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FARMING SYSTEMS IN ST. LUCIA:
AN ANTHROPOLOGICAL PERSPECTIVE

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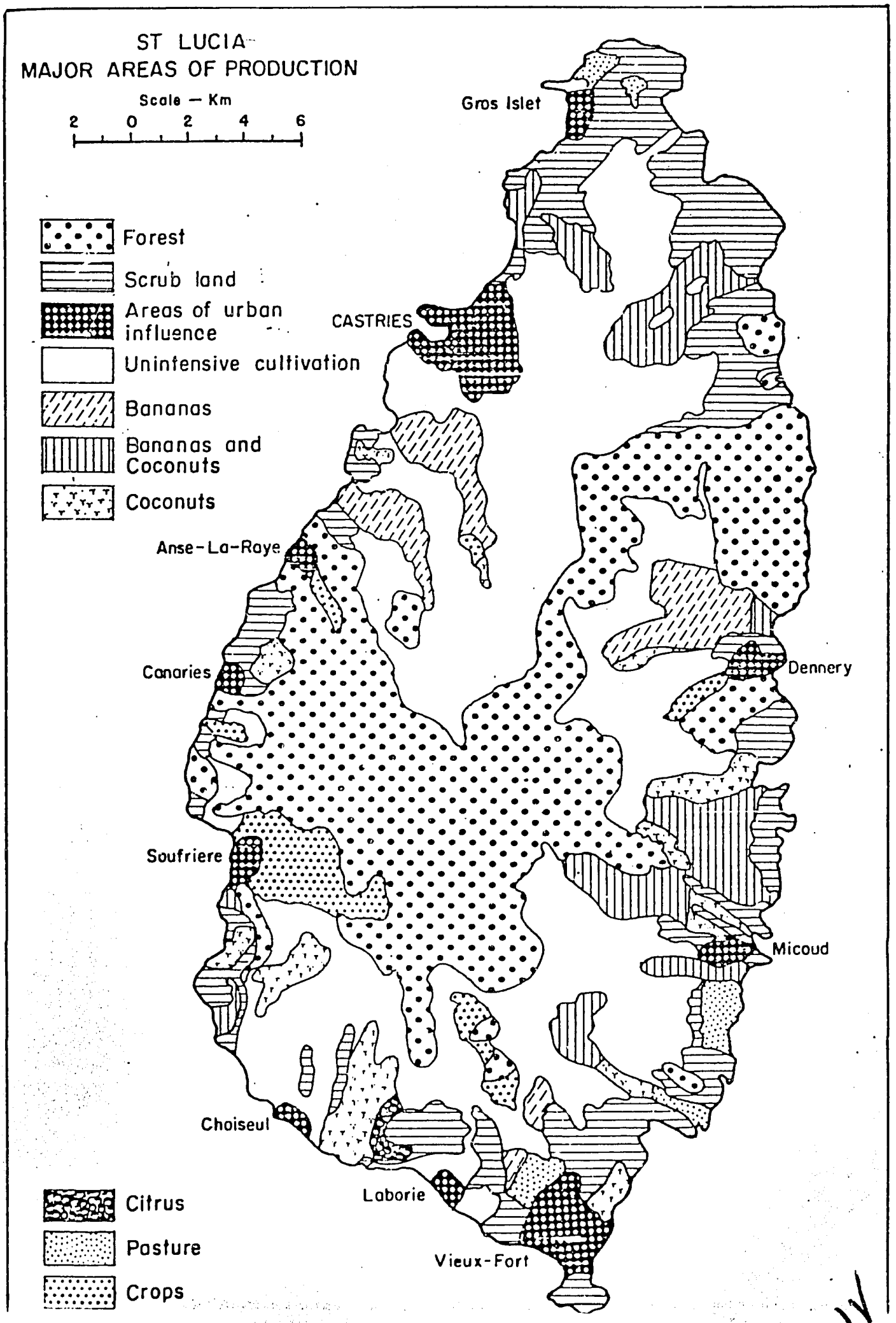
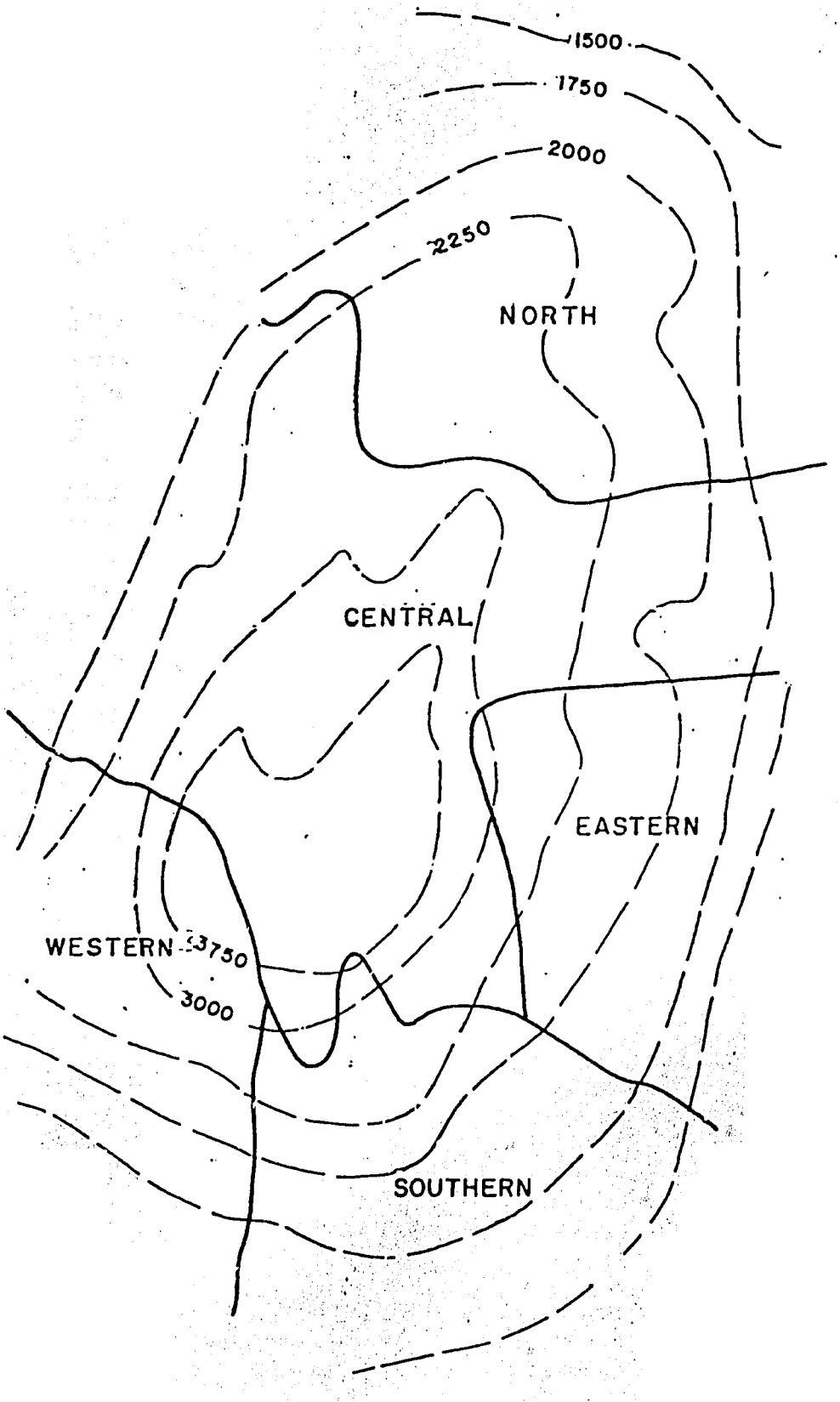

ST LUCIA
MAJOR AREAS OF PRODUCTION
Scale — Km
2 0 2 4 6
Forest
Scrub land
Areas of urban influence
Unintensive cultivation
Bananas
Bananas and Coconuts
Coconuts
Citrus
Pasture
Crops
Gros Islet
CASTRIES
Anse-La-Raye
Canaries
Soufriere
Choiseul
Laborie
Vieux-Fort
Micoud
Dennery

IV


1500
1750
2000
2250
NORTH
CENTRAL
EASTERN
WESTERN
3750
3000
SOUTHERN

INTRODUCTION

Like the rest of the Eastern Caribbean nations, agriculture has been and, still is the mainstay of the St. Lucian economy. The farming systems which have thus evolved are a combination of extensive plantation agriculture, in which the better, coastal lands have been planted to cash crops, and the highly intensive small farm agriculture in which polyculture and short term crops are the rule. One is then tempted to conclude that the economy, like most economies with a colonial past,is indeed a dual economy of plantation agriculture and subsistence farming. Fortunately, however, the St. Lucian agricultural system is an intricate web where crop production is not a simple function of plantation versus subsistence farming but of a complex ecosystem of differing soil types and rainfall patterns. And, this complexity is being further heightened by the increase in small farms brought about by increasing food prices accompanied by the growing demand for food and vegetables - and the general decline in plantation agriculture because of the fluctuating international market coupled with the labour shortage. The Government's attempt to diversify the economy by establishing an industrial sector, with foreign capital no doubt, has resulted in the agricultural sector having to compete for labour which is not only in short supply but which is expensive too.

The small farmer, who is the concern of this report, has, on the other hand, developed - through the experiences of having to operate with limited resources and therefore limited alternatives - a system of resource allocation, cropping patterns and cropping technologies that emphasize heterogeneity. It is this heterogeneity*

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*to be compared to the homogeneity of plantation agriculture cf. a monocrop of coconuts

hat enables him/her to spread his/her risks so that farming becomes economically viable. The heterogeneity that is referred to here includes differing tenural arrangements and water regimes, but more importantly includes the system of multiple cropping and polyculture where in the farmer may plant four to six different crops in a single enterprise. This crop combination does not only cover horizontal space but also vertical space in the form of a layered combination, i.e. perennials (coconut, breadfruit, avocado etc.) form the top most layer followed by secondary crops (banana, plantain, macambou) and lastly by ground crops (tubers and vegetables). In this way the farmer is able to maximize not only land utilization but solar radiation too. Thus, in synthesis, the most unique feature of St. Lucian agriculture is this layered crop combination of cash (primarily coconut) and subsistence food crops. It is for this reason alone that the St. Lucian case does not land itself to the theoretical exposition of the dual economy.

Land Tenure

Having set the frame of reference for the report, I would like to analyse St. Lucia's small farming systems by first describing the types of tenural arrangements that prevail in the state and how, given the resource factor constraints of farm labour, capital, inputs and, to some extent, farm managements, these tenural arrangements are maximally manipulated by the farming household. Here, as will be true throughout the report, I shall make cross reference to an island-wide sample of 31 farmers.* Although these farmers cover a wide sociological (age, family size, nature of off-farm employment, sex of farmer) and agronomic (rainfall, soil type, type of farming, crop(s) and crop combinations) range, for purposes of clarity they have been grouped into spatial category and further subdivided into at least one of three income levels, i.e. $5,000/annum; $5,000 -

*This sample of 31 farmers was taken from a larger sample of 120 farmers who were interviewed for a bench mark baseline survey on farming systems in St. Lucia.

$10,000/annum; and more than $10,000/annum. All relevant information on each of the 31 farmers has been appendixed to the report.

There are four general tenural classifications. These are:-

(a) Family land where the farmer has usufructory but not ownership rights, i.e. joint inheritance,
(b) Annual lease which could be either a private lease or a government lease,
(c) Freehold where the farmer has title deed, and
(d) Sharecropping which is an arrangement where one party provides the land while the other party provides all the other necessary inputs and the harvest is shared out on a one-third (land-owner), two-third (farmer) basis. Payment is usually in kind although in some instances the landowner prefers to be paid only after crop sales have been completed.

Although evidence is inconclusive, because at the time of writing this report information on ten of the farmers was still forthcoming, for the twenty-one farmers* for whom we have complete information the tenural arrangements which occur most frequently are that of family land (14 instances) and freehold (14 instances). Only twelve parcels were rented, eight on an annual lease and the remaining four on a share cropping basis. This high ownership of land, irrespective of size of holding, by the small farmers is very significant because there appears to be a definite relationship between types of crops grown and land ownership. Where rights to the land are permanent, after the initial land clearing, the farmer is more than likely to plant it to permanent crops (coconut, citurs, avocado, mango). These permanent crops are then intercropped with such secondary crops as bananas,

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* a total of 40 parcels

plantain and macambou (a variety of plantain) and other shade tolerant crops such as dasheen, yam and tannia all of which are important subsistence food items in the local diet. Among these secondary crops then, the farmer may plant cucumber (a traditionally common crop) red beans (an important vegetable protein element in the local diet) and pumpkin (an export vegetable). Although this is a common cropping pattern for family and freehold lands, it should not be assumed that there are the only crops cultivated. Depanding on the agroclimatic locality, the farmer will also grow a wide variety of vegetables, either in combinations with the crops mentioned above or in separate parcels.

One important feature which distinguishes family land from freehold land is that holdings of the former category tend to be larger. Furthermore, there appears to be little fragmentation of family lands. This I accrue to three reasons. Firstly, some of the members in the family are usually abroad and secondly, in many cases the farming population tends to be of the second generation*. The most important reasons, however, is that there is a land act which prevents land fragmentation. Informal interviews reveal that land disputes are of quite common occurrence although only a few of them have been treated, by the contending parties, as a legal issue.

The St. Lucian Government has set up a Land Reform Commission which is presently compiling its recommendations. In this endeavour it is being assisted by the Organisation for American States which has been commissioned to do a special typology of landholding types. It is my contention that to this end CARDI, with the micro socio-economic data that has been collected from a representative sample of farmers throughout the state, can provide a very important and, for that matter, an accurate, resource input.

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* i.e. the children of the original owners of the land. Fragmentation is likely to occur when this second generation decides to distribute land to its siblings.

Leaving aside the issue of land reform, one other feature of the family land tenure type is that because the holdings of such tenural arrangements are fairly large, not all the land is cultivatedsimultaneously. Instead, parcels of the land are worked on a shifting cultivation basis whereby the vegetation is burned before being ploughed under. This is to be compared with the normal processes of land clearing where the vegetation is cleared off with a machete, piled up at the edge of the parcel and then burned.

Shifting cultivation has adverse results no doubt: the ecological balance is disrupted and micro-organisms are destroyed. Yet, within the context of scarce resources, and limited alternatives, shifting cultivation serves its purposes. A parcel of land which is cleared by slash and burn, is used for only one cropping season after which it is left to lie fallow with an undergrowth of secondary vegetation. Thus, the inorganic nutrients needed to maintain the soil fertility balance is kept to a minimum and depletion of the soil fertility is over a prolonged time period. Above all, this should be seen as a rational decision on the part of the farmer, who is after all faced with capital constraints, to minimize production costs. One is then left wondering as to whether shifting cultivation will be abandoned if the necessary incentives for increased production were to be introduced.*

Share cropping in St. Lucia is another interesting tenural arrangement which reflects the way in which limited resources are maximized. The data indicates that most share cropping is done on land which has already been planted to perennial crops, especially coconuts. The share cropper thus intercrops the perennials with quick maturing root and vegetable crops. As a result, the landowner has his perennials and a share of the ground crops while the sharecropper has access to land which otherwise would be underutilized.

*Here of course I am assuming that the level of food production is not maximal because of the lack of an incentive and a proper infrastructure to absorb the increased levels of production.

In the case of annual lease, the arrangement, even with a Government lease, tends to be rather nebulous in so far as payment is sporadic and there being no documentation of the lease. Even in the case of a private lease we have a number of farmers who work on land belonging to friends and for which no payment is made. The owner, while not receiving any direct payment in the form of rent, does, however, benefit from the tenural arrangement in so far as sanitation and fertility of the land is maintained. And, very often the owner is either away from the country or simply unable to cultivate that piece of land.

In concluding this section on land tenure may I suggest that careful consideration be given to the fact that the different land tenural arrangements have evolved from a system of limited alternatives and scarce resources. Small farms in St. Lucia grow in piecemeal fashion as farmers acquire whatever fragment is for rent or for sale at a price they can afford. Landholdings of small farmers vary in size from 0 to 15 acres although a sample of 120 farmers shows that 45.8 percent of the landholdings range from 5 to 10 acres, followed by 27.5 percent of the landholdings being 10 to 15 acres in size. This same sample of 120 farmers shows that 35 percent of all farms consisted of only one parcel, 38 percent contained two parcels each, and 24 percent of the farms were made up of three parcels.

Fragmentation of land in St. Lucia is not as severe a problem as in other developing countries. Furthermore, each parcel of land within a single holding is usually of a different tenural arrangement. In the light of all this a spatial typology of tenural patterns is reduced to only an academic exercise. Of importance to development practioners is the need to understand that the availability of suitable land in an equally suitable agroclimatic area is a major constraint faced by the small farmer for whom land is security and for whom the flexibility of different tenural arrangements allows him/her to make pertinent cropping decisions: a farmer might put his/her freehold parcel to tree

crops, his family land to bananas, and if he has access to rented land he might plant it to short term vegetable and food crops.

Land Use Typology/classification of small farmers

The previous section outlined the nature of tenural patterns as it affects St. Lucian agriculture. It was hypothesized that differences in tenural arrangements would influence the nature, structure and level of farming practices. Using this as a back drop the stage is set to examine St. Lucia's farm agriculture.

The economic data on the sample farmers reveal differences in levels of farming. Indicators used in this classification are:

(i) number of acres the small farmer occupies,
(ii) cost of farm production,
(iii) proportion of income derived from the sale of farm produce, and
(iv) the importance of agricultural income to the total farm income.

The above specifications unfortunately eliminate some of the more widely used classifications which on the other hand do not facilitate an understanding of small farmer systems in St. Lucia in particular and in the Eastern Caribbean in general. A classification by regional division is most certainly inappropriate as is a classification by nature of production. Where multiple cropping is the rule, rather than the exception, sharp distinctions between, for example, a 'coconut estate' and a 'banana farm' would be meaningless. By similar token, a distinction between 'mixed cultivation' and 'cash production of a monocrop' would not bring out distinctions in patterns of agriculture as identified in the St. Lucian small farms.

On the basis of the classification I have proposed, there are three, theoretical, types of small farmers:

(i) non-commercial having no sale of produce
(ii) semi-commercial having part of family income from the agricultural enterprise, and
(iii) commercial, obtaining larger proportion of family income from the sale of farm produce.

In St. Lucia, as elsewhere in general, small farmers are of the latter two types. The first type refers to kitchen or backyard gardening where crop production is solely for home consumption. Many of our farmers have these backyard gardens too. It is a most common sight to see lettuce and condiments grown, either in old large receptacles or bamboo platforms, around the homestead. All of such produce is however not only consumed by the farming family but sold too because of the high market prices for such crops. Thus, for all purposes, the St. Lucian small farmers are either semi-commercial and part-time farmers or commercial full-time farmers.

There are a number of features which distinguish semi-commercial from commercial farmers. For one thing, semi-commercial farmers have an additional source of income from off-farm employment. For another, because the farmer is involved in off-farm employment - sometimes full-time - she/he grows those types of crops which need less maintainance than would, say, vegetable crops. So the distinction between the two types of farmers is further indicated by the types of crops grown. How long a farmer remains semi-commercial depends upon the profit he makes from his crops as compared to his other sources of income, and/or the availability of land on which he can expand his farming system.

Throughout the island, the choice of crops is largely determined by the climate of rainfall pattern. There are five natural

agro-climatic zones and in a couple of these zones there is a further subdivision between wet and dry areas. In terms of the kinds of crop grown there is no remarkable distinction between the zones although there is variance in the frequency of cultivation of each crop.

Referring to the map, the following are the identifiable agro-climatic zones:-

(i) Northern District (annual rainfall of 75-100"; alluvial soils)

The northern district has wet and dry zones

a. Dry zone (Monchy Gros Islet)

Sweet potato
Corn
Cassava
Mango
Tannia
Banana
Coconut

b. Wet Zone (Babonneau)

Green vegetables (carrot, cabbage, tomato, herbs)
Banana
Citrus
Coconut
Plantain/Macambou
Yam
Tannia
Dasheen
Sweet potato
Peas
Beans
Mango
Avocado
Breadfruit

(ii) Central District (annual rainfall of 70-100"; alluvial soils in valley, heavy red clay soils on steep slopes)

Green vegetables
Banana
Citrus
Coconut
Plantain
Yam
Tannia
Dasheen
Sweet potato
Peas
Beans
Fruit trees
Breadfruit

(iii) Eastern District (annual rainfall of 70-100")

The crops and cropping are similar to those of the Central district.

(iv) Southern District (annual rainfall of 50-100")

Banana
Coconut
Dasheen
Yam
Tannia
Cassava
Plantain/Macambou
Citrus
Mango
Avocado

During the wet season there is cultivation of green vegetables. In the extreme south, around the Black Bay area, irrigation facilities for the year round cultivation of Green vegetables

Cassava
Pigeon peas
Coconut
Mango

(v) Southwestern District (annual rainfall of 40-150")

Like the northern part of the country there are two areas.

a. Dry zone (arcund Delcer, La Pointe, Monguge, La Fargue)

Sweet potato
Pigeon peas
Tomatoes

Around Delcer and La Pointe, where there are irrigation facilities, there is additional cultivation of

Dasheen
Peanuts
Green vegetables
Plum

b. Wet zone (around Montet, Bois Divole, Belford)

Banana
Coconut
Cocoa
Citrus
Breadfruit
Dasheen
Tannia
Yam
Sweet potato
Cassava
Plantain/Macambou
Avocado
Green vegetables - largest acreage for the entire island.

As would have become obvious by now, there are very few crop distinctions between the districts. The cultivation of coconuts and bananas is island wide. This is understandable in the light of there being an assured market for these two cash crops and in any case, the coconut estates are found in the coastal areas. In an increasing number of instances these estates are beginning to interplant their coconut trees with bananas. In other

instances, livestock is left to graze among the coconut trees. Moving from the coastal areas into the wetter interior, the landscape changes somewhat and banana becomes the predominant cash crop.

Although the banana/coconut combination is the most common combination, there are other tree and root crops which are grown within this combination; the arrangement of these different crop components within a single system does indeed increase the intensity of cultivation. Interestingly, however, this intensity and multi-componential farming system is a small farmer phenomenon. Therefore, a substantial amount of good agricultural land in St. Lucia is left underutilized because the larger estates operate with extremely limited crop combinations. But, in this instance the mono-crop estate production cannot be argued away simply as the remenant of a colonial past. A constraint is the shortage of labour which is being competed for by the foreign owned multinational ccoperations.

Like bananas and coconuts, green vegetables and tubers, i.e. food crops, are cultivated throughout the island. The only difference is that in those areas with lower rainfall, vegetables are cultivated only in the wet season. The most commonly grown vegetables* are tomatoes, cucumbers, pumpkins, cabbage, carrots, lettuce and a selection of condiments particularly chive and onions. Unlike a

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*Varieties of vegetables are

tomatoes	-	Floradale, Calypso
cucumber	-	Pointsette
cabbage	-	K Y cross, Succession
lettuce	-	Mignetto
carrot	-	Denvers halflong
corn	-	Creole corn
sweet pepper	-	California wonder
water melon	-	Charleston sweet, charleston grey
okra	-	Clemson spineless
string beans	-	Contender

number of the other Eastern Caribbean countries, many of the farmers in St. Lucia consume a fair amount of the food crops that they cultivate market prices for vegetables are very high. In a number of cases, if a particular vegetable is not cultivated by a farming family, then it is substituted by another vegetable, rather than being purchased.

Root crops too pose a unique problem. Prices of such food items are rather high in the market in Castries. The farmers, however, are agitated because they are not receiving prices which would even cover the costs of production. Many of the farmers are either giving away the harvests or leaving the crops to rot in the fields. This situation of inconsistency between consumer price and farm-gate price reflects the poor market infrastructure. St. Lucian marketing channels are dominated by hucksters who, because the country is one of the larger islands in the region, are able to locate themselves at target points in the flow of commodities from the farm to the consumer. A market study would be most crucial for contextualizing the economic landscape in farming systems but unfortunately such a study is beyond the scope of this report. However, I would like to point out that unlike St. Vincent, for instance, food production is predominantly for the local market. Only yams and pumpkins are grown in sufficiently large quantities for export. In any case, because of the problem alluded to above, i.e. the apparent bottleneck in the flow of farm produce from the farmgate to the consumer, St. Lucia imports large quantities of vegetables which on the other hand are much cheaper than the locally produced vegetables. In the final analysis, the picture that emerges is one in which the urban consumer competes with the hotel industry* for locally grown vegetables and the farmer competes with the farmers outside St. Lucia for a market for his produce.

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*The husksters do a thriving trade buying farm produce to sell to the hotels.

Given the time constraints coupled with the St. Lucian political situation at the time of the field trip I was not able to gather any information on cropping patterns. Be that as it may, the farmers that I was able to talk to mentioned at least two distinct patterns, one for carrots as the major crop, and the other for yams. Carrots are usually combined with dasheen. If the rate of germination for the carrots is low, then the dasheen is immediately interplanted; if the rate of germination is high then the dasheen is interplanted only after the first crop of carrots is harvested - this will give sufficient time for the entire crop of carrots is harvested before the dasheen is mature.

In the case of yams and especially so in the wetter areas the tuber is grown in extremely large mounds ** around which there is usually a combination of cabbage, carrots and beans. The furrows in between the mounds are planted with tannia. All the different crops are not planted at the same time but at different times - depending on the length of maturity - in the course of the beginning of the wet season.

It is actually difficult to identify any systematic cropping pattern because each farmer seems to have developed his/her own unique multi-componential system. Referring to Appendix 1 again, the following are some of the more interesting combinations for the 1979 data collection period:

(i) Cabbage + Corn + Black eye peas + Carrots + Sweet pepper + Cucumber + Dasheen

(ii) Coconut + Banana + Citrus + Sweet Potato + Yam

(iii) Coconut + Banana + Dasheen + Sweet potato + Pumpkin + Cabbage + Celery + Christophene + Citrus + Corn

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**the planting material is of course proportionately large too

(iv) Cassava + Plantain + Pineapple + Tomato + Cucumber + Onion + Eggplant

(v) Citrus + Christophene + Tomato + Cabbage + Beans.

It has to be noted that although different crop combinations can be found in a single parcel the combinations are in no way to be assumed to be the result of mixed intercropping, i.e. two or more crops grown intermingled and simultaneously in the same parcel with no distinct row arrangement. In some parcels the crops are found growing in neat, individual plots while in others there are distinctive rows and in yet others there are no discernable patterns. Finally, it should be pointed out crop combinations and cropping patterns vary from one cropping season to another.

Leaving crop production aside, livestock is indeed an important component of farming systems in St. Lucia - it is an investment, especially cattle - some of the farmers own as many as 10 cattle. Next, in order of preference is swine and it is a very common sight to see pigs running around; very few farmers pen their pigs. Poultry is another favoured livestock. Most of the small farmers keep common fowl as dual purpose birds for both eggs and meat. Those very few farmers who kept birds in sufficient numbers to consider themselves broiler of egg producers, reared improved breeds.

Small ruminants are not favoured livestock probably because of praedial larceny and land suitabliity. The cattle and swine are tethered on the home parcel or at least close to the homestead. Small ruminants, especially goats, are destructive and have to be left to graze in areas where there is little cultivation. This can be a problem not only in terms of the labour unput for herding but because of praedial larceny the animals will have to be brought back to the homestead in the evenings.

The disposal and consumption of livestock follows the same urban - rural dichotomy as does food crops. All farming families interviewed

said that once a week, on Saturdays, they had access to fresh red meats* sold by the community butcher. In the towns, however, the usual complaint is the lack of fresh red meats and the need therefore to depend on imported and expensive frozen meants. All poultry consumed, be it in the rural or urban areas, is imported and frozen - either whole dressed chicken or chicken backs and necks. Very few of the farming families consume processe, canned meats.

Food imports for St. Lucia. are as high as the other Eastern Caribbean nations; yet, farmers are producing at least enough amounts for family consumption. This goes to show that there is indeed a definite market for food in the urban areas. The major constraint to increased food production, as indicated by the family community, is the lack of a reliable market. Of contradiction here then is the high import bill and the complaints, by the farmers, of a poor market infrastructure. For purposes of policy, it is most important that careful thought be given to the above mentioned contradiction because it means that one of the possible ways of removing the constraints to rural development in St. Lucia is identifying the nature, structure and functioning of that bottleneck(s) in the marketing system which works to the detriment of both the urban consumer and the small farmer.

Food consumption patterns and the nutritional intake of farming families is a very relevant aspect of this analysis but they have been excluded because their importance warrants a separate study on its own. It should be noted here that the instrument for an island wide consumption survey is presently being modified to fit the St. Lucian situation.

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*Lamb, mutton, beef, pork

Concluding Remarks

The data and analysis presented above is only provisional in the sense that more field data needs to be collected in order to be able to systematically characterise farming systems in St. Lucia. In the light of this, it would be rather premature to attempt to synthesize and present any conclusive statements at this point in time. Thus I would like to close this report by providing, in point form, some of the issues that need to be pursued.

1. The impact of the accelerated food programme which was introduced after the 1979 hurricane. The farmers are still being given planting material and chemical inputs but their production is not being monitored. Undoubtedly, the aim of this programme was to make available locally grown produce to feed St. Lucia. After the hurricane, the demand for food was so large that as a response to it production was increased very many fold. This unfortunately resulted in the farmers in the programme selling off most of the food they grew, with the seeds and inputs provided them, without reserving a part of the harvest for planting material. There were a number of new crops introduced into the system by the accelerated food programme and now there is hardly any new planting material left to continue the cultivation of these new crops.

2. The nature of the contradiction between St. Lucia's high import bill and the complaints by the farmers of a poor market infrastructure.

3. An island wide consumption survey and analysis which would indicate among other things the preferred food items and the extent to which these food items are grown or can be made available locally.

4. The probable effects of the proposed Food and Vegetable Crop Production programme whose objectives are:
   (i) to encourage and motivate farmers to grow more food crops and vegetables on a large scale,

(ii) to teach farmers about the planning of proper crop rotation and the principles involved in important management procedures involved in vegetable and crop production,

(iii) to motivate farmers to adopt and apply improved techniques which will result in increasing yields.

St. Lucia needs to increase its food production to at least cut back the food import bill, but the important point is that no mention is made of improving the existing market infrastructure which certainly does not have the capacity to absorb an increased production. Increasing the expectations of the farmers and then not being able to fulfill these expectations can surely only have disastrous affects.

Presented above are the four main issues that need to be sorted out before any meaningful policy prescriptions can be made. Until such time this report will remain provisional and should be regarded as only providing the backdrop for a detailed understanding of farming systems in St. Lucia.

1981-05-13

APPENDIX: FARM INFORMATION

FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE (acres)	PARCELS (number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP (S) & CROP COMBINATIONS
NOTHERN DISTRICT													
			INCOME LEVEL: $5,000/ANNUM										
122	Leo Joseph	52	Bocaze	Crop Production		3	1	Annual Rent	Steep slope	40-60"	heavy	rain-fed	Banana/Papaya/ Vegetables/ Coconut/Breadfruit Avocado/Citrus/ Macambou/Tannia
125	Winston Phillip	52	Monier	Mixed Farming		4.5	2	Family Land	Undulating	+60"	heavy	rain-fed	Parcel 1 Banana/ Breadfruit/Coconut Tannia/
								Freehold	Undulating	+60"	heavy	rain-fed	Parcel 2 Sweet Potato Banana Mango
129	Clifford Paul	48	Forestier	Crop Production		3	1	Lease	Undulating	+60"	heavy	rain-fed	Banana/Cocount/ Breadfruit/Citrus Tannia Dasheen Vegetables
133	Innocent Phillip	42	Mixed Farming			6	1	Freehold	Gradual slopes	+60"	heavy	rain-fed	Banana/Coconut/ Breadfruit/Tannia Macambou/Tannia Sweet Potato/ Cassava Cassava Lettuce Vegetables

FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE PARCELS (Acres)	(Number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP(S) & CROP COMBINATIONS
	INCOME LEVEL: $10, 000/ANNUM												
140	Ralph Eleuthere	45	Babonneau	Mixed Farming	Middleman buying vegetables from farmers to sell to hotels	8	3	Freehold Freehold Annual lease	gradual slopes undulating gradual alope	+60 +60 +60	heavy heavy heavy	Rain-fed Rain-fed Rain-fed	Parcel 1 Banana Citrus/Coconut Avocado/Bread fruit/Tannia Yam/ Plantain Tannia/Dasheen Vegetables Banana/Cucumber Parcel 1 Banana/ Cucumber Yam/Plantain Parcel 2 Banana/ Citrus/ Coconut/ Avocado
CENTRAL DISTRICT													
	INCOME LEVEL: $5,000/ANNUM												
153	Nicholas Evans	34	Gr. Riviere	Mixed Frming	Painter	1.5	1	Family land belonging to common law wife	Flat	+60	Light	Rain-fed	Banana/Coconut/ Tannia/Breadfrui Mango/Guava
155	Cuthbert Leonce	34	Gr. Riverie	Crop Production	-	3	1	Family Land	Flat	+60	Heavy& Light	Rain-fed	Banana/ Coconut/ Yam/Tomato
160	Joseph Christo-phene	47	Bois Jolly	Crop Production	-	10	2	Private Lease	Flat/Steep Slope	+60	Heavy	Rain-fed	Banana/Coconut/ Mango/Avocado/ Golden Apple/ Spice/Cocoa/Bren fruit/Tannia/ Cabbage/Cucumber

FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE PARCELS (Acres)	(Number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP(S) & CROP COMBINATIONS
160 cont'd													Carrot/ Yam/ Coconut/carrot
162	Jacob Flavien	50	Glavier	Mixed Farming	Part-time Farm Labourer	2	1	Private Lease	Flat	40-60"	Heavy	Rain-fed	Coconut/Banana/ Plantain/sugar-Cane/Citrus/ Cashew/Pineapple/ Yam/Mango/Corn/ Sweet potato/ Pumpkin/Cucumber/ Beans/Dasheen
	INCOME LEVEL: $5,000-10,000/ANNUM												
151	Nicholsan Willings	29	Thomazo	Crop Production		6,7	2	Freehold	Very Steep slope	+60	Heavy	Rain-fed	Banana/Avocado/ Coconut/Citrus/ Tannia/Yam
179	Antoine Goolman	28	La Tille	Crop Production	-	1.2	1	Family Land	Gentle Slope	+60	Heavy	River	Tomato/Cabbage/ Sweet Pepper/ Beans/Corn/Pigeon Peas/ Corn/ Cucumber/ Corn/Cucumber/ PawPaw/ Cabbage/ Corn/ Blackeye Peas/ Carrots/ Sweet Pepper/ Celery Tomato/Celery/ Cabbage/ Lettuce Eggplant Cucumber Onion Sweet Pepper Dasheen Tannia

FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE (Acres)	PARCELS (Number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP (S) & CROP COMBINATIONS
188	Francois Camille	35	Ti Rocher	Crop Production		6	2	Family Land Freehold	Gentle Slope Gentle Slope	+60" +60"	Heavy Heavy	Rain fed Rain fed	Parcel 1 Banana/Coconut/ Citrus Parcel 2 Banana/Coconut/ Yam
	INCOME LEVEL: $5,000 - $10.000/ANNUM												
183	Fitzroy Nervais	50	Mahaut			13.5	2	Freehold Freehold	Gentle Slope Flat	+60" +60"	Light Light	Rain fed Rain fed	Not available
187	Philbert Mangal	35	Desruisseaux	Mixed Farming		9.5	3	Freehold Gov't Lease Private Lease	Undulating Steep & Gentle Undulating	40-60" +60" +60"	Light Light Heavy	River Rain fed	Parcel 1 Coconut/Banana/ Citrus/Sweet Potato/Yam Parcel 2 Banana/Coconut/ Dasheen Parcel 3 Banana/Yam/ Dasheen
SOUTHERN DISTRICT INCOME LEVEL: $5,000/ANNUM													
221	Ennonce Beausoleil	50	Augier			6.5	3	Freehold Family Land Freehold	Flat Undulating Steep	+60" +60" +60"	Heavy Heavy Light	Rain fed Rain fed Rain fed	Parcel 1 Banana/Coconut/ Citrus/Breadfruit/Yam Parcel 2 Banana/Coconut/ Plantain/Yam Parcel 3 Sweet Potato
223	Peterin Charlery	51	Retraite	Mixed Farming		4.5	3	Annual Rent Annual Rent	Undulaitng Gentle Slope Flat and Steep Slope	40-60" 40-60" 40-60"	Light Heavy&Light Heavy	Rain fed Rain fed Rain fed	Parcel 1 Banana/Avocado Parcel 2 Coconut/Yam/ Dasheen/Tannia Parcel 3 Peanut/Sweet Potato/Pigeon Peas

FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE PARCELS (Acres)	(Number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP (S) & CROP COMBINATIONS
238 Cont'd													Parcel 3 Banana/Dasheen/ Breadfruit/Plantain/Tannia, Parcel 4 Coconut/Banana/ Yam
		INCOME LEVEL:$5,000-$10,000/ANNUM											
225	Francis Charlemange	38	La Grace	Mixed Farming		5.8 5.8	2 3	Freehold Freehold	Flat Gentle Slope Steep	40-60" 40-60" +60"	Heavy & Light Light & Heavy Light & Heavy	Rain fed Rain fed Rain fed	Parcel 1 Breadfruit/ Banana/Coconut/Celery Parcel 2 Banana/Cabbage/ Yam/Coconut/Citrus Parcel 3 Coconut/Yam/ Banana
228	Gills Joseph	27	Augier	Crop Production		1.6	2	Freehold Freehold	Flat Gentle Slope	40-60" 40-60"	Heavy& Light Light	Domestic Water Supply Rain fed	Cucumber/Lettuce/ Onions/Pumpkin/Cabbage/ Papaya/Sweet Potato
235	Joseph Louisy	35	Grace	Mixed Farming		6.5	1	Family Land	Gentle Slope	+60"	Heavy& Light	Rain fed	Banana/Coconut/Cocoa/ Coffee/Citrus/Tannia Sweet Potato/Corn Ginger/Yam/Pumpkin Elephant Grass
SOUTHWESTERN DISTRICT													
		INCOME LEVEL: $5,000-$10,000/ANNUM											
199	Emmanuel Plant	23	Monte	Mixed Farming	-	20	3	Family Land	Gentle Slope	+60"	Light& Heavy	Rain fed	Parcel 1 Banana/Bread fruit/Coconut/Citrus/ Dasheen/Carrot/Turnip Parcel 2 Dasheen/Bread fruit

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224	Jesse Joseph	26	Lesperance Perrou			8	3	Freehold Family Land Family Land	Flat Gentle Slope Gentle Slope	+60" +60" +60"	Heavy Light Heavy & Light	Rain fed Rain fed Rain fed	Parcel 1 Tomato/Cabbage Parcel 2 Banana/Coconut/Plantain Parcel 3 Yam/Dasheen/Pumpkin
226	Elwyn Paul	52	Banse	Mixed Farming		116	3	Family Land Share Cropping Family Land	Steep Undulating Gentle Slope	40-60" 40-60" +60"	Heavy Heavy & Light Heavy & Light	Rain fed Rain fed Rain fed	Parcel 1 Coconut/Banana/Dasheen/Sweet Potato/Pumpkin/Cabbage/Celery/Christophene/Citrus/Corn Parcel 2 Banana/Sweet Potato/Corn Parcel 3 Banana/Dasheen/Yam/Macambou/Corn
232	Carmay John	32	Augier	Mixed Farming		4	2	Annual Rent Annual Rent	Flat Flat	40-60" -40"	Light Light	Rain fed Rain fed	
236	Louis Fontenelle	37	Vieux Fort	Mixed Farming	Taxi Driver during tourist season; supervisor in banana boxing plant	8	2	Freehold Freehold	Steep Slope Steep Slope	+60" +60"	Light Light	Rain fed Rain fed	Parcel 1 Banana/Coconut/Dasheen/Macambou/Yam/Tannia/Mango/Coco Avocado Parcel 2 Banana/Cocon
238	Robert Placide	47	La Grace	Mixed Farming	Part-Time Carpenter	7.5	4	Freehold Family Land Family Land Family Land	Steep slope Steep slope Steep slope Steep slope	40-60" +60" 40-60" 40-60"	Heavy Heavy Heavy Heavy	Domestic water supply Rain fed Rain fed Rain fed	Parcel 1 Coconut/Sweet Potato/Vegetables/Banana Parcel 2 Coconut/Banana/Macambou/Dasheen/Yam/Sweet Potato/Pigeon Peas/Okra

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FARMER NUMBER	FARMER NAME	AGE	LOCALITY	TYPE OF FARMING	NATURE OF OFF-FARM EMPLOYMENT	LANDHOLDING SIZE (Acres)	PARCELS (Number)	TENURAL ARRANGEMENT	TOPOGRAPHY	RAINFALL	SOIL TYPE	WATER REGIME	CROP (S) & CROP COMBINATION
201	Selwyn Mills	39	Darban		-	5.5	2	Family Land Family Land	Steep Slope Gentle Slope	+60" +60"	Heavy Heavy	Rain fed	Parcel 1 Banana/Breadfruit/ Coconut/Yam/Tannia/Chive Parcel 2 Banana/Coconut/ Dasheen/Yam/Vegetables
206	Anthony Herman	25	Choiseul	Crop Production	School Teacher	4	3	Family Land Freehold	Undulating Flat	40-60" 40-60"	Heavy Light	Rain fed Rain fed	Parcel 1 Land not in cultivation Parcel 2 Tomato/Carrot
214	Harold Laurencin	49	Belle Ford		-	7	3	Family Land Share-Cropping Freehold	Undulating Undulating Undulating	+60" +60" +60"	Light Heavy Light	Rain fed Rain fed Rain fed	Parcel 1 Christophene/ Citrus/Tomato/Cabbage Parcel 2 Banana/Dasheen/ Chives/Carrot Parcel 3 Banana/Yam/ Dasheen/Coconut/Citrus
	INCOME LEVEL: $10,000/ANNUM												
196	Mrs. David Mondesir	65	La Pointe	Mixed Farming	-	6 6	2 2	Freehold Freehold	 Flat	40-60" 40-60"	Light Light	Irrigation Irrigation	Parcel 1 Sweet Potato/ Dasheen/Coconut/Tomato/ Mango/Peanut Parcel 2 Sweet Potato
197	Bertrand Demacque	61	Canaries	Mixed Farming	-	2.7	1	Family Land	Steep Slope	40-60"	Light	Rain fed	Cassava/Plantain/Pine Apple/Tomato/Cucumber/ Onion/Pineapple/Eggplant
202	Peter Augustine	39	Bois Den	Mixed Farming.	-	10	6	(3) Free Hold (2) Share-Cropping (1) Family	Flat Steep Steep Gentle Slope	+60" +60" +60" +60"	Light Light Light Light	Rain fed Rain fed Rain fed Rainfed	Parcel 1 Citrus/Christophene/Tomato/Cabbage/Beans Parcel 2 Carrots/Cabbage/ Celery Parcel 3 Citrus/Avocado/ Coconut/Plantain/Chive/ Celery

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202 Cont'd												Parcel 4 Coconut/Banana/ Yam/Carrot Parcel 5 Carrot/Chive/ Turnip/Sweet Potato Parcel 6 Banana/Yam/ Dasheen/Tannia