coffee + Annuals	37 / 24.8 / 57.8% / 28.2%	27 / 39.2 / 42.2% / 13.0%	64 / 18.9%
Coffee/HFA Only	17 / 26.8 / 26.6% / 13.0%	47 / 39.2 / 73.4% / 22.7%	64 / 18.9%
Column Total	131 / 38.8%	207 / 61.2%	338 / 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
33.00592	4	.0000	13.178	None

Mahotiere

PASTURE-> / LANDUSE	Yes	No	Row Total
LFA Only	Count 14 / Exp Val 13.4 / Row Pct 53.8% / Col Pct 7.2%	12 / 12.6 / 46.2% / 6.6%	26 / 6.9%
HFA only	23 / 26.8 / 44.2% / 11.8%	29 / 25.2 / 55.8% / 15.8%	52 / 13.8%
Multi-Range Annu	58 / 48.0 / 61.1% / 29.7%	37 / 46.0 / 38.9% / 20.2%	95 / 25.1%
Coffee + Annuals	45 / 37.1 / 62.5% / 23.1%	27 / 34.9 / 37.5% / 14.8%	72 / 19.0%
Coffee/HFA Only	55 / 68.6 / 41.4% / 28.2%	78 / 64.4 / 58.6% / 42.6%	133 / 35.2%
Column Total	195 / 51.6%	183 / 48.4%	378 / 100.0%

Chi Square	D.F.	Significance	Min E.F.	Cells with E.F. < 5
13.59846	4	.0087	12.587	None

Number of Missing Observations = 52

Table 3.8. Land Access by Land Capability Classes

Rosetgnol

LANDUSE-> / Count / Row Pct / TENURE1	LFA Only	MFA only	Multi-Range Annu	Coffee + Annuals	Coffee/MFA Only	Row Total
Purchased Parcel		1 12.5	1 12.5	2 25.0	4 50.0	8 2.4
Preinheritance G		3 21.4	4 28.6	2 14.3	5 35.7	14 4.2
Inherited	5 5.9	14 16.5	23 27.1	21 24.7	22 25.9	85 25.4
Usufruct		6 22.2	5 18.5	8 29.6	8 29.6	27 8.1
Rentals	1 1.8	20 36.4	13 23.6	8 14.5	13 23.6	55 16.4
Sharecrop	2 1.7	47 38.8	28 23.1	23 19.0	21 17.4	121 36.1
Managed Parcels		4 23.5	1 5.9	5 29.4	7 41.2	17 5.1
Squatting		4 57.1		1 14.3	2 28.6	7 2.1
Inter Vivos Gift		1 100.0				1 .3
Column Total	8 2.4	100 29.9	75 22.4	70 20.9	82 24.5	335 100.0

Statistic	Symmetric	With TENURE1 Dependent	With LANDUSE1 Dependent
Lambda	.05122	.01888	.08085

Bona

LANDUSE-> / Count / Row Pct / TENURE1	LFA Only	MFA only	Multi-Range Annu	Coffee + Annuals	Coffee/MFA Only	Row Total
Purchased Parcel	3 5.3	15 26.3	10 17.5	12 21.1	17 29.8	57 16.8
Preinheritance G	1 25.0	1 25.0			2 50.0	4 1.2
Inherited	16 10.9	18 12.2	50 34.0	35 23.8	28 19.0	147 43.2
Usufruct		11 28.2	14 35.9	11 28.2	3 7.7	39 11.5
Rentals	9 13.2	15 25.0	20 33.3	5 8.3	12 20.0	60 17.6
Sharecrop	6 19.4	8 25.8	14 45.2	1 3.2	2 6.5	31 9.1
Managed Parcels					1 100.0	1 .3
Squatting		1 100.0				1 .3
Column Total	34 10.0	69 20.3	108 31.8	64 18.8	65 19.1	340 100.0

Statistic	Symmetric	With TENURE1 Dependent	With LANDUSE1 Dependent
Lambda	.02588	.00000	.04741

Rehetiere

LANDUSE-> / Count / Row Pct / TENURE1	LFA Only	MFA only	Multi-Range Annu	Coffee + Annuals	Coffee/MFA Only	Row Total
Purchased Parcel		1 7.7	2 15.4	3 23.1	7 53.8	13 3.4
Preinheritance G	3 15.8	2 10.5	5 26.3	6 31.6	3 15.8	19 5.0
Inherited	9 6.4	11 7.8	40 28.4	38 27.0	43 30.5	141 36.9
Usufruct	3 11.1		12 44.4	4 14.8	8 29.6	27 7.1
Rentals	3 4.3	13 18.8	21 30.4	8 11.6	24 34.8	69 18.1
Sharecrop	7 8.1	22 25.6	16 18.6	12 14.0	29 33.7	86 22.5
Managed Parcels	1 3.8	3 11.5		2 7.7	20 76.9	26 6.8
Inter Vivos Gift			1 100.0			1 .3
Column Total	26 6.8	52 13.6	97 25.4	73 19.1	134 35.1	382 100.0

Statistic	Symmetric	With TENURE1 Dependent	With LANDUSE1 Dependent
Lambda	.03885	.04564	.03228

Number of Missing Observations = 40

land in Boko thus appears to be relatively poorer in quality. In Mahotière, 34 percent of the sharecropped parcels are used to grow a mixture of coffee and high-fertility annuals, while an additional 26 percent of the parcels are used to grow high-fertility annuals only. It would seem that the quality of sharecropped land is better than indicated in the case-study analysis and varies more according to the amount of certain environmental land types available than by the virtue of its being held under sharecrop arrangements. The degree to which higher-quality lands are associated with sharecropped parcels is skewed by the particular characteristics of each community. The Rossignol area is dominated by state land, which leaseholders often prefer to sharecrop rather than rent out unless there is an urgent cash need. In the Mahotière area, there is a heavy emphasis on coffee production, which tends to be associated with better-quality land. Thus, it is difficult to maintain that sharecropped land is likely to be the poorest-quality land in an area, despite its reputed association with poor land-management practices.

Managed lands are clearly associated with coffee production and therefore tend to consist of moderate- to better-quality lands. In Boko, which is removed from the major coffee production areas, only one parcel is managed. It appears that managing is a phenomenon primarily restricted to coffee land owned by farmers residing at some distance from the coffee land (75 percent of the owners of managed parcels were found to live in the local towns).

§ Labor Use

If we look at land access and its relationship to the types of labor used on various parcels, we find that most parcels are farmed using many different labor arrangements depending on the crop, season, and work to be performed. We chose to break labor usage into four groups: wage labor is composed of individual labor performed on a daily or piecework basis, work-group labor includes **atribisyon** and **eskwad** groups which perform labor on either a wage or a barter basis, **invitasyon** (called **koumbit** in other areas) perform labor in return for food and drink, and family labor includes all labor drawn from the respondent's family. These categories are nonexclusive because, although the respondent used one type of group, he may also have used other types of groups on the same parcel at different times.

The data demonstrate that 75-85 percent of all rental, sharecropped, and managed parcels are worked with wage labor at some point each year. Wage labor is used on more than half the usufruct and inherited parcels in all three communities. Furthermore, wage labor is utilized on 90 percent of the purchased parcels in Boko and Mahotière, while only 38 percent of Rossignol's purchased parcels are worked using wage labor. An identical pattern holds true for the use of work groups. Group labor is used on a much higher percentage of rental, sharecropped, and managed lands than on usufruct and inherited lands. However, the use of work groups on purchased parcels varies widely through the three communities: 50 percent of the purchased parcels in Rossignol use group labor compared to 87 percent and 96 percent in Boko and Mahotière, respectively. Although **invitasyon** labor is strongly associated with

Table 3.9. Land Capability Classes by Labor Groups and Access by Labor Groups

1) % of Parcels within Access Types on which Different Labor Types Are Used

Access Type	Wage Labor			Work Groups		
	Rossignol	Boko	Mahotière	Rossignol	Boko	Mahotière
Purchased	38%	87%	91%	50%	87%	100%
Inherited	69%	58%	91%	85%	90%	83%
Usufruct	61%	70%	59%	63%	88%	73%
Rentals	85%	85%	75%	100%	97%	91%
Sharecrop	77%	77%	84%	98%	97%	97%
Managed	83%	100%	85%	92%	100%	96%
Squatting	71%	--	--	100%	--	--

Access Type	Invitasyon			Family Labor		
	Rossignol	Boko	Mahotière	Rossignol	Boko	Mahotière
Purchased	25%	57%	82%	88%	100%	100%
Inherited	52%	54%	59%	96%	99%	94%
Usufruct	37%	61%	56%	95%	98%	88%
Rentals	74%	65%	68%	98%	97%	95%
Sharecrop	63%	45%	55%	92%	97%	95%
Managed	83%	100%	62%	100%	100%	85%
Squatting	100%	--	--	100%	--	--

2) % of Parcels within Land Capability Classes in which Different Labor Types are Used

Access Type	Wage Labor			Work Groups		
	Rossignol	Boko	Mahotière	Rossignol	Boko	Mahotière
LFA only	25%	48%	61%	100%	93%	74%
HFA only	83%	84%	79%	94%	78%	89%
Multi-range	81%	67%	69%	97%	92%	84%
Coffee/annuals	69%	71%	77%	92%	100%	95%
Coffee/HFA	66%	84%	79%	77%	96%	92%

Access Type	Invitasyon			Family Labor		
	Rossignol	Boko	Mahotière	Rossignol	Boko	Mahotière
LFA only	25%	52%	30%	100%	100%	78%
HFA only	67%	38%	51%	96%	98%	81%
Multi-range	56%	51%	60%	97%	96%	93%
Coffee/annuals	63%	79%	79%	95%	100%	96%
Coffee/HFA	56%	71%	62%	90%	100%	98%

Note: Wage = individual daily and/or piecework wage labor.
Work groups = **atribisyon** and/or **eskwad**.

tenant access in Rossignol, no patterns emerge in its use in Boko or Mahotière. This contrasts with family-labor use, which occurs on over 84 percent of the parcels in each access category, including purchased land. In general, then, tenants tend to use all four categories of labor more often than peasants who have purchased, inherited, or usufruct access to their parcels. There is also a high utilization of nonfamily labor on most parcels. Most parcels are worked using a variety of labor forms: only 56 parcels were worked using only one category of labor. Of these, 4 were worked with only wage laborers, 14 with only work groups, 38 with only family labor, and none with only **invitasyon** labor.

Approaching the labor question from a slightly different perspective, we analyzed the three labor forms against those of the land-capability classes discussed earlier, the assumption being that the land classes could serve as rough proxies for differing land values. Higher-fertility land would be valued more highly in that it supports the more lucrative crops in the area: yams, black beans, rice, and coffee. The pattern that emerges is that wage labor is utilized least on the poorest-quality land, ranging from 25 percent of the LFA parcels in Rossignol to 48 percent in Boko and 61 percent in Mahotière. Farmers in Boko and Mahotière were more likely to employ wage labor on their best land, whereas wage labor is employed by Rossignol farmers to work both moderate- and higher-quality land. **Invitasyon** labor is employed by farmers in Rossignol and Mahotière on both moderate- and better-quality land, while farmers in Boko tend to use **invitasyon** more often on their better-quality land. Work groups and family labor are utilized often across all qualities of land.

If irrigated land is used as a proxy for higher-value land (certainly the case in the Les Anglais watershed), farmers still do not engage wage labor more often on higher-value lands. However, farmers are less likely to use both work groups and **invitasyon** on irrigated land than on nonirrigated land. We can only conclude that farmers use wage labor as often on higher-quality or higher-value land as they do on land of moderate quality and value. Wage labor is employed more often on moderate- to high-value land than on the poorest land, but this last category comprises only 6 percent of all the parcels included in the survey.

§ Stability of Land Access §

Most land-tenure studies attempt to establish a relationship between security of access (assurance of continual access by the same decision-maker) and the level of investment that farmers are willing to make on their various parcels of land. However, security is a perception on the part of a farmer and is therefore difficult to measure, whether by quantitative or qualitative methods. As part of our study, we explored the relationship between access stability (year-to-year access to a parcel) and investment since stability may be a factor that influences a farmer's willingness to make long-term investment in his land. Stability also lends itself more easily to evaluation than does security.

Given PST's intent to utilize vegetative processes in their conservation strategies, we used tree planting as a measure of long-term investment. As evidenced by Table 3.10, parcels that had the same user during the last five years are associated with a higher degree of tree planting than are those that changed users during the same time period. Furthermore, the longer the parcel has remained in its current access status, the more likely it is that farmers plant trees on them. The data also show that tree planting is related to the amount of time a farmer has worked a parcel, regardless of the form of access. For example, if the parcel has been worked by the farmer for over 11 years, there is a much higher chance that he has planted trees on that parcel. In Rossignol, while only 9 percent of the parcels worked by the farmer for 10 years or less had trees planted on them, 56 percent of the parcels worked for 11 years or more had trees planted on them. The comparable figures for Boko are 19 percent and 55 percent, respectively, and for Mahotière, 14 percent and 52 percent. Thus, the data suggest that the longer a farmer has had access to a parcel and the fewer times that the user of the parcel changes, the more likely he is to make a long-term investment such as planting trees.

Looking at the data on the type of access versus time in that access, it is clear that purchased, inherited, and usufruct parcels have a longer continuity of access (over 6 years on the average) than the other forms of access (Table 3.11). This finding is consistent with the data presented earlier which did indeed suggest that long-term investment in the form of tree planting is associated with these three forms of access. If one looks at the relationship between current access status and the number of times within the last 5 years that the user of that parcel changed, there is a slight tendency for purchased, inherited, and usufruct parcels to have changed hands less within that time. The only exception is for purchased land in Rossignol. However, the tendency is not very marked. Thus, the length of time the current user has had access to a particular parcel is more likely to determine whether he will make long-term investments than the number of times that the user of the parcel has changed. However, the reader should note that only 28 percent of the parcels changed users during the last 5 years. It would be useful to extend the time period covered, but in practice it is very difficult to elicit accurate information on transactions over a long period of time utilizing survey methods. Case studies of parcel histories would be more appropriate for studying the effect of changing parcel users on long-term investment.

§ Land Markets and Land Transfers §

The literature suggests that a very active land market exists in Haiti and that, when values on these lands increase, nonlocal participation increases with the consequent possibility of land accumulation. However, there are no standards to suggest exactly what level of land alienation constitutes an active land market. The data collected in our general survey suggest that land markets in the Les Anglais watershed are relatively much less active than the systems of temporary land transfers.

Table 3.10. Tree Planting

1) By # of Land Tenure Changes

Rossignol

CHANGELT-> / PLNTTREE	Count / Row Pct	0.0	1.00	Row Total
Yes		53	15	68
		77.9	22.1	19.9
No		167	106	273
		61.2	38.8	80.1
	Column Total	220	121	341
		64.5	35.5	100.0

Chi-Square	D.F.	Significance
5.97458	1	.0145
6.68703	1	.0097

Min E.F.	Cells with E.F.< 5
24.129	None

(Before Yates Correction)

Boko

CHANGELT-> / PLNTTREE	Count / Row Pct	0.0	1.00	2.00	Row Total
Yes		91	15		106
		85.8	14.2		30.5
No		167	73	1	241
		69.3	30.3	.4	69.5
	Column Total	258	88	1	347
		74.4	25.4	.3	100.0

Chi-Square	D.F.	Significance
10.71508	2	.0047

Min E.F.	Cells with E.F.< 5
.305	2 OF 6 (33.3%)

Mahotiere

CHANGELT-> / PLNTTREE	Count / Row Pct	0.0	1.00	2.00	Row Total
Yes		94	15		109
		86.2	13.8		26.7
No		215	83	1	299
		71.9	27.8	.3	73.1
No Response		1			1
		100.0			.2
	Column Total	310	98	1	409
		75.8	24.0	.2	100.0

Chi-Square	D.F.	Significance
9.38247	4	.0522

Min E.F.	Cells with E.F.< 5
.002	5 OF 9 (55.6%)

[continued]

[Table 3.10, Tree Planting, cont.]

2) By # of Years in Current Tenure Status

Rossignol

PLNTTREE-> LTLNGTH1	Count / Row Pct	Yes	No	Row Total
One Year or Less			62	62
			100.0	18.2
2 - 5 Years		11	105	116
		9.5	90.5	34.0
6 - 10 Years		16	35	51
		31.4	68.6	15.0
11 - 20 Years		24	50	74
		32.4	67.6	21.7
Over 20 Years		17	21	38
		44.7	55.3	11.1
Column Total		68	273	341
		19.9	80.1	100.0

Chi-Square	D.F.	Significance
49.43158	4	.0000

Min E.F.	Cells with E.F.< 5
7.578	None

Boko

PLNTTREE-> LTLNGTH1	Count / Row Pct	Yes	No	Row Total
One Year or Less		5	26	31
		16.1	83.9	8.9
2 - 5 Years		17	71	88
		19.3	80.7	25.4
6 - 10 Years		19	64	83
		22.9	77.1	23.9
11 - 20 Years		34	44	78
		43.6	56.4	22.5
Over 20 Years		31	35	66
		47.0	53.0	19.0
Do Not Know			1	1
			100.0	.3
Column Total		106	241	347
		30.5	69.5	100.0

Chi-Square	D.F.	Significance
25.64409	5	.0001

Min E.F.	Cells with E.F.< 5
.305	2 OF 12 (16.7%)

Mahotiere

PLNTTREE-> LTLNGTH1	Count / Row Pct	Yes	No	No Response	Row Total
One Year or Less		3	77		80
		3.8	96.3		19.6
2 - 5 Years		15	77		92
		16.3	83.7		22.5
6 - 10 Years		23	48	1	72
		31.9	66.7	1.4	17.6
11 - 20 Years		19	40		59
		32.2	67.8		14.4
Over 20 Years		48	56		104
		46.2	53.8		25.4
Do Not Know		1	1		2
		50.0	50.0		.5
Column Total		109	299	1	409
		26.7	73.1	.2	100.0

Chi-Square	D.F.	Significance
54.14314	10	.0000

Min E.F.	Cells with E.F.< 5
.005	8 OF 18 (44.4%)

Table 3.11. Land Access by Years in Current Tenure Status

Rossignol

LTLNGTH1--> Count / Row Pct	One Year or Less	2 - 5 Years	6 - 10 Years	11 - 20 Years	Over 20 Years	Row Total
TENURE1						
Purchased Parcel		5 50.0	3 30.0	1 10.0	1 10.0	10 2.9
Preinheritance G	1 7.1	3 21.4	2 14.3	7 50.0	1 7.1	14 4.1
Inherited	1 1.2	5 6.0	15 17.4	33 38.4	32 37.2	86 25.2
Usufruct	4 13.8	9 31.0	8 27.6	8 27.6		29 8.5
Rentals	7 12.5	39 69.6	7 12.5	2 3.6	1 1.8	56 16.4
Sharecrop	48 39.7	45 37.2	12 9.9	15 12.4	1 .8	121 35.5
Managed Parcels		8 47.1	4 23.5	3 17.6	2 11.8	17 5.0
Squatting	1 14.3	2 28.6		4 57.1		7 2.1
Inter Vivos Gift				1 100.0		1 .3
Column Total	62 18.2	118 34.6	61 18.0	74 21.7	38 11.1	341 100.0

Statistic	Symmetric	With TENURE1 Dependent	With LTLNGTH1 Dependent
Lambda	.20225	.23636	.16666

Soho

LTLNGTH1--> Count / Row Pct	One Year or Less	2 - 5 Years	6 - 10 Years	11 - 20 Years	Over 20 Years	Row Total
TENURE1						
Purchased Parcel	2 3.4	17 29.3	14 24.1	17 29.3	8 13.8	58 16.7
Preinheritance G		3 75.0		1 25.0		4 1.2
Inherited	9 5.6	16 10.7	24 16.0	46 30.7	55 36.7	150 43.2
Usufruct	2 4.9	11 26.8	15 36.6	11 26.8	2 4.9	41 11.8
Rentals	6 6.6	31 50.8	24 39.3	1 1.6		61 17.6
Sharecrop	14 46.2	10 33.3	5 16.1	2 6.5		31 8.9
Managed Parcels					1 100.0	1 .3
Squatting			1 100.0			1 .3
Column Total	31 8.9	88 25.4	83 23.9	78 22.5	66 19.0	347 100.0

(Continued)

Statistic	Symmetric	With TENURE1 Dependent	With LTLNGTH1 Dependent
Lambda	.15381	.10666	.10819

Rehetiere

LTLNGTH1--> Count / Row Pct	One Year or Less	2 - 5 Years	6 - 10 Years	11 - 20 Years	Over 20 Years	Row Total
TENURE1						
Purchased Parcel	2 15.4	3 23.1	2 15.4		6 46.2	13 3.2
Preinheritance G	4 19.0	8 38.1	6 28.6	1 4.8	1 4.8	21 5.1
Inherited	7 4.4	13 8.2	24 15.1	30 18.9	84 52.8	159 38.9
Usufruct	2 6.3	5 15.6	8 25.0	11 34.4	6 18.8	32 7.8
Rentals	22 31.0	31 43.7	9 12.7	6 8.5	3 4.2	71 17.4
Sharecrop	39 45.3	26 30.2	12 14.0	6 7.0	3 3.5	86 21.0
Managed Parcels	4 15.4	5 19.2	11 42.3	5 19.2	1 3.8	26 6.4
Inter Vivos Gift		1 100.0				1 .2
Column Total	80 19.6	92 22.5	72 17.6	59 14.4	104 25.4	409 100.0

(Continued)

Statistic	Symmetric	With TENURE1 Dependent	With LTLNGTH1 Dependent
Lambda	.24666	.20000	.28526

§ Land Market Transactions: Sales and Purchases

If we begin with land that was bought or sold (see Table 3.12), we find that land marketing is a relatively uncommon phenomenon in the Les Anglais region. Of the 212 people surveyed, only 24 (11 percent) had sold land, and no one had sold more than one parcel. The 78 parcels bought represent 7 percent of all parcels. A few respondents had purchased several parcels, with one person having purchased eight. These transactions occur primarily between local people. None of the sales was to people outside the watershed, and only a few land sellers were from other areas. Within the region, local people are the predominant participants in the land market, with both sellers and buyers of land being mostly from the immediate area. Intercommunity differences do occur. For example, over half the market transactions in Boko tend to occur between relatives, whereas fewer than 20 percent of the transactions in Rossignol occur between relatives. While many of the land sales and purchases occur between unrelated people, they nevertheless occur principally between local people.

One striking difference between the selling and buying of land among the respondents is the transaction dates. Land sales appear to be a much more recent phenomenon than land purchases. Most sales transpired within the last 10 years (58 percent within 5 years), yet the average purchased parcel was bought 11.4 years ago in Rossignol, 12.4 years ago in Boko, and 18.8 years ago in Mahotière. Interestingly, the upswing in land sales coincides with the elimination of the Creole pig in 1983. Farmers told us that they used to sell pigs to meet extraordinary expenses such as illness and funeral expenses, but that these expenses must now be paid for with money obtained in other ways, including land sales and rentals.

§ Temporary Land Transfers: Rental, Sharecropping, and Management

The most important forms of land transactions in the Les Anglais watershed are temporary, variable-length land transfers including rental, sharecropping, and management agreements. Together, these three forms of land transfer account for 42 percent (465 parcels) of all parcels studied and break down as follows within each community: Rossignol, 57 percent; Boko, 27 percent; and Mahotière, 44 percent. As pointed out in the section on access stability, these land transfers are for fairly short time periods. As a result, there is a very active temporary land-transfer system in this area. As with permanent transfers (sales and purchase), few owners involved in temporary transfers reside outside of the watershed. The owners of the rented and sharecropped parcels are chiefly from the same local area. Only in Mahotière on sharecropped land does the proportion of owners living in town reach close to one-third. It is true, however, that most owners of managed land live in Les Anglais, but these land transfers are much less common than the other two (7 percent of the parcels transferred under these three forms of land transfer). Hence, land-transfer participants most often are residents of the immediate area and only rarely come from outside the watershed area.

****

Table 3.12. Land Purchase and Sales

	Rossignol	Boko	Mahotière
Land Sales			
% of landholders who sold land	7%	10%	19%
# of parcels sold	5	7	12
Reasons for selling land			
-Funeral	40%	43%	17%
-Illness	60%	0	42%
-Survey land	0	27%	0
-Buy land	0	14%	8%
-Other	0	14%	33%
Residence of buyer			
-town	40%	0	17%
-rural	60%	100%	83%
-out of region	0	0	0
Mean # of years ago sold	10	3.6	5
% parcels sold to family member	0	71%	25%
Purchased Parcels			
% of people who bought land	12%	37%	16%
# of parcels bought	10	58	10
Residence of seller			
-town	18%	14%	30%
-rural	73%	83%	70%
-out of region	9%	3%	0
Mean # of years ago bought	11.4	12.4	18.8
% of parcels bought from family	20%	52%	30%

****

When other characteristics of temporary land transfers are examined, we find that among Rossignol and Mahotière landholders there is also a marked propensity for farmers on parcels owned by town dwellers to have had longer access to the parcel than farmers working their neighbor's land (Table 3.13). Only in Boko, which has the fewest number of parcels owned by town dwellers, is this tendency less striking.

The majority of both rural and town owners of rented, managed, and sharecropped parcels are unrelated to the farmer. There appears to be no relationship between whether or not owners are related to the farmer and the length of current access, except in Rossignol where farmers who are related to the owners tend to have had longer access to such parcels than unrelated farmers.

§ Land Use

In Rossignol and Mahotière, town owners own a disproportionately high percentage of land with coffee on it, while rural owners own an overwhelming amount of the land supporting only multi-range to high-fertility annuals (Table 3.14). However, land capability does not vary according to whether or not owners are related to the farmers. All land-capability classes are included in temporary land transfers, but the lowest-fertility class is the land type least common in these transactions.

In general, then, there is currently little outsider accumulation of land in the middle to upper reaches of the Les Anglais watershed. Indeed, most land transactions (both permanent and temporary) occur between people residing in the same **localité**. Permanent land transfers are rather uncommon, although land sales appear to be increasing. On the other hand, temporary land transfers are quite common and tend to occur between unrelated people except on the poorest land.

§ State Land §

State land represents a special category of land that continues to generate debate: How much is there? Where is it? Is it rented by larger landholders who then exploit smaller landholders? Do small state leaseholders treat the land in different ways than their own or others' private land? State land has been available on a year-to-year rental basis for many years, but control over the rental process has rarely been effective. This is quite apparent in the realm of land area. In many regions where there is state land, leaseholders provide the Bureau des Contributions with their estimate of the land area they rent, an estimate that is questionable even when made in good faith. In the case of the Rossignol area, not one respondent admitted ever seeing anyone from Contributions up in the mountains to look at the state land. It is not surprising that the status and condition of state land remain shrouded in mystery.

Table 3.13. Years in Current Tenure Status by Owner Residence

Kassigno

ORIGINAL-> / LTLNGTH1	Local Town Owner	Rural Owner	Absentee Owner	Row Total
One Year or Less	4 12.0 7.3% 9.5%	50 42.2 90.9% 33.8%	1 .9 1.8% 33.3%	55 28.5%
2 - 5 Years	17 19.8 18.7% 40.5%	74 69.8 81.3% 50.0%	0 1.4 0.0% 0.0%	91 47.2%
6 - 10 Years	9 5.0 39.1% 21.4%	13 17.6 56.5% 8.8%	1 .4 4.3% 33.3%	23 11.9%
11 - 20 Years	8 4.4 40.0% 19.0%	11 15.3 55.0% 7.4%	1 .3 5.0% 33.3%	20 10.4%
Over 20 Years	4 .9 100.0% 9.5%	0 3.1 0.0% 0.0%	0 .1 0.0% 0.0%	4 2.1%
Column Total	42 21.8%	148 76.7%	3 1.6%	193 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
34.60208	8	.0000	.062	8 OF 15 (53.3%)

Boko

ORIGINAL-> / LTLNGTH1	Local Town Owner	Rural Owner	Row Total
One Year or Less	2 1.9 11.1% 20.0%	16 16.1 88.9% 15.3%	18 19.4%
2 - 5 Years	3 4.4 7.3% 30.0%	38 35.6 92.7% 45.8%	41 44.1%
6 - 10 Years	4 3.1 13.8% 40.0%	25 25.9 86.2% 30.1%	29 31.2%
11 - 20 Years	0 .3 0.0% 0.0%	3 2.7 100.0% 3.6%	3 3.2%
Over 20 Years	1 .1 100.0% 10.0%	0 .9 0.0% 0.0%	1 1.1%
Do Not Know	0 .1 0.0% 0.0%	1 .9 100.0% 1.2%	1 1.1%
Column Total	10 10.8%	83 89.2%	93 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
9.56798	5	.0884	.108	9 OF 12 (75.0%)

Mahotiere

ORIGINAL-> / LTLNGTH1	Local Town Owner	Rural Owner	Absentee Owner	No Response	Row Total
One Year or Less	14 20.4 22.2% 24.1%	46 39.8 73.0% 40.7%	1 2.1 1.6% 16.7%	2 .7 3.2% 100.0%	63 35.2%
2 - 5 Years	18 19.4 30.0% 31.0%	42 37.9 70.0% 37.2%	0 2.0 0.0% 0.0%	0 .7 0.0% 0.0%	60 33.5%
6 - 10 Years	17 10.4 53.1% 29.3%	15 20.2 46.9% 13.3%	0 1.1 0.0% 0.0%	0 .4 0.0% 0.0%	32 17.9%
11 - 20 Years	5 5.5 29.4% 8.6%	8 10.7 47.1% 7.1%	4 .6 23.5% 66.7%	0 .2 0.0% 0.0%	17 9.5%
Over 20 Years	4 2.3 57.1% 6.9%	2 4.4 28.6% 1.8%	1 .2 14.3% 16.7%	0 .1 0.0% 0.0%	7 3.9%
Column Total	58 32.4%	113 63.1%	6 3.4%	2 1.1%	179 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
43.01159	12	.0000	.078	12 OF 20 (60.0%)

Number of Missing Observations = 5

Table 3.14. Land Capability Class by Owner Residence

Rossignol

ORIGINAL-> / LANDUSE	Local Town Owner	Rural Owner	Absentee Owner	Row Total
LFA Only	1 / .7 / 33.3% / 2.4%	2 / 2.3 / 66.7% / 1.4%	0 / .0 / 0.0% / 0.0%	3 / 1.6%
HFA only	7 / 15.5 / 9.9% / 16.7%	64 / 54.4 / 90.1% / 43.5%	0 / 1.1 / 0.0% / 0.0%	71 / 37.0%
Multi-Range Annu	10 / 9.2 / 23.8% / 23.8%	31 / 32.2 / 73.8% / 21.1%	1 / .7 / 2.4% / 33.3%	42 / 21.9%
Coffee + Annuals	12 / 7.9 / 33.3% / 28.6%	23 / 27.6 / 63.9% / 15.6%	1 / .6 / 2.8% / 33.3%	36 / 18.8%
Coffee/HFA Only	12 / 8.8 / 30.0% / 28.6%	27 / 30.6 / 67.5% / 18.4%	1 / .6 / 2.5% / 33.3%	40 / 20.8%
Column Total	42 / 21.9%	147 / 76.6%	3 / 1.6%	192 / 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
13.18157	8	.1058	.047	7 OF 15 (46.7%)

Boko

ORIGINAL-> / LANDUSE	Local Town Owner	Rural Owner	Row Total
LFA Only	3 / 1.5 / 21.4% / 30.0%	11 / 12.5 / 78.6% / 13.4%	14 / 15.2%
HFA only	3 / 2.5 / 13.0% / 30.0%	20 / 20.5 / 87.0% / 24.4%	23 / 25.0%
Multi-Range Annu	1 / 3.7 / 2.9% / 10.0%	33 / 30.3 / 97.1% / 40.2%	34 / 37.0%
Coffee + Annuals	0 / .7 / 0.0% / 0.0%	6 / 5.3 / 100.0% / 7.3%	6 / 6.5%
Coffee/HFA Only	3 / 1.6 / 20.0% / 30.0%	12 / 13.4 / 80.0% / 14.6%	15 / 16.3%
Column Total	10 / 10.9%	82 / 89.1%	92 / 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
5.95181	4	.2028	.652	5 OF 10 (50.0%)

Mahotiere

ORIGINAL-> / LANDUSE	Local Town Owner	Rural Owner	Absentee Owner	No Response	Row Total
LFA Only	3 / 3.6 / 27.3% / 5.2%	5 / 6.9 / 45.5% / 4.5%	2 / .4 / 18.2% / 33.3%	1 / .1 / 9.1% / 50.0%	11 / 6.2%
HFA only	7 / 11.5 / 20.0% / 12.1%	28 / 21.9 / 80.0% / 25.2%	0 / 1.2 / 0.0% / 0.0%	0 / .4 / 0.0% / 0.0%	35 / 19.8%
Multi-Range Annu	8 / 12.1 / 21.6% / 13.8%	27 / 23.2 / 73.0% / 24.3%	1 / 1.3 / 2.7% / 16.7%	1 / .4 / 2.7% / 50.0%	37 / 20.9%
Coffee + Annuals	8 / 7.2 / 36.4% / 13.8%	14 / 13.8 / 63.6% / 12.6%	0 / .7 / 0.0% / 0.0%	0 / .2 / 0.0% / 0.0%	22 / 12.4%
Coffee/HFA Only	32 / 23.6 / 44.4% / 55.2%	37 / 45.2 / 51.4% / 33.3%	3 / 2.4 / 4.2% / 50.0%	0 / .8 / 0.0% / 0.0%	72 / 40.7%
Column Total	58 / 32.8%	111 / 62.7%	6 / 3.4%	2 / 1.1%	177 / 100.0%

Chi-Square	D.F.	Significance	Min E.F.	Cells with E.F.< 5
26.26405	12	.0051	.124	11 OF 20 (55.0%)

Number of Missing Observations = 9

We specifically studied a community with state leaseholds in order to form tentative answers to some of the questions surrounding the status of state land. No more than 10-12 percent of the watershed area is state land, an estimate based on local interviews that established general limits of state holdings which were then traced on a topographical map. Most of this land is located in the upper reaches of the watershed and starts on the peak above Rossignol and continues to the slopes of Pic Macaya.

§ Access Characteristics

Fifty-nine parcels of state land were identified in our survey, all located in Rossignol. With the exception of one state-land farmer who resides in Boko, all the state-land users are residents of Rossignol. This figure includes seven squatter parcels (see Table 3.15), which the farmers call **té sans met** or land with no owner. We include these parcels in our discussion of state land since they appear to be located in the high-altitude zone where people claim there is very little private land. According to several respondents, the residents of Platon Momebin, the **localité** just east of Rossignol, also work plots on this **té sans met**.

Other than the "direct" form of access employed by squatters, only two parcels are directly leased from the state. On the parcels held under secondary access, subletting and sharecropping are the most common means of access, accounting for 72 percent of the state land used by Rossignol residents.

****

Table 3.15. Tenure Breakdown of State Land in Rossignol

	Parcels		Leaseholder Residence within Watershed		Leaseholder Is Related	
			Town	Rural	Yes	No
Usufruct	4	(7%)	1	3	4	0
Squatter	7	(12%)	--	--	--	--
Rentals						
Direct	2	(3%)	2	0	--	--
Sublet	15	(25%)	1	14	4	11
Sharecrop	28	(47%)	9	19	10	18
Managed	3	(5%)	3	0	2	1
	59	(99%)	16	36	20	30

****

Contrary to supposition in much of the literature, 70 percent of the leaseholders reside in the rural areas of the watershed. Only a few leaseholders who directly rent or manage out state land live in town. Only 40 percent of all state leaseholders are related to the person farming the land and only 21 percent of the farmers have had the land in the family for more than one generation. Although comparable to the figures for private lands, the state-land results tend to downplay the importance of the case-study results, which indicated that much of the state land was treated as inherited land with "co-heirs" chipping in for the yearly rent payment made by the **reksponsab eritaj**. However, the block study also found that people "inherited" state leases, which supports our suspicions that our results were skewed by limiting the survey to residents of Rossignol because the locus of the case study's "inherited" state land was in Pyenor, the **localité** just above Rossignol. Further clarification of this contradiction requires research specifically focused on state leased lands.

Access patterns on state lands are consistent with private forms of secondary access in that 66 percent of the farmers have had their current access type for 5 years or less (see Table 3.16). Furthermore, almost half (47 percent) of these farmers have worked the land for over 5 years. This also coincides closely with private land-access patterns in all three communities. Distance from the house site is similar for all state and all private parcels, with 63 percent of both types being less than one hour away. However, small differences within access categories do occur in the two closest-distance categories. Over 66 percent of sharecropped, usufruct, and managed parcels on state leaseholds tend to be located within a half-hour walk compared to less than 58 percent of the private parcels in the same access categories.

§ Conditions of Access: Private versus State

Since little or no control is exercised over state leases by the Bureau des Contributions, there is a large potential for abuse by those who possess the means to lease large portions and then sublet or sharecrop the land out for immoderate sums. The literature is replete with accusations that large state leaseholders exploit sublessors through high rental charges. If one compares the rental-in conditions on private lands and on state lands (see Table 3.17), little difference can be detected between rental prices on state and private lands. In calculating price per unit area, we used estimated area given by the farmer. Although we found that farmer estimation of size neither corresponds nor relates to actual size, his (and the lessor's) perception of size forms part of the basis upon which the rental price is negotiated. As such, size can be used in this very narrow case to compare rental arrangements. We find that state sublet agreements are very similar to private land, whether we compare all rental-in agreements in our survey or whether we restrict the comparison only to other mountain rental agreements in the same area. However, state leaseholders pay only nominal yearly fees of $3 to $10 per estimated **carreau** for land similar in quality (demonstrated in the next section) to the private land in Rossignol. Given that the state leaseholder receives all the benefits

Table 3.16. Land Access

1) By Years in Current Tenure Status

State Lands

LTLNGTH1-> Count / Row Pct / TENURE1	One Year or Less	2 - 5 Years	6 - 10 Years	11 - 20 Years	Over 20 Years	Row Total
Inherited			1 100.0			1 1.7
Usufruct		1 25.0	3 75.0			4 6.7
Rentals	3 17.6	11 64.7	1 5.9	1 5.9	1 5.9	17 28.3
Sharecrop	8 28.6	11 39.3	5 17.9	4 14.3		28 46.7
Managed Parcels		1 33.3		2 66.7		3 5.0
Squatting	1 14.3	2 28.6		4 57.1		7 11.7
Column Total	12 20.0	26 43.3	10 16.7	11 18.3	1 1.7	60 100.0

Statistic	Symmetric	With TENURE1 Dependent	With LTLNGTH1 Dependent
Lambda	.10606	.03125	.17647

Private Lands

LTLNGTH1-> Count / Row Pct / TENURE1	One Year or Less	2 - 5 Years	6 - 10 Years	11 - 20 Years	Over 20 Years	Row Total
Purchased Parcel	4 4.9	25 30.9	19 23.5	18 22.2	15 18.5	81 7.8
Preinheritance G	5 12.8	14 35.9	8 20.5	9 23.1	2 5.1	39 3.8
Inherited	17 4.3	34 8.6	62 15.7	109 27.7	171 43.4	394 38.0
Usufruct	8 8.2	24 24.5	28 28.6	30 30.6	8 8.2	98 9.5
Rentals	30 17.5	90 52.6	39 22.8	8 4.7	3 1.8	171 16.5
Sharecrop	93 44.3	70 33.3	24 11.4	19 9.0	4 1.9	210 20.3
Managed Parcels	4 9.8	12 29.3	15 36.6	6 14.6	4 9.8	41 4.0
Squatting			1 100.0			1 .1
Inter Vivos Gift		1 50.0		1 50.0		2 .2
Column Total	161 15.5	270 26.0	196 18.9	200 19.3	207 20.0	1037 100.0

(Continued)

Statistic	Symmetric	With TENURE1 Dependent	With LTLNGTH1 Dependent
Lambda	.21418	.20529	.22164

[continued]

2) By Years Respondent Has Worked Parcel

State Lands

TIMEWRK1-> Count / Row Pct	5 Years or Less	6 - 10 Years	11 - 20 Years	Over 20 Years	Not Applicable	Row Total
TENURE1						
Inherited			1 100.0			1 1.7
Usufruct	1 25.0	3 75.0				4 6.7
Rentals	9 52.9	2 11.8	3 17.6	1 5.9	2 11.8	17 28.3
Sharecrop	17 60.7	7 25.0	4 14.3			28 46.7
Managed Parcels	1 33.3		2 66.7			3 5.0
Squatting	3 42.9		4 57.1			7 11.7
Column Total	31 51.7	12 20.0	14 23.3	1 1.7	2 3.3	60 100.0

Statistic	Symmetric	With TENURE1 Dependent	With TIMEWRK1 Dependent
Lambda	.13115	.09375	.17241

Private Lands

TIMEWRK1-> Count / Row Pct	5 Years or Less	6 - 10 Years	11 - 20 Years	Over 20 Years	Not Applicable	Row Total
TENURE1						
Purchased Parcel	24 29.6	12 14.8	23 28.4	15 18.5	7 8.6	81 7.8
Preinheritance G	13 33.3	10 25.6	7 17.9	1 2.6	8 20.5	39 3.8
Inherited	28 7.1	31 7.9	62 15.8	109 27.8	161 41.1	392 37.9
Usufruct	30 30.6	28 28.6	29 29.6	9 9.2	2 2.0	98 9.5
Rentals	122 71.3	25 14.6	12 7.0	7 4.1	5 2.9	171 16.5
Sharecrop	160 76.2	26 12.4	19 9.0	4 1.9	1 .5	210 20.3
Managed Parcels	12 29.3	15 36.6	6 14.6	3 7.3	5 12.2	41 4.0
Squatting					1 100.0	1 .1
Inter Vivos Gift			1 50.0	1 50.0		2 .2
Column Total	389 37.6	147 14.2	159 15.4	149 14.4	190 18.4	1035 100.0

(Continued)

Statistic	Symmetric	With TENURE1 Dependent	With TIMEWRK1 Dependent
Lambda	.20946	.20529	.21362

Number of Missing Observations = 2

****

Table 3.17. Rental Conditions on State versus Private Lands

	State	..... Private ..... All	Mtn. Rentals (Rossignol)
Mean $/perceived size (1cx)	$ 31.58	$ 29.34	$ 32.38
Standard deviation	33.11	33.51	28.35
Minimum value	3.03	2.00	4.00
Maximum value	103.00	242.42	136.00
	n=13	n=122	n=30

****

of landownership without the risks, he probably realizes a higher return on his investment (yearly fee) than do private owners who sublet.

A comparison of sharecropping arrangements shows that sharecroppers on state leaseholds receive 60 percent of the crop compared to 62 percent for sharecroppers on private lands. Since sharecropping arrangements involve sharing both the produce and the risk of agricultural production, the similar division of the harvest between state and private sharecroppers suggests that there is little difference between private landowners and state leaseholders in the exploitation of the sharecropper in these arrangements.

§ Land Quality and Investment: State versus Private

In order to assess differences in land quality between state and private land, we again utilized the land-capability classes which are based on what crop combinations each parcel supports (see Table 3.18). None of the state lands consists of land capable of supporting only low-fertility annuals. This compares to the 6 percent of private land parcels classified as poor-quality. Compared with private rentals, a higher percentage of state parcels support more high-fertility annuals only. Sharecropped state parcels, however, tend to be much more evenly distributed throughout the capability classes than private sharecropped parcels. The private lands under sharecrop arrangements are medium- to high-quality parcels with no coffee growing on them.

The other important measure of land use and investment used earlier in this survey analysis was tree planting. A comparison of tree planting on state and private parcels shows us that the incidence of tree planting is approximately the same for each access type (see Table 3.18). The exception is managed land, but there are too few cases of management on state leaseholds to make a meaningful comparison. In general, tree planting is not a common activity on parcels held under tenancy or caretaking arrangements, regardless of their status as state or private land.

Overall, the data suggest that state land in the Les Anglais area is treated much the same as private land. There are some differences in the quality of land on rental and sharecropped lands. State rentals are a little higher in quality than private rentals and state sharecropped parcels a little poorer in quality. It is true that a higher percentage of state leaseholders (31 percent) reside in Les Anglais than do private owners (21 percent). It also seems that state leaseholders enjoy a higher return than private owners, which might suggest that state rents are too low.

However, the reader should also note that we observed no very large (over 10 cx) state leaseholds, suggesting that blatant exploitation of resident farmers by nonresident state leaseholders does not accurately reflect the situation in the Les Anglais watershed. Alternatively, PST personnel should remark that state land is frequently treated as if privately owned, even to the point of being inheritable. Furthermore, the quality of the land differs little from that of comparably located private land.

§ Conclusion §

The general survey results corroborate many of the case study results. Both studies indicate that peasants' land management decisions depend not only on the physical distribution of their parcels and their environmental characteristics, but also on the conditions under which they have access to given parcels. Several trends emerged in the general survey analysis that can be of use to PST technicians as they design conservation strategies for the Pic Macaya watersheds.

We found support for the notion of life-cycle changes in the forms of land access a farmer has at various stages of his life. Older peasants were found to have more primary access to land than their younger counterparts. Older farmers are also more likely to give out parcels to others to work, while younger farmers farm most of their land themselves. These differences in landholding characteristics suggest that certain conservation strategies may be inappropriate for farmers in certain age groups. The technicians will need to be aware of these age distinctions and adjust their programming accordingly.

Although tree planting was most common on purchased parcels, it was also fairly common on inherited and usufruct parcels. However, the

Table 3.18. Land Access

1) By Land Capability Class

Private Lands

LANDUSE-> / TENURE1	Count / Exp Val / Row Pct / Col Pct	LFA Only	HFA only	Multi-Range Annu	Coffee + Annuals	Coffee/HFA Only	Row Total
Usufruct		7 8.1 5.6% 20.0%	23 32.9 18.3% 16.2%	40 32.4 31.7% 28.6%	29 19.2 23.0% 34.9%	27 33.4 21.4% 18.8%	126 23.2%
Rentals		12 10.7 7.2% 34.3%	41 43.6 24.6% 28.9%	49 43.0 29.3% 35.0%	19 25.5 11.4% 22.9%	46 44.2 27.5% 31.9%	167 30.7%
Sharecrop		15 13.5 7.1% 42.9%	71 54.8 33.8% 50.0%	50 54.0 23.8% 35.7%	29 32.0 13.8% 34.9%	45 55.6 21.4% 31.3%	210 38.6%
Managed Parcels		1 2.6 2.4% 2.9%	7 10.7 17.1% 4.9%	1 10.6 2.4% .7%	6 6.3 14.6% 7.2%	26 10.9 63.4% 18.1%	41 7.5%
Column Total		35 6.4%	142 26.1%	140 25.7%	83 15.3%	144 26.5%	544 100.0%

State Lands

LANDUSE-> / TENURE1	Count / Exp Val / Row Pct / Col Pct	HFA only	Multi-Range Annu	Coffee + Annuals	Coffee/HFA Only	Row Total
Usufruct		0 1.2 0.0% 0.0%	0 .9 0.0% 0.0%	2 .9 50.0% 15.4%	2 1.1 50.0% 12.5%	4 6.8%
Rentals		7 4.9 41.2% 41.2%	5 3.7 29.4% 38.5%	2 3.7 11.8% 15.4%	3 4.6 17.6% 18.8%	17 28.8%
Sharecrop		6 8.1 21.4% 35.3%	8 6.2 28.6% 61.5%	7 6.2 25.0% 53.8%	7 7.6 25.0% 43.8%	28 47.5%
Managed Parcels		0 .9 0.0% 0.0%	0 .7 0.0% 0.0%	1 .7 33.3% 7.7%	2 .8 66.7% 12.5%	3 5.1%
Squatting		4 2.0 57.1% 23.5%	0 1.5 0.0% 0.0%	1 1.5 14.3% 7.7%	2 1.9 28.6% 12.5%	7 11.9%
Column Total		17 28.8%	13 22.0%	13 22.0%	16 27.1%	59 100.0%

[continued]

[Table 3.18. Land Access, cont.]

2) By Land Capability Class

Private Lands

PLNTTREE-> / TENURE1	Count / Exp Val / Row Pct / Col Pct	Yes	No	Row Total
Usufruct		40 20.8 29.2% 47.1%	97 116.2 70.8% 20.5%	137 24.5%
Rentals		15 26.0 8.8% 17.6%	156 145.0 91.2% 32.9%	171 30.6%
Sharecrop		17 31.9 8.1% 20.0%	193 178.1 91.9% 40.7%	210 37.6%
Managed Parcels		13 6.2 31.7% 15.3%	28 34.8 68.3% 5.9%	41 7.3%
	Column Total	85 15.2%	474 84.8%	559 100.0%

State Lands

PLNTTREE-> / TENURE1	Count / Exp Val / Row Pct / Col Pct	Yes	No	Row Total
Usufruct		1 .5 25.0% 14.3%	3 3.5 75.0% 5.8%	4 6.8%
Rentals		2 2.0 11.8% 28.6%	15 15.0 88.2% 28.8%	17 28.8%
Sharecrop		3 3.3 10.7% 42.9%	25 24.7 89.3% 48.1%	28 47.5%
Managed Parcels		0 .4 0.0% 0.0%	3 2.6 100.0% 5.8%	3 5.1%
Squatting		1 .8 14.3% 14.3%	6 6.2 85.7% 11.5%	7 11.9%
	Column Total	7 11.9%	52 88.1%	59 100.0%

incidence of tree planting on the latter two only amounts to one-third of inherited and usufruct parcels. Given that only a relatively small proportion of the parcels was purchased, PST efforts will have to devise strategies that can overcome disincentives to long-term investment on inherited and usufruct parcels.

Farmers with secondary access to their land are much less likely to plant trees on their parcels than farmers with primary access to their land. At the same time, farmers who give out land to work are not likely to plant trees on that land. Given the high incidence of secondary access in the watershed, PST will need to focus efforts on encouraging conservation efforts on secondary access lands. In particular, programs in which technicians work with both the owners and the users of such land should be implemented.

Although wage labor is often assumed to be utilized predominately on valuable land, our study showed that wage labor is utilized regularly across all land-capability classes. Wage labor is also used on the bulk of tenant parcels. The question of how much labor is available to a client farmer--and whether he has the cash resources to overcome any shortages--is also one that should be asked by PST technicians prior to enrolling client farmers in specific conservation programs. Farmers with a shortage of labor or financial resources to purchase additional labor will not be able to adopt labor-intensive conservation techniques.

In addressing the question of land markets, it was found that the buying and selling of land occur much less frequently than temporary land transfers such as rental, sharecropping, and management agreements. Land sales, however, appear to have increased during the last five years. Both temporary land transfers and land alienation occur primarily among local, unrelated peasants. Few land transactions occur with people residing outside of the immediate vicinity, and land transactions with people from outside of the watershed are rare. If successful, PST efforts are likely to increase the value of mountain land. The incidence of permanent land transfers may increase as a result, and certain segments of the population may be squeezed out of the land market entirely. The character of the land market may also change from a local, intraclass market to a nonlocal, interclass market, with the possibility that wealthy, more powerful outsiders may begin accumulating land in these areas. PST should be aware that such changes may occur and should consider what steps could be taken to ensure that local peasants are not squeezed out of the land market.

The general survey results indicated that many state leaseholders in the Rossignol area give out their land under sharecropping arrangements. Since sharecroppers rarely plant trees on sharecropped land, PST technicians may find it difficult to encourage land users to adopt long-term conservation strategies on state lands. On the other hand, the case-study data indicated that some state lands are also treated as if they were inherited land. Further research should be done to determine what types of state lands exist in other PST watersheds. We also found state land in the Les Anglais watershed to be of good quality.

Management practices varied little from comparable private land, although more leaseholders lived in Les Anglais than did private landowners.

§ Implications

The general survey can provide the technician with a census of the types of access patterns that exist in an area as well as the characteristics of those forms of access. This information can be used to determine whether overcoming constraints for specific access types should be done on an individual, community, or regional level. For example, if few holders of state lands are included among the client farmers, policies for encouraging conservation efforts on such lands can be developed at the individual level. On the other hand, if 90 percent of the farmers on a targeted hillside farm state lands, a different approach will have to be taken. Similarly, if much of an area targeted for improvement is held under secondary access, technicians will have to give some thought as to how to work together with owners and users. For example, if most of the targeted area consists of rented lands, PST technicians may wish to design a tree-planting program that incorporates provisions for restructuring rental agreements to include rights to those trees.

However, this general survey cannot provide the technician with information as to why people are less likely to invest in certain types of land, nor does it provide him with essential information about land quality or size. To accomplish these tasks, other approaches such as the landholder and block case studies are more appropriate.

§ CHAPTER 4 §

A Preliminary Approach to the Agrarian Question in the Southern Watershed of Pic Macaya

by Michèle Oriol Sprumont

§ Introduction §

This study was undertaken as part of a research project requested of the Land Tenure Center at the University of Wisconsin by the USAID/ Haiti mission. Concerned by the absence of land-tenure data in Haiti and by its supposedly negative impact on rural development actions, and particularly on the protection of eroded Haitian watersheds, USAID administrators wished to undertake the following actions under the aegis of the LTC:

- to collect reliable land-tenure data on the southern slope of Pic Macaya, where USAID plans to initiate a pilot watershed-management project;

- to define a working methodology which would, on one hand, permit the Proje Sove Te team to collect useful data at the start of the project or, at the least, to establish the basis for a project monitoring and evaluation system and, on the other hand, be useful for all Haitian watersheds requiring protection.

From the above requirements the following major objectives for this work emerge:

1) to determine the dominant modes of tenure in a subcatchment basin of Pic Macaya situated in the Commune de Camp-Perrin;

2) to draw the outlines of a research-development effort which would help the PST integrate land-tenure problems into the planning and design stage, thereby making its efforts much more successful.

§ Methodology §

Equally important as the collection of tenure information, the development and testing of a methodology for gathering the data constituted the second major goal of this work. This chapter stresses the intellectual steps that we followed as well as the concrete application of these steps.

§ The Units of Observation and Analysis

Typically, investigations in rural areas are based on the observation and/or recording of data at the level of the farm enterprise and/or household. However, this approach presents some drawbacks:

1) The farm enterprises are made up of a number of parcels which are generally fairly distant from one another. The farm enterprise thus does not form a spatial entity that is directly observable.

2) Though the farm enterprise constitutes an excellent unit of observation for understanding the economic and personal dynamics which influence the peasant, the production of relevant data requires relatively extended studies that permit the researcher to accumulate objective data which he himself has observed, quantified, and analyzed. The categories and the phenomena that the researcher generally wishes to understand are, in fact, of too abstract a nature or too complex to be translated by means of a survey questionnaire. The level of abstraction that is assumed enters with difficulty into the mental universe of the peasant or local interviewer, who rarely has a level of education beyond the primary school.

3) In our situation, where we hope to understand the phenomena necessary for achieving a successful watershed-protection project, the understanding of the region in which one is going to act is essential. If in terms of relief, the region is made up of valleys, hills, plateaus, streams, and so on, then in terms of land utilization, the region is broken up into small surface areas of varying shapes: the "gardens" and fields. The field thus comprises the smallest observable unit in the rural region. Knowing that the field is the object of decisions and investments within the framework of the farm enterprise and that within the framework of the family or social group, it is the object of desire and disputes, it is essential to settle on the field as the unit of observation which will permit the intervenor to accomplish the first level of analysis.

§ Why a Land Block Study?

Two alternatives exist for studying a region utilizing the field as the basic unit. Either one proceeds by using sampling methods in which one decides to study a number of fields that are assumed to be representative of all the fields about which one wishes to have information, or one decides to create a continuum of adjacent fields and make extensive inquiries about all the contiguous fields until one discovers logical and consistent entities. The consistency can be human, it can be legal, it can be historical, it can be geographical--depending on the concerns of the researcher. This second method is called the "block study" and is the method we have chosen. Approaching the land-tenure question by means of a block of land offers several advantages:

- It permits one to find out if the person who owns the land is also the person who works the land.

- It permits one to understand the relationships and the nature of the relationships between land users and land owners when the two functions are not fulfilled by the same person.

- It permits one to learn about the existence and nature of land conflicts. It is well known that problems between neighbors constitute one of the most important tenure problems.

- Since one examines a small universe with its history, its problems, and its protagonists, one has the opportunity to discover reliable models of the problems that will be replicated in the same terms in another small universe with similar characteristics.

- One of the eternal problems with research in rural regions in Haiti is the trustworthiness of the collected data. In a block study, the bulk of the data are directly observed by the researcher: area (if one wishes to survey), cropping patterns, livestock systems, and so on. The data obtained from the land user about the legal status of the land and other data of a similar nature can be easily crosschecked with neighbors.

- The quality of information is much better because meetings with informants are numerous and one can always come back to information which, on the basis of crosschecks by other means of inquiry, appears doubtful.

- The interviewer pursues the research over a limited geographical area and with a limited number of informants so that he can, therefore, go to the heart of the problems.

On the other hand, several drawbacks also exist, with the most severe being the disruption that one risks bringing to the community:

- The community where the study takes place revives all its old quarrels and resentments in order to discuss them with the interviewer. With land-tenure issues, in particular, there is a real risk of putting new breath into disputes which had been buried long ago.

- The results obtained, especially when one begins to survey land or to examine land titles, and so on, must remain confidential, especially when they reveal swindles, thefts, or even flagrant injustices.

Linked with several other data collection modes, the block study was thus conceived of as outlined in Table 4.1.

Table 4.1. Conception of the Block Study and Comparison with Other Studies

Method	Means	Anticipated Results
Block study	parcel questionnaires	-identification of the modes of appropriation (parcel/ region)
		-identification of the modes of land utilization (parcel/ region)
		-legal status/customary rules
		-identification of conflicts
		-role of the parcel in the farm holding (parcel/region)
		-study of the utilization of space
	boundary survey and/or photo interpretation	-parcel sizes -map of the entire area
Farm survey	farm questionnaire (reasoned selection of farm enterprises according to established parcel categories)	-situation of the parcel in the peasant production systems and the goals of the farm head
		-tenure history for the farm holding
Regional survey	informal interviews/ direct observations	-study of the landscape/ logic of space utilization
		-establishment of a tenure history for several of the identified landowners
		-establishment of a tenure history for the region

§ The Study

The Work Site

The upper portion of the Ravine du Sud watershed, on the right bank, was chosen for the study site. Given personnel, time, and budgetary constraints, two sites were chosen within this area:

- a high altitude zone, reportedly belonging to the State, known as Coutard (between 700 and 1270 meters in altitude)

- a middle altitude zone, reportedly held under private ownership, known as the "habitation" of Remarais or Ré (between 300 and 400 meters).

This choice turned out to be judicious, permitting a wide range of tenure situations to be covered.

The Interviewers

The ethnologist in charge of the study had to be assisted in her work by one or two assistants recruited from the inhabitants of the zone where the study was to take place. This experience turned out to be unfortunate. These interviewers, as odd as it might seem, were not "foreign" enough to the region. Because of these interviewers' connections with families controlling certain estates or having right to certain plots of land, the interviewees were often ill-at-ease or openly angry with their intrusion into matters considered strictly confidential. Given that these interviewers had no more competence than other inhabitants of the area, the use of such interviewers also caused jealousies which may resurface in the future.

For all of these reasons, it would be desirable if similar research efforts had access to interviewers completely foreign to the region, such as sociology or agronomy students, much as has been done by other researchers for a number of years without creating major conflicts at the research site.

The Survey

The survey of parcels in order to create a block map turned out to be an indispensable part of the study. Indeed, given the very complicated shape of some parcels, it would have been impossible to map the block without precise measures of distances and angles. Nonetheless, the time period selected (October-November) was particularly ill-suited for such operations: it was the middle of the rainy season and most of the fields were covered with sorghum and manioc, which made it extremely difficult to take compass sightings. Although the survey operations in Ré were technically simple, similar studies would require the services of a professional surveyor in order to both reduce the survey time and permit the data to be used for quasi-cadastral purposes. In spite of the use of a computer program for verifying measurements, calculating surface areas, and drawing the parcels and the block map, the creation of the block map turned out to be very time-consuming. The design of

the block map could have been more efficiently accomplished if a professional had been employed.

From the peasants' viewpoint, though the survey of customary parcel boundaries seemed somewhat capricious, the provision of a minimum of information and explanation of the research goals helped them accept the work necessary to complete the research.

Finally, in the zone of Coutard, the nature of the terrain (very rugged and steep), and the weaknesses of our technical equipment (two hand compasses, a clinometer, and a 30-meter tape) made it absolutely impossible to accomplish a survey that would have permitted the creation of a block map similar to that for Ré. Certain measurements could, nonetheless, be made and did permit us to establish some interesting facts about state-lands issues.

The Questionnaires

The questionnaires employed, after several modifications, proved reasonably useful. A revised version is attached to the present report (see Appendix D).

In addition to the block study, a general survey questionnaire developed in the Les Anglais region was tested in the Camp-Perrin zone. Developed primarily to collect quantitative data, it also turned out to be useful in Camp Perrin.

The Archives

To complete the study data, it was necessary to undertake some in-depth research with the surveyors working in the Commune of Camp Perrin. Generally well-maintained, these archives are an invaluable source of land-tenure information, as are the surveyors themselves. One of the two archives examined also includes deeds dating back to the colonial period. Since these archives pass from one generation of surveyors to another and if systematic land-tenure research must be undertaken, it is extremely important to computerize these data. Without these data, it is absolutely impossible to understand the peasant land-tenure situation, which is regulated by both formal and customary law and which sometimes follows the rules of one and, at other times, the rules of the other.

The Diagnosis

The final step consisted of ordering the information and creating a hierarchy of importance so as to identify the most important features under the circumstances:

- identification of constraints and obstacles;
- identification of the levers on which one can push to change the tenure situation.

The Political Context

It is important to underline that the political context was not particularly favorable for this type of study and it will probably not be favorable in the near future. The rumors and facts which come to the peasant about urban debates on agrarian reform awaken a certain mistrust.

This means above all that any study or action in this domain must be linked with data-gathering efforts that must occur at a time when all accusations of affiliation with the extreme right or the extreme left could cause painful, if not dangerous incidents.

It is therefore necessary to focus on the nature of the work and to explain it to the peasants themselves, as well as to those who exercise some authority over them (religious, military, political, or other authority).

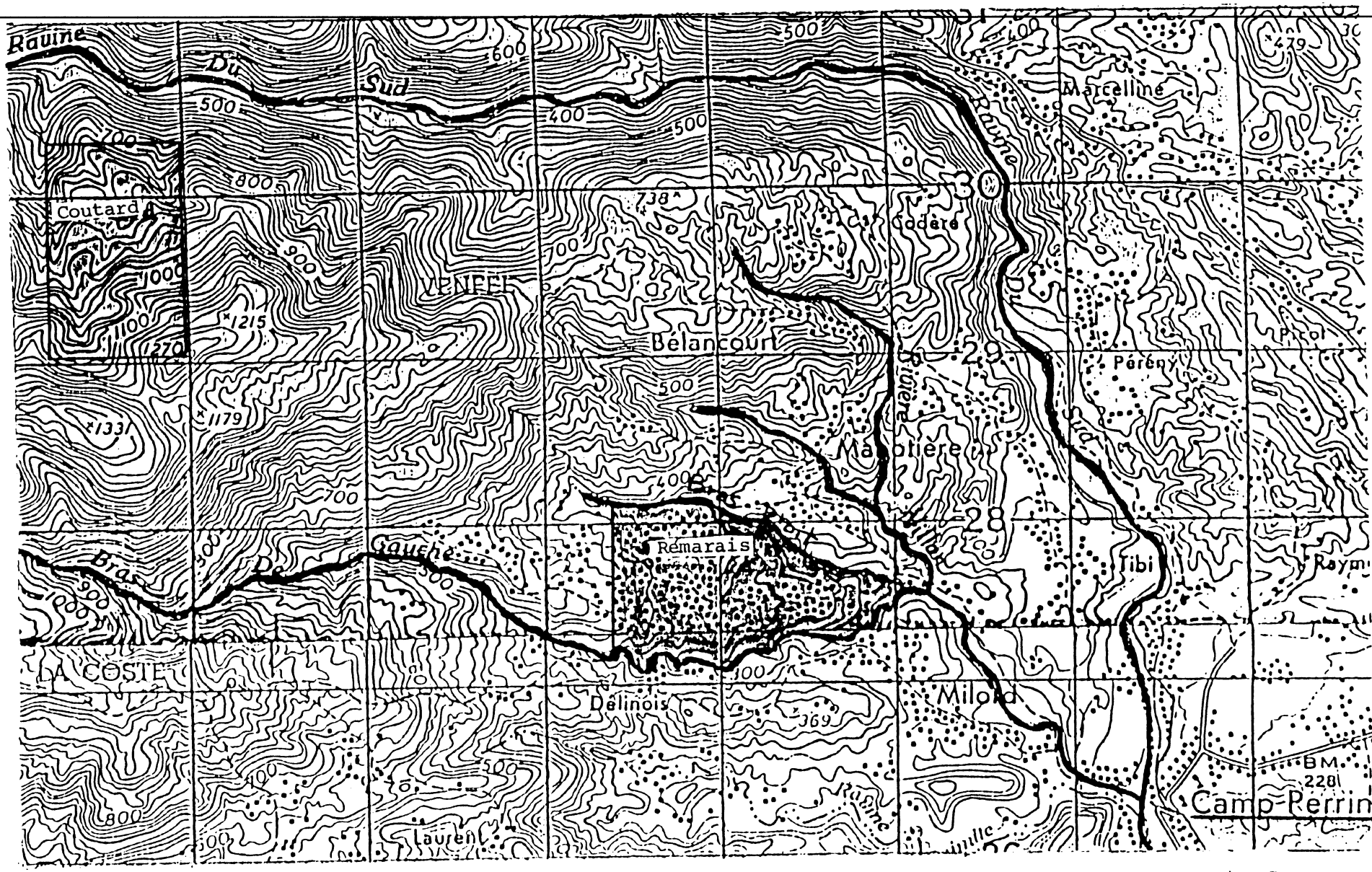
§ Landscape, Soil, and Agricultural Practices §

This study took place within the administrative boundaries of the third Section Rurale of the Commune of Camp-Perrin. This small region, located on the right bank of the Ravine du Sud, thus comprises an integral part of the subcatchment basin. As one can see in Figure 4.1, it is a region of very rugged topography and is, therefore, very fragile ecologically. All the parent material is limestone, and the residents of the area give witness to the frequent landslides which occur during rainy periods. Since our study took place during the rainy season, we were able to verify reasonably spectacular landslides where entire sections of gardens fell into the river. Channeled by the paths and small ravines that furrow the hillside, the rainwater digs, little by little, big gullies and ravines which ravage the mountain.

§ A Reading of the Landscape

Two study sites were selected, the **habitation** of Remarais and the **habitation** of Coutard. The first is located between 300 and 400 meters in altitude and is near the town of Camp-Perrin (approximately an hour's walk away). It is very characteristic of the foothill zone which circles the Cayes Plain: not far from a town or a market, topographically a series of small hillsides crisscrossed by small ravines and deep gullies, and not far from important watercourses. Located between two watercourses, the Right Fork and the Left Fork (the latter being an important branch of the Ravine du Sud), Remarais is a very populated **habitation.** Still relatively well wooded, the area is characterized by annual crops on the slopes rising from the edge of the water to the top of the hills, where the houses themselves are located at the center of relatively dense household gardens with breadfruit trees, mango trees, avocado trees, coconut trees, coffee trees, banana trees, and so on. The hillside is furrowed with small gullies and ravines, and one discovers in the low points of these, in the cool ravines, the same trees and crops that surround the homes. It is simultaneously an intelligent

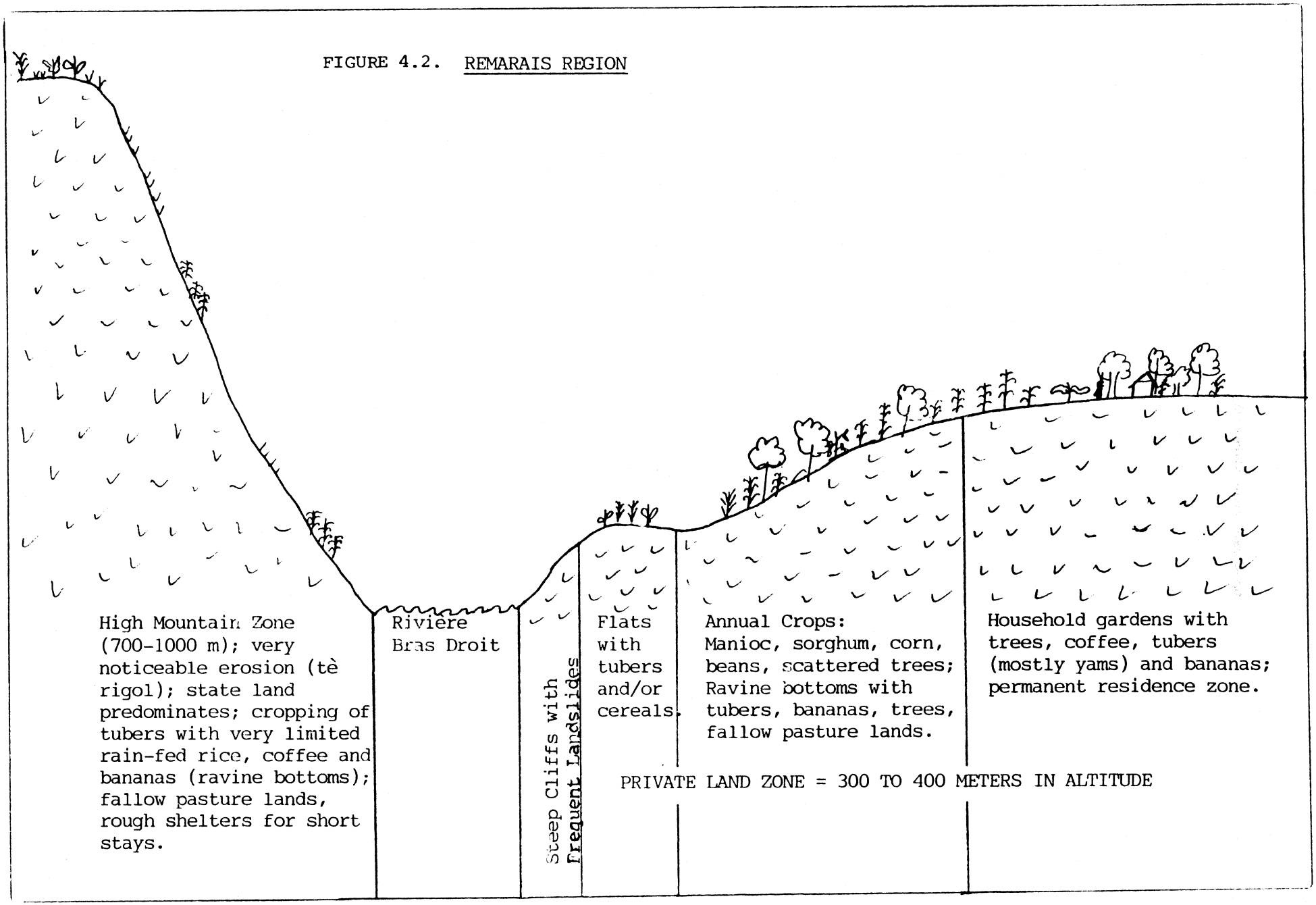
Figure 4.1. LOCATION OF STUDY SITES



Source: National Geodesic Survey

Scale: 1/16000

FIGURE 4.2. REMARAIS REGION



exploitation of the ecology and a means for protecting against the formation of excessively deep ravines.

The peasants of Remarais, pressured by the lack of arable surface area, began to exploit the high mountain zone where the **habitation** of Coutard is found very early on. Timber cutting, slash-and-burn agriculture, and more intensive farming practices followed one upon the other, advancing higher and higher onto the mountain to the detriment of the original forest, which today can be considered as having disappeared entirely. The **habitation** of Coutard is a zone situated between 700 and 1270 meters, where we recorded slopes up to 80 percent. In the local peasant terminology, this area is known as the "plain" of Coutard, in contrast to neighboring state lands considered to be truly steep by the peasants. As with most of the state lands in this area, Coutard is located about a three-hour walk (for a peasant or an athlete in training) from the permanent resident sites. The peasants pass more or less time there (1 to 5 days during the week, but never on weekends when all return to their families at their permanent residences). These stays are passed in scanty shelters, makeshift houses in the form of tents, called "**joupas**." With the exception of young trees around the **joupas** and in the bottom of the ravines, the land is totally bare. It is this combination of foothills/high mountains which today forms the territory of the foothill inhabitants. For our study, we have combined Remarais (Ré) and Coutard where we knew we would encounter fields belonging to the residents of Ré. This combination has a final important characteristic: the foothill zone is considered to be a zone of "**tè abitan**" (privately held land), while the mountainous region beginning at 500-600 meters is considered "**tè leta**" (state-owned land) (see Figure 4.3 and accompanying tables).

§ The Production System

We will not dwell on the agricultural system, which is not our primary concern here. The two agricultural calendars (Figures 4.4 and 4.5) offer a sufficiently complete, though brief, picture of the types of crops grown and their seasonal cycles. However, we need to underline that cropping operations vary slightly from one zone to another, permitting the farmer to spread out his labor. The most important labor peaks fall in February, March, and April, which is the most active "season" throughout the entire region.

It should also be noted that the crops are about the same in both Coutard and Remarais (except for the occurrence of sorghum and congo peas at Ré and upland rice at Coutard). Moreover, the principal means identified for renewing soil fertility is the practice of fallowing. At Remarais, this is the first action of the peasant who buys a parcel of land: he lets it lie fallow, sometimes for as long as two years. According to statements from peasants, a piece of land is generally worked for two years and left fallow for one year. Since soil fertility is more seriously threatened in Coutard, the land users there have adopted the following system: one section of the plot is worked one year and the other section is worked the following year. The third year the farmer returns to the original plot and begins the cycle anew. Though

BLOCK #1

HABITATION REMARAIS

Figure 4.3.

LAND USE PATTERNS



Figure 4.4. AGRICULTURAL CALENDAR AT REMARAIS

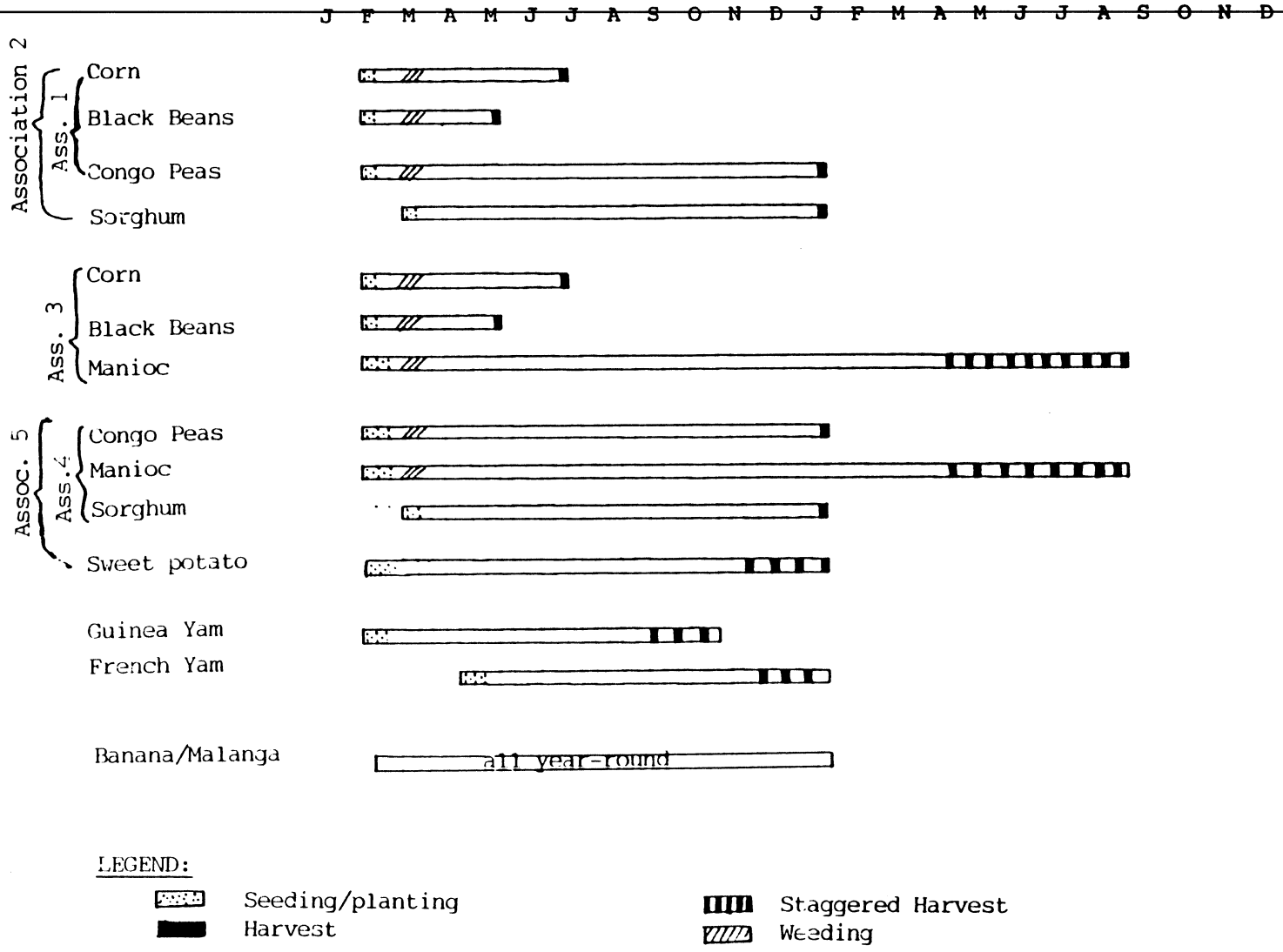
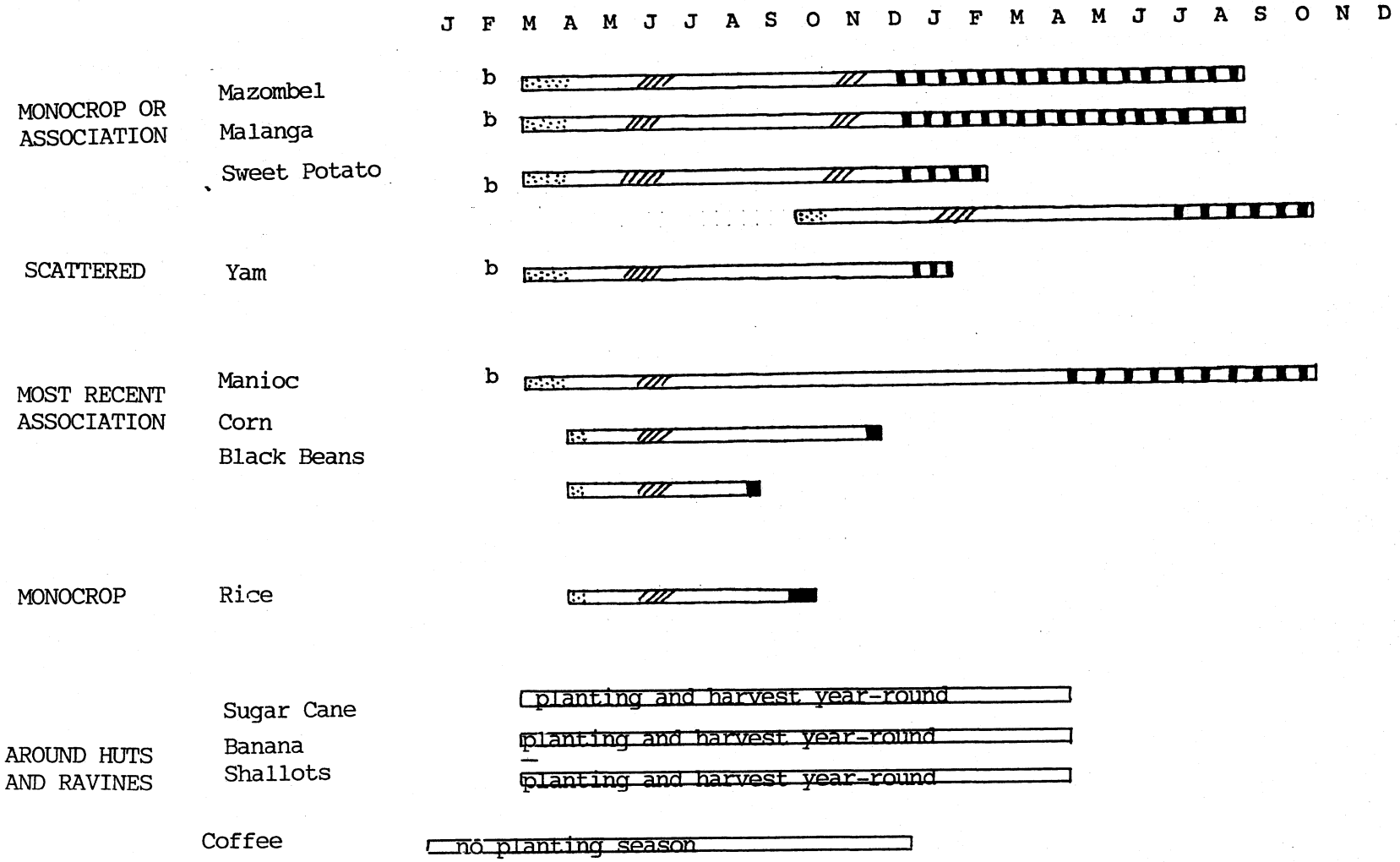


Figure 4.5. AGRICULTURAL CALENDAR FOR COUTARD



formerly the cropping system at Coutard could be considered as complementary to that of Ré, allowing the farmer from the middle altitude zone to diversify his production--and therefore reduce his risks--it is no longer so today. Indeed, the crops grown at Ré and those grown at Coutard are virtually the same. Rather than permitting a wider range of crops, the land of Coutard permits the peasant to expand his area under cultivation.

Within the framework of this double region (Ré/Coutard), the integration of agriculture and animal husbandry takes on a special form. In fact, the majority of the livestock owned or cared for by peasants in the region spend ten months of the year in the "highlands" where they are picketed. They can thus directly use the grassy fallow lands (zeg, zegwi, panache, and so on). After the sorghum harvest in Remarais, the animals are pastured in the stubble fields and spend two months in the lower altitude zone. This displacement of the herd also fulfills another function: December and January are the months in which the most lively feasting occurs. It is the period during which the **eskwads** receive the money owed them for their work during the year, it is the time at which traditional dances are performed, it is the time during which the majority of peasants have the opportunity to eat meat during the course of the Christmas Eve and New Year's Day celebrations. It is thus a time that is very active for the sale of animals which, as a result of the practice of placing livestock in the lower altitude zones at the sorghum harvest, are being pastured in areas close to the markets.

Finally, Figure 4.3 (p. 131) permits us to locate a certain number of characteristics of the mode of production at Remarais itself. From north to south, that is, from top to bottom of the figure, one goes from the banks of the Rivière Bras Droit approximately to the crest of the hill which forms the **habitation** Rémarais. One finds:

- a fairly steep slope, sparsely wooded, where the farming system consists of simple associations (4 and 5);

- a relatively flat zone where the residences (25 houses on the whole of the block) and garden-orchards (jadins pré-kaye) and more complex agricultural associations are found.

§ The Farms

After studying the production system in place on the Ré/Coutard lands, it became important to understand how these lands were used in the context of the individual farm. In other words, one should construct profiles of the types of farmers who work parcels on the block. For this purpose, four farmers were chosen according to two principal criteria: age and location of residence. The analysis is handicapped by the impossibility of knowing the precise land area of each farm (given the available time) and also by the small number of cases, but the most important points, notably those concerning land-tenure strategies, were successfully identified.

Table 4.2. Summary Data on the Farm Enterprises

Farm no.	1	2	3	4
Residence	Ré	Ré	Ré	elsewhere
Age of head	55	28	43	30
Marital status	married	single	married	married
Mouths to feed	9	1	11	8
Active workers	8.5	1	6	4.1
Children with schooling	3	0	4	2
Cattle held	0	0	2	1
No. of parcels held under:				
Direct access	2	2	1	4
Indirect: in Ré	0	0	0	0
On state land	4	5	2	1
Elsewhere	0	0	0	2
Ceded in FVI*: Ré	0	0	0	0
Elsewhere	4	0	16	0

* FVI = faire valoir indirect, that is, indirect access.

Table 4.3. Strategies and Objectives of Remarais Farmers

Farmer	Strategies	Objectives
No. 1	- increasing the area he farms using a large amount of family labor	survival education of children
	- selling cattle	purchase of land
	- selling land of which he is a co-heir	regrouping of farmed parcels
	- ceding land to his children so so that they start their own farms	reduction in number of mouths to feed
No. 2	- increasing number of parcels farmed	creation of livestock herd construction of a house
No. 3	- renting out land to others, given that he has access to little family labor relative to the amount of land he controls	exploitation of the land inherited from his father, principally to assure survival and schooling of his children
	- creation of a livestock herd	
No. 4	- increasing number of parcels farmed outside of the state-lands area (he lives outside Ré, not far from Camp-Perrin)	feeding his family education of brothers and sisters

We deliberately ignored cases involving aged men, because their role is not generally to manage agricultural enterprises but to manage the entire family landholdings; we will see below their role in this domain.

Two important notions should be stressed here:

- residence units in Haiti are not identical with production units--it is not infrequent that within the same house one finds several working-age men, each of whom manages a separate farm;

- production units are constituted of multiple parcels distributed over a wide area.

Tables 4.2 and 4.3 summarize the structure of the farm enterprises we studied.

§ The Habitation of Remarais: The Peasant Domain §

A preliminary test of the proposed methodologies described above was needed. That was the only way to know exactly what results one could hope to obtain from such a study as well as to fully appreciate their utility.

The **habitation** of Remarais, better known as Ré, was chosen for this preliminary test because:

- it is located in one of the most fragile and most important sub-watersheds of the southern watershed of Macaya, that of the Ravine du Sud, which is upstream from a very densely populated, irrigated zone;

- it is located in a clearly defined ecological zone: the zone of small hills in the foothill zone between 300 and 400 meters;

- it constitutes in itself a very densely populated zone.

Another decisive factor in this choice was that a study of the utilization of land in this watershed had clearly shown that the peasants working at altitudes of 500 meters and over all come from the foothill zone and that it was thus important to know whether this type of migration toward the highlands is in part due to the tenure problems encountered in the foothill zones.

§ History and Tenure

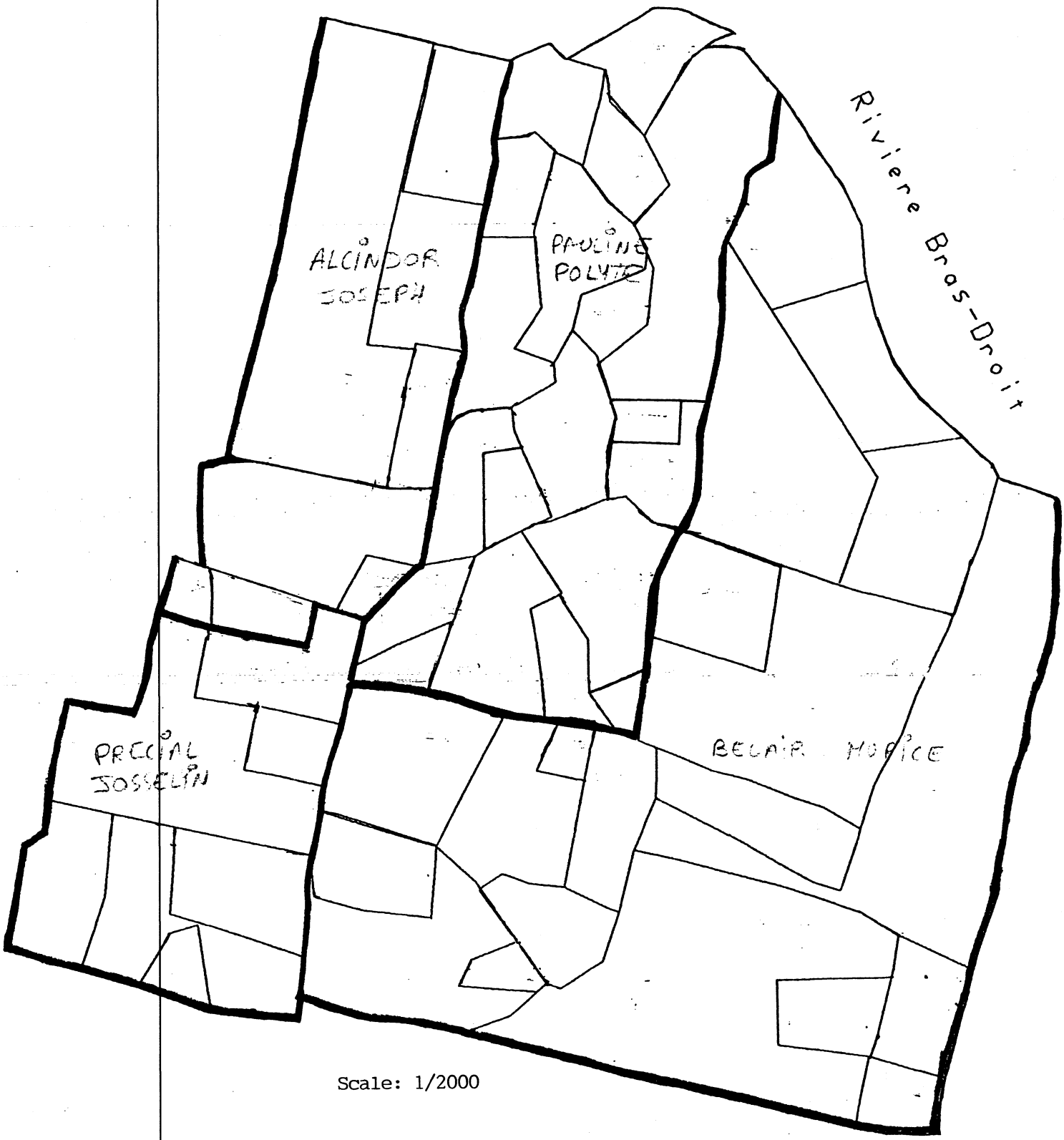
Having arbitrarily chosen a starting point on the Rivière Bras Droit, we begin our study, parcel by parcel, climbing up to the highest point of the hill. A logical connection between some parcels rapidly emerges: that of the heritage, or family estate. All the parcel owners have a common ancestor who left them the land which they farm. The

Figure 4.6.

THE MAJOR ESTATES

BLOCK #1

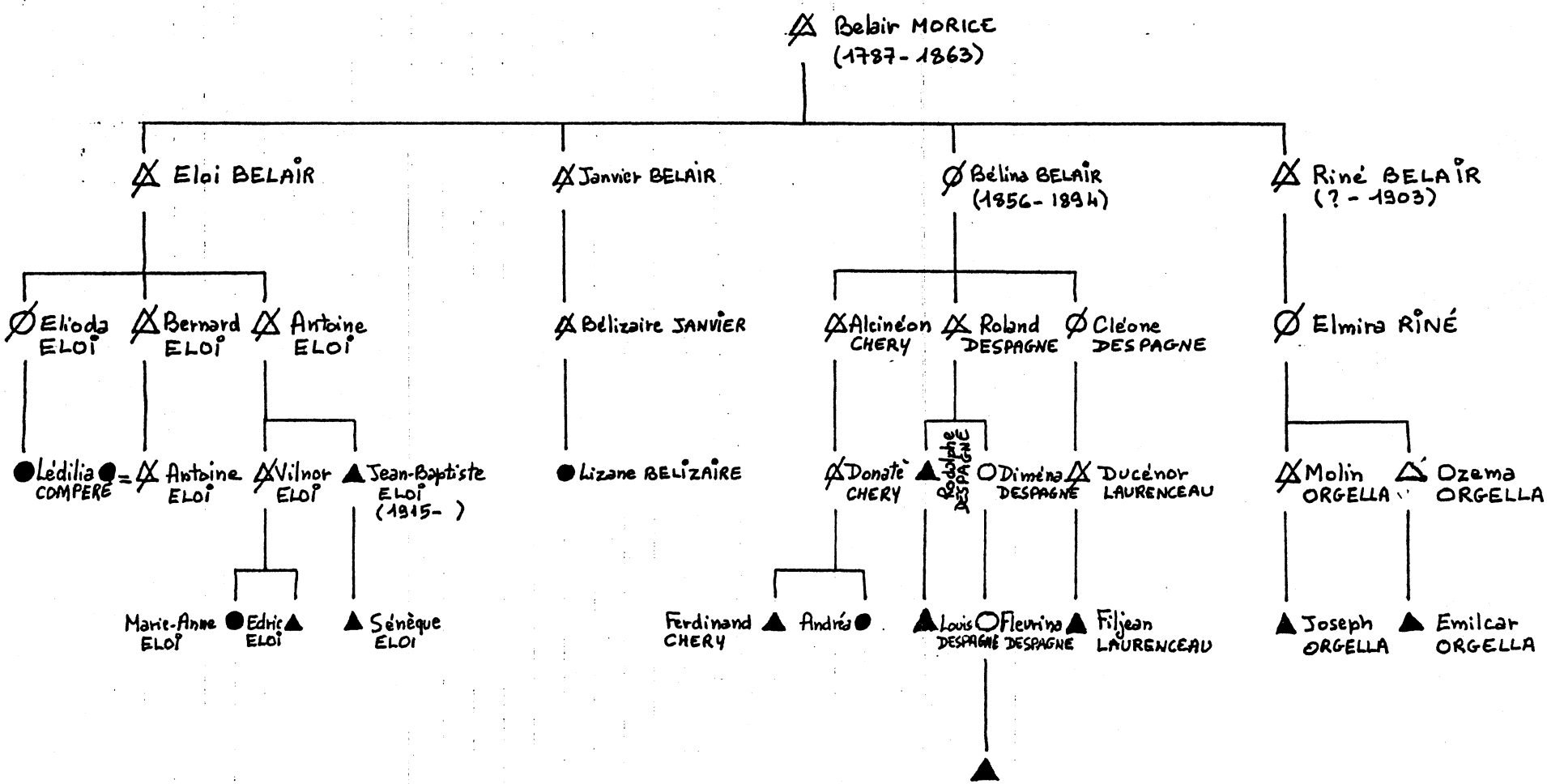
HABITATION REMARAIS



Scale: 1/2000

Figure 4.7. ESTATE OF BELAIR MORICE

Relationship among heirs exercising their claims



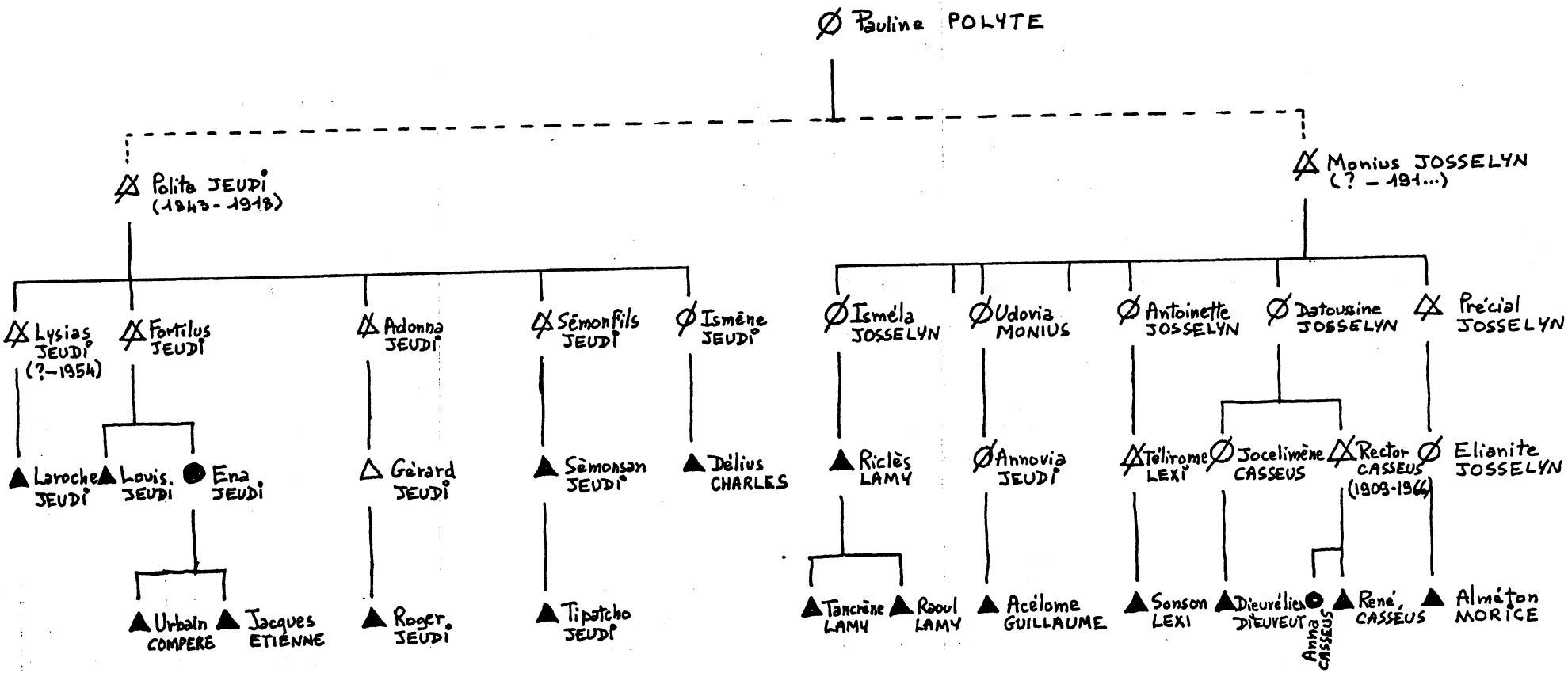
LEGEND:

△ Male
○ Female
⧊ Deceased Male
Ø Deceased Female

▲ Male using a part of the estate directly or indirectly
● Female using a part of the estate directly or indirectly

Figure 4.8. ESTATE OF PAULINE POLYTE

Relationship between heirs exercising their claims

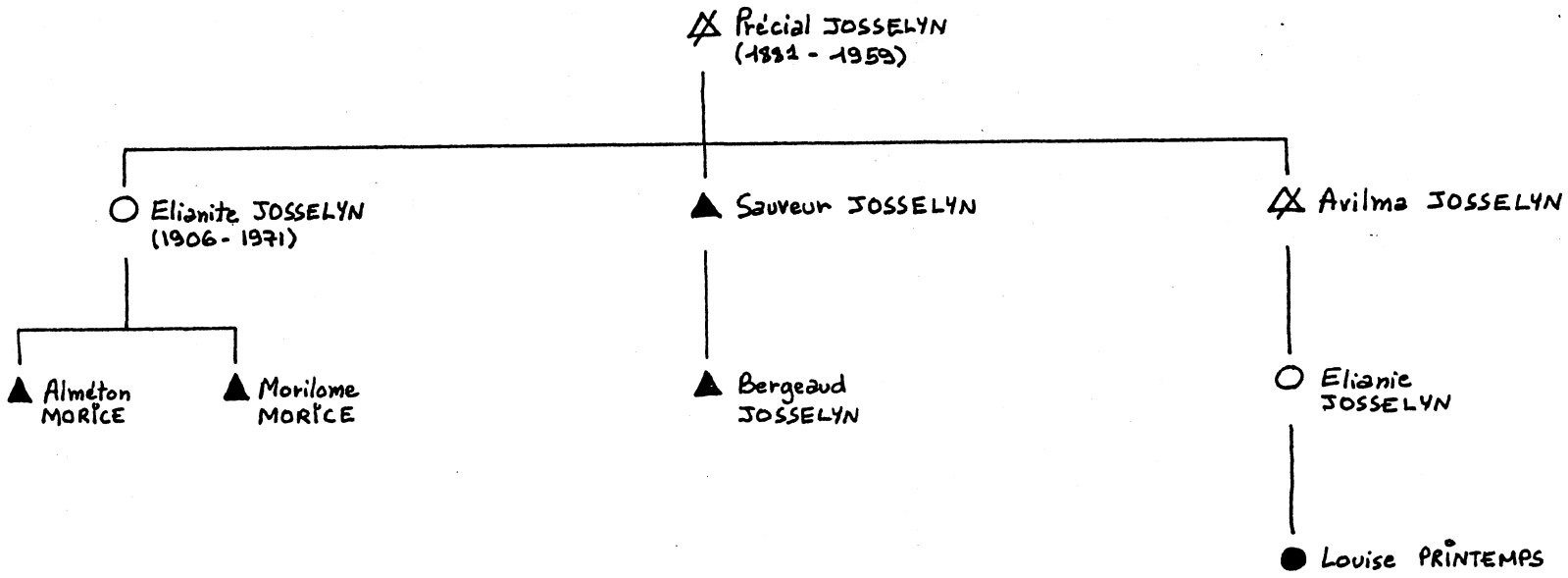


LEGEND:

- △ Male
- ○ Female
- ⧸△ Deceased Male
- Ø Deceased Female
- ▲ Male using a part of the estate directly or indirectly
- ● Female using a part of the estate directly or indirectly

Figure 4.9. ESTATE OF PRECIAL JOSSELYN

Relationship among heirs
exercsing their claims



LEGEND:

△ Male
○ Female
⛢ Deceased Male
⌀ Deceased Female

▲ Male using a part of the estate directly or indirectly
● Female using a part of the estate directly or indirectly

first empirical finding, therefore, is that the area which we are studying is made up of juxtaposed family **heritages**.

In 1840, Belizaire Morice, known as Belair Morice, bought 5 cx of land in the **habitation** of Remarais. Upon his death, he left 2 cx to Pauline Polyte, his wife by whom he had no children. In this manner, two patrimonies--two neighboring **heritages**--were created: the **heritage** of Belair Morice occupied today by the fourth, fifth, and sixth generation descendants of the children he had from wives other than Pauline, and the **heritage** of Pauline Polyte. Pauline's case could not be completely clarified. Did she die without descendants and leave her land to the children of her brothers, Polite Jeudi and Monnius Josselyn? Could Polite and Monnius have been successive common-law husbands and were their children hers as well? Or, finally, and more probably, could Polite and Monnius have been her sons? Whatever the answer, the estate is now managed with no major problems by the heirs, Josselyn and Jeudi.

Finally, a family-land estate contemporaneous to that of Belizaire Morice was established by Alcindor Joseph, whose heirs have been gradually deprived of almost the entire estate. Thus, Precial Josselyn bought, at an undetermined date, a portion of this estate, a purchase confirmed by a resurvey of the boundaries in 1950 of the land that today constitutes the **heritage** of Precial. The rest of Alcindor's land was sold piece by piece to peasants who also sold portions of the land, a practice which has given birth to a mosaic of parcels whose owners are not linked by any kin ties to each other in the northwest portion of the block (see Figure 4.6).

It is necessary to underline two important facts revealed by further genealogical investigations:

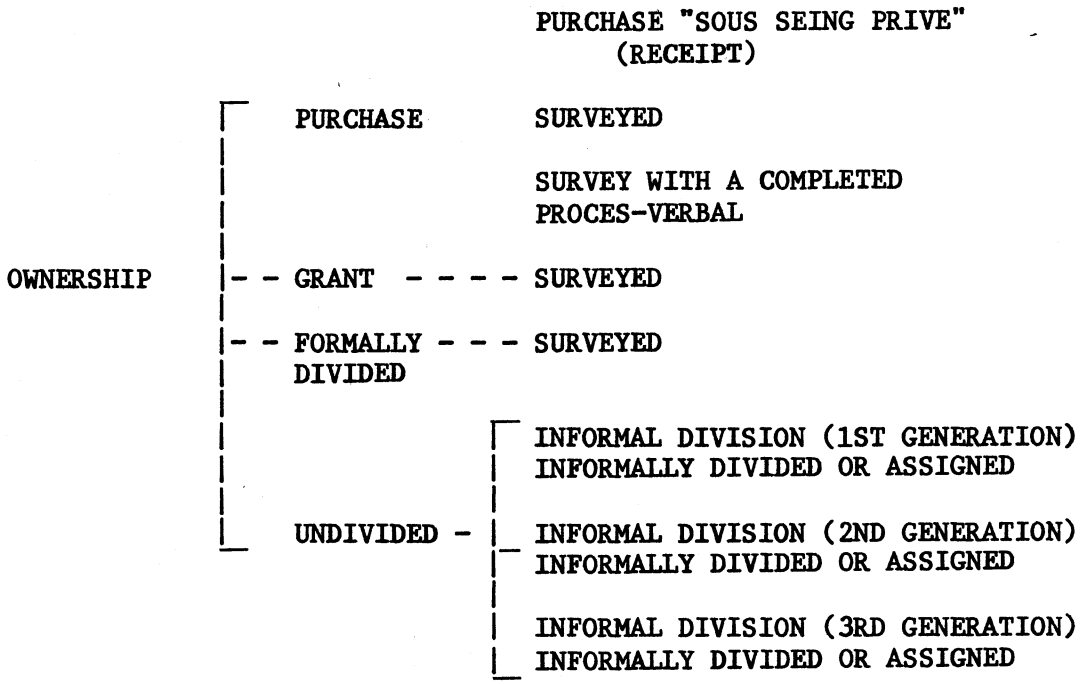
- the heirs are theoretically equal, whether they be male or female;
- the same person can straddle two **heritages**, having the right to real property belonging to his mother as well as his father.

With the exception of the parcels in the Alcindor **heritage**, which were subject to numerous transactions, all the surveyed parcels are presently farmed, directly or indirectly, by the descendants of the purchasers, also known as the founders of the "**race**," that is to say, the family. The genealogies presented on the following pages will permit us to trace these relationships.

§ Formal Rights and Customary Rights

Going back to the origins of landownership is not strictly of academic interest. It is on these origins that the rights of the present occupants are based. And when the community, or a portion of its members, loses its genealogical memory and its memory of land acquisitions, conflicts appear. It is thus important, from a heuristic viewpoint, to be able clearly to establish the following points:

Figure 4.10. Tenure Possibilities



- to whom do land parcels belong--which means, on the one hand, discovering the juridical status of the parcels studied and, on the other, examining how customary arrangements operate within the juridical framework;

- to establish a chart, not of the thousand and one theoretical tenure possibilities recorded across the country, but of those which actually are found in the region--Figure 4.10 characterizes these possibilities in a precise manner.

These different categories are quantified in Table 4.4 and are represented graphically on the block depicted in the map in Figure 4.11.

As indicated in Table 4.4 and illustrated in Figure 4.11, the dominant tenure mode at Remarais is family land which has not been formally divided (73.62 percent of the observed cases). This large proportion justifies a more in-depth study of the phenomenon of family lands.

Contrary to general opinion, all the uses, rights, and customs pertaining to land have their basis in formal law. There is not one legal unit identified on the map that is not justified or based on the legal survey or notarial papers which we consulted. By examining the

Table 4.4. Parcel Distribution According to the Legal Ownership Status

		# of Parcels	Area (in area)	% of Area	TOTAL %
Direct access	Purchase	9	217.64	19.60	26.38
	Formally divided inheritance	2	62.74	5.65	
	Grant	1	12.58	1.13	
Informally divided	1st GENERATION	7	149.88	13.50	73.62
	2nd GENERATION	15	409.60	36.89	
	3rd GENERATION	21	257.96	23.23	
	TOTAL	55	1110.40	100	100

papers held by the peasants themselves, on one hand, and the archives of the principal surveyors operating in the commune, on the other, it was possible to find the titles establishing the rights of the parties involved. The "**gran-pyes**" and "**mama-pyes**" (master titles) are thus not a fiction. Certain deeds go back to the original land purchase, to the eighteenth-century urban owner.

In the classic process by which land is amicably transferred, the peasant has a handwritten annotation made to the title and has it co-signed by the **chef de section**. For larger-scale transactions and for transactions for which a legal record is desired (a division, for example), the surveyor keeps the old deed and delivers a new ownership deed.

While the existence of legal deeds is not in doubt, a real problem does exist in terms of information diffusion. Although oral tradition, more or less distorted, allows each person to know the approximate origins of his ownership rights, it is often difficult to prove those rights. For some deeds the surveyor or notary was never paid, and thus they remain buried in the archives while others have deteriorated over time (though it is still theoretically possible to obtain a copy from the surveyor or notary, a detail which the peasant does not always realize).

For lands not divided according to formal rules, different customary rights operate on one other. It is important to know how these rights interact because of their important implications for land-use behavior. We have schematized these rights in Figure 4.12. Nonetheless, it is necessary to indicate that all these customary rights

BLOCK #1

HABITATION REMARAIS

Figure 4.11.

TYPES OF LAND OWNERSHIP



Scale: 1/2000

LEGEND:

- Purchase or Legal Gift
- Formally Divided Inheritance
- 1st Generation Legal Indivision
- 2nd Generation Legal Indivision
- 3rd Generation Legal Indivision
- Parcel Boundaries
- Legal Boundaries

Figure 4.12. Rights to Land not Formally Divided

RIGHT	TYPE	BENEFICIARY
FIELDS	Cultivation	one person, according to: - his place in the lineage - agreement with co-heirs in the same position - his own social status
TREES	Harvest (fruits)	all co-heirs
	Pruning	all co-heirs
	Collection of dead wood	all co-heirs
	Timber	heir with cultivation rights
PASTURAGE	Pasture of stubble after the Nov.-Dec. harvest	all co-heirs
	Pasture of fields in short-term fallow	all co-heirs
RESIDENCE	House construction	all co-heirs, preferably around the house of the eldest
BURIAL	Construction of a tomb in the family cemetery	all co-heirs

arrangements operate within a very narrow framework which amply justifies the strategies that we will study a little later: the right to the **heritage** must be confirmed by a physical presence, an actual use of the right theoretically acknowledged by all the heirs. In other words, the heir who wishes to exercise his rights must be present on site.

We draw attention to the right of free-range pasturage which is accorded to all the co-heirs. Generally well accepted by all, from our point of view, it is one of the most important obstacles to intensification. Specifically, it inhibits farmers from growing forage crops to feed tethered animals. It also implies the existence of merely symbolic fences, or even no fences at all within undivided family estates, or family estates which have been informally divided among the different heirs for many years.

§ Access to Land

The total area of the study block is 11.14 hectares, or 8.61 **carreaux** in local land measurement units (1 **carreau** = 1.29 hectares). This block is composed of 54 parcels of land farmed by 43 farmers, the majority of whom reside on the block itself or in the immediate surroundings. A high degree of fragmentation is evidenced. The average area recorded is thus .256 hectares per parcel. This average obscures an important fact: parcels as small as .025 hectares occur in the block.

Our principal objective in establishing the block was to develop a research method capable of generating reliable empirical data. The first difficult point to overcome was the question of parcel areas. A variable much valued by researchers, the declared area of parcels turned out to be a very unreliable measure. Only the areas of land regularly surveyed were known, and then only for cases where the survey had been commissioned by the person currently farming the land (that is, purchased or formally divided land, which represents a small proportion of the parcels studied).

In fact, in order to establish the area, it is necessary to be able to recognize the boundary markers and boundaries. In the case of undivided lands, survey markers and boundaries do not exist. Boundaries established amicably do exist, however. These boundaries vary several meters each year, without appearing to result in any dire consequences. The response generally obtained when asking about parcel sizes is thus: "We don't know the area of this field." By insisting on an answer, the researcher obtains estimates which a boundary survey reveals to be totally false (under- as well as over-estimated). The decision to survey the parcels studied thus is justified (see Table 4.5).

Very few land-access categories were recorded in the study zone. We have classified them into two main groups:

- parcels where access is direct, that is, where the owners farm their land themselves or else give it out to their children without asking for payment;

Table 4.5. Parcel Distribution According to the Access Mode

		NUMBER OF PARCELS	AREA
DIRECT ACCESS	PURCHASE INHERITED (DIVIDED OR UNDIVIDED)	33	7.5155 hectares
	PRE-INHERITANCE	15	2.1560 hectares
INDIRECT ACCESS	SHARECROPPING	3	1.1691 hectares
OTHER*		3	0.2634 hectares
	TOTAL	54	11.1040 hectares

* These consist of an uncultivated parcel belonging to a nongovernmental organization and a parcel given to the National Ministry of Education.

- parcels where access is indirect, in this case three parcels sharecropped from others.

In Table 4.5 and Figure 4.13, the mode of land access as well as the mode of use is presented in terms of area occupied and spatial distribution.

In trying to understand the rationale behind the sharecropping cases which appear to be somewhat marginal, we observed that in all these cases, there was evidence of land disputes or precarious legal status. Sharecropping appeared to be a strategy for resolving such problems. One case involved a widow whose husband was a co-heir to the land which he had worked. Upon his death, she returned to her family with her underage children. But in order to continue affirming the rights of the latter in a concrete fashion, she sharecropped the parcel to a nonfamily member. A sharecropper, who was a member of the family, would, in fact, have found himself in the position of a being a co-heir affirming his rights and could have claimed the land as his own in the future.

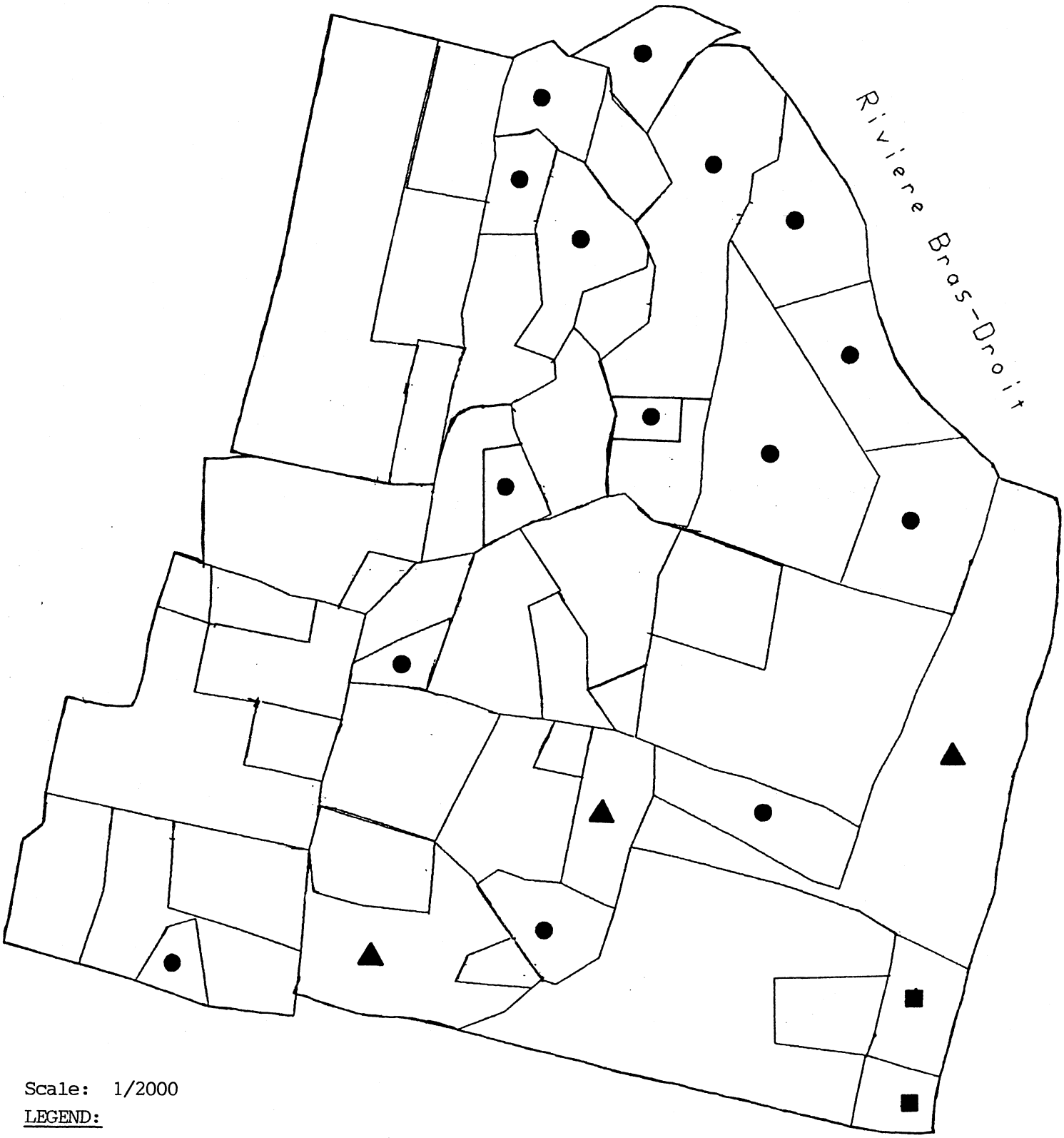
In a contrasting case, after a request for formal division, some co-heirs no longer residing on the heritage found themselves owners of titles to fairly large parcels. Fearing the anger of the co-heirs

Figure 4.13

TYPES OF LAND ACCESS

BLOCK #1

HABITATION REMARAIS



Scale: 1/2000

LEGEND:

- □ User has direct rights
- ● Pre-inheritance
- ▲ Sharecropping
- ■ Special Cases

who had occupied the parcels up to that time, few of them dared to work the land thus acquired. But also not wanting to lose the enormous advantage brought about by this increase in their arable land area, they sharecropped the land to a co-heir residing close to the land in question. Thus, they hoped that the passage of time would appease the anger and permit them to farm their parcel directly--or to sell it at a good price.

Both the extremely small parcel sizes and the predominance of direct land use appear to be indicators of a very strong pressure on the land--pressures which, as we have seen, cannot currently be alleviated by a greater intensification of the production system.

§ The Conflicts

By comparing the time in continuous use on parcels having been or currently the subject of dispute, we have tried to put forth a different approach to the problem of tenure security. Although it was definitely not possible to develop gradations of security and insecurity, a certain number of facts are still evident:

- a piece of land for which the legal titles are too old can become the object of dispute at any time;
- within a given **heritage**, the conflicts are primarily concerned with questions about who has rights to the **heritage** and the proportion of land to which each heir or group of heirs has rights rather than with boundary questions, which appear to be secondary at this time;
- conflicts can appear regardless of how long the user can prove that he has had continuous use of the land--security, before being a problem of access type, is, above all, a problem of ownership type and ownership right.

The above points have been synthesized into Figure 4.14 and Figure 4.15.

To conclude, we can say that the Ré study block has permitted us to respond to two fundamental questions about the nature of the land tenure structure: to whom does the land belong, and who works it? The answer to the two questions is the same: family groups.

§ The Coutard Plain: The Domain of the State §

Conversations with surveyors and peasants reveal that the land above 500-600 meters in altitude belongs entirely to the state, with the exception of several national land grants which occupy only an insignificant area. According to oral tradition, these lands were occupied by peasants coming from the foothill zone more than fifty years ago. Thus it is that Boisrond, Vanfell, Liane-Panier, Lomond, and Codere were settled, the peasants practicing slash-and-burn agriculture throughout the region.

Figure 4.14

TENURE SECURITY

BLOCK #1

HABITATION REMARAIS



Scale: 1/2000

LEGEND:

- 1-2 years continual use
- 3-10 years continual use
- 11-25 years continual use
- more than 25 years continual use

- areas presently under dispute
- areas disputed during the past 20 years
- parcel boundaries

Figure 4.15. THE CONFLICTS

TYPE	LAND AREA IN QUESTION	EVENTS/MANIFESTATIONS	RESOLUTION OR ONGOING ACTIONS
	2 cx	1966 - Claim by a family group living on the neighboring parcel to 2 cx, which they say had belonged to their forebears - Survey legitimized by the survey plat for the ancestor's property (1840) - Aggressive actions taken against the users of the land: quarrels, animals pastured in the fields, wanton tree cutting, etc.	1971 - After extensive research the owners rediscover the survey plat on which the 1890 act of donation made by the ancestor of the opposing group to their ancestor is noted* - "Renewal" of the boundaries and delivery of a new survey plat for all the co-heirs

	3 cx	1980
		- Dispute about the family "manager" of an estate formally undivided since 1840 and request for division. The manager is accused of having abused his rights and of having unjustly sold portions of the "heritage"
		- Opposition on the part of the manager to all attempts to divide the land
		- The affair brought before the Cayes Civil Court and a survey authorization is given to the claimants
		1984
		- Legal partition and its effects:
		  - parcel occupied by one heir for more than twenty years is conferred on another group
		  - three parcels occupied by one group devolve to another group of heirs who have not yet asserted their rights. Occupants deforest the land on a massive scale before leaving
			1985
			- Dispute of the 1984 separation by the manager and a new appeal before the court in Cayes
			
			- offer to sell by the rightful claimants
			- parcels sold by the rightful owners who, not living in the "habitation," fear reprisals

TYPE	LAND AREA IN QUESTION	EVENTS/MANIFESTATIONS	RESOLUTION OR ONGOING ACTIONS
		- a cemetery previously left uncultivated is occupied by a co-heir - the heirs to two parcels find themselves with land they have never worked while losing fields on which they have made important land improvements	- some heirs residing outside of Remarais sharecrop their parcel to a family member living in Remarais to avoid any direct confrontation with the overthrown manager
	0.194 cx	1985 - A single woman with children and no resources decides to return to the site of her grandfather's residence, which up until then had been left to another granddaughter by common agreement among all the heirs - verbal skirmishes - complaints before the "chef de section"	no resolution
	1.242 cx	1971 - The current occupant buys a piece of land from an heir and constructs his house on it. Several years later, when the land is divided among the heirs, the seller finds himself assigned a parcel located somewhere else. The buyer must then purchase anew from the actual heir, who does not give him a receipt	- negotiations with heirs and raising of bids
	0.252 cx	- The current occupant, who belongs to both the Jason and the Jeudi families, finds himself assigned a parcel that straddles the two "heritages"	- potential conflict and moral condemnation of other heirs

* See the following 1890 surveyor's report on the act of donation (pp. 154-56).

Liberté, Egalité, Fraternité

République d'Haïti

Expédition
Héritiers Pauline
Polyte

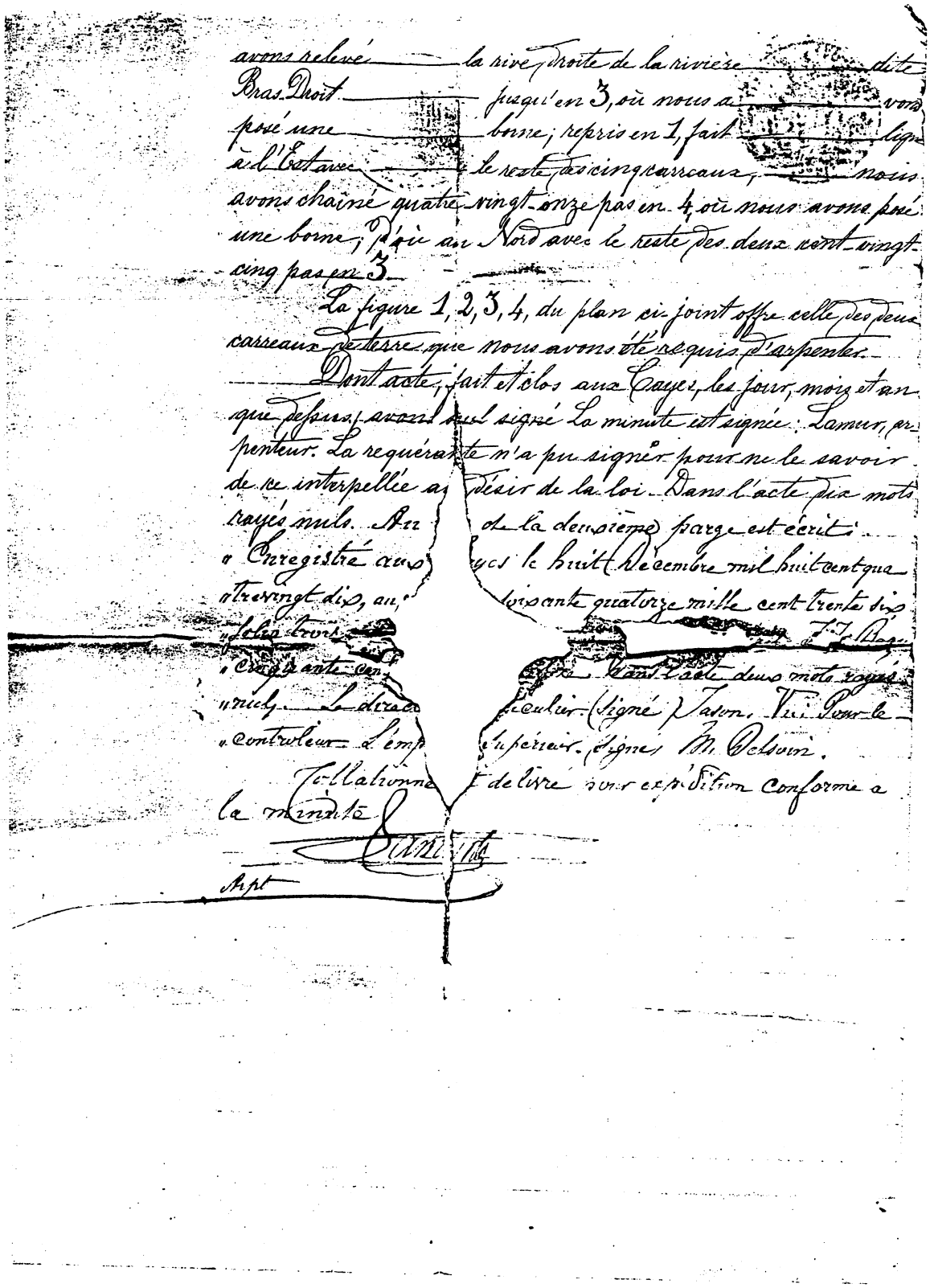
Aujourd'hui le trente du mois d'octobre mil huit cent quatre-vingt-dix, an quatre-vingt-septième de l'Indépendance.

Nous Emmanuel Lamur, arpenteur public assermenté et commissionné pour la commune de Corbeck, juridiction du tribunal civil des Cayes, y domicilié,

Certifions avoir été requis par les héritiers de feu la citoyenne Pauline Polyte, [illegible] fins de leur arpenter deux carreaux de terre dépendant [illegible] l'habitation Remarais, située en la commune [illegible] au quartier du Camp-Perin, si[illegible]

Aléxis Fano[illegible] [illegible]ux carreaux de terre appartenant à la requérante [illegible] donnataire de feu son mari le citoyen Bélisaire M[illegible], sont à extraire des cinq carreaux arpentés pour le dit [illegible]saire Morice, par l'arpenteur Etienne Berret de cette juridiction, du huit au dix-neuf juin de l'année mil huit cent quarante.

Rendu sur les lieux, accompagné des requérants et des voisins limitrophes, en présence du chef de la section, nous avons procédé comme suit: Près à une borne démontrée sur notre plan figuratif ci-joint par le chiffre 1, placée à cinquante pas plus au Nord de celle qui limite les cinq carreaux sur lesquels nous allons extraire les deux carreaux, laquelle borne 1 limite les cinq carreaux d'Alcindor Joseph, avons fait ligne au Nord avec Alcindor Joseph chaîne deux cent cinq pas en 2, où n'ayant point trouvé de borne nous l'avons reproduite du consentement des parties; d'où nous



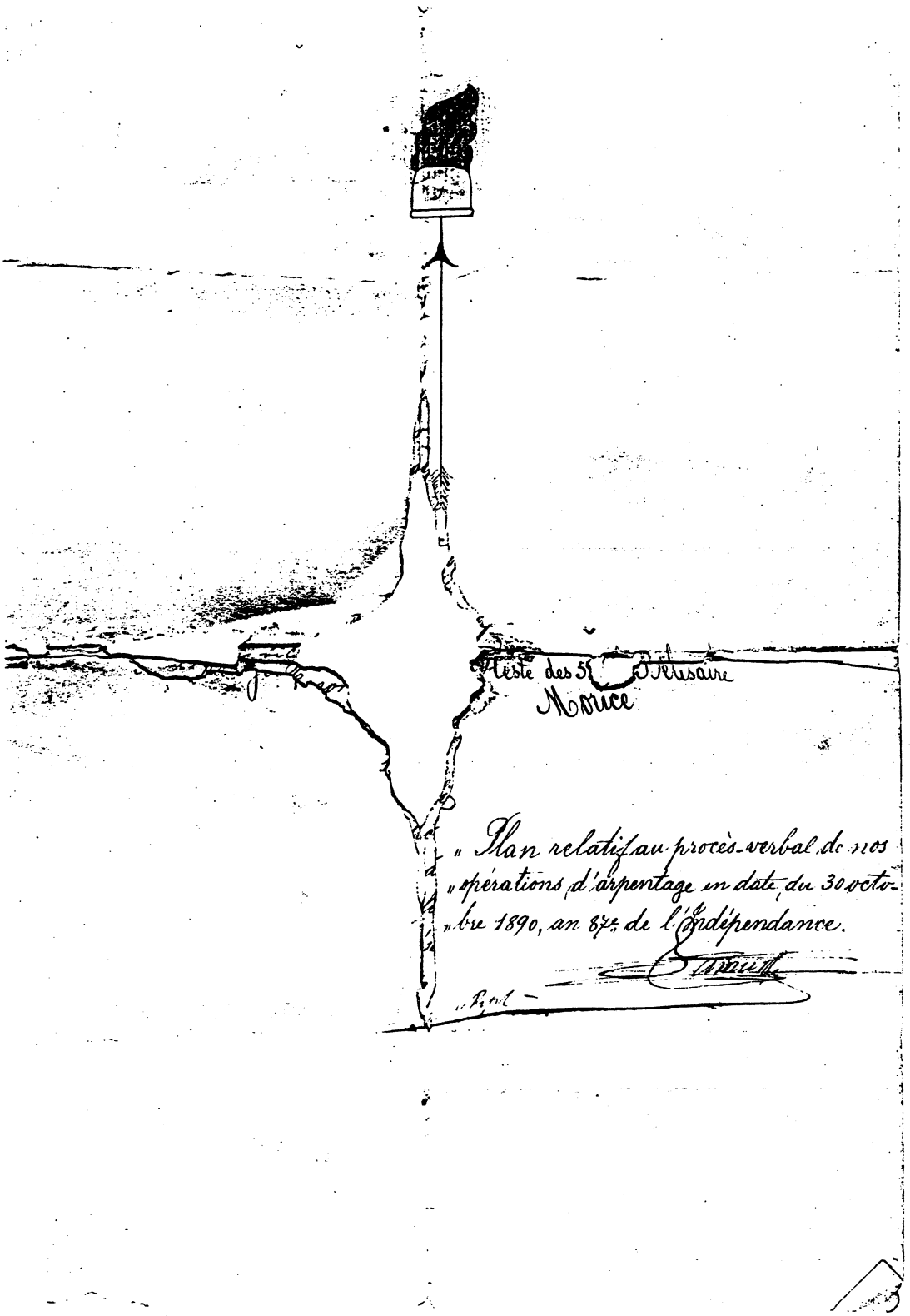
avons relevé la rive droite de la rivière dite
Bras Droit jusqu'en 3, où nous avons
posé une borne, repris en 1, fait dig
à l'Estavee le reste des cinq carreaux, nous
avons chaîné quatre vingt onze pas en 4, où nous avons posé
une borne, d'où au Nord avec le reste des deux cent vingt
cinq pas en 3

La figure 1, 2, 3, 4, du plan ci joint offre celle des deux
carreaux de terre que nous avons été requis d'arpenter.

Dont acte, fait et clos aux Cayes, les jour, mois et an
que dessus, avons avec signé La minute est signée: Lamour, ar
penteur. La requérante n'a pu signer pour ne le savoir
de ce interpellée au désir de la loi. Dans l'acte pas mots
rayés nuls. Au de la deuxième page est écrit
« Enregistré aux ges le huit décembre mil huit cent qua
« trevingt dix, au vingt quatorze mille cent trente dix
« Cinq cent trois Dans l'acte deux mots rayés
« nuls. Le directeur (Signé) Jason. Vu Pour le
« contrôleur l'emp supérieur (Signé) M. Olsom.

Collationné délivré pour expédition Conforme a
la minute

Arpt



" Plan relatif au procès-verbal de nos
" opérations d'arpentage en date du 30 octo-
" bre 1890, an 87e de l'Indépendance.

During the years from 1935 to 1938, the G.J. White Company, under the mandate of the Ministry of Agriculture, established coffee plantations and protective tree cover over all the state lands. This intervention was very badly viewed by the peasants. Indeed, they interpreted this reforestation action as a means for the state to reaffirm its rights to these lands with the aim of retaking control over the long term. In addition, the coffee took over areas already occupied by food crops or areas that farmers hoped to put into food production. Coffee and sheltering trees thus disappeared with a surprising rapidity. Hurricanes are generally accused of having preceded the deforestation--these were aided somewhat by deforestation means having nothing to do with meteorology. The few rare thickets that survive are called "**kafe wat**" by the peasants.

At the beginning of the 1950s, the tax officer at the Contributions Office in Camp Perrin, Duvivier Georges, established leasing agreements for the land at Coutard with many peasants. As with other leases in the region, these leases were based on the provision of 1 **carreau** per family. In this way, a group of state leaseholders was formed. This group is estimated by the Bureau des Contributions of Camp Perrin to number more than 500 in the mountainous zone and a little less than half that number in the plains zone (swampy zones, river edges, and so on).

Given the extreme relief and ruggedness of the "plain" of Coutard, we were not able accomplish the survey, direct observations, questionnaires, and interviews with as much precision as at Ré.

The delimitation of the parcels turned out to be extremely difficult, if not impossible, due as much to the very rugged terrain as to the manner in which it is used by the peasants. It was possible to delimit:

- the entire parcel rented in the name of Jean, or 5.698 hectares;
- a portion of the parcel rented in the name of Mme. Elie, or 4.77 hectares.

Each of these large parcels is subdivided into many small parcels, which are equally difficult to identify, delimit, and measure though they are most often separated by portions of fallow land covered with grass known as "**zeb panache.**"

There is thus no block at Coutard which can be compared to the Remarais block.

§ State Land or Family Estate?

Peasant management of these state lands proves to be a mixture of the norms applied to undivided private lands and the legal rules established by the public administration. The words used to speak of state lands are the same as those used for private lands. Leases left by fathers and grandfathers are considered as part of the real property estate left by the fathers and grandfathers.

According to the register (incorrectly called a cadastre) at the Bureau des Contributions in Camp Perrin, Madame Elie has been the renter of 1.29 hectares since 1949. She originally paid 12 gourdes per year; she paid 42 gourdes in 1985 (plus 10 gourdes for her identification card, which is required for the lease). In practice, Madame Elie, who is over 70 years old at the present time, does not exercise any control over this land. It has been managed by her eldest son for more than thirty years and is farmed by her three sons and their offspring. Although the register notes that Madame Elie's land is bordered by unoccupied state land (a notation that tends to reinforce the general opinion that the state possesses empty land that could be settled by landless peasants), we were able to identify Madam Elie's immediate neighbors whose land, incidentally, is also mentioned as being bordered by vacant state land. Just as his mother turned over the management of the state lease to him, Monsieur Jean, the renter of 1.29 hectares, has turned over the management of his lease to his son, Pierre, since 1980.

Though one cannot properly speak of subleasing in the case of Madame Elie, nonetheless her sons and grandsons do contribute to the eldest son a portion of the sum which must be paid to the tax office in Cayes. No parcel is given over to nonfamily members (the only **etranger** being an adopted son of the de facto manager of the lease). Two generations of Elie's descendants apparently divide the entire leasehold equitably among themselves.

The case of Monsier Jean's son is a little different. Since all his brothers have left their native habitation, and since his children are all very young and attend school, he finds himself in the impossible situation of having to farm the 5 cx at his disposition alone. Thus, he sublets or sharecrops out a portion of the land to **etrangers**.

The Land Areas

We were able to survey a portion (the majority) of the area occupied by Madame Elie's son. In reality, it consists of 4.77 hectares or four times more than the registered area. As for Pierre, in reality he manages 5.698 hectares, according to the approximate survey that we were able to complete (the portions made up of virtually inaccessible cliffs were not measured). On the two leases (including the portion that we were not able to measure), there are supposedly 35 parcels cultivated by 14 land users.

Grazing Rights

The major difference which exists between private and state land management has to do with rights to common pasturage. On privately owned, undivided family lands, we have seen that the co-heirs all have the right to graze their animals in the fields after the fields have been harvested. On state lands, the same right exists but with an additional element. From our standpoint, this additional element is crucial. Proceeding from the principle that the land is the property of the state, <u>all</u> the farmers in the region exercise the right to pasturage

on all the land once it is no longer under cultivation. The exercise of this right perhaps originates in the ancient practice of free-range grazing forbidden since the establishment of the Duvalier Rural Code, but which today takes the form of staking both small and large livestock on all state lands. The implications of this custom are numerous:

- it is the source of conflict between different users of state lands since the animals are often pastured in cultivated fields;
- it blocks intensification and reforestation initiatives (several years ago, one of Madame Elie's sons began planting elephant grass which he uses as pasturage for his cows, but since he cannot fence off the land, he does not want to extend his forage grass production, which could in principle be grazed by anyone);
- it is the source of conflict between land users and managers and tax office officials who traditionally send sizable animal herds to graze on state lands.

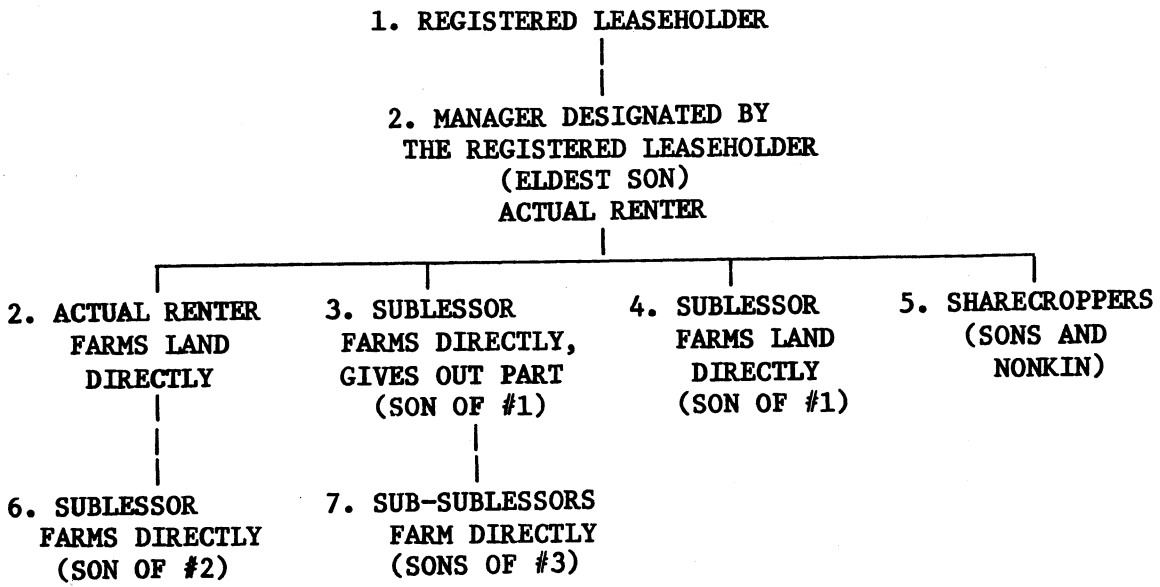
§ Relations with the State

Relations with the state are limited to the payment of the lease, which is paid at the beginning of the fiscal year for the previous year. There is no inspection service, no extension service, and no support for state leaseholders. The lands that we studied had never even been surveyed.

The "Manager"

The Ministry of Finance, which manages all private domain state lands through the offices of the Bureau des Contributions, does not have any staff members charged with overseeing land rented out to private individuals. The tax collectors at the commune level--whose jurisdiction it is--excuse themselves from this difficult task by choosing a "manager" to represent them to some extent in the field from among the renters in their jurisdiction. The manager is supposed to be a "wise man" (sage), who intervenes when conflicts occur between renters. According to the statements from the peasants as well as the percepteur from the Contributions Office in Camp-Perrin, very few conflicts between state renters over the boundaries of their respective pieces of land have been recorded in the Third Section. Above all, the manager intervenes to settle conflicts between sharecroppers and their leaseholder and between sharecroppers for damages to crops caused by another's animals. Since he receives no remuneration from the Bureau des Contributions, the manager is paid by the litigating parties for his services, a price which he sets himself. The only recorded conflicts over boundaries occur at the borders of the communes which, being poorly defined, lead to renters straddling the boundary between two communes to use neighboring land. In order to settle such conflicts, it is necessary to call in a surveyor appointed especially to cover questions pertaining to state lands.

Figure 4.16. Access Modes to State Lands



During the last thirty years, the Third Section, that is, the Third Subdivision of the Camp Perrin Contributions Office, has known only three state-land managers. The last one was dismissed from his office shortly after the fall of the Duvalier government after an accumulation of conflicts with the renters. The **percepteur** leaves the situation as it is, hoping that a new appointment will be able to receive the support of the new government.

Conflicts

At the departure of Duvalier, an authority crisis manifested itself widely in the rural areas, overturning in numerous cases the implicit rules established several years previously. Thus, one of Madame Elie's grandsons, who for several years has farmed a plot on the border of his leasehold, found his rights contested by the sharecropper on his neighbor's lease. The action was so new and unexpected that it mobilized all the state leaseholders, who felt that their traditional rights were being threatened. The sharecropper, with the support of the state-land manager, who had, according to Elie's family, received a large sum of money from the sharecropper, wished to bring the matter before the civil court in Camp Perrin. This court having declared itself incompetent, the matter was finally settled in Cayes in favor of the Elie family. It was at the end of this affair, unique in the study area, that the state-land manager was dismissed from his office. The matter also carries more subtle political implications which are not of great interest to our subject.

The Demands

The last two years of political crisis have permitted the development of a stated will on the part of the state leaseholders not to pay the rental fees normally paid to the tax office. As we have said, the fee is about $10 (U.S. dollars) per year per **carreau** on the average (at the official rate of 5 gourdes to the dollar). The bulk of the state renters in the Third Section of Camp Perrin have signed a petition demanding a decrease in the rental rates and demanding technical assistance from the Ministry of Agriculture, without which they will refrain from paying the rental fees. The argument put forth by the peasants is very simple: since the land has deteriorated more and more over the years, instead of increasing the rent every ten years as is the rule, it should instead be decreased. Thus, since two years ago, the rents have not been paid--or virtually none, with the exception of some renters who have negociated a reduction with the collections office and have therefore paid.

The response of the **percepteurs** is very straightforward. If the land held by the peasants for many generations has degraded, it is their fault. They are thus responsible for the depreciation of the land and must pay in any case. At the worst, if they refuse to yield, it will be necessary to remove the land from their control in order to put it into more competent hands. It is an absolute impasse.

The situation harbors a real danger of dispossession of the renters who, unaware that a law exists that permits them to put their long years of working the land to use by obtaining a national grant of land, can get themselves thrown off the land at any time by a sheriff's officer (previous cases of nonpayment or late payment followed by expulsion have been recorded during the last forty or fifty years). And, though the technical argument of the Contributions is logical, it denies the obvious decapitalization which characterizes all peasant farms and which has justified the catastrophic overexploitation of state lands. The conflict remains unresolved.

§ Conclusions

Four facts can be placed in evidence from these observations:

- the state does not know who its real clients are--for the parcels adjoining the ones on which we worked, the rental receipts are still in the name of the first leaseholders, some of whom have been dead for more than ten years;

- the state does not know the extent of the land which it rents out;

- the state does not know the location of the land it rents out;

- the state receives ridiculously low sums for the areas that it rents out--it destroys its own land heritage because it does

not assure training for the producers who live on that land while continuing to maintain an atmosphere of tenure insecurity which discourages land improvements.

§ Summary and Proposals §

As has already been suggested by previous research, the data gathered at Camp Perrin reveal the following facts:

- the peasantry has attained a level of decapitalization so severe that there will never be a possibility that peasants can repurchase land within the framework of any agrarian reform program or, even more simply, to legalize their rights to the parcels that they already hold;

- independently of the underutilization of plains lands, it is necessary to study the means for intensifying production systems in the mountains in a nonerosive fashion--this path appears to be the only one which will simultaneously not increase the rural exodus while still providing the labor pool necessary for the enormous land-improvement tasks;

- nonformal division is indeed the dominant tenure mode--the fragility of this tenure mode is due as much to the heirs' lack of information about the true legal status of their land as to the age of the titles and the potential number of claimants to the property;

- the main goals of numerous peasants today lie outside of agriculture, for example, the education of children--all the resources of the farm household are mobilized toward this objective to the detriment of the renewal of the means of production and, in the case that concerns us, to the reconstitution of soil fertility;

- there is a clear relationship between the ambiguous legal status of the users vis-à-vis the state lands and the unbelievable degradation of these lands;

- the majority of the state holdings are much too difficult to reach to hope that technicians or urban capitalists will ever plan to put them into one sort of production or another--only the peasants who live there can, if one provides them the means, rehabilitate these lands and make them worth something;

- all the state lands are occupied--there are no vacant lands available for distribution to landless peasants;

- the state lands are not the only ones that are degraded--many pieces of land which are held under complex tenure arrangements due to several generations of legal indivision and the multiplicity of claims and claimers also contribute greatly to the destruction of land capital.

To be complete, this study would have had to include a more extensive economic dimension for each parcel studied. Indeed, the balance sheet of investments undertaken, yields obtained, and the value of the harvest which can be obtained from such economic inquiries are important data. The length of time required to collect such data was the principal obstacle for this study, but it will be necessary to integrate such data into any further research stages.

§ What Type of Study for What Information?

To summarize, let us recall that the initial objectives of this effort were, on the one hand, to collect data about the land-tenure structure in the southern watershed of Macaya and, on the other hand, to judge which are the pertinent criteria upon which PST could orient a research effort which would be of some use within the scope of its interventions. We believe we have developed a method that will permit land-tenure issues to be dealt with in an efficient manner. The method permits one to locate the parcels to be treated in terms of both their legal and their customary status as well as in terms of their role in the peasant farm unit. Work would have to be done systematically for all the parcels on which any soil-conservation effort is to be undertaken. For each parcel, a parcel dossier would have to be developed bit by bit as the work continues. Linked with some farm studies chosen from a sample of farmers working the parcels being examined, one would have a working tool that could easily be substituted for the traditional baseline study.

Indeed, it is presently typical to precede all rural development interventions or actions with a baseline study capable of providing the elements needed to make comparisons in the final project evaluation--before and after, as if for laundry or weight-watching diets. In these expensive studies for less-than-satisfactory results:

- that which interests the researcher does not interest the intervenor--the two often never meet each other and thus cannot benefit from their respective efforts;

- the baseline study permits the accumulation of an enormous mass of information which is difficult to analyze, even by computer--it is thus often impossible for the intervenors to interpret the data in a useful fashion.

Even more serious, baseline studies allow technicians working on the project to avoid taking the indispensable step of going among the people and visiting the field in order to understand them: there are specialists available whose job is to understand the people and the way in which they live and work. Thus, the phase of getting to know the area is minimized, even though that phase is indispensable for effective action. The baseline study permits knowledge and action to be artificially separated.

Another "profitable" path is to approach the work zone community by community, with the sociologist opening the doors to the other

technicians. It is certainly not a question of making the latter into social science specialists. But it is crucial to let them know that if they wish to undertake a given action in a given community, it is necessary to identify their clients according to their social position, their influence in the community, and their economic role. To what purpose would it ever serve a veterinarian to know that 78 percent of the parcels worked in the region are not formally divided? On the other hand, it is crucial for him to be aware that the bulk of the livestock spend ten months of the year at altitudes above 500 meters and that he must go there, on foot, over difficult and dangerous paths in order to work. Thus, he can decide whether he should encourage the development of a road network or wait until the two months per year when the animals are in the foothill zone.

§ The Land as an Agricultural Input: A Proposal for Action Research

At the present time and during the last two years, the agrarian question has been a theme that has been much debated and politically exploited by the different political groups fighting in Haiti. National institutions [Association Nationale des Agronomes (ANDH), Assemblée Constituante] and international institutions (European Economic Community, United Nations Development Programme, World Bank) have undertaken or financed or wish to finance research efforts and/or undertake interventions within this realm which all perceive as vital to the future of the Haitian peasantry.

Nevertheless, the land-tenure issue and, a fortiori, agrarian reform are troublesome. These issues arouse fear in researchers, politicians, and the man in the street precisely because it is a political subject to which it is easy to attribute a particular political leaning. One nonthreatening way to approach these issues is to integrate them at the level of other agricultural inputs. The PST wishes to help restore the environment and therefore to furnish peasants with the means to restore the fertility of their soil and to recapitalize their farms. The land is a part of a farm's capital in the same sense as tools, seeds, storage facilities, labor pool, and so on.

One possible way is closely to associate research and action in the land-tenure domain. Reviving the old IICA formula of investigation/action is necessary as much to allow the crystallization and thus the unmistakable identification of the actual problems that exist so as to find, through the means of concrete interactions with peasants, the solutions. Of course, this demands a much greater human investment on the part of the researchers who can opt for the most simple path of creating a set of parcel dossiers for following and evaluating the project.

If the project is more ambitious and wishes to grasp the chance to contribute in a concrete fashion to advancing the agrarian reform issue in Haiti, one can initiate a research-development project on land tenure which would be set up as follows:

1) The disinheritance of claim holders who do not exercise their rights in an effective manner (those who have migrated or who farm other

land) and the deliverance of updated titles at no cost to the present land users. A block study which would take place at the same time as a cadastral survey could be carried out concurrently with the delivery of new property titles. A subsidy would be anticipated for the formal division of land: notarial and survey costs would be totally taken care of and land consolidation encouraged everywhere where deemed ecologically and economically worthwhile. The new tenure data would be made available immediately and free of charge at the commune level.

2) The identification of the actual state-land users and the establishment of their legal ownership to parcels the area of which would be determined. The state, which has always been reluctant to lose its rights to lease land, must examine its accounts: insignificant leases on lands whose area even the state itself is unaware of and rental fees as opposed to a land tax on all cultivated land. A massive effort of support for these lands should be given priority, as much from the standpoint of tenure security as from the standpoints of furnishing inputs and technical training and creating a road network.

3) The creation of a center for the collection of land tenure and genealogical data capable of helping the two preceding objectives be accomplished. This data base could be made up by gathering field data as well as by microfilming or computerizing surveyor, notarial, and state archives, parish records, and court archives related to land conflicts and by the creation of a data bank going as far back in time as possible. One will thus be able to link property deeds and lineages. In researching these documents and their use, one would also link up with notaries and surveyors, particularly the latter who are receptacles of a very rich land-tenure knowledge (field and archives).

4) As the body of knowledge gradually advances and the work progresses, it will be necessary to take advantage of jurists, who, from the beginning of the operation, could propose a body of laws which, while anticipating the range of possible situations, would simplify as much as possible the formalities required for the recording of and deliverance of property deeds and for future land transactions. This body of laws will have to establish, among other things, land categories, pre-emption rights and the categories of people who enjoy such rights, and fix the conditions under which the commune intervenes in the normalization of the land market and land-use conditions. Land leases would be defined according to type and length. The priority intervention zones would coincide with those decided upon by the PST, whose actions would thus become accompanying measures for the small agrarian reform which would be tested at the watershed level. This research/intervention effort could be tested in one or two communes in the PST area. We chose the commune as the administrative area most appropriate for all the administrative and legal questions that such an operation would entail. This choice is also justified by the fact that it is a level where the undertaking of such responsibility is possible--in an immediate and progressive fashion--since national programs are too ambitious given the current national situation.

Creole/French/English Specialized Terms

ERITAJ HERITAGE	INHERITANCE	
tè mine/tè pa separe	terre en indivision	undivided land (that is, not formally divided)
tè eritaj/tè eritye/ eritaj	terre détenue par héritage, divisée ou non	inherited land
tè eritaj patage	terre héritée divisée informellement	plot subdivided into de facto quasi-ownership
gran eritaj/gran eritye/ gran tit eritaj-la	hériter de première génération	first generation heir
eyandwa/eritye/eritaj eritaj mèt	héritier(e), ayant-droit	heir/heiress
demanbre/inikite	bien de famille remontant à plusieurs générations, resté en indivision	undivided family estate land
gran pyès	premier papier légal	master deed
dwa eritaj	droit à l'héritage	heirship
sou dwa (manman/papa) sou bo (manman/papa)	pre-héritage pre-héritage	preinheritance grant/anticipated donation
dwa e pretansyon	droits et prétentions	rights and claims
mouri kite	laisser en héritage	leave (that is, will)
pataj	partage informel ou non	division
kenbe yon dwa	pour un ayant-droit, exercer ses droits	for an heir, to exercise his rights
	UTILISATION DE LA TERRE	LAND USE
pase boukan	brûlis	burn
ravinay	ravinement	gullied
jaden	champ	field

mòso tè	parcelle	parcel/piece of land/plot
jaden pre-kay	parcelle avec maison	house plot
lakou, plasman kay	parcelle avec maison	house compound
blòk tè, tè blòk	grande portion de terre d'un seul tenant	large contiguous tract of land
patiraj/nan zeb/savan	pâturage, pâture pâturage ouvert	grazing land/ pasturage
bwa nèf	espace récemment défriché	cleared land
okipe jaden	travailler la terre	farm/cultivate/ work land
pare tè	labourer	till/plow
bitasyon	habitation	estate
jaden kabrit	pâturage, terre dégradée	grazing land/waste-land (not good for anything else)
rak/rak bwa	terre non cultivée ou à jachère longue avec repousse arbustive importante	brush land/bush
tè poze	terre en jachère	fallow land
tè plen	terre de plaine	plains land/flats
tè mòn/tè nan rote	terre de montagne	mountain land/hills
tè rigòl	terre ravinée	gullied land
KONDISYON	**FAIRE-VALOIR**	**TENANCY**
don/gran don/gran abitan	propriétaire foncier (qui donne de la terre en faire-valoir indirect)	landlord
travayè	ouvrier agricole	wage laborer
kondisyon pou travay tè	mode de faire-valoir	mode of tenancy
tè sosye/demwatye	terre en métayage	sharecropped land

sosye/demwatye	métayer	sharecropper
fèm, fèmaj	affermage	lease
fèmye	fermier	renter/lessee
fèmye leta	fermier de l'Etat	state leaseholder
anfème	affermer	to rent/to lease
bay fèm	donner en affermage	rent/lease (out)
pran fèm	prendre en affermage	rent/lease (in)
jeran	gérant	managaer
bout plas	partie de récolte donnée en paiement par le métayer	share of the harvest given by the sharecropper
kout sèpèt	parcelle donnée en métayage	sharecropped land
potèk	affermage de longue durée	long-term lease
VALE/KANTITE	**MESURES**	**MEASURES**
karo	carreau	1.29 hectares (3.1 acres)
sèzyèm	1/16 de carreau	1/16 of a carreau
vensenk	1/16 de carreau	1/16 of a carreau
kòd	procédé paysan de délimitation avec une corde	peasant way to mark boundaries using a rope
lian	id. que précédent avec une lianne	same as the above using a vine
pa	délimitation à l'aide du pied	pace
koup sèpèt/koup machèt	procédé paysan de délimitation où les limites sont tracées à la machette ou à la serpette	peasant way of marking boundaries using a machete or sickle to mark trees
GENYEN	**POSSEDER/PROPRIETE**	**TO OWN/PROPERTY**
tè	terre	land
genyen	posséder	to own

byen	propriété (biens meubles et immeubles)	property
propryete	propriété foncière	real estate
mèt	propriétaire	owner
mèt tè	propriétaire foncier	landowner
mèt jaden	exploitant	landuser/landholder
genyen jaden/travay tè	exercer un droit d'exploitation	to work or hold a piece of land
genyen tè	exercer un droit de propriété sur une terre	to own a piece of land
zong tè/kal te/pousye tè	très petite propriété	very small piece of land
kenbe yon dwa	exercer ses droits sur une terre	farm/hold a piece of land/exercise one's right to a parcel
tè tit	terre dont on possède les papiers légaux	documented land
tè acha/tè achte	terre acquise par achat	purchased land
LALWA	**TERMES LEGAUX**	**LEGAL TERMS**
tire pyès tè ka apante	se faire délivrer le procès-verbal d'arpentage	obtain a survey plat
dwa onore	terre reçue comme paiement par arpenteurs/ notaires	land received in lieu of payment by surveyors and notaries
kouronman/kouròn	périmètre d'une terre	boundaries of a piece of land
apantè	arpenteur	surveyor
apantaj	arpentage	surveying/survey
tè apante	terre pour laquelle l'opération d'arpentage a été éffectuée	surveyed land
apante tè/chèn	arpenter	survey (land)/chain

chèn	chaine d'arpenteur	surveyor's chain
kout chèn	irrégularité dans l'arpentage	survey irregularity
notè	notaire	notary
tè tit	terre avec titre légal de propriété	legally documented land
papye notè		notarized deed
papye apantè		survey plat
manman-pyès/manman papye		master deed
gran pyès		master deed
papye tenbre		deed with required stamps
lapye tè	acte notarié, procès verbal d'arpentage ou contrat	deed
bòn	borne	boundary marker
bòne	borner	mark boundaries
lizyè	lisière	boundary
bay a fèm	bail	lease
sou-fèmye	sous-locataire	sublettor
sousenprive	sous-seing privé	witnessed signature
tè peyizan/tè abitan	terre de particulier	privately held land
tè leta	terre de l'Etat	state land
vant a remere	vente à réméré	pawning of land
byen rural de fanmi	bien rural de famille résidence (espace dont on acquiert le droit de propriété après possession	homestead
testaman	testament	will
FANMI	**PARENTE**	**KIN**
fanmi	parent proche	close relative
ras	famille	family/kin group

frè	frère	brother
sè	soeur	sister
madam marye	épouse	wife
madanm	concubine	concubine
fanm deyò menaj	petit(e) ami(e)	boy/girl friend
mari	mari	husband
pitit jitim	descendant de première génération	first generation descendant
badnay	surnom	surname/last name
ansyen testaman	ancêtre, aieul	ancestors/forebears
mèt kay	chef de ménage	head of household
kay	ménage/unité domestique	household
non	prénom	first name
siyati	nom	name/last name
pitit deyò		illegitimate children
etranje	hors de la famille	outsider/non-family member

§ CHAPTER 5 §

Conclusion

§ Summary of Findings §

The three methodologies used to study land access and land use in the Les Anglais and Ravine du Sud watersheds allowed us to examine these issues from several perspectives.

§ Landholder Case Studies: Pinpointing Access Constraints to Investment

The landholder case studies gave us the opportunity to identify and categorize a wide variety of land-access types. By developing land portfolios for each farmer, we were able to examine the role that land access plays in individual land-use decision-making. In particular, we were able to identify a number of land-access categories that are likely to constrain long-term agricultural investments. These categories include:

1) certain types of informally inherited land:

   a) informally divided land (*divize pa dwet*) where there are conflicting claims to the land or where there is little family cohesion,

   b) undivided family land (that is, farmed or used collectively, or on rotation) where there are conflicting claims to the land or where there is little family cohesion;

2) certain types of secondary access lands:

   a) some nonproprietary usufruct lands, notably lands to which people have only temporary use rights from nonfamily members,

   b) private rentals, particularly if the user has limited tree-tenure rights,

   c) sharecropped land, with the exception of very long-term sharecroppers or land on which the sharecropper resides,

   d) managed land, particularly if the owner does not actively supervise land use.

The Multiple Decision-Maker Problem

A characteristic common to the above types of land is the presence of multiple decision-makers. The user's control of such parcels is thus potentially more limited than it would be on purchased or formally inherited land. When making land-use decisions, the user must also take into account the types of use decisions the other decision-makers are likely to make. In particular, the user must judge what his chances

are of benefiting from the improvements he makes. To implement soil-conservation efforts on lands with multiple decision-makers, PST personnel will need to be able to identify the decision-makers, work with them together, and devise conservation strategies that are mutually acceptable. Alternatively, PST will have to take the much more difficult step (both politically and administratively) of reducing the number of decision-makers. This could be done actively through a titling project tied to all affected parcels on targeted hillsides, or it could be done more passively through the provision of subsidized surveyor and notarial services.

The Nature of State Lands in Les Anglais

State rentals in Les Anglais proved to be very different from private rentals and are treated in much the same way as informally inherited land both from the standpoint of investment and from the standpoint of succession. The main distinction between the state land **eritaj** and the private **eritaj** is that the user of the former must pay a yearly rent and is not able to sell the land. We were unable to determine if state co-heirs ever sell their rights to use the land, much as co-heirs to private land sell their **dwa e pretansyon**. In Les Anglais, there was no evidence to support the thesis that poorer land husbandry is practiced on state lands than on private lands.

§ Community Surveys: Establishing General Trends

The community surveys in the Les Anglais watershed indicated that land-access and land-use relationships found in the case studies are also found on a larger scale. Respondents were most likely to plant trees on purchased land, much less likely to plant trees on inherited and usufruct lands, and least likely to plant trees on rented, sharecropped, and managed lands. Respondents were also more likely to plant trees on land that they farm directly, regardless of access type. The survey data also show that farmers with secondary access to a parcel are more likely to plant trees on the parcel if the access agreement gives them timber and fruit-gathering rights. To encourage tree planting on secondary access lands, PST should examine the feasibility of helping land users incorporate tree rights into rental, sharecropping, and management agreements.

The survey data also showed that the frequency of land-access types varies greatly by community. In Boko, 44 percent of the parcels were informally inherited parcels, compared to only 39 percent in Mahotière and 25 percent in Rossignol. On the other hand, 36 percent of the parcels held by Rossignol farmers were sharecropped from others, compared to only 21 percent in Mahotière and 9 percent in Boko. Although the problematic access categories defined above predominate in all three communities, the kind and level of intervention needed to overcome access constraints vary considerably for these three communities.

§ Block Studies: Examining Connections and Conflicts

Focusing on a block of land, rather than on scattered parcels belonging to selected landholders, enabled us to examine the problem of

land-access constraints from a different angle. The Remarais block-study data underline some of the complexities of family lands and indicate the layers of use rights that affect land-use decision-making by individual co-heirs. The study shows that land left formally undivided for several generations is often a source of conflict. Problems are more likely to arise over who has what rights to what portions of the original family block than over boundary locations. In addition, absentee co-heirs create a problem in terms of agricultural decision-making in cases where they attempt to enforce their rights to the produce on their share of the land. According to the Remarais data, a major constraint to soil-conservation efforts on family lands will be the inability of co-heirs to fence off specific plots of land or prevent grazing by other co-heirs during fallow periods. Clearly, these constraints will have to be dealt with if the planting of forage grasses and trees is to be encouraged.

Much less data are available on the state-land block in Coutard. What is there confirms that state lands tend to be treated in much the same fashion as family lands. A key difference, in terms of use rights, is that anyone, not just co-heirs, can graze animals on state land in fallow. If this holds true for other watersheds in the PST region, the introduction of forage grasses onto state lands will be extremely difficult to accomplish without taking measures to provide the farmer with greater control over grazing rights.

§ Gathering Additional Information §

Our work in the PST region indicates that land tenure is an important factor in peasant land-use decision-making. To provide appropriate conservation advice and inputs, PST technicians will need to be aware of how land use and land access are related in the areas targeted for saturation services. The information needed can best be gathered using a combination of the block study, landholder case studies, and community surveys:

1) Block studies should be used to develop maps of targeted hillsides and subcatchment basins as well as to identify the key decision-makers for each parcel. Technicians can use the environmental and access information for each parcel to help advise farmers as to the most appropriate conservation strategy for that land.

2) Landholder case studies should be used to develop land portfolios for each client farmer enrolled in intensive conservation programs. Using these portfolios, the technicians will be able to provide each client farmer with a conservation strategy that takes into account individual needs and differences in access.

3) Community case surveys should be conducted in each community targeted for saturation services. At the initial stages, all landholders should be interviewed about their landholdings, and the surveyed community should overlap with the case-study sites. These surveys perform two functions: (1) they provide PST with census data that

can be used for planning purposes, and (2) they provide an indication of the kinds and level of intervention that will be needed to resolve land-access constraints on agricultural investment.

The importance of incorporating parcel measurements and parcel visits into these data collection efforts needs to be emphasized. Accurate land areas cannot be obtained from farmer estimates. Similarly, accurate and meaningful information (to the researcher) cannot be obtained about the environmental characteristics of the land unless parcels are visited. These visits also serve as a valuable crosscheck of data collected during informal and structured interviews with peasant informants.

§ Major Issues to Examine §

Certain access categories are more problematic or less well understood than others, notably family lands, managed lands, and state lands. We recommend that additional case-study work in the PST region focus on these particular topics. Some of the questions that need to be answered for each issue are presented below. These questions can serve as a guide for structuring additional research about land access and land use in the PST area.

§ Family Land

1) What types of rights do people have to land that has not been formally divided (cultivation rights, grazing rights, building rights, rights to burial grounds, rights to sacred places, rights to rocks and minerals)?

2) Who has these rights (all the co-heirs, certain co-heirs)?

3) On which portions of the family block can each person exercise his rights?

   a) Are portions set aside for **lakous**/cemeteries/communal grazing/perennial groves?

   b) Are portions set aside for individual use? If so, to what extent does the individual control land-use decisions on that parcel?

   c) Under what circumstances do portions set aside for communal use become individualized?

   d) Under what circumstances do individual portions revert to communal use?

4) How are rights apportioned?

   a) What is the role of the **responsab eritaj**?

   b) What kinds of decisions does he make and under what circumstances?

   c) How are these decisions made and enforced?

5) Under what circumstances are family lands formally divided?

   a) Would people have their land divided if the formal division process were subsidized?

   b) What circumstances would be needed to prevent such divided land from entering the same cycle of indivision in subsequent generations?

§ State Lands

1) Are state lands treated with less care than private lands?

   a) Are these differences due to land-access conditions, or are other factors, such as distance, involved?

2) Is the state **eritaj** the dominant mode of state rental?

   a) In what areas?

   b) Do other modes exist (that is, big leaseholders with many sublessors)?

   c) If other modes exist, where are they and how does land use differ from on the state **eritaj**?

3) For state **eritaj**, who has what rights to what portions of the state **eritaj**? (The same questions can be asked for family lands.)

   a) What rights do non-co-heirs have to those lands?

§ Managed Lands

1) Is the manager phenomenon widespread in other PST watersheds?

2) What are the rights of owners and managers?

3) Why do people manage out land?

4) Are there differences in land use based on the degree of owner supervision?

5) Is there evidence that managers tear out coffee and replace it with annuals? If yes, under what circumstances?

6) How can manager/owner interests be reconciled to promote better land husbandry?

§ Overcoming Access Constraints §

Overcoming access constraints to agricultural improvements requires that planners have information about peasant land-tenure characteristics and agricultural decision-making at both the individual and the general

level. At the individual level, questions such as the following need to be asked:

1) Given a farmer's land portfolio, what are his best investment options?

   a) On which parcels are conservation efforts likely to be successful?

   b) What techniques are most appropriate (that is, grass contour strips or alley cropping?)

2) What other constraints affect the farmer's ability to invest in his land?

   a) Does he lack financial and labor resources to undertake a labor-intensive conservation project?

   b) Do school fees consume financial resources that would otherwise be available for agricultural investment?

At the general level, the following types of questions need to be answered:

1) What kinds of access types are found in the area and how will each access type interfere with specific conservation strategies?

   a) For example, what access types will interfere with programs for introducing forage grasses? (presumably, any access category where the user is not the sole person with grazing rights or where grazing violations are frequent).

   b) What kinds of access types will interfere with agroforestry programs? (presumably, short-term access categories, such as sharecropping and temporary gardening rights).

2) Are there any cases where investments are made in problematic access types?

   a) What are the circumstances, and can these be applied on a wider level?

   b) Are there ways to encourage conservation within the existing land-tenure rules? (that is, by working with both owners and users or by establishing tree contracts on secondary access lands).

3) Will PST need to change tenure rules so that better land husbandry can be promoted?

   a) For example, is it desirable and feasible to subsidize surveying and notarial costs to encourage formal divisions and restrict the number of decision-makers on parcels targeted for improvement?

   b) If subsidized survey and notarial services are made available on a one-time basis, what can be done to ensure that updated titles will be maintained over several generations rather than reverting to the status quo?

A well-organized land-tenure research effort can provide PST technicians with the information required to design conservation strategies consistent with peasant needs and goals. In some cases, conservation efforts can be encouraged with policies consistent with the existing tenure rules. In other cases, PST will have to consider the possibility of restructuring the rules to overcome some of the land-access constraints to agricultural investment. It is absolutely essential that further land-tenure work in the PST region be closely coordinated to on-the-ground implementation efforts so that feedback can be facilitated. We therefore recommend that research efforts be focused on those hillsides and in those communities already targeted for saturation of development services.

§ APPENDIX A §

Case Study Narratives

§ Individual Landholding Patterns and Land-Use Decision-Making §

Case studies of individual farmers are useful because they provide insights into how individuals function and why they make certain decisions. The special circumstances that surround seemingly "irrational" behavior can also be identified. The land portfolios for seventeen peasants in the Les Anglais watershed are described and analyzed in the following case narratives. By examining these portfolios, one can begin better to understand the rationale behind each farmer's agricultural decisions.

§ Mrs. Joseph Despinasse (Rossignol, 27 years old)

Madame Jo was born and raised in the vicinity of Rossignol and lives with her 35 year-old husband, four children, a brother, a nephew, and two other relatives. Although Mme. Jo lives with her husband, she is considered the head of the **menaj** and takes the lead in agricultural decision-making while her husband concentrates on pasturing the household animals. Although Mme. Jo does not sell labor on a daily or piecework basis, she is a member of three types of work groups: **atribisyon, eskwad,** and **envitasyon.** She uses these groups and also buys labor on a piecework basis to work her land.

Mme. Jo differs from other women farmers in that she clearly controls the farm enterprise even though her husband resides in the same house. Not only does she spend a great deal of time working in her fields and supervising the work on the land she manages, but she also sharecrops and rents land in her name rather than in her husband's name.

Landholdings

Mme. Jo's case illustrates the extreme of fragmentation in agricultural holdings: she has access to fifteen separate parcels of land, all but five of which she works directly. The fields nearest the house site are 20 minutes by foot while those furthest from the house are a two-hour walk up a very steep mountainside. Her holdings are scattered throughout several eco-zones and range in altitude from 200 to 1200 meters. The lower parcels tend to be more heavily eroded while the upper parcels show only minimal signs of erosion.

The conditions under which Mme. Joe has access to her land also vary considerably: she has usufruct rights to one parcel, preinheritance rights to one parcel, sharecrops five parcels, rents two parcels, manages four parcels, and has purchased one parcel. She gives the purchased plot out to another farmer to manage. In return for supervising

Figure A-1. Mrs. JOSEPH DESPINASSE: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9 - 12	13	14
Access Type	Usufruct	Purchase	Rent	Pre-Inheritance	Sharecrop (State Land)	Rent	Sharecrop	Sharecrop	Manage	Sharecrop	Sharecrop
Year of First Access	1977	1979	1980	1980	1980	1984	1985	1985	1985	1986	1986
Location Name	Rossignol	Rossignol	Souce Neg	Boukan	Mari Louiz	La Haut	Boukan	Boukan	Boukan	Boukan	Boukan
Exploitation	-Direct	-Manage	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct	-Sharecrop	-Direct	-Direct
Land Use	Residence Fruit Vegetables Coffee	Coffee Fruit Corn Congo peas Manioc Yams	Congo peas Patate Manioc Fruit Coffee Pasture	Black beans Patate Fruit Pasture	Congo peas Sorghum Patate Manioc Fruit Pasture	Black beans Congo peas Patate Manioc Fruit Sisal Yams	Corn Black beans Patate Sorghum Fruit Pasture	Corn Congo peas Patate Manioc Fruit	Corn Black beans Congo peas Patate Sorghum Fruit Coffee Pasture	Corn Congo peas Patate Fruit	Coffee Fruit Corn Patate
Erosion Level	Slight	Slight	Moderate	Moderate to Severe	Slight	Slight	Moderate	Moderate	Slight to Moderate	Moderate	Slight to Moderate
Soil	---	Gra	Meg	Gra	Meg	Gra.	Gra	Gra	---	Gra	Gra
Planted Trees	Yes	No	No	No	No	No	No	No	No	No	No
Time From House	0	15 minutes	5 minutes	2 hours	3 minutes	2 hours	60 minutes	1.5 hours	1.7 hours	1.7 hours	1.25 hours

the coffee plantation on the land, the manager receives the right to sharecrop the portions not in coffee. All of the coffee harvested belongs to Mme. Jo. Mme. Jo was the only case we encountered of a person engaging a manager for land within a short walk of her house.

Mme. Jo has access to ten of her parcels through her husband's aunt, Mme. "Yoyo" Despinasse. An 80-year-old resident of Les Anglais, Mme. Yoyo owns 7 cx in Rossignol and leases another 10 cx of land in Rossignol from the state. She and her now-deceased husband have long been influential members of the Les Anglais and Rossignol communities and, until 1980, used to spend six months in Rossignol and six months in Les Anglais. The Despinasses remained childless and Joseph Despinasse was one of several relatives selected to help them work their land.

Mme. Jo has taken over her husband's functions and, with the exception of the house site to which her husband has undocumented use rights, has signed her own sharecropping and management agreements with Mme. Yoyo. Under the sharecropping agreements, Mme. Jo pays all cultivation expenses and splits the harvest equally with Mme. Despinasse. The management agreement is a little unusual in that Mme. Jo does not work the land herself but sharecrops it out to other farmers. The farmers pay all cultivation expenses and split the harvest equally with Mme. Jo, who, in turn, gives Mme. Despinasse 60 percent of her half. Thus, each farmer gets 50 percent of the harvest, Mme. Despinasse receives 30 percent, and Mme. Jo receives 20 percent. Mme. Jo has rights to graze her animals on both the sharecropped and the managed land as well as rights to collect fruit and tree branches.

Mme. Jo owes her access to the rental parcel in Source Negre to the Despinasses as well. Prior to her marriage, the Despinasses had rented the parcel for Joseph, who did not have enough money to pay the rental fee. After the marriage, the rental was turned over to both partners, who have used the proceeds from agricultural sales to renew the rental contract. The relationship with Yoyo also has given the Joseph Despinasses the opportunity to invest their money in agriculture rather than in school fees since Mme. Yoyo has assumed all schooling costs for their children. Most importantly, the Joseph Despinasses stand to gain considerably upon the death of Madame Yoyo, who has made it known that those relatives working the land will be given the land (or rights to the state lease) when she dies.

Land Use:

Although coffee is present in many of the ravines on Mme. Jo's parcels, only the purchased parcel is used primarily for coffee production. This is also the only parcel of land on which Mme. Jo has planted trees. The remaining parcels are used primarily to produce corn, beans, millet, and tubers.

§ Mr. Edner Louis (Rossignol, 33 years old)

Edner was born near Tiburon (25 km west from Les Anglais) but has spent the last twenty-one years in Rossignol. He and his wife were both

Figure A-2. EDNER LOUIS: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9
Access Type	Sharecrop (State land)	Sharecrop (State land)	Sharecrop (State land)	Sharecrop (State land)	Informally Divided Inheritance	Manage (State land)	Sharecrop (State land)	Purchase	Sharecrop (State land)
Year of First Access	1967	1967	1967	1975	1976	1977	1977	1982	1985
Location Name	Mari Louiz	La Chen	Mari Louiz	Diaka	Belab	Rossignol	La Chen	Les Anglais	La Chen
Exploitation	-Direct	-Direct	-Direct	-Direct	-Sharecrop	-Direct	-Direct	-Direct	-Direct
Land Use	Residence Corn Yams Black beans Fruit Pasture	Congo peas Sorghum Corn Manioc Patate Fruit Rice	Corn Congo peas Black beans Manioc Fruit Pasture Patate	Corn Congo peas Black beans Manioc Fruit Pasture	Coffee Fruit	Coffee Fruit	Corn Black beans Sorghum Fruit Pasture	Town Lot	Corn Black beans Sorghum Fruit Pasture
Erosion Level	Slight	Slight	Slight	Moderate	Not Visited	Slight	Moderate to Severe	None	Slight to Moderate
Soil	Gra	Meg	Meg	Meg	Not Visited	gra	gra	---	Gra
Planted Trees	Yes	No	No	No	Not Visited	No	No	No	No
Time From House	0	5 minutes	1 minute	10 minutes	2.5 hours	5 minutes	10 minutes	3 hours	10 minutes

adopted by the Yoyo Despinasses while very young children. Their relationship to Mr. and Mrs. Despinasse is a major factor in their current prosperity since the Despinasses have given their two adopted children access to some very productive mountain land. Edner and Andrele live with two of Edner's younger brothers, two friends (a couple) and their three children, and an unrelated teenager. The house is the nicest house in Rossignol: not only does it have a tin roof, but it also has a cement floor in two rooms. The Edners also have one of the few cement coffee-drying pads in the community. The pad was constructed while the Despinasses were still active in the coffee harvest and is now in need of repair. The household owns a mule, a cow and a bull, a pig, goats, and sheep. The bull and one sheep are pastured by relatives in Blaktot while the remaining livestock are pastured on the Edner's land in Rossignol. Edner participates in the **atribisyon, eskwad,** and **envitasyon,** but does not sell his labor by day or on a piecework basis. He, in turn, uses **eskwad** and **atribisyon** labor and occasionally employs day laborers.

Landholdings:

Edner's holdings consist of nine parcels, including six sharecropped parcels, one managed parcel, one inherited parcel, and a purchased house lot in Les Anglais. With the exception of his wife's inherited parcel and purchased lot in Les Anglais, Edner sharecrops or manages land rented from the state by Mme. "Yoyo" Despinasse. Even his house is located on state land, having been constructed by Mme. Yoyo and her late husband when they were still actively involved in working their holdings in Rossignol. For his management responsibilities, Edner receives a wage rather than a share of the harvest.

Edner's holdings are unusual in that, with the exception of his wife's inherited and purchased parcel, they are all very close together. The seven parcels in Rossignol are all located between 350 and 450 meters in elevation on basalt-derived soils. Most of the land is in good physical condition, although one of the sharecropped parcels is severely eroded on the steeper slopes.

Up until 1980, Yoyo and her husband would spend six months of every year with Edner and his wife during the coffee harvest. The Despinasses put a great deal of effort into improving their land: they established most of the coffee bushes currently growing on their land, they planted a wide variety of fruit trees, including a number of grafted specimens, and they established a large vegetable garden adjacent to the house. The Despinasse coffee plantation was virtually destroyed in 1954 by Hurricane Hazel, but the Despinasses were able to bring the plantation back to its previous production level by the mid-1960s.

Because of their very special relationship with the "Yoyo" Despinasses, Edner and Andrele are likely to inherit Mme. Yoyo's state lease upon her death and thus gain control of as much as 10 cx. Access to such leases is very difficult to obtain, since families rarely give up their lease rights. State land is particularly valued in Rossignol because most of it is located on fairly productive soils. Rossignol

farmers to whom we talked preferred state leases to private leases for two reasons: first, they are inheritable, and, second, the lessor has unlimited decision-making power over the use of state-lease lands.

Land Use:

Edner has planted trees only on his house site. However, this complex house garden is the most elaborate garden encountered and includes tomatoes, eggplant, mangoes, grafted citrus (two orange species, lemons, grapefruit) trees, local fruit species, bananas, and so forth. Edner cultivates primarily annuals (corn, beans, millet, and rice) on the sharecropped land. Madame Yoyo supplies the seed and receives an equal share of the harvest. Only coffee, fruit and timber trees, plantains, and yams are grown on the land that Edner manages.

§ Favori Teliska (Pied Nord, 44 years old)

Favori lives with his 37-year-old wife, their eight children, and Mrs. Favori's father in the community of Pied Nord, a collection of houses above Rossignol. Both Favori and his wife were born and raised in the Rossignol area. Favori's father-in-law is about 80 years old and no longer works any land. Favori is fairly well-off since he owns a cow, a horse, a donkey, and several goats. His relative wealth is also evident in that his house has a metal roof, a rare sight in this community located 12 km from the nearest road. Favori also does not participate in either an **eskwad** or an **atribisyon** nor does he sell his labor on a daily or contract basis. He does, however, have cash to purchase **eskwad**, **atribisyon**, and contract labor to work on his fields.

Landholdings:

Favori has access to six pieces of land, all but one of which are within an hour's walk of his house. He inherited the most distant parcel from his mother in 1976 and lets his sister (a co-heir), who resides in the area, farm his portion of the inheritance. Favori says that he has never farmed the parcel and receives nothing from his sister for the use of the land.

Except for the inherited parcel in Ste. Marie, Favori has only secondary access rights to the land that he farms. The house site and adjoining gardens (coffee and annuals) are rented from the state. This parcel is a portion of a larger state lease that was first taken out by his father-in-law's father. Favori has taken over the father-in-law's share of the lease since 1978. He pays 23 gourdes ($4.60) for an area he estimates at 1/4 cx. The entire state lease is estimated to be 1 cx and there are four co-heirs to the land.

Favori has access to two other pieces of state land through private subletting agreements. The two parcels are part of one state lease that has been divided informally over several generations. Favori pays one of the state leaseholders $10 per year on a four-year contract (for about 1/2 cx) and $19 per year on a six-year contract (for about 3/4 cx) to the other leaseholder. On the latter parcel, Favori rents the coffee

Figure A-3. FAVORI TELISKA: PARCEL PORTFOLIO

	1	2	3	4	5	6
Access Type	Rent	Rent	Informally Divided Inheritance	Manage	State Rent	Rent
Year of First Access	1976	1976	1976	1977	1978	1984
Location Name	Boukan	Boukan	Sen Mari	Mahotiere Pimon	Prenor	Prenor
Exploitation	-Direct -Sharecrop	-Direct -Sharecrop	-Usufruct	-Sharecrop	-Direct	-Direct
Land Use	Corn Congo peas	Corn Black beans Coffee	Not Visited	Coffee Corn	Residence Coffee Black beans Fruit	Coffee
Erosion Level	Moderate	Slight to Moderate	Not Visited	Slight to Moderate	Slight to Moderate	Slight
Soil	Gra	Gra	Not Visited	Gra/Meg	Meg	Meg
Planted Trees	No	No	Not Visited	No	Yes	No
Time From House	60 minutes	60 minutes	4 hours	60 minutes	0	30 minutes

as well as the land. The two co-holders of the state lease are cousins and live in Bois Delai, a small community about 1.5 hours' walk down the mountain. Favori has receipts ("bay a fem") for both parcels.

Favori's fifth parcel is a coffee plantation which he rents from his wife's cousin. This parcel is also part of a larger state lease that has been informally divided over the years. Favori only rents the rights to the coffee on the land. A house has been built in one corner of the coffee plantation. Although Favori has the right to harvest the coffee surrounding the house plot, he does not have rights to the fruit and timber trees on the land. He also cannot tear up the coffee to start a corn or bean field.

Favori has access to a sixth parcel of land as manager of one of the CADA coffee plantations. The cooperative bought and surveyed this 3-cx parcel in 1976. Favori estimates that 1 cx has been planted in coffee and the remaining 2 cx are either cliffs or planted in corn and beans. Favori's management responsibilities include overseeing the weeding and harvest of the coffee. He also is charged with finding sharecroppers for the noncoffee portions and with the collection and transport of the harvest to Les Anglais. The cooperative pays for management expenses but does not provide a wage. Instead, Favori has been given the right to use 1/4 cx for his own use. He also has the right to cut branches and collect fallen fruit, although he cannot cut trees or collect fruit on the trees. To avoid conflicts with CADA, Favori has chosen to sharecrop out his 1/4 cx instead of farming it himself. He pays no production expenses and receives one-quarter of the harvest. Including the two sharecroppers on Favori's land, there are a total of five sharecroppers on this parcel.

Land Use

Favori farms only parts of the state lands he sublets directly. He sharecrops out about 1/8 cx of the smaller parcel to Ronald Exile, his cousin. Favori pays no cultivation expenses for that portion of the parcel and receives 2/5 of any "danrè" harvested. Another cousin also sharecrops about 1/8 cx of the larger parcel. Again, Favori does not pay cultivation expenses. He receives 1/4 of the harvest in a good year. If the land produces very little, the cousin does not give Favori anything. The three coffee trees located on the sharecropped portion are for Favori. Neither of the sharecropping agreements are documented. (Note that Favori has only recently begun sharecropping these out.)

All of Favori's land is located on limestone-derived soil and thus remains in reasonably good condition. He grows primarily annuals on the land that he sublets (excluding the rented coffee, where he has no choice in what he can grow on the land). He plants a much wider range of crops on the direct state lease (which appears to be treated as if it were private land), including vegetables, coffee, and timber trees.

§ Anastila John Louis (Piednor, 80+ years old)

Anastila grew up in Piednor, a small community just above Rossignol. Only two of her children survived infancy: one son lives with her

Figure A-4. ANASTILA JOHN LOUISE: PARCEL PORTFOLIO

	1
Access Type	State Rental
Year of First Access	1922
Location Name	Pyenor
Exploitation	-Direct -Sharecrop -Rent -Usufruct
Land Use	Residence Fruit Pasture Coffee Black beans Congo peas Yams Patate Corn Manioc Sorghum
Erosion Level	Slight to Moderate
Soil	Varies
Planted Trees	Yes
Time From House	0 - 15 minutes

and the other occupies another site on the same parcel of land. As the second oldest inhabitant in the Rossignol area, Anastelia is a respected member of the community. She is also respected for her work as a midwife. She did not claim to have any animals, although goats and sheep were observed grazing on the parcel. She herself owns only a **damio** (sickle) and a machete for working the land. However, this is to be expected since she works only a small portion of her parcel directly. Anastila does not sell labor but does buy **atribisyon** and **eskwad** labor.

Landholdings:

Anastelia is unusual in that all of her land is located in one large parcel which she rents directly from the state. She pays the state $40.00 per year for an area reported to measure 5 cx. The exact size of the parcel is unknown since it has never been surveyed. As with other **fèmye leta** in this area, she "inherited" her lease from her mother, who "inherited" from her husband's father, who first rented the land from the state. A conservative estimate would place the date of the initial rental at around 1867, a figure which appears consistent with other state leases in the area.

Land Use:

Anastila's land is located between 500 and 600 meters in elevation and exhibits signs of slight to moderate erosion. The parcel is divided into numerous subplots that include permanent pasture (ravine side surpassing 100 percent slope), temporary pasture, coffee land, and various annuals such as corn, millet, **patat**, yams, and manioc. Interspersed over this parcel are most of the fruit-tree species found in the area. Although only one of Anastila's sons actively farms the land (the other being a **komesan**, or trader), another relative rents two subplots for $6.00 per year and a cousin and some nephews sharecrop various subplots in exchange for 75 percent of the harvest. The cousin also has a residence on this parcel, but does not pay a fixed fee for the right to reside on the land.

Anastila was involved in a land dispute over her lease several years ago when a neighboring **fèmye leta** showed up with a paper that purportedly established rights to Anastila's land. The Contributions officer told Anastila to stay on the land. The claimant never brought suit before the court, so the problem has diminished. Anastila is currently in the process of trying to obtain private title to the land through the **grande prescription** laws. The initiative for this attempt originated with the then-current **Magistrate Communale** of Les Anglais, in April 1987, an individual who has helped state leaseholders in Les Anglais and Rossignol begin the titling process.

§ Excius Exile (Rossignol, 50 years old)

A native of Rossignol, Excius Exile lives with his 45-year-old wife and eight of their children. Four of his children attend school outside of Rossignol. With three grown sons still residing at home,

Figure A-5. EXCIUS EXILE: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9
Access Type	Pre-Inheritance	Pre-Inheritance	Pre-Inheritance	Pre-Inheritance	Pre-Inheritance	Pre-Inheritance	Pre-Inheritance	State Rent	Rent
Year of First Access	1957	1967	1972	1972	1972	1972	1972	1987	1987
Location Name	Rossignol	Rossignol	Rossignol	Rossignol	Rossignol	Rossignol	Rossignol	Prenor	Boukan
Exploitation	-Usufruct	-Direct	-Direct	-Direct	-Direct	-Usufruct	-Direct	-Sharecrop	-Direct
Land Use	Congo peas Sorghum	Residence Vegetables Fruit Congo peas Sorghum Corn Yams	Coffee Fruit Yams	Congo peas Corn	Yams Patate Fruit	Sorghum Patate Black beans	Corn Congo peas	Residence Fruit Congo peas Black beans Yams Sorghum	Black beans Corn Yams
Erosion Level	Moderate to Severe	Slight	Slight	Moderate to Severe	Slight to Moderate	Moderate	Moderate to Severe	Moderate to Severe	Moderate
Soil	Meg	Gra	Gra	Meg	Meg	Meg	Meg	Meg	Gra
Planted Trees	No	Yes	Yes	No	Yes	No	No	No	No
Time From House	20 minutes	0	20 minutes	20 minutes	20 minutes	10 minutes	20 minutes	40 minutes	1.5 hours

the household does not suffer from a shortage of available labor. Excius himself does not participate in any of the exchange labor groups in the community (**eskwad, atribisyon,** or **envitasyon**) and has enough capital to buy **eskwad, atribisyon,** and contract labor to work his land. Livestock raising is an important component of Excius's farm: he has both sheep and goats which he pastures on his own holdings. He also has a donkey which is used to transport agricultural products to neighboring village markets.

Mr. Excius differs from his fellow farmers in that a significant amount of his total income is derived from the sale of planks that he cuts in the pine forest above Rossignol. His tool collection reflects his work as a sawyer: aside from the ubiquitous machete, the only tools that he owns are a crosscut saw and an axe. For much of his working lifetime, lumbering provided a reasonably lucrative alternative to full-time farming. However, as saw timber has become harder to find, Excius has begun investing more time and effort in his agricultural activities. He is also beginning to feel pressure to acquire more land so that he can provide his children with a reasonable inheritance.

Landholdings:

Mr. Excius has access to nine parcels of land, all of which are within an hour's walk of his home. He has access to seven of these parcels under preinheritance rights from his father. The remaining two parcels are rented. Six of the preinheritance gardens are part of a 4-cx block of land purchased jointly by his mother and father when Excius was a boy. The other "preinheritance" parcel, where Excius has constructed his home, is part of a 1/2-carreaux block of land purchased by his parents. When Excius's mother died, his father gained full rights to both blocks of land. Although the father is still living, he is no longer active in farming and has granted his six children the right to farm the land.

Co-Heir Rights:

The four children still residing in the Rossignol area have divided the two "**eritaj**" more or less equally among themselves. Since land quality varies considerably on the two original blocks, each future co-heir has been allotted several scattered parcels rather than one large parcel. For example, Mr. Excius has one parcel in coffee adjacent to the Nan Cosse River, several parcels on the heavily eroded slopes above the river, and another parcel planted in coffee and fruit trees located on the first terrace above the Nan Cosse River. If one of the heirs does not exercise his right to farm his portions, the other heirs can use that land. In fact, two of the siblings reside in distant communities and let the other four children farm their shares. Although no formal use contract exists between the absentee and resident heirs, the resident heirs send a portion of the harvest to the absentee heirs in return for the use of the land.

Mr. Excius has access to two other pieces of land through rental agreements: he has recently taken over his father's share of a state-

land rental contract and he just signed a five-year private rental agreement for a parcel with soils suitable for raising black beans. The costs of renting these two pieces of land are relatively low: he pays 5 gourdes per year for his share of the state lease (estimated area of 1/3 carreaux) and 8 gourdes per year for the private rental (estimated area of 1/8 carreaux). The state lease is paid on a yearly basis, but he paid the 40 gourdes for the private land in advance. He obtained the money to rent the two pieces of land by selling boards from his workshop. As far as Excius is concerned, his access to the state-land lease is very secure. He indicated that he can do what he wishes on the land, including subletting to other parties. The state lease has been in family hands since his father's father began renting the land. Conservative estimates would place the date of acquisition at some time in the 1870s.

Land Use:

Excius farms only six of his parcels himself. The remaining parcels of land are given out to family members. The state-land parcel is sharecropped out to cousins who used to sharecrop from Excius's father. The cousins have constructed a house on this land, and it is unlikely that Excius will ever farm the land directly. Excius also gives his two older sons usufruct rights to two of his preinheritance parcels. These two parcels appear to be among his least fertile pieces of land and exhibit signs of moderate to severe erosion. His reason for not working these pieces of land himself is that his sons need some land to work. However, it is also likely that Excius prefers to invest his money and time in the more fertile piece of land that he has just started renting in Boukan.

Excius has planted trees on three of his parcels. One of these parcels is the house site, and the other two are both located on the preinheritance grant land from his father. All three parcels are characterized by slight to moderate erosion. One parcel is located in the Nan Cosse River drainage and supports coffee. In fact, Excius's reason for planting trees on that parcel was to provide shade so that he could expand the coffee plantation. Trees were planted on the house site to provide fruit for sale and home consumption. Excius also planted breadfruit trees and coffee on one parcel located about halfway up the slope between his house and the Nan Cosse River. Although "meg," the soil on this parcel is fertile enough to produce yams and sweet potatoes, unlike the remaining preheritage parcels which are moderately to severely eroded. Excius said that he is not interested in planting trees on those parcels because the soil is so poor that the trees are not likely to grow well.

§ Mr. Laience Brezeau (Morio, 48 years old)

Laience was born in Chardonnières but has been in Morio for over twenty years. He lives with his 38-year-old wife and their eight children. Laince appears to be better off than many of his neighbors in that he owns two cows, sheep, a horse, and a donkey, as well as a relatively wide array of farm implements--two hoes, two picks, a machete,

Figure A-6. LAINCE BREZEAU: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8 - 9
Access Type	Sharecrop	Purchase	Purchase	Sharecrop	Purchase	Sharecrop	Sharecrop	Informally Divided Inheritance
Year of First Access	1966	1967	1979	1979	1979	1980	1985	? ?
Location Name	Morio	Nan Don	Morio	Morio	Morio	Morio	Morio	Chardonnieres
Exploitation	-Direct	-Direct -Rent	-Direct -Rent	-Direct	-Direct	-Direct	-Direct	None
Land Use	Corn Black beans Manioc Pasture Fruit	Corn Coffee Black beans Malanga Fruit	Congo peas Manioc Coffee Fruit Pasture	Corn Congo peas Manioc Patate Coffee Fruit Pasture	Residence Corn Peanuts Sorghum Rice Congo peas Manioc Fruit Pasture	Congo peas Peanuts Vertiver Fruit Pasture	Sorghum Peanuts Fruit Manioc Pasture	??
Erosion Level	Slight	Slight	Slight	Slight	Moderate	Moderate	Moderate to Severe	??
Soil	Gra	Meg	Gra	Gra	Gra/Meg	Gra	Meg	??
Planted Trees	No	No	No	Yes	Yes	No	No	No
Time From House	20 minutes	30 minutes	15 minutes	15 minutes	0	5 minutes	0	4 hours

and four **damio** (sickles). Laince uses **eskwad** and **atribisyon** labor in addition to piecework labor (**anpeyan**). He himself works both an **eskwad** and an **atribisyon** but does not sell his labor on a daily or piecework basis.

Landholdings:

Laience has access to nine parcels of land, including two parcels of informally divided inherited land to which he does not exercise his use rights. His remaining land consists of four sharecropped parcels and three purchased parcels. Laience has access to 5.5 cx of land, not including the unused inherited land. He owns 3.04 cx, or 55.2 percent of his holdings outright. Of the three parcels he has purchased, only one has been surveyed. He has **deklarasyon notè** for the other two parcels. Laience's holdings are fairly unique in that they are relatively consolidated. Two of the seven parcels adjoin the land on which his house is located, and none of the parcels is more than a half-hour's walk from his home.

Land Use:

Laience has access rights to some inherited land but has chosen not to exercise those rights. These inherited parcels are relatively far away and both have multiple heirs. The practice of letting one's rights to distant inherited land lapse is common among the Les Anglais peasants.

Laience's case provides an example of how peasant farmers balance the need for money with the need for land. Laience began renting part of one of his purchased parcels in 1982 in order to obtain money to pay for his children's school fees. He rented the land to Jean St. Cyr, an employee of CADA residing in Les Anglais. Jean then sharecropped the land back to Laience, because he did not have enough time to farm the parcel. The arrangement is mutually beneficial: Jean has secured a source of agricultural commodities, without the need to invest a lot of time and money in cultivation, while Laience was able to pay the school fees and still retain access to his land.

The type of access Laience has to land appears to be related to specific kinds of land use. The sharecropped parcels are used primarily for growing annuals or for pasturage while large portions of the purchased parcels support coffee and fruit trees.

Laience is also actively trying to improve his land. His soil-conservation efforts are concentrated primarily on a parcel of land he purchased in 1979. The parcel is located in a small mountain valley and includes both eroded hillsides and some fairly level bottom land. Laience has planted fruit trees, coffee bushes, and some exotic fuel wood and timber species (Cassia siamea and Leuceana) on the land. In addition, he has built a small earthen dam to divert water into a system of irrigation canals which he constructed to irrigate the rice field in the bottom of the valley. He has also constructed a picket fence of pole wood across a ravine to trap eroding soil for his crops. In the

space of four months, this fence trapped 18 inches of soil and allowed Laience to plant bananas in the ravine bottom. The topography of the parcel is such that a fairly large percentage of the surface can be irrigated. In a preliminary visit, Laience stated that he bought this parcel with the idea of making such improvements. Land prices for irrigated plains land were too high, and the purchase of this plot has enabled him to obtain some irrigated land at a very low price. His efforts to improve the land have been greatly aided by his close connections with an **animateur** and an engineer working with the local coffee cooperative.

§ **Toli Méance (Mahotière, 41 years old)**

Although born in Les Anglais, Toli grew up in Mahotière. His 36-year-old wife is from Mahotière, and they have two children. He owns a pick and a machete. He also owns a bull as well as a donkey, a sign of relative wealth since a bull costs $120 to $200 and a donkey over $100. Although Toli does not sell his labor, he buys all types of labor except **jouné**.

Landholdings:

Toli's holdings consist of eight parcels, including three rented parcels, a preinheritance grant, an inherited parcel, a managed parcel, and use rights to the **lakou**. Toli has access to at least 1.1 cx (measured by the researchers) plus an estimated additional 1/2-3/4 cx which was not measured. Although all of his parcels are within an hour's walk, they are scattered widely over Mahotière as well as one on the other side of the Les Anglais River. Parcel elevations range from 250 to 500 meters.

Toli's house site is a preinheritance grant from his wife's mother. The ground on which the house is located is predominately exposed bedrock. There is no house garden. Toli has access to an undivided family parcel inherited from his father, but the rights to it are being contested by both sides of the family. Rather than dividing the land informally, Toli and his five siblings rotate use rights to their portion (1/6) of this parcel, which is all in coffee. The parcel was originally rented out in 1968 to pay for one of Toli's sisters funeral. Currently, Toli and one brother rent the parcel out. When the current three-year contract is over, the other siblings will take their turn.

Since 1977, Toli has worked a plot on his mother's land under usufruct rights. Furthermore, Toli rents three parcels, one of which is predominantly coffee. The contracts are long-term, one each for five, six, and seven years. Longer-term contracts such as these are the norm rather than the exception in the Les Anglais watershed. Toli has rights to a share of the fruit on the parcel.

Toli manages a parcel of land planted with coffee and annuals for a resident of Les Anglais. In return for supervising the parcel, Toli receives 1/2-3/4 sack of coffee, a share of the annuals, and rights to fruit. Toli has not planted trees on any of his parcels.

Figure A-7. TOLI MEANCE: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8
Access Type	Undivided Inheritance#	Usufruct	Rent	Manage	Rent	Pre-Inheritance (Spouse)	Rent	Sharecrop
Year of First Access	1968	1977	1978	1981	1984	1987	1987	
Location Name	Ti Place	Mousombe	Non Corpe	Mahotiere	Mousombe	Mahotiere	Mousombe	Gerampi
Exploitation	-Rent	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct
Land Use	Coffee Fruit	Corn Sorghum	Corn Congo peas Patate Manioc Fruit	Corn Congo peas Black beans Patate Manioc Coffee Fruit Pasture	Congo peas Black beans Patate Manioc Fruit	Residence	Coffee Fruit Corn Black beans Patate Manioc	Corn Congo peas Patate Manioc Fruit Yams
Erosion Level	Not Visited	Moderate	Moderate to Severe	Moderate	Moderate	Moderate	Moderate	Slight
Soil	Not Visited	Meg	Meg	Gra	Meg	Meg	Gra	Gra
Planted Trees	No	No	No	No	No	No	No	No
Time From House	1.5 hours	40 minutes	60 minutes	15 minutes	60 minutes	0	60 minutes	60 minutes

Note: # Rotating use.

§ Madame Elie Pagé (Mahotière, 73 years old)

Elie has lived in Mahotière for her entire life and now resides with her brother, her 40-year-old son and his wife, and ten grandchildren. Elie owns a hoe, a pick, and a machete. She also has both sheep and goats which are pastured on her parcels in the area. Elie participates in **envitasyon** and **atribisyon.** She utilizes family, **atribisyon, eskwad,** and **anpeyan** labor to work her parcels throughout the agricultural year.

Landholdings:

Elie has access to ten parcels: eight inherited parcels, one rented parcel, and one sharecropped parcel. The land she inherited from her mother is part of the Val family block, estimated to be 54 cx. The portions Elie controls are informally divided and were originally bought by her great-grandfather. Parts of these parcels are given in usufruct to her son, André. Elie also rents a coffee plantation from an aunt and began sharecropping another parcel capable of producing black beans and corn from her cousin in 1983. Elie began sharecropping this last parcel because she felt she needed more land, and this piece was the only one available.

The members of the Page **menaj** also have access to several parcels through Elie's son and her daughter-in-law. Her son sharecrops two parcels in the area while his wife has access to four parcels. She works only one of the four parcels directly and rents out the other three because they are too far away.

Land Use:

Most of Elie's land has been affected by accelerated erosion, reflecting the generally poor state of most of the land in the immediate area of Mahotière. Elie planted trees on two parcels, both of which were inherited from her mother and which she has worked on the longest. All four parcels are informally divided land inherited from her father. Except for the house site, the parcels inherited from Elie's father are located some distance away but within the watershed. Elie does not work either of these parcels herself. One is given to family in usufruct while the other is rented and sharecropped to nonfamily members.

§ Karonel Lubin (Mahotière, 30 years old)

Karonel lives with his 25-year-old wife and their two infant daughters. Although they share living quarters with his wife's two brothers and their children, the family functions as a separate household. Karonel has been in Mahotière for only five years. However, he was born and raised in Morio, a small mountain community about an hour's walk away. Ties between the two communities are strong and many of the residents of Mahotière have land in the Morio Valley.

Despite his young age, Karonel has all the earmarks of a successful farmer. He owns all the tools commonly used in mountain agriculture in

Figure A-8. ELIE PAGE: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9	10
Access Type	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Rent	Sharecrop
Year of First Access	1930	1940	1940	1942	1942	1942	1962	1962	1973	1983
Location Name	Mahotiere	Mousombe	Mousombe	Mahotiere	Mousombe	Bwa Cochon	La Chen	Bero	Mousombe	Mahotiere
Exploitation	-Direct	-Direct -Usufruct	-Direct	-Direct	-Usufruct	-Direct	-Usufruct	-Rent	-Direct	-Direct
Land Use	Residence Fruit	Congo beans Patate Manioc Fruit	Peanuts Congo peas Manioc Patate Pasture	Corn Congo peas Black beans Yams Patate Manioc Pasture	Congo peas Peanuts Patate Manioc Pasture	Pasture	Fruit	Fruit	Coffee Fruit	Corn Black beans Rice Patate
Erosion Level	Moderate	Slight to Moderate	Slight to Moderate	Moderate to Severe	Moderate	Severe	Not Visited	Not Visited	Slight	Moderate
Soil	Meg	Gra/Meg	Meg	Gra	Meg	Meg	Not Visited	Not Visited	Meg	Meg
Planted Trees	No	Yes	No	Yes	No	No	Not Visited	Not Visited	No	No
Time From House	0	30 minutes	40 minutes	15 minutes	40 minutes	15 minutes	4 hours	4 hours	20 minutes	10 minutes

the Les Anglais watershed (machete, pick axe, hoe and sickle) and he owns goats, sheep, and a plow ox. He was able to purchase an irrigated plot at the age of 24 with the proceeds from the sale of a cow. Karonel both buys and sells labor. He is a member of both an **eskwad** and an **atribisyon** labor group.

Landholdings:

Karonel's case illustrates the wide variety of arrangements under which individual farmers acquire access to land. He uses nine parcels of land under seven different access categories: he has usufruct rights to two pieces of land, rents in two parcels, sharecrops in one parcel, manages two parcels, has preinheritance rights to another parcel, and has purchased one parcel. As with most of the study informants, Karonel's parcels tend to be small and are scattered over a variety of ecological zones. The parcels also vary considerably in quality, with some being virtual wasteland and others covered with a dense growth of coffee and fruit trees.

Karonel's case provides an example of land use of large tracts of absentee-owned land. According to local sources, the owner of a 50-cx. parcel of land located on the mountain chain that stretches between Lozye and Morio moved to New York in the late 1960s. The owner was interested only in the income that he could get from the sale of coffee, so he engaged a manager to supervise coffee production on the land. The manager, who resides in a town several miles away, has been given the right to sharecrop out the noncoffee sections for his own benefit. In addition, the manager also permits people to graze their animals on those portions of the land in fallow. Karonel and his neighbors speak of their right to use the land for grazing as a "**cadeau**," or gift. Karonel has grazed his animals there for over twenty years. In addition, he has grown peanuts, millet, and **pois kongo** on the land under a sharecropping arrangement with the manager since 1977. According to Karonel, the land was much more productive when he was a boy. At that time, sharecroppers could grow corn and beans whereas now it barely supports peanuts and millet. The area in coffee has also decreased over time, so that only a few ravines still support coffee and fruit trees.

Karonel's case also indicates the different methods that peasants use to gain access to land as they accumulate capital. Karonel's first access to land (other than his parent's land) was the "gift" pasturage in Machouket. This arrangement provided Karonel with access to productive resources without requiring any capital outlay up-front. Next, he began sharecropping on the same block of land. Sharecropping is another option open to a young farmer with no land and little capital. At about the same time, he also became a manager of a coffee plantation just above Mahotière. The landowner pays for all coffee cultivation and harvest expenses, and Karonel supervises the laborers. In return for managing the coffee plantation, Karonel is entitled to half the coffee harvest as well as half of the staples that he grows on the portion of the plot not in coffee (roughly 10 percent of the area). He also has rights to collect fruit and cut timber on the land. Karonel's management position thus provides him access to land while minimizing

Figure A-9. KARONEL LUBIN: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9
Access Type	Usufruct	Sharecrop	Manage	Rent	Pre-Inheritance	Purchase	Manage	Rent	Usufruct (Spouse)
Year of First Access	1969	1977	1977	1980	1981	1981	1984	1984	1986
Location Name	Machouket	Machouket	Gran Cafe	Kay Edward	Morio	Batet	Mousombe	Nan Don	Mahotiere
Exploitation	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct -Sharecrop	-Direct	-Direct	-Direct
Land Use	Pasture	Peanuts Sorghum Congo peas	Coffee Yam	Congo peas Black beans Sorghum Manioc	Coffee Fruit Congo peas Sorghum Corn	Rice Mazombel Corn	Coffee Fruit	Corn Black beans Manioc Congo peas	Residence Corn Manioc Congo peas
Erosion Level	Severe	Severe	Slight	Moderate	Slight to Moderate	None	Slight	Slight	Severe
Soil	Meg	Meg	Gra	Gra	Gra	Gra	Gra	Meg	Meg
Planted Trees	No	No	No	No	Yes	Yes	No	No	No
Time From House	60 minutes	60 minutes	10 minutes	60 minutes	60 minutes	2.5 hours	30 minutes	60 minutes	0

the need for capital. After acquiring the manager position, Karonel expanded his holdings by sharecropping in another piece of land on which he grows beans and corn. The following year, he rented this same piece of land rather than sharecropping it. Karonel employed a similar tactic in 1984, when he sharecropped another piece of land and then began renting it the following year. After Karonel's father died in 1981, Karonel's mother purchased a piece of land that his father had managed prior to his death. She has given Karonel a preinheritance grant to part of that plot. That same year, Karonel purchased his first piece of land.

Looking at the evolution of Karonel's landholdings, we see a picture of a young farmer who starts farming on his own by taking in land under conditions for which relatively little cash outlay is required (sharecropping, managing, usufruct). As a member of an **eskwad** and **atribisyon**, he has access to exchange labor, thus further decreasing his need for capital outlays. He is clearly interested in securing his access to his holdings when possible: in two instances, he switched from sharecropping to long-term rental agreements, and he has already purchased one parcel of land. He also feels that if he is a good manager, it is likely that he may be able to purchase the lands that he presently manages.

Land Use:

Whereas most of the respondents with more than five parcels tend to give out land to others to work, Karonel presently farms all nine gardens himself. Until earlier this year, he sharecropped the purchased parcel in Betete, which is a good two hours' walk over steep terrain from his present house site. Even though the land is a very productive, irrigated plot, he felt the distance was too great for him adequately to supervise its irrigation. He did not renew the sharecropping arrangement this year since he plans to move to Betete later this year.

Karonel has planted trees only on the two parcels of land where his access is most secure (his purchased land and his preinheritance plot). His least secure parcels (usufruct via nonfamily member and sharecropped) are either in pasturage or in annuals. His rental land is also in annuals, as is the usufruct plot acquired via his wife.

§ Yvalon Raphael (Bazin, 80+ years old)

Yvalon Raphael lives with his wife, daughter, and son-in-law. Yvalon does not participate in any labor groups, nor does he sell his labor on a daily or piecework basis. He buys both **eskwad** and **atribisyon** labor to work his fields, but also relies heavily on his children and grandchildren. He owns a horse, a steer, sheep, and goats. He is the oldest living member of the Raphael family, one of the oldest families in Les Anglais. The original Raphael had purchased large amounts of land in the foothills of Mahotière. Descendants of Raphael still farm the land, much of which has never been divided formally among the heirs. The Raphael heritage encompasses some of the most severely eroded land in the watershed as well as some of the more fertile coffee lands.

Figure A-10. YVALON RAPHAEL PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8
Access Type	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Rental	Purchase
Year of First Access	1927	1927	1927	1946	1946	1954	1980	1984
Location Name	Manotiere	Mousombe	Morio	Nan Leta	Bonami Jeune	Bazin	Kampeche	Kampeche
Exploitation	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct	-Direct -Usufruct -Sharecrop
Land Use	Residence Pasture Sorghum Congo peas Manioc Wasteland	Coffee Yams Congo peas Black Beans Corn Wasteland	Corn Manioc Coffee Cocoa Fruit	Coffee Manioc Black beans Congo peas Fruit	Coffee Fruit Black Beans Yams Corn	Residence Coffee Fruit Manioc Yams	Pasture Congo peas Sorghum	Sorghum Congo peas Manioc
Erosion Level	Severe	Moderate	Slight	Slight	Slight	Slight	Moderate	Slight to Moderate
Soil	Meg	Gra/Meg	Gra	Gra	Gra	Gra	Meg	Meg
Planted Trees	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Time From House	10 minutes	60 minutes	2 hours	30 minutes	30 minutes	0	20 minutes	30 minutes

Landholdings:

Yvalon has access to eight parcels of land, consisting of six inherited parcels, one rented parcel, and one purchased parcel. His case illustrates the complexities of family-land tenure. As indicated in the land-access diagram, six of Yvalon's parcels are held through inheritance rights. Three parcels were obtained through Yvalon's parents and three were obtained through his wife's mother. Although all six parcels remain in some form of indivision, the number of generations during which these parcels have remained undivided varies from one to three generations.

Family Lands in Mahotière and Moussombe:

Yvalon and his brothers and sisters have inherited rights to two parcels of land through his father, Austere. The Mahotière parcel was part of a 12.25-cx block and the Moussombe parcel is part of a 9.5-cx block of land. Both parcels were purchased by Yvalon's great-grandfather, who passed it on to his two sons. Austere and his siblings thus acquired rights to 6 cx in Mahotière and about 5 cx in Moussombe. Although Yvalon was unable to provide us with the exact number of people with rights to use the land, some rough calculations, using Austere's offspring alone, indicate that more than 50 people either own or have use rights to the land. Austere had 7 heirs, of whom 5 are still living. These children had 38 children, 37 of whom are still living and 32 of whom still reside in Mahotière. An unknown number of grandchildren also have rights to use the land.

The co-heirs have divided the two parcels among themselves, so that each co-heir has access to his own gardens. In Yvalon's case, he has not subdivided his portion into preinheritance parcels for his children. Instead, he and his children and grandchildren work the land together and divide the produce equally. All co-heirs and their offspring have rights to graze their animals on any area not under cultivation. In addition, if a portion of land is not being used, the other co-heirs have the right to cultivate that area. At the present time, three of Yvalon's sisters and three of their children live on the Mahotière parcel. Three of his cousins have constructed homes on the Moussombe parcel. However, if one of the other co-heirs or their children should decide to re-establish themselves in Mahotière, they would have the right to construct a house on an uncultivated portion of the land.

Use of these pieces of land is thus a mixture of individual and collective use. Pasturage rights are collective in the sense that co-heirs and their offspring have the right to graze their animals on any uncultivated (including short-term fallow) portions of the land. Rights to fruit and timber are also collectively held. Thus, each co-heir has the right to harvest fruit from trees on the parcel. However, if a person plants a fruit tree, other heirs must ask permission to collect the fruit. Heirs also have a right to cut timber; however, if they cut a tree, they are supposed to divide the wood with the other co-heirs.

Among the first-generation siblings, gardens are worked separately, with each sibling responsible for production expenses and with each

sibling entitled to the produce from his or her gardens. However, Yvalon farms his portion jointly with his children and grandchildren. Crops such as corn, millet, and coffee are divided equally among the users at the end of each day during the harvest season. Small quantities of yams, manioc, and fruit are sometimes collected on an individual basis, but if large quantities are collected, the harvest is split equally among the land users.

Partially Divided Lands: Nan Leta and Bonamijeune

Yvalon has access to two pieces of family land which have been partially divided through the formal process of survey and registration. Both parcels were purchased by his wife's maternal grandfather and remained undivided through the following generation. About fifteen years ago, the descendants of Mme. Yvalon's brother and sister decided to sell their portion of the land rather than divide it up any further. Thus, the portions belonging to her aunt and uncle were surveyed and formally divided. However, the portion inherited by Mme. Yvalon's mother remained undivided and is owned jointly by Mme. Yvalon and her sister. The two sisters work their shares of the inheritance separately. However, the Yvalon children and grandchildren farm Mme. Yvalon's portion jointly. Mme. Yvalon indicated that the high cost of surveying the land has prevented her from dividing up the inheritance any further. However, they plan to survey the parcel on which their residence is located after the upcoming coffee harvest.

Land Use:

Yvalon has planted trees on nearly all of his land. This is not surprising given that he has had access to all but two of the parcels for more than thirty years. He is also the **responsable** of the undivided land for his father's and mother's descendants and, as such, exercises a good deal of control over agricultural decision-making for those lands.

It is interesting to note the difference in land use on the two parcels that he has recently acquired: on the purchased piece of land, he has planted trees along the border; he has made no improvements on the rented parcel, which is used primarily for pasturage. It is also important to note that the two parcels inherited by his wife, which were recently divided, are among his most productive parcels. The two inherited parcels in Mahotière and Moussombe, which have remained in indivision for three generations, are almost completely exhausted. Environmental conditions undoubtedly play a role in this, as these lands are also mostly situated on easily eroded basaltic soils. The portions situated on limestone-derived soils are still in good enough condition to support a dense growth of coffee.

§ Odias Thelemarque (Boko, 45 years old)

Odias is a native of Boko and resides just outside the community limits with his wife and five children. He is a houngan (voudou priest) and is reportedly quite prosperous. Odias owns a variety of

Figure A-11. ODIAS THELEMARQUE: PARCEL PORTFOLIO

	1	2	3	4	5	6	7
Access Type	Informally Divided Inheritance	Informally Divided Inheritance*	Informally Divided Inheritance	Purchase	Informally Divided Inheritance	Purchase	Purchase
Year of First Access	1957	1967	1968	1968	1968	1984	1984
Location Name	Boko	Nan Leta	Bacilie	Te Roui	Port Salut	Nan Leta	Boko
Exploitation	-Direct	-Sharecrop	-Manage	-Direct	-Usufruct	-Direct	-Direct
Land Use	Residence Corn Rice Black beans Fruit	Coffee Fruit Congo peas	Coffee Fruit	Coffee Black beans Corn Yams	Not Visited	Coffee Yams Fruit	Black beans Fruit
Erosion Level	None	Slight	Not Visited	Slight	Not Visited	Slight	None
Soil	Gra	Gra	Not Visited	Gra	Not Visited	Gra	Gra
Planted Trees	Yes	No	No	No	No	No	No
Time From House	0	40 minutes	2.5 hours	30 minutes	6 hours	30 minutes	2 minutes

Note: * Through spouse.

livestock, including a steer, a horse, a donkey, and a number of sheep and goats. He does not sell his labor, but purchases agricultural labor in all the common forms to work his land.

Landholdings:

Odias Thelemarque differs from most of the respondents in that he owns all seven of the pieces of land under his control. Four of the parcels were inherited by either Odias (three) or his wife (one) and three were purchased, two of them recently. One of the purchased parcels has an up-to-date title; the other two have been registered with the notary in Les Anglais. All four inherited parcels have been informally divided among the co-heirs (**chak moun kenbe posyon pa-l**). Odias would prefer to have the inherited parcel which contains his house and most productive irrigated land surveyed, but is afraid that the survey may show that he has rights to less land than he currently farms.

Land Use:

At the present time, Odias works only four of the parcels directly. The parcels he works himself have two characteristics in common: they are all within a half-hour's walk from his residence, and they are his most "secure" holdings. The four parcels are also very productive: two are located on the irrigated plains, and two are located in a well-watered ravine known locally as a prime coffee-producing area.

Of the three parcels that Odias does not work directly, two are located more than three hours' walk from his residence. The parcel inherited from his mother is located in the Port Salut region and thus is effectively inaccessible from Boko. Odias has not made any attempt to exercise his right to this piece of land and does not receive any compensation from the relatives who farm the land. However, he indicated that he is not interested in selling the land (or his right to the land) because he may need to use it some day. Another of the inherited parcels is in Bacilier, a coffee-growing community in the Massif de la Hotte. Because of the difficulty of transporting coffee out of the area, Odias turned the parcel over to a cousin to manage. In return for supervising coffee production on this land, the cousin receives three-quarters of the coffee harvest as well as the right to grow crops on the areas not in coffee. An unfixed portion of the annuals and fruits produced on the parcel are set aside for Odias, who does not pay any production expenses.

Since 1985, Odias has also sharecropped out a parcel of coffee land that his wife inherited from her father. His wife's brother sharecrops the land. The brother pays all production expenses and receives three-quarters of all produce, including coffee. According to Odias, he has sharecropped the land out to his wife's brother because the brother did not have sufficient land. However, it is interesting to note that Odias quit working that parcel shortly after he had purchased another coffee plantation in the area. It is thus likely that he prefers to invest his time and money in the purchased piece of land rather than into a piece of land to which he has rights only through his wife.

§ Arnold Val (Lozye, 51 years old)

Like his neighbor, Odias, Arnold appears to be a relatively prosperous peasant. He sends his children to school, owns his own tools (machete, pickax, and hoe), and has a donkey and a plow ox in addition to his sheep and goats. Mme. Val buys and sells agricultural and dry goods at most of the markets in the watershed. Mr. Val also receives a salary from the Public Health Department for his work as an ajan santee (health officer)

Landholdings:

Arnold has access to thirteen parcels of land, mostly through inheritance rights. He has eleven parcels of inherited land, one rented parcel, and one sharecropped parcel. Like Yvalon, most of Arnold's holdings consist of undivided family lands. Much of his land was originally purchased as a 50-cx block by his great-grandfather, Val. Val's descendants continue to farm the land, most of which has never been formally divided. Arnold's portions of the "eritaj" include both very badly eroded hillsides and very productive coffee thickets in the Nan Leta and Moussombe ravines.

Informal Division:

On several of Arnold's "tè eritaj," the co-heirs have informally divided the land and farm their portions on an individual basis. Pasturage rights and rights to collect fruit are held collectively. Absent co-heirs retain their rights to the land, including the right to re-establish a home on the land if they return.

Undivided Lands:

Arnold farms several parcels of inherited land on a joint basis with his brother (Bon Bras, Moussombe). Both the Bon Bras and the Moussombe parcels are jointly owned by Arnold, his brother, and their three sisters. None of the sisters is currently exercising her right to use the land. Instead of splitting each of the parcels into two separate portions, the Val brothers share cultivation expenses and split the harvest equally. Although the sisters do not share in the harvest of cereals and coffee, Arnold and Joseph generally send them a portion of the plantains and other fruits collected from the parcels. Collective use of the Bon Bras parcel is likely a function of its small arable area. The parcel is very badly eroded, and only a few spots have enough soil left to support the millet and peanuts typically grown in degraded soils. By farming the parcel together, the Val brothers are able to make more efficient use of their time. The Moussombe parcel, on the other hand, supports a very dense growth of coffee, fruit trees, timber trees, and yams. The parcel is too shady to support annual crops. In fact, Arnold is thinking of cutting a few of the larger mango trees to increase the sunlight available to the coffee plants.

The Val case also provides other examples of shared land use. On one of the parcels in Mahotière, the three sisters and two brothers

Figure A-12. ARNOLD VAL: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9	10
Access Type	Undivided Inheritance*	Undivided Inheritance+	Informally Divided Inheritance	Undivided Inheritance*	Undivided Inheritance#	Informally Divided Inheritance	Undivided Inheritance*	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance
Year of First Access	1952	1952	1952	1952	1955	1955	1976	1976	1976	1981
Location Name	Bon Bras	Mahotiere	Mahotiere	Mousombe	Nan Roche	Boko	Boko	Boko	Mahotiere	Resolue
Exploitation	-Direct -Rent	-Direct	-Direct	-Direct	-Direct -Rent	-Direct	-Direct	-Direct	-Direct	-Usufruct
Land Use	Peanuts Sorghum Wasteland	Residence Congo peas Corn Coffee Wasteland	Coffee Black beans Corn Congo peas Cocoa	Coffee Fruit	Coffee Fruit	Residence Corn Black beans Fruit	Residence Vegetables Fruit	Peanuts Sorghum Yams	Coffee Fruit Manioc Congo peas	Coffee Fruit
Erosion Level	Severe	Severe	Slight to Moderate	Slight	Slight	None	None	None; Plain Severe: Mtn	Slight	Not Visited
Soil	Meg	Meg	Gra	Gra	Gra	Meg	Meg	Gra/Meg	Gra	Not Visited
Planted Trees	Yes	No	Yes	Yes	No	No	Yes	No	No	No
Time From House	20 minutes	20 minutes	30 minutes	60 minutes	45 minutes	7 minutes	0	5 minutes	40 minutes	4 hours

	11	12	13
Access Type	Sharecrop	Rent	Undivided Inheritance*
Year of First Access	1981	1984	1985
Location Name	Boko	Nan Leta	Bonami Jeune
Exploitation	-Direct	+Direct	-Rent out
Land Use	Coffee Fruit	Coffee Fruit	Coffee Fruit
Erosion Level	Slight	Slight	Slight
Soil	Gra	Gra	Gra
Planted Trees	No	No	No
Time From House	3 minutes	30 minutes	60 minutes

Note: * = collectively farmed; + = parts farmed individually and collectively;
= rotating use.

share the expenses for cultivating the small portion in coffee. The coffee harvest is also shared equally. The rest of the parcel is split among the individual co-heirs. Two of Arnold's sisters reside on the parcel and grow annuals and fruit trees near their homes. However, except for the small portion in coffee, the rest of the parcel is wasteland. Again, the collective use of the portion planted in coffee is the only way the Vals can efficiently utilize that land.

In addition to working some of their parcels together, the Vals also rent out two parcels on a joint basis. The Bonamijeune parcel was inherited through Arnold's mother. She had been renting the parcel to her cousins prior to her death, and the Val children have continued renting it. The cousin has constructed a residence on the parcel and it is unlikely that the Val children will stop renting the parcel to her in the foreseeable future. The Nan Roche parcel belonged to the Vals' aunt who died childless. The Vals and their cousins thus inherited the land through their parents. Arnold worked the land under usufruct rights until his aunt's death in 1981. In 1981, the cousins rented out the parcel in order to get money to help pay for their aunt's funeral. In 1985, when the lease was up, Arnold and his siblings took back possession of the land. They rented it out jointly in order to obtain money to pay for one of the sisters' medical bills. According to Arnold, when the lease is up, another set of cousins will take possession of the land.

Tree Tenure:

Arnold's case also illustrates the distinction between land and tree tenure. His wife's family has a piece of undivided family land near Boko which is planted in coffee. However, the parcel is too small to support the number of heirs with use rights. Consequently, they decided to rent the parcel out and split the proceeds. Arnold's wife's niece signed a ten-year lease agreement for the land in 1981 (note that she has **droits et prétensions** to the land herself). However, she moved to Tiburon shortly after renting the land and thus cannot farm it directly. She has sharecropped the coffee out to Arnold, who receives one portion in every three. Arnold stressed that he sharecrops only the coffee and thus has no rights to any of the other fruit trees. He also does not have rights to cut any of the timber species on the parcel.

Land Use:

Arnold is convinced that planting trees is the best way to keep soil from eroding away. He also feels that degraded soils can be improved by planting trees. **"Tè son bagay pè en fils, li kapab gate men li pas konn perdi"** (Land is like the relationship between father and son: it can be spoiled but it can't be lost). Arnold has, in fact, put his beliefs into action. Much of his inherited land had been planted in coffee. In 1954, when Arnold was just beginning to farm on his own, Hurricane Hazel devastated his family's coffee holdings. Instead of replanting the coffee, many of Arnold's relatives shifted into food crops. Without an adequate vegetation cover, the basalt soils quickly eroded. Land that used to produce rice, **malanga**, and coffee has become virtual wasteland, so that even goats cannot be raised on the land.

After watching his **heritage** quite literally flow away, Arnold has decided to try to do something to improve his land. During the last five years, he has tried to see if he can regenerate one wasted parcel. Starting from a small portion of one of the badly eroded parcels in Mahotière that was already in coffee, Arnold planted bananas and shade trees adjacent to the existing coffee. When enough shade was available, he transplanted coffee and cacao seedlings, which have grown into bushes. Erosion levels on Arnold's regenerated parcel are visibly lower than those on the neighboring parcel, which is planted in millet.

Arnold has also made attempts to establish trees on one hillside in the badly eroded Bon Bras parcel. Three years ago, he planted thirty trees in a field he generally plants with millet and **pois kongo**. He says that UNICORS gave the trees out too late so that most of them died from lack of rain. Only three of the thirty trees survived. However, Arnold continues to be interested in planting trees on this piece of land. When asked if he would be interested in dividing the family land formally, he said that the family would be better off investing money in recovering the land rather than spending money to partition the land.

The type of access Arnold has to land does appear to be a factor in whether he plants trees or not. He has planted trees on four parcels: two parcels (Bon Bras and Moussombe) are inherited parcels that he works only with his brother. Relations between the two brothers appear to be good. The parcel in Boko, which was inherited by his wife, is primarily a house site with an adjoining household garden. The fourth parcel, in Mahotière, is undivided family land which Arnold works alone. In contrast, Arnold has not planted trees on any of the land which he gives out to others to work. He also has not planted trees on the land that he rents and sharecrops in nor on land to which he has access through his wife (except the house site). He also has not planted trees on his inherited parcel in Boko. This parcel is irrigated and Arnold believes that trees would provide too much shade and decrease his corn and bean yields.

§ Mr. Dorilas Simon [Lalée (Les Anglais plain), 61 years old]

Dorilas was born in Les Anglais and grew up in Lalée, a small community on the Les Anglais floodplain. His wife is a 56-year-old native of the area, and they have three children still living at home. He owns a pick, a hoe, and a machete. Dorilas also owns a horse and some sheep which he pastures on his land in the area. Dorilas participates in an **atribisyon**, but buys **eskwad** and **anpeyan** labor.

Landholdings:

Dorilas has access to five parcels: three inherited parcels, one preinheritance grant, and one sharecropped parcel. Considering his age, Dorilas has access to the least amount of land of all the respondents. Informants in the town of Les Anglais indicated that Dorilas is one of the poorer farmers in the Lalée area. He has access to most of his land through inheritance or preinheritance rights. Of the inherited parcels, however, Dorilas works only the house site himself. The house

Figure A-13. DORILAS SIMON: PARCEL PORTFOLIO

	1	2	3	4	5
Access Type	Informally Divided Inheritance	Informally Divided Inheritance	Informally Divided Inheritance	Pre-Inheritance (Spouse)	Sharecrop
Year of First Access	1961	1963	1963	1964	1987
Location Name	Lalee	Mousombe	Port Salut	Ti Kay	Ti Kay
Exploitation	-Rent	-Sharecrop	-None	-Direct	-Direct
Land Use	Black beans Corn Pasture Fruit	Corn Congo peas Patate Manioc Fruit	??	Residence Rice Corn Pasture Fruit	Rice Fruit Pasture
Erosion Level	None	Slight to Moderate	??	None	None
Soil	Meg	Gra	??	Meg	Meg
Planted Trees	Yes	No	No	No	No
Time From House	4 minutes	1.5 hours	6 hours	2 minutes	2 minutes

site belongs to his mother-in-law, but will be passed on to Dorilas's wife since she is an only child. A very small garden is included with the house site. In 1963, Dorilas inherited a parcel of land in the mountain community of Moussombe from his father. His father had sharecropped the land to another co-heir, and Dorilas has continued the same arrangement. He receives one-third of the harvest and retains rights to the fruit and timber.

Another parcel, inherited from his mother, is located in Port Salut. Dorilas has never seen the land and receives nothing from his cousins who work the land. The last parcel he owns is also part of his father's inheritance. He has rented it out since 1982 in order to obtain money to pay for medical care for one of his children. The initial rental contract was for $60 for five years and has just been renewed for $117 for nine years. The land is very productive, irrigated plains land. The land contains a number of different species of fruit trees and also has open areas for cultivating beans and corn. The need for cash forced Dorilas to rent out his most productive piece of land. To replace that land, he began sharecropping a parcel not far from his house this year. He receives no help with inputs from the owner and retains 75 percent of the harvest.

Looking at Dorilas's holdings, it would appear that his father must have been land poor as he left his son only two small parcels, one of which was sharecropped out to another family member. Since Dorilas's mother immigrated to Les Anglais from the Port Salut area, he is not able to take advantage of the land that belonged to her.

Land Use:

As might be expected, Dorilas has planted trees only on those parcels of land for which his rights are not in question. He has not planted trees on either of the inherited parcels that he has never worked. He uses fertilizer to improve yields on the house garden and the piece of land that he sharecrops. He is able to obtain fertilizer at a subsidized price due to his membership in the USAID-funded project designed to increase agricultural productivity on the Les Anglais plain.

§ Mr. Iverdieu Vauté [Betet (Les Anglais plain), 45 years old] and René Roblin (23 years old)

Iverdieu lives in Betet, a small community 1.5 km from Les Anglais, with his 30-year-old wife, two children, and a niece. His daughter and her husband (René Roblin), their two children, and the husband's brother also live in the house. Both wives do small-scale business. Iverdieu owns both cattle and sheep, while René owns sheep and goats. The animals are pastured on their land nearby. Both own a machete and a hoe, but René also owns a pick. Iverdieu does not sell his labor, and both Iverdieu and René buy only **eskwad** and **anpeyan** labor.

Landholdings:

Iverdieu has access to six parcels, including two managed plots, one sharecropped plot, two inherited plots, and a house compound to

Figure A-14. TWO HOUSEHOLD HOUSE ---- PARCEL PORTFOLIO

	IVERDIEU VAUTE						RENE ROBLIN		
	1	2	3	4	5	6	1a	2a	3a
Access Type	Formally Divided Inheritance	Informally Divided Inheritance	Manage	Manage	Sharecrop	Usufruct	Usufruct	Sharecrop	Rent
Year of First Access	1966	1966	1983	1983	1984	1984	1985	1985	1986
Location Name	Betet	Port Salut	Betet	Betet	Casse	Casse	Betet	Casse	Casse
Exploitation	-Direct -Rent -Usufruct	-Rent	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct
Land Use	Sorghum Corn Manioc Black beans Pasture Fruit	??	Corn Black beans Fruit	Corn Black beans Fruit	Rice Fruit	Residence Fruit Vegetables	Rice Corn Fruit	Rice Black beans Corn Fruit	Rice Tubers
Erosion Level	None up to Moderate	??	None	None	None	None	None	None	None
Soil	Gra/Meg	Gra	Gra	Gra	Gra	Gra	Gra	Gra	Gra
Planted Trees	Yes	No	No	No	No	No	No	No	No
Time From House	20 minutes	6 hours	20 minutes	20 minutes	1 minute	0	20 minutes	0	4 minutes

which he has use rights. Iverdieu manages two irrigated parcels planted in corn, beans, and perennials in return for the right to sharecrop a small portion of each plot and for rights to the fruit from the trees on the portions that he supervises. He receives three-quarters of the harvest under the sharecropping arrangement and pays for all cultivation expenses on the portion he farms. The owner pays cultivation expenses on the managed portions, and Iverdieu's role is to supervise the cultivation.

Iverdieu's son-in-law, René, lives in the same house but works several gardens on his own account. The degree to which produce and labor are shared between the two families is unclear. René has access to only three agricultural parcels, one of which is owned by Iverdieu. Iverdieu allows René to work a portion of that parcel without requiring any fixed payment. René also has a five-year rental contract on one parcel and sharecrops another. René's limited landholdings are in part a function of his youth. At 23, he has been farming on a full-time basis only since finishing school two years ago.

Iverdieu has been involved in two noteworthy land transactions. Until 1984, he rented a house in Les Anglais. In 1984, he decided to purchase a house site and arranged to build a house in Betete on land that he planned to buy. However, after the house had been completed, the owner decided not to sell. He allows Iverdieu to stay on the land without paying rent. There is only a very small garden on this plot (perhaps 400 sq. ft.). When Iverdieu moved to the site, fruit trees had already been planted around the house. He has planted a number of plantains since settling on the land.

The second interesting tenure note centers around a 1-cx piece of land that Iverdieu inherited from his father. Iverdieu was an only child and thus received the whole parcel. However, an uncle contested these rights. To document his claim, Iverdieu had the land surveyed. He paid for the survey by selling off half the parcel. He stated that he preferred to have a smaller piece of land that was more secure than the larger piece of land that was less secure. The conflict has disappeared since the completion of the survey. However, Iverdieu has not quite finished the land-registration process and lacks full title to the land.

René has also been involved in a land-market transaction. At about the time he finished school, he and his siblings sold off their claim to 1/4 cx of land in Roche-a-Bateau that had belonged to their mother. The eight co-heirs decided to sell the land because it was too small to be split among eight people.

Land Use:

One of Iverdieu's inherited parcels is in Port Salut, about 30 miles east of Les Anglais. Iverdieu has rented the land to a distant relation at $2 per year for the past seventeen years. Although the land is too far away for Iverdieu to work himself, he keeps it "just in case" he needs it in the future.

René has planted trees only on Iverdieu's parcel. Iverdieu has planted fruit and timber trees on the parcel he surveyed. In addition, he has planted bananas on one of the parcels he manages and on a parcel that he sharecrops. Both men use fertilizer on all of their parcels, although their use of pesticides is limited to only a few parcels.

§ Mr. Guilbert Villière (Les Anglais, 31 years old)

Guilbert was born just outside the town of Les Anglais, but has lived in town during most of the past thirteen years. He resides with his 30-year-old wife and three children. Unlike most of our respondents, Guilbert is not very active in agriculture. He spends about 30 percent of his time farming and relies heavily upon his tailoring skills and his wife's trading activities to make a living. He owns one machete as well as one donkey, which he uses to transport agricultural goods. Guilbert buys labor in all the forms common to the area but does not sell agricultural labor in any form.

Landholdings:

Guilbert has access to five parcels of land, consisting of one inter vivos gift, two rented parcels, and two preinheritance grants. Guilbert works only 0.9 cx of land, which represents the smallest holding for the four farmers whose entire landholdings were measured. As with the other respondents, the 0.9 cx is made up of several very small parcels to which Guilbert has access in a variety of ways. Of particular interest is the parcel his wife received as an inter vivos gift, or donation, from her father. Her father bought the land in 1974 but put his daughter's name on the receipt. The land has not been surveyed, but has been registered with the notary. The land has not been surveyed because it is part of a larger, undivided parcel. In order to have their parcel surveyed, the heirs to the larger parcel would have to arrange for the entire block to be surveyed. At the present time, the co-heirs are not interested in spending the money for such a survey. This parcel is located on the Les Anglais plain and is used exclusively to produce fruit. Although Guilbert works the parcel himself, he has also rented out two of the coconut trees at $2 per year for four years. Guilbert is very interested in holding onto this parcel as it is his only piece of irrigated plains land and is only a 15-minute walk from his home.

Guilbert's father-in-law has also granted his daughter preinheritance rights to the house site. The father-in-law has been renting the land from the state since he was a young man. Since 1978, Guilbert and his wife have been paying the state lease, although the lease is still in his wife's father's name. The Villières have applied for title to this state lot under the **grande prescription** rules, but the transfer is not yet complete.

Guilbert's other parcels are all located some distance away in the mountains west of Les Anglais. He and his father rent one parcel together, although they work their portions separately. They sharecropped

Figure A-15. GUILBERT VILLIERE: PARCEL PORTFOLIO

	Parcel 1	2	3	4	5
Access Type	Inter Vivos Gift (Spouse)	Rent	Rent	Pre-Inheritance	Pre-Inheritance (Spouse)
Year of First Access	1974	1975	1975	1976	1978
Location Name	L'Allee	La Perriere	Nan Aian	La Chen	Les Anglais
Exploitation	-Direct	-Direct	-Direct	-Direct	-Direct
Land Use	Fruit Yams Malanga Pasture	Corn Congo peas Black beans Manioc Fruit	Coffee Fruit	Corn Congo peas Manioc Sugar Cane Fruit Pasture	Residence
Erosion Level	None	Slight	Slight	Moderate	None
Soil	Gra	Gra	Gra	Gra	---
Planted Trees	No	No	No	No	---
Time From House	20 minutes	2 hours	2 hours	60 minutes	0

the land together from 1975 to 1984, but, when the owner needed money in 1984, they signed a three-year rental contract for which they paid $39 dollars. Although rental land is hard to find, Guilbert is thinking of not renewing the contract. The land is a 2.5 hours' walk from Les Anglais and the corn harvest has not been good enough to justify the effort of cultivating the land.

Guilbert also has access to some coffee land through a rental contract with his mother. Guilbert was careful to emphasize that he rents only the trees on the parcel and not the land itself. On the surface, the distinction is meaningless since the land is entirely covered with trees. However, it is important to note that incentives for Guilbert to remove trees surreptitiously are low since he would not have rights to any of the nontree crops. The terms of the rental contract are very favorable to Guilbert: he currently has a ten-year contract for which he paid $50.

Guilbert provides an example of a future co-heir who has rights to a portion of informally divided land but who has chosen not to exercise those rights. Through his father, Guilbert and four other siblings have the right to work portions of a 5-cx block of land just west of Les Anglais. In 1973, Guilbert worked a part of his father's portion, but since then has let his brother, who resides on the parcel, use the land. Guilbert says he could farm the land if he wanted to but, at the present time, prefers to devote more time to his tailoring.

In contrast to most of our respondents, Guilbert is not very interested in agriculture. Although he appears to have more money than most of the people we interviewed, he has not purchased any land, nor has he made a big effort to expand his holdings through renting or sharecropping. By 1978, he had acquired all of his present holdings. The only change in his holdings has been a tendency to increase the security of his access conditions. Thus, he switched from sharecropping to renting the parcel in Laperrier and doubled the length of his original rental contract on his mother's land. In addition, he has helped his father-in-law file for title to the house lot in Les Anglais. His wife's right to the purchased parcel was also formalized in a written will in 1986.

§ Brunel Esme (Les Anglais, 32 years old)

Although also a town resident, Brunel Esme's agricultural strategy contrasts sharply with that of his friend, Guilbert. Until recently, Brunel relied heavily upon the income he made through his teaching job and through his "business" activities to support his wife and seven children. However, unlike Guilbert, he has put considerable time and money into expanding his agricultural production capacity.

Landholdings:

Brunel has access to nine parcels of land. He rents six parcels on the Les Anglais plain, has purchased two parcels (one in town and

Figure A-16. BRUNEL ESME: PARCEL PORTFOLIO

	1	2	3	4	5	6	7	8	9
Access Type	Usufruct	Purchase	Rent	Rent	Purchase	Rent	Rent	Rent	Rent
Year of First Access	1979	1979	1981	1983	1984	1984	1985	1986	1986
Location Name	Les Anglais	Les Anglais	Touniko	La Bessiere	La Bessiere	Constant	Touniko	Veronne	Tombou
Exploitation	-Direct	-Direct	-Direct	-Direct	-Direct	-Direct	-Rent out	-Direct	-Direct
Land Use	---	Vegetables	Corn Black beans	Coffee Corn Black beans Fruit	Corn Black beans	Rice	Black beans Rice Corn	Corn Black beans Fruit	
Erosion Level	---	None	None	None	None	None	None	None	None
Soil	---	Meg	Meg	Gra	Meg	Meg	Gra	Gra	Meg
Planted Trees	No	No	No	No	No	No	No	No	No
Time From House	0	0	35 minutes	60 minutes	40 minutes	35 minutes	35 minutes	30 minutes	60 minutes

one on the irrigated plain), and has use rights to his mother's home. Because of Brunel's work as our assistant, we were able to develop a farm history for him rather than just a summary of his current holdings. The history illustrates how Brunel's agricultural strategy has changed over time.

Acquisition of Farmland:

Brunel began farming on his own while working as the director of a Catholic chapel and school in a mountain community near Tiburon. Brunel moved to Black Tot in 1973, at the age of 17. At that time, he used money that he had saved while a boy to rent a small coffee plantation for three years. In 1975, he renewed the contract for another five years. In 1976, he married Lucienne, a native of the region. Through his marriage, he gained use rights to one of his father-in-law's parcels (about 1.75 cx). This parcel was used to grow corn, congo peas, sweet potatoes, yams, and plantains. In 1977, Brunel had accumulated enough money from his coffee farm to purchase a **carreau** of land from his father-in-law for $90 (this land was unirrigated plains land which Brunel used to raise corn, **pois kongo**, and livestock). Brunel did not have this parcel surveyed, though he did have a "**deklarasyon note**" made out. In 1979, his position as school director was jeopardized due to lack of funding. Rather than continue farming in the Tiburon mountains, Brunel decided to return to Les Anglais where he would have better access to employment opportunities and to the more productive irrigated land on the Les Anglais plain.

Move to the Irrigated Plains:

Brunel sold his land and used the proceeds to purchase a mule and begin trading in agricultural commodities. He and his family moved into two rooms of his mother's four-room house in Les Anglais. Brunel does not pay his mother anything for the use of the house. In the same year, he purchased a small plot adjoining his mother's "**emplasman**" for $60. His wife has a vegetable garden (mostly eggplant) on the land. They sell and consume the garden produce. In 1981, the mule died and Brunel looked for other employment. He was able to obtain a job as a "volunteer" teacher in the National School. At the same time, he began to expand his farming activities by renting a parcel of irrigated land about a half-hour's walk from Les Anglais. The following year he rented another parcel in the same area. Although he had a long-term lease, the owner sold the land after two years and the new owner would not agree to continue renting the land. The previous owner reimbursed Brunel for the years remaining on the contract. Using the money from the sale of his crops and his job, Brunel continued to rent in additional pieces of land. He would like to buy land, but it is scarce and very expensive. He did purchase one of his rental parcels after two years of working the land. Brunel works virtually all of his land himself: he sublets only one tiny parcel. He was forced to rent that parcel to a friend in order to get cash to pay for bus fare to attend a training session for his part-time job with a farming systems survey project.

Land-Use Strategy:

Brunel's agricultural strategy is very clear: he is interested almost exclusively in obtaining land on the irrigated plains where yields are much higher and where the risks of a crop failure are much lower. He stated that he has passed up opportunities to buy mountain land, preferring instead to rent on the plains. He would like to purchase more land on the plains, but few people sell plains land and the price is very high. The only trees that he is interested in planting are fruit trees. On most of his parcels, he prefers not to plant any trees because he believes they will decrease bean yields. Brunel differs from most of the other farmers we interviewed in that virtually the only crops he grows are corn, black beans, and plantains. His family consumes most of the plantains while most of the corn and beans are sold to Les Anglais grain **speculateurs**. With the elimination of French classes in the lower levels, Brunel lost his teaching position this year. However, using the money which he earned while working with us, he has purchased two plow oxen. He also is in the process of negotiating for two more pieces of irrigated land (one parcel that he currently rents in Labessière).

§ APPENDIX B §

Case Study Questionnaire

Paj_____ Dat_____ Lokalite_____ Moun ki fe ankèt-la_____

INFOMASYON JENERAL

Moun ki nan kay-la (dòmi/leve)

# Non	Seks	Laj	Parante	Kote ou/li fèt	Konbyen tan ou gen nan zon-n la	Metye	Man-m Ko-op?
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							

2a. Eske mèt- kay-la gen yon lot madm-m? _____ 2b. Kote li ye? _____

INFÒMASYON KOMPLEMANTÈ

3. Bèt li gade:

Ki kalite	Ki kote ou fe patiraj?

4. Zouti:

Kalite	Kantite

5. Eske giryin glasi a-rebo kay-la? _____

6. Nan ki sa ou sere rekòt-ou? _____

Paj _____ Dat _____ Lokalite _____ Moun ki fe ankèt-la _____

LIS JADIN-YO

1) Nan ki kote ou genyen jadin/tè-a?
   a. Tè ou travay pou kont-ou?
   b. Tè ou bay travay nan men lòt moun?
   c. Tè ki pa pou ou, men ou genyen dwa travay-li?
   d. Tè patiraj, te bwaze?

Jadin #	Lokalite	Ki dwa ou genyen sou li?	Eske ou travay li ou menm?

Lokalizasyon Jadin-yo

1. Eske ou pito tout jadin-ou yo nan menm zon-an? (Explike)

2. Poukisa jadin-ou tou patou?

3. Eske ou te chache jadin-yo pi pre? (Explike)

4. Si ou ta kap jwen yon jadin pi pre lakay-ou, eske ou ta kite yon lot jadin ki pi lwen? (Explike)

Preference d'Acces

Si ou ta genyen chwa, eske ou pito yon: (explike poukisa)

Tè acha

Tè eritaj divize

Tè eritaj poko divize

Tè fèm

Tè sosye

Tè jeran

Kote Pou Plante Pyebwa

Eske ou ta plante pyebwa sou yon: (explike poukisa)

Tè acha

Tè eritaj divize

Tè eritaj poko divize

Tè fèm

Tè sosye

Tè jeran

Ki jan pyebwa ou ta renmen plante e poukisa?

ENQUETE DE REGIME FONCIERE - PROJE SOVE TE OKAY - ETUDE DE CAS Pa/ 3

Met Kay _____ Enqueteur _____ Localite _____ Dat _____

FICHE d'ARPENTAGE

POINTE #	AZIMUTH	DISTANCE PENTE (metres)	% PENTE	DISTANCE HORIZONTALE (metres)	OBSERVATIONS; (cultures, maisons, ravines, voisins, arbres, falaises etc.)	
						Superficie (cx);
						% Erreur;

Mèt Kay _____ Enquêteur _____ Localite _____ Dat _____

5. FICH JADEN/TE

5.A OBSERVASYON DIREKT:

KONBYEN TAN POU RIVE NAN JADEN-NA?
ALTITUDE:
ROCHE-MERE:
TOPOGRAPHIE:
NIVEAU d'EROSION:
SUPERFICIE (cx):

5.B. DESKRIPSYON JADEN-NA

ESKE SE YON TÈ: MÈG/GRA CHO/FWÈT
KI KALITE PLANT NAN JADEN-NA:
PYEBWA: -% KOUVÈTU
-KALITE
-LOKALISASYON
BÈT SOU JADEN-NA: -KALITE
-KANTITE
TRAVAY KONSÈVASYON SOL (ki kalite, ki lè li te fe-l, e poukisa li te fe-l):
KI KALITE TÈ LI YE (eske genyen ravin, rivye patiraj, mòso rak, kafe, falèz, kay, etc.):

5.C POU 12 MWA KI SÒT PASE YO:

KISA OU TE PLANTE LA DEPI ANE PASE:
ESKE OU KONN MARE BÈT NAN JADEN SA-A DEPI ANE PASE: (eksplike ki kalite, ki lè e pou konbyen tan)
NAN JADEN SA-A, ESKE OU TE SÈVI AK: (ACHETE?) - ESKWAD?
- ATIBISYON?
- ENVITASYON?
- KONKOUR FANMI?
NAN JADEN SA-A, ESKE OU TE: - ACHETE JOUNE?
- PRAN ANPEYAN/YON BOUT TRAVAY?
ESKE OU TE PLANTE PYEBWA NAN JADEN SA-A? (eksplike ki kalite, ki lè e poukisa)
ESKE OU TE PIKE KAFE NAN JADEN SA-A? (eksplike)
ESKE OU TE RACHE KAFE NAN JADEN SA-A? (eksplike)
ESKE OU SÈVI AK: - ANGRE?
- PWODWI POU FLITE CHENI?
ESKE WACHTE PLAN GRÈN?

Mèt Kay _____ Enquêteur _____ Localité _____ Dat _____

FICH JADEN/TÈ

6.A. POU TOUT JADEN OU MOSO TÈ:

DEPI KONBYEN TAN WAP TRAVAY JADEN SA-A? _____

ESKE OU BAY LÒT MOUN YON MOSO TRAVAY LADAN? (si wi, rampli fich bay travay) _____

ESKE SE YON TÈ LETA OU YON TÈ ABITAN? _____

6.C. ACCES PRIMAIRE:

ACHA, DON/DONASYON, ERITAJ/BYEN MINE, TÈ SAN MÈT

POU TÈ ERITAJ;
- se yon eritaj bo mama/papa-ou?
- eske se yon eritaj divize (division legal)? (si li poko divize, fe tout kestion pou te eritaj poko divize)

POU TÈ SAN MET;
- Kisa ki te la avan?

POU TÈ ACHA/DON;
- Kiles moun ki vann/ba ou tè sa-a?
- Kisa li ye pou ou?
- Kote li rete?
- Konbyen ou peye-l?

POU TÈ ACHA/DON/ERITAJ;
- Eske li apante? (ki lè, dat e poukisa)
- Eske nou te pase papye pou sa-a? (ki kalite?)
- Ki depans legal ou te fe pou tè sa-a? (eksplike kouman ou te jwen lajan pou sa-a)
- Nan ki ane wachete-l/eritye-l/resevwa-l?

6.C. ACCES SECONDAIRE:

FÈM PRIVE, FÈM LETA, SOSYE, JERAN, KADO/BAY SAKLE/ TÈ LAGE BÈT/ PRE-HERITAGE/LÒT

Ki kondisyon ou te pase ak met tè-a?

Eske nou te pase papye pou sa? (ki kalite)

Eske ou genyen dwa;
- koupe bwa?
- ramase bwa dife?
- kevi mango/zaboka/veritab etc.? (presize)
- mare bèt ou?

Eske genyen lòt moun kap mare bèt sou tè sa-a? (eksplike)

Kiles ki mèt te-a/responsab fèm leta? (presize si se yon paran/etranje, kote li rete)

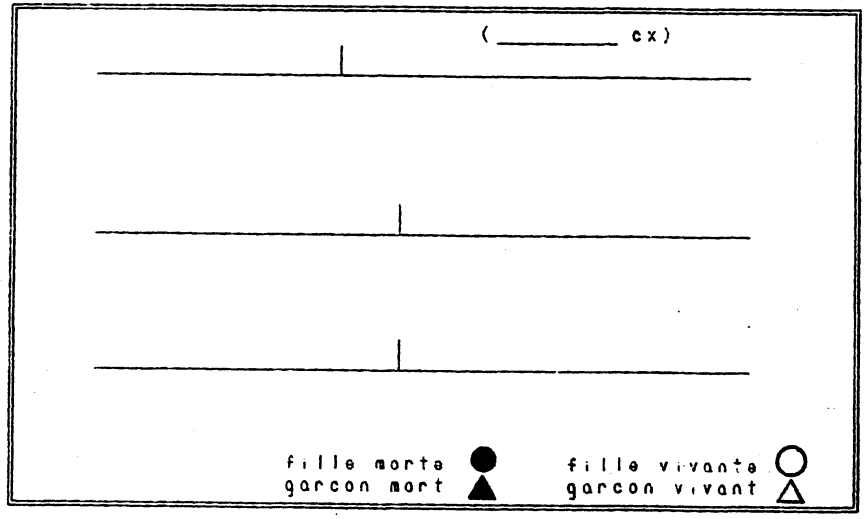
LÒT OBSERVASYON:

ENQUÊTE DE REGIME FONCIÈRE - PROJE SOVE TÈ OKAY - ETUDE DE CAS Paj 6

Mèt Kay _____ Enquêteur _____ Localite _____ Date _____

FICH JADIN/TÈ - 6.0 TÈ ERITAJ POKO DIVIZE (ACCES FAMILIAL)

6.01 - KI JAN TÈ SA-A TE ANTRE NAN FANMI-OU (GENEALOGIE)



6.02 - POSYON PA NOU:

-Ki valè blòk-la?
-Ki valè posyon pa nou?
-Kiles ki responsab eritaj-la?
-Kisa li ye pou ou?
-Kote li rete?
Eske chak moun kenbe posyon pa-l? (divizyon amiab) Si non, eksplike kouman nou travay tè-a:
Eske gon mòso nan posyon pa nou ke tout eritye genyen dwa lage bèt ou travay ansam? (eksplike kote li ye, ki kalite tè ki kilti, e poukisa li pa janm divize)
Poukisa nou te janm divize tè sa-a? (division legal)

6.03 - ERITYE NAN POSYON PA NOU (POU TÈ DIVIZYON AMIAB)

NON	PARANTE	KOTE LI YE	ESKE LI TRAVAY TÈ-A? (si non, eske ou ran li kont?)	NAN MÒSO KE WAP TRAVAY, ESKE LI GENYEN DWA:				
				Lage bèt	Kevi kafe	Kevi fwi	Koupe bwa	Ramasse bwa dife

Mèt Kay _____ Localite _____ Date _____
Enquêteur _____

7. TÈ OU BAY TRAVAY

7.1 KONBYEN MOUN OU BAY TRAVAY TÈ SA-A?	
7.2 DEPI KI LÈ OU BAY LI TRAVAY?	
7.3 AK KI KONDISYON OU BAY MOUN TRAVAY TÈ SA-A: FÈM SOSYE JERAN BAY SAKLE PRE-HERITAJ LÒT (PRESIZE)	
7.4 **NAN KI FASON LI RANN OU KONT** ($/# ane, kouman ou separe danre, kafe, viv, mango, zaboka, kok, veritab, etc.)	
7.5 ESKE NOU SINYEN PAPYE POU SA? (esplike ki kalite)	
7.6 ESKE LI GENYEN DWA: -Remase bwa dife?	
-Koupe pyebwa?	
-Keyi fwi (presize)?	
-Mare bèt-li sou tè-a?	
7.7 ESKE SE YON PARAN? (Presize)	
7.8 KI KOTE LI RETE?	
7.9 POUKISA OU PA TRAVAY TÈ SA-A MENM?	
7.10 ESKE OU KÒNN ALE NAN JADEN SA-A DEPI OU BAY LÒT MOUN TRAVAY LADAN? (esplike)	
7.11 LÒT OBSERVASYON:	

ENQUÊTE DE REGIME FONCIERE - PROJE SOVE TE OKAY - ETUDE DE CAS Paj 8

Met Kay _____ Enqueteur _____ Localite _____ Date _____

8. VANN TE-A

8.1 TE SA-A OU TE VANN, KI DWA OU TE GENYEN SOU LI?
8.2 ESKE NOU TE PASE PAPYE? (ki kalite)
8.3 KI LE OU TE VAN-NI?
8.4 TÈ SA-A, KI KOTE LI YE?
8.5 ESKE SE YON TÈ MÒN LI YE OU TÈ PLÈN ?
8.6 KONBYEN TAN OU KA FE POU RIVE NAN TÈ-A?
8.7 KI VALÈ TÈ LI YE? (ox)
8.8 KI PRI OU TE VAN-NI?
8.9 KI MOUN KI TE ACHETE TÈ SA-A?
8.10 KISA MOUN-NAN YE POU OU?
8.11 KOTE LI RETE?
8.12 POUKISA OU TE VANN TÈ-A?
8.13 KISA OU TE FE AK LAJAN SA-A?
8.14 KI DEPANS LEGAL (arpantè, notè, kontribusyon, lòt) KI TE FE POU VANN TÈ SA-A?
8.15 KOUMAN OU TE FE PAYE DEPANS SA-YO?
8.16 AVAN OU TE VANN TÈ-A, KISA OU TE KONN PLANTE LADAN?

§ APPENDIX C §

General Survey Questionnaire

MÈT KAY _____ ENQUÊTEUR _____ DATE _____ 1) LOKALITE _____

1. MOUN NAN MENAJ-LA (WI=1 NON=2)

(2) NON	(3-4) SEKS G=1 F=2	(5-6) LAJ	(7-8) PARANTE	(9-10) ESKE LI ALE LEKOL?	(11-12) ESKE LI TRAVAY JADEN APA? #	(13-14) KI LÒT METYE LI GENYEN?	(15-16) ESKE LI FE KOMÈS?	(17-18) KOTE LI FÈT?	(19-20) KONBYEN ANE LI RETE NAN ZONNA?
Mèt kay:									
Madam/mari-l:									

KALKUL NAN BIRO-LA:

21) Konbyen moun nan kay-la?	
22) Konbyen moun nan kay-la ki genyen plis ke 18 an?	
23) Konbyen timoun nan kay-la ki genyen antre 12 - 17 an?	
24) Konbyen timoun nan kay-la ki ale lekol?	
25) Konbyen moun nan kay-la ki travay jaden apa?	

FE YON FICH JADEN POU TOUT MOUN KI TRAVAY JADEN APA

ENQUETE DE REGIME FONCIERE - PROJE SOVE TE OKAY - ENQUETE GENERALE PAJ 2

MET KAY _____ ENQUETEUR_____ DATE _____ 1) LOKALITE _____

II. BET-YO

26) ESKE OU GENYEN BET SA-YO? (WI=1 NON=2)

26.1) CHEVAL	
26.2) MILET	
26.3) BOURIK	
26.4) MOUTON	
26.5) KABRIT	
26.6) VACH/BEF	
26.7) KOCHON	

27) ESKE OU BAY GADE BET? _____
(WI=1 NON=2)

III. TRAVAY JADEN

28) ESKE GENYEN MOUN NAN KAY-LA KI KONN: (WI=1 NON=2)

28.1) TRAVAY NAN ESKWAD?	
28.2) TRAVAY NAN ATIBISYON?	
28.3) VANN JOUNE?	
28.4) PRANN ANPEYAN/YON BOUT?	
28.5) ACHTE ESKWAD	
28.6) ACHTE ATIBISYON	
28.7) ACHTE YON BOUT JOUNE	
28.8) ACHTE ANPEYAN	

IV. KALITE KAY-LA

29. ESKE SE YON KAY:

29.1) AK GLASI (WI=1 NON=2)	
29.2) PAY (=1) OU TOL (=2)	

V. VANN TE-A (POU TOUT GRAN MOUN)

30.1) ESKE OU TE VANN YON MOSO TE? _____ (WI=1 NON=2)
(30.2)

POUKISA OU TE VANN-NI? POU PEYE:					(30.3)	(30.4)	(30.5)	(30.6)	(30.7)	(30.8)
ANTEMAN	MALADI	LEKOL	ARPANTAJ	LOT (esplike)	KI VALE (cx)	POU KONBYEN OU TE VANNI ($)	ESKE OU TE VANNI AK MOUN LAVIL (1) OU MOUN EN DEYO (2)	KI DWA OU TE GENYEN SOU LI*	KI ANE OU TE VANNI?	BAY YON PARAN(1) OU YON ETRANJE(2)

*GADE LIS DWA-YO

/

- SI SE YON LÒT MOUN KI TRAVAY JADEN APA MÈTE NON LI — WÈT KAY _____ ENQUÊTEUR _____ DATE _____ SA LI YE POU WÈT KAY-LA? _____

31) LIS JADEN-YO/MOSO TÈ-YO: LOCLALITE E OWA -------)							
32) ESKE SE YON TÈ LETA?							
33) A. KI OWA OU SOU LI / SOU KI KONDISYON WAP TRAVAY LI? (CADE LIS OWA-YO)							
B. ESKE WAP TRAVAY TÈ SA-A SOU OWA WÈT MENAJ?							
34) A. TÈ ACHA: - KONBYEN OU TE PAYE-L? ($)							
B. TÈ FÈM: - KONBYEN OU PAYE-L ($ par ANE)							
- POU KONBYEN ANE OU ANFÈMEN LI?							
C. TÈ OU PRAN SOSYE: - KOUMAN OU SEPARE DANRE (1 MAMITE/10)							
D. TÈ JERAN: - - ESKE WÈT TE-A BAY OU LAJAN?							
- ESKE OU GEN OWA TRAVAY YON MOSO LADAN							
35) POU TOUT TÈ SAUF TÈ ERITAJ. A. -Kote yandè rete ou byen moun ki bay ou travay? [lavil=1 en deyò=2]							
B. - ESKE LI SE YON PARAN (WI:1 NON:2)							
36) POU TOUT TÈ: - ESKE NOU TE PASE PAPYE POU SA?							
37) - DEPI KONBYEN ANE OU GENYEN OWA SOU LI							
38) ESKE OU -TRAVAY TOUT TÈ SA OU WÈM? (:A) -BAY LOT MOUN YON MOSO TRAVAY LADAN?(:B) -BAY LOT MOUN TRAVAY TOUT TÈ SA-A? (:C)							
39) SI OU BAY LI TRAVAY SOU KI KONDISYON? A. (BAY AFÈM:1 BAY SOSYE:2 BAY JERAN:3 BAY SAKLE (SAN KONDISYON):4)							
B. DEPI KONBYEN ANE OU BAY LI TRAVAY?							
C. ESKE NOU TE PASE PAPYE? (WI:1 NON:2)							
D. KI KOTE MOUN KI TRAVAY TÈ SA-A RETE? (LAVIL:1 EN DEYÒ:2)							
E. KISA LI YE POU OU? (PARAN:1 ETRANJE:2)							
40) KONDISYON BAY TRAVAY A. TÈ OU BAY SOSYE -KOUMAN NOU SEPARE DANRE (1 MAMIT/10)							
B. TÈ OU BAY AFÈM -KONBYEN LI PEYE OU? (MÈTE $/ANE)							
-POU KONBYEN ANE LI ANFÈMEN LI?							
C. TÈ OU BAY JERAN - ESKE OU BAY LI LAJAN?							
- ESKE OU BAY LI TRAVAY YON MOSO LADAN?							
41. KONBYEN TAN POU RIVE NAN TÈ-A?							
42. ESKE OU SEVI AK ANGRE NAN TÈ SA-A?							
43. ESKE OU SEVI AK PWODWI POU FLITE CHENI?							
44. ESKE WACHTE PLAN /GRÈN?							
45. ESKE OU KONN PLANTE PYEBWA/FWI LADAN?							
46. ESKE OU KONN PIKE KAFE LADAN?							
47. ESKE GENYEN YON MOSO KAFE LADAN?							
48. KI KALITE KILTI NAN TÈ SA-A? A. -PISTACH B. -PITIMI C. -MANIYOK D. -PWA KONGO E. -MAYI F. -PWA NWA G. -OIRI H. -MAZOMBEL/MALANGA I. -YAM J. - Banann							
49. ESKE OU KONN MARE BÈT LADAN?							

LISTE MODE DE TENURE POUR ENQUÊTE GÉNÉRALE

CODE **DROIT**

1 **TÈ ACHA** (tè li te achete li-menm)

- A. Sans Papye
- B. Ak Reçu
- C. Ak Deklarasyon
- D. Ak Papye Notè
- E. Ak Arpantaj
- F. Ak Proses Verbal

2 **TÈ ERITAJ** (tè li te eritye li-menm)

- A. Pre-Eritaj (papa ou mama poko mouri)
- B. Divize Formelman (arpantaj/papye note)
- C. Poko Divize
  1. Divize par Dwèt (chak moun kenbe pòsyon pa-li)
  2. Pa Divize Ditou
     - a. Fe Jardin Ansam
     - b. Fe Rotasyon

3 **DWA USAJ**

- A. De Moun Fanmi-li
- B. De Moun Etrange

4 **TÈ ANFÈME**

- A. De Mèt Tè-a
- B. De Lòt Fèmye

5 **TÈ SOSYE**

- A. De Mèt Tè-a
- B. De Lòt Fèmye

6 **TÈ JERAN**

- A. Nan Mèn Mèt Tè-a
- B. Nan Mèn Fèmye, etc.

7 **TÈ SANS MÈT**

8 DON

9 LÒT

§ APPENDIX D §

Block Study Questionnaire

Land Tenure Center/Bassin-Versant Plaine des Cayes

PARCELLAIRE FICHE 1 **ENQUETE No. _____**

DATE _____ ENQUETE(E)(S) _____

1. GENERALITES PARCELLE

LIEU-DIT	
HABITATION	
SUPERFICIE DECLAREE	
TYPE (not vernacul.)	

2. GENERALITES EXPLOITANT

	EXPLOITANT	PROPRIETAIRE
NOM		
AGE/SEXE		
DOMICILE		
MEMBRE ASS. W		
PARENTE/RELATION AVEC LE PROPRIETAIRE		

3. ARPENTAGE

AZIMUT	PENTE	DIST. HOR.	AZIMUT	PENTE	DIST. HOR.	AZIMUT	PENTE	DIST. HOR.	AZIMUT	PENTE	DIST. HOR.

REMARQUES

Land Tenure Center/Bassin-Versant Plaine des Cayes

PARCELLAIRE FICHE 2 **ENQUETE No. _____**

DATE _____ ENQUETE(E)(S) _____

4. OBSERVATIONS DIRECTES

SOL		
SOUS-SOL		
ORIENTATION		
LISIERES	1 2	3 4
BORNES	1 2	3 4
PRESENCE D'ANIMAUX		
SYMPTOMES D'EROSION - MESURES DE CONSERVATION		

ESPECES PERENNES	LOCALISATION

REMARQUES

5. SCHEMA D'UTILISATION DE L'ESPACE

Detail relief, presence ravine, riviere, route, voisins, etc.

PARCELLAIRE FICHE 3 **ENQUETE No.** _____

DATE _____ ENQUETE(E)(S) _____

6. MODE DE TENURE

6.1 SECURITE

TEMPS D'EXPLOITATION	
CESSION PARTIELLE EN FVI maintenant et/ou depuis debut exploitation	

6.2 STATUT (conditions si en FVI)

6.3 HISTOIRE DE LA PARCELLE (date et circonstances prise en charge et/ou entree dans la famille

6.4 ASPECT JURIDIQUE

Quel(s) papiers justifie la presence de l'exploitant? Qui le detient? Responsable (en cas d'indivision.

6.5 INFORMATIONS FAMILIALES

(arbre genealogique et autres)

Land Tenure Center/Bassin-Versant Plaine des Cayes

PARCELLAIRE FICHE 4 **ENQUETE No. _____**

DATE _____ ENQUETE(E)(S) _____

7. SYSTEME DE CULTURE ET D'ELEVAGE (12 DERNIERS MOIS)

OPERATION /CULTURE	JAN	FEV	MAR	AVR	MAI	JUI	JUL	AOU	SEP	OCT	NOV	DEC

8. RENDEMENTS ET COUTS (12 derniere mois)

ESPECE	PLANTATION			RECOLTE	
	QUANTITE	ORIGINE	COUT	QUANTITE/PROPORTION	DESTINATION/PRIX

9. MAIN-D'OEUVRE (12 DERNIERS MOIS)

OPERATION	TYPE MO	TEMPS	DATE	COUT	MODALITES PAIEMENT

§ GLOSSARY FOR PST BASELINE STUDY REPORT §

ARD	Associates in Rural Development
CADA	Coopérative Agricole des Anglais
FAO	Food and Agricultural Organization
IICA	Instituto Interamericano de Cooperacion para la Agricultura
LTC	Land Tenure Center (University of Wisconsin-Madison)
PPPV	Projet Promotion de Produits Vivrières
PST	Proje Sove Tè (Targeted Watershed Management Project for the Cayes Region)
UNICORS	Union des Coopératives de la Région du Sud
USAID	U.S. Agency for International Development
WFP	World Food Programme

Massif de la Hotte	the range of mountains running across the center of the southwestern peninsula of Haiti
Pic Macaya	the tallest peak in the Massif de la Hotte; site of one of the few remaining cloud forest stands in Haiti
ajan sante (Fr. agent santé)	a health technician employed by the Public Health Department and stationed in a rural community. These technicians provide basic first aid as well as vaccinations for rural inhabitants.
anpeyan	contract or piecework labor
apantè (Fr. arpenteur)	land surveyor
atribisyon	an exchange labor group consisting of 15-30 members. One day per week is set aside for atribisyon labor. The money earned by the atribisyon is kept by an elected treasurer. The money is often used to purchase a steer, which is then shared by the members of the atribisyon and their families during the New Year holiday period.
bay afèm	verb: to rent out (land) to another person; noun: a written rental agreement signed by the parties involved in a rental transaction
bay sakle	to give someone (often a family member) gardening rights

bay travay	to give someone the right to farm one's land. The term "bay travay" is generic and covers a variety of arrangements from rental to share-cropping to management.
Bureau des Contributions	tax office, responsible for collecting a variety of taxes and rents, including state land rentals, market taxes, livestock sales taxes, and housing taxes
byen mine	children's estate
carreau (pl. carreaux)	Haitian land measurement unit; 1 carreau = 1.29 hectares, or approximately 3.1 acres.
chef de section	the military officer in charge of a section rurale, an administrative subdivision of the commune. The chef de section is active in settling disputes at the local level, before they reach the Tribunal.
commune	an administrative subdivision of the arrondissement
damio	an agricultural tool shaped like a sickle
danre	food crops
deklarasyon vann/notè	declaration of sale (of land), signed by a notary
divize pa dwèt	inherited land that has been informally divided. Prior to his or her death, the owner often will point out which portions belong to each heir, hence the term "divided by finger."
don	a gift of land, whether to an heir or nonheir
don de leta	land which has been transferred from state to private ownership. Traditionally, the term "don de leta" referred to lands which the state had given supporters or soldiers in return for their services. In the Les Anglais area, the term also refers to state lands that have become private property via the prescription process.
donation	a gift of land from one private individual to another or the transferral of land from state to private ownership
dwa e pretansyon	a co-heir's rights and claims to a share of the family inheritance

dwa	right(s), especially land use and ownership rights
emplasman	the ground on which a house is situated
envitasyon	a type of exchange labor group. The envitasyon has a fluid membership. A peasant needing labor but lacking the resources to pay for laborers will invite friends and relatives to help him in his fields in exchange for food and drink. The peasant is then obligated to participate in any envitasyon called by those who have provided their labor.
eskwad	a type of labor group with a fixed membership of from 4-7 men (or women). Each member of the group has the right to "workdays," generally fixed at one per week. The eskwad thus performs labor for each member on specified days. If a member has a workday but no work that needs to be done in his fields, he has the option of selling the eskwad's labor to someone else. In such cases, the member whose workday it is receives all the money made by the eskwad. Eskwads may also set aside certain days on which they sell the group's labor to nonmembers. In such cases, the money received is split equally among the eskwad members.
etranje (Fr. étranger)	a person outside the kin group; a foreigner
family land	land which has passed down through one or more generations without being legally divided
fèm leta	a state lease
fèmye leta	a state leaseholder
gourde	Haitian monetary unit. The exchange rate is officially fixed at 5 gourdes to 1 U.S. dollar.
gran pyès	master deed to a piece of land
habitation	subdivision of the section rurale
héritage (Creole = eritaj)	inherited land/family estate
houngan	a voudou priest
inter vivos gift	a gift of property that takes effect while the giver is still living

jaden	literally, "garden," but is better translated as "field" or, more precisely, as the crops growing on a piece of land
jaden kafe	a coffee grove, almost always containing a variety of perennials and yams
jeran	a manager or caretaker of a piece of property
jeran leta	person charged by the Bureau des Contributions with resolving disputes between state-land holders
joune	daily wage labor
joupa	makeshift huts located on land that is far enough from the primary residence to justify spending the night or several nights on a fairly regular basis
kado (Fr. cadeau)	a gift; free use rights to land
kafe wat	in the Camp Perrin region, the remnants of the coffee plantations planted by the G.J. White Company in the 1930s
kay	house or building
keyi	to gather or harvest (that is, fruit or coffee)
kleren (Fr. clairin)	an alcoholic drink made by distilling sugarcane, tastes like a very unrefined rum
kob	money
komèsan (Fr. commerçant)	a merchant or trader; a person who makes a living by buying and selling agricultural commodities and manufactured goods
lakou	house compound, including household gardens
landholder	an owner or user of plot of land
localité	a term used by Les Anglais peasants to describe subunits of the "section rural," the adminstrative level below the commune
madam sara	women involved in the buying and selling of commodities and dry goods
magistrate	the administrator in charge of a commune, an administrative subunit of the arrondissement

malanga	a yam-like tuber
mama pyès	master deed to a piece of land
mazombel	a yam-like tuber
menaj	household
mèt tè	the owner of a piece of land
mèt jaden	the user of a piece of land (who may not actually own the land)
notè (Fr. notaire)	literally translates as "notary," but the Haitian notary performs a wider variety of functions than notaries in the United States, including the registration of property transferals
paran	a relative or close kin
percepteur	tax collector at the Bureau des Contributions
patat	sweet potato
pike kafe	tranplanting of coffee seedlings
potèk	a long-term lease (not used in Les Anglais)
prepose	the person in charge of the Bureau des Contributions at the commune level
primary access	access to land based on proprietary rights
pyebwa	tree
race (Creole = ras)	family/lineage
rak bwa	uncleared forested land
responsab	caretaker or person in charge
responsab fèm	person designated to collect and pay fees on a state lease that has been inherited by several co-heirs
resu (Fr. reçu)	an informal document signed by the two parties involved in a land transaction
sage	wise person
secondary access	access to land based on arrangements with the owner(s)

section rurale	an administrative subdivision of the commune
sèziyem	1/16 of a carreau
sosye	sharecropper
sous seing prive	a privately witnessed document (that is, purchase agreement or rental contract)
speculateur	licensed buying agent for a coffee export house
tè	land; also soil
tè abitan	private land
tè acha/achte	a purchased plot of land
tè cho	a peasant soil category that appears to refer to the moisture availability of the soil. Tè cho are soils that have relatively low levels of moisture availability.
tè eritaj	inherited land, whether legally divided, informally divided, or undivided
tè eritaj divize	inherited land that has been formally divided
tè eritaj poko divize	inherited land that has not been formally divided
tè fèm	rented land
tè frèt	a peasant soil category that appears to refer to soil moisture availability. Tè frèt soils have relatively high levels of available moisture.
tè gra	a peasant soil category that refers to soil fertility. Tè gra soils are relatively fertile soils.
tè jeran	land that is used under a management agreement
tè lage bèt	pastureland
tè leta	land owned by the state
tè meg	a peasant soil category that refers to soil fertility. Tè meg soils are relatively infertile soils.
tè mine	children's estate land; often undivided or informally divided

tè patiraj	pastureland
tè rak	uncultivated forest or brush land
tè san mèt	literally, "land without an owner." The term "tè san met" is used by peasants in Les Anglais to refer to land that is not recognized as state land or as private land.
tè sosye	land that is sharecropped
Tribunal	the commune-level court that hears land disputes, livestock disputes, theft, and other cases
vensenk	1/16 of a carreau
vente a réméré	a type of land pawning in which the landowner provides his title as collateral for a loan. If he fails to pay back the loan within the designated time period, the land reverts to the lender.

§ BIBLIOGRAPHY §

Alvardo, Flores H. 1980. Possession et exploitation des terres dans les cooperatives de l'UNICORS. Unpublished document for the Conseil National de la Coopération.

Associates in Rural Development (ARD). 1987. Targeted Watershed Management/Haiti Technical Proposal. USAID. Unpublished.

Buffom, Bill. 1985. Morne Macaya National Park Trip Report. Unpublished memorandum to Pan-American Development Foundation.

Coffey, William J., Laurence A. Lewis, and Ann B. Hauge. 1984. Social institutional profile of the Cayes plain basin; towards a coordinated rural regional development strategy. USAID.

Cohen, Warren B. 1984. Environmental degradation in Haiti: An analysis of aerial photography. USAID.

Dauphinais, Louise. 1987. Constraintes et potentialités de l'agriculture sur la côté sud-ouest d'Haiti. Unpublished document written for CECI.

Derisca, Jodelle. 1986. Influence du facteur foncier sur la mise en valeur des sols basaltiques erodés de Lavial et productivité à court terme des parcelles restaurées. Université d'Etat d'Haiti, Faculté d'Agronomie et de Médecine Veterinaire. Mémoire de Sortie.

Dixon, Chris, and Bridget Leach. 1984. Survey research in underdeveloped countries. Norwich, England: Geo Books.

Herskovits, Melville J. 1937. Life in a Haitian valley. New York: Alfred A. Knopf.

Larose, Serge. 1976. L'exploitation agricole en Haiti. Fonds St-Jacques, Ste-Marie, Martinique: Centre de Recherches Caraibes.

Leyburn, James G. 1966. The Haitian people. New Haven, Conn.: Yale University Press.

Lowenstein, Felix Prinz. 1984. Le déboisement du périmètre "Pic Macaya" et son impact sur la plaine des Cayes. Report to the Minister of Agriculture, Natural Resources and Rural Development (Haiti). Unpublished.

McLain, Rebecca J., and Douglas M. Stienbarger. 1988. "Recommendations for Land Tenure Baseline Study for Proje Sove Te Okay, Haiti." Typescript. Madison: Land Tenure Center, University of Wisconsin, February.

Madian-Salagnac, Centre de. 1979. Modes de tenure en Haiti et degrés de sécurité. Port-au-Prince: Madian-Salagnac.

_____. 1978. Fonctionnement des systèmes de culture et valorisation du milieu. No author.

Metraux, Alfred. 1951. L'homme et la terre dans la Vallée de Marbial, Haiti. Documents speciaux d'education, no. 10. Paris: UNESCO.

Moral, Paul. 1961. Le paysan haitien. Paris: G.P. Maisonneuve and Larose.

Moreau de Saint-Mery. 1789. Description topographique, physique, civile politique et historique de la partie française de l'isle Saint-Dominque. Volume 3. Paris: Société Française d'Histoire d'Outre-mer.

Murray, Gerald. 1978a. Land tenure, land insecurity, and planned agricultural development among Haitian peasants. Unpublished. USAID.

_____. 1978b. Proposals for research into Haitian peasant land tenure. USAID/Haiti.

Pierre-Jean, Luc. 1980. Indivision, insécurité de tenure et règlement des litiges fonciers: Etude de cas à changieux (Commune de l'Azile). Centre de Recherche-Formation Développement de Madian-Salagnac.

_____. n.d. Premier bilan d'une méthode d'approche de lutte anti-érosive sur l'amélioration des systèmes de cultures en sols basaltiques (la Vallée de Jacmel, Haiti). Recherche et Développement Rural 2(1):89-115.

Raynolds, Laura. 1985. The importance of land tenure in the distribution of benefits from irrigation development projects: Findings from the Cayes Plain, Haiti. Ithaca, N.Y.: Cornell University Water Management Synthesis Project.

Rhoades, Robert E. 1982. The art of the informal agricultural survey. Lima: International Potato Center.

Smucker, Glenn. 1982. Peasants and development politics: A study in Haitian class and culture. Ph.D. dissertation, New School for Social Research.

Thome, Joseph. 1978. Land tenure insecurity in Haiti. Unpublished. USAID.

USAID. 1986. Targeted watershed management project paper (Les Cayes). Draft version.

USDA Soil Conservation Service. 1983. Watershed management plan: Acul River Basin. In-house document.