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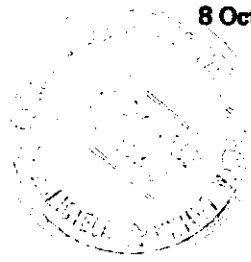

ECONOMIC COMMISSION FOR LATIN AMERICA
Office for the Caribbean

REPORT ON A FARM SURVEY CONDUCTED IN GRENADA

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Prepared by
Max B. Ifill
UN Regional Economic Adviser

FOREWORD

In May 1976, the Adviser undertook to prepare an Agricultural Sector Plan for the Government of Grenada. At the time there was no recent study which gave insight into practices and attitudes of the farming community and therefore a farm survey was undertaken to provide a canvass against which the plan could be devised. Findings of the survey were used in preparing the plan, but due to staff shortages and pressure of other duties, the results of the farm study are only now being published.

The questionnaire was a lengthy one and it put great demands on both field staff and respondents. In some cases interviewers suffered from strain and this was reflected in the quality of the completed questionnaires. As in most of these exercises, one is forced to cut corners because of cost factors, and in this case the area which suffered most was supervision. This report must be viewed as a companion study to the Agricultural Sector Plan which deals with the problems of agricultural development in greater depth.

The Adviser wishes to express thanks to the Agricultural Extension Officers who agreed to undertake the field work, without which our knowledge of the farming community would have been much less and the agricultural plan would have been without an empirical base.

Thanks are also due to Mr. Roy Banfield of the Agricultural Bank who was kind enough to enlist some of his staff to do preliminary tallying of the questionnaires. Also to Miss Anita Cozier of the Ministry of Agriculture who did the second tallying exercise and to Miss Lystra Seetaram of UN/ECLA who did the final tallying. First drafts of the report were typed by Miss Seetaram and Miss Joanne Ferraz, and the final report by Miss Gisele Santos.

The Adviser wishes to express his thanks and gratitude to all those whose assistance and dedication made this report possible.

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SUMMARY AND MAIN RECOMMENDATIONS

1. The indications are that the farming population is an aging one, and therefore concerted effort must be made to attract youth into farming. (See page 3).

2. There are many adults in the society whose primary school experiences did not equip them with life-long literacy, and a psychological orientation to reading and writing. For a developing country concerned with changing and restructuring its socio-economic framework, such impediments in human capacity pose severe limitations on what can be attained. Furthermore, there is the additional factor that sixty per cent of farmers have been farm operators for over twenty years, so that there might be much resistance to new ideas. Training classes designed to improve educational standards in adults should be introduced throughout the country, and the agricultural extension service must develop pictorial and other means of mass communication which will make farmers more amenable to change. (See pages 5 and 6).

3. One of the aims of an adult education programme should be to foster growth of co-operatives. Greater weight should be given to development of producer co-operatives than to development of credit unions and buying clubs, because the former are more directly connected with productive enterprise. (See page 8).

4. Data on savings facilities used by respondents show that banks are most commonly used and post offices seldom used. The latter are distributed throughout the country and were important savings institutions in colonial times. It is to the advantage of government to encourage post office savings and steps should be taken to see how this can be achieved. (See page 9).

5. Very few farm records are kept at present therefore Government has no data for comprehensive planning in the agricultural sector. Respondents showed however that they would keep records if instructed how to do so. The Ministry of Agriculture should therefore introduce simple record systems which can be used by farmers. (See page 10).

6. Because of the topography of most land under farming, soil conservation practices are important to reduce soil erosion. (See pages 12 and 13).

7. There is need for a many-sided programme for agricultural rehabilitation. The main components of such a programme should be:

(a) high pressure campaign aimed at fostering acceptance of farm engrossment;

(b) co-operative activity as an essential part of the farm engrossment programme;

(c) soil conservation on individual farms where necessary but with emphasis on co-operative development in farm engrossment scheme;

(d) revision of land use patterns with a view to increasing farm income. (See pages 13-19).

8. The practice of distribution 1/4 and 1/2 acre farm units in rural areas should be stopped. House lots should be distributed for residential purposes only, and not for subsidiary commercial agriculture. Hobby and subsistence farmers should be given plots in communal agriculture land. (See page 23).

9. The survey revealed a high preference for family farms. This augurs well for the future because farming is more than a commercial activity. It is also a way of life and government policy should be directed to fostering farming on a family basis where there is clear indication of such an orientation in the farming community. (See pages 25 and 29).

10. A high proportion of farmers indicated preference for farm consolidation, and the general inclination was to land which was topographically both flat and hilly. (See pages 26 and 27). But consideration must be given to ways of overcoming objections to consolidation as expressed on page 29.

11. Groups of farmers who farm co-operatives should be given subsidies for some farm operations. (See pages 30 and 32).

12. Farmers must be given financial incentives to produce specific commodities on minimum size acreages. (See page 35).

13. Attention should be focused on production of ground provisions, plantains and bananas with a view to increasing yields per acre of disease resistant strains. (See page 45).

14. A thorough study of existing Agricultural Extension Service should be made with a view to making it a more effective force in the programme for agricultural development. (See pages 54-56).

REPORT ON A FARM SURVEY CONDUCTED IN GRENADA

This farm survey was undertaken in 1976 as a companion exercise to the Agricultural Sector Plan for Grenada. The survey was intended to cover both the islands of Grenada and Carlacou, but the completed questionnaires for the latter island were lost in transit and therefore this Report deals only with the island of Grenada. For survey purposes, the four zones into which the island is divided for agricultural extension services were used as a frame for proportional sampling. Uniform heterogeneity was assumed namely: that differences in farmer behaviour and attitudes in the strata were not great enough to result in appreciable error or loss of precision in estimates based on this proportional method.

The British Development Division (BDD) Farm Survey of 1975 estimated farmer population of Grenada in that year to be 11,309 distributed as follows:[1/]

REGION	ESTIMATED FARMER POPULATION
North	2,219
South	4,008
East	3,327
West	1,755

These data were used in constructing a two per cent sample of the total farming population. The following is the distribution of interviews sought by regions:

North	45	East	66
South	80	West	35

TOTAL = 226

1/ The returns from this farm survey were destroyed by fire in 1976 but the author was able to extract these data from work sheets before the fire occurred.

Unfortunately, due to administrative difficulties, and the breakdown of arrangements for field supervision, the number of interviews actually collected were less than those planned and regional quotas were not adhered to. The following were the interviews actually collected on a regional basis.

North	60	East	60
South	61	West	31

TOTAL = 212

The number of farmers interviewed was 1.89 per cent of the farming population and regional quotas deviated significantly from planned sizes. It is felt however that despite these deviations from theoretical precision and doubts about the level of randomness achieved, a survey of 212 farmers can give valuable information for planning agriculture sector policy.

The survey questionnaire was designed to provide information under seven different headings:

A Farmers
B Farm land
C Farm inputs
D Farm produce
E Farm extension service
F Farmers' social attitudes
G Farm household consumption

This Report is written up under the same headings.

A FARMERS

Table 1 shows the age-group, sex and regional distribution of farmers interviewed.

Table 1

Age-group, Sex and Regional Distribution of Farmers interviewed in 1976

AGE GROUP	NORTH		SOUTH		EAST		WEST		TOTAL	
	M	F	M	F	M	F	M	F	M	F
Born before 1910	2	3	7	-	8	2	4	1	21	6
1910 - 1931	20	3	25	6	21	3	11	1	77	13
1932 - 1949	21	9	14	6	21	-	10	3	66	18
1950 - 1957	1	1	1	2	5	-	1	-	8	3
TOTAL	44	16	47	14	55	5	26	5	172	40
	60		61		60		31		212	

The table shows that 19 per cent of the farmers interviewed were women and that 55.2 per cent of the interviewees were 45 years and over. No comparable data on sex distribution of farm operators is available, but it is of interest to note that with respect to age distribution, the 1961 Farm Census recorded that of the 14,553 farm operators in the island of Grenada, 55.8 per cent were over the age of 45. The farming population has therefore retained the same age characteristics for the past 15 years.

Table 2 gives the total population in farm households interviewed by age and regional distribution.

Table 2

Farm Population in Households Interviewed by Age and Regional Distribution

AGE GROUP	NORTH	SOUTH	EAST	WEST	TOTAL	
					Nos	%
Under 15 years	130	92	119	41	382	35.1
15 years and over	218	190	216	81	705	64.9
TOTAL	348	282	335	122	1,087	100.0

The number of residents in the 212 households interviewed was 1,087, an average of 5.1 persons per household. This is higher than the 4.4 persons per household of the 1961 Farm Census, when 64,138 persons resided in 14,553 farm operators' homes.

Thirty-five per cent of residents in households interviewed in the survey were under 15 years of age. In 1961, the corresponding figure was 54 per cent. The lower percentage of under 15 residents revealed by the survey most likely reflects flaws in sample representation. For the 1960 Census population recorded the number of under 15's as 48 per cent of total population and, as seen above, the 1961 Farm Survey indicated that a higher percentage of under 15's lived in farm households. The 1970 Census population revealed that under 15's were 47 per cent of total population. With such little change in national population data over the decade, it is unlikely that under 15 household farm population would have fallen to 35 per cent. Studies need to be done on internal migration to support the conclusion that a population shift of this magnitude has occurred.

Question 4 asked what were the ages of respondents when they left school. The replies to this question are shown in Table 3. The data shows that respondents left school before the age of 14, which is the normal age for completion of primary education. Unfortunately, the questionnaire did not enquire into the number of years respondents spent in school and therefore it cannot be ascertained if those who left school above the age of 14 had secondary education. They most likely did not, but rather remained in primary schools at advanced ages.

Though the evidence is not conclusive, the indications are that general educational programmes can raise levels of education in the farming community.

Table 3

Distribution of ages at which farm operators interviewed left school

Ages of operators	NUMBER OF FARM OPERATORS				
	North	South	East	West	Total
8	3	-	-	1	4
10	-	-	1	-	1
11	-	-	-	1	1
12	4	-	1	-	5
13	1	1	5	1	8
14	5	7	10	4	26
15	1	16	10	3	30
16	14	16	13	5	48
17	8	14	5	4	31
18	16	2	7	7	32
19	3	-	4	-	7
20	3	1	1	-	5
21	-	1	2	1	4
22	-	-	1	-	1
No reply	2	3	-	4	9
TOTAL	60	61	60	31	212

Question 5 aimed at finding out how long the sample population had been farming. The replies to this question are shown in Table 4.

Table 4

Number of Years of Farming Experience of Farm Operators Interviewed by Region

Category	North	South	East	West	Total
More than 20 years	26	39	45	16	126
Between 10 and 20 years	17	14	11	7	49
Less than 10 years	16	7	4	6	33
No reply	1	1	-	2	4
TOTAL	59	60	60	29	212

Sixty per cent of those interviewed had been farming for more than 20 years, 24 per cent for between 10 and 20 years and 16 per cent had less than 10 years experience. These data indicate that the percentage of the farming population which is likely to adhere to traditional farming methods is high and therefore the extension service and communication media must take this into account in trying to introduce new farming methods.

Question 6 sought to establish the number of persons who did part-time farming as opposed to those for whom farming was a full-time occupation. The data showed that 47.2 per cent of those interviewed are full-time farmers. Table 5 shows these data by region and Table 6 shows the occupation distribution of part-time farm operators. Thirty-two (28.6 per cent) of them were tradesmen; 21 (18.8 per cent) were agricultural workers; 24 (21.4 per cent) were general service workers and 20 (17.8 per cent) were unskilled labourers.

Table 5

Distribution of Full-time and Part-time Farmers by Region

Farm Operators	North	South	East	West	Total
Part-time	31	30	37	14	112
Full-time	29	31	23	17	100
TOTAL	60	61	60	31	212

Table 6

Occupations of Part-time Farm Operators

Occupations	No. of Persons
Tradesmen	32
Agricultural Workers	21
Distributive Services	5
Other Services	24
Public Servants	6
Unskilled Labour	20
Fishermen	2
No reply	2
TOTAL	112

Question 8 sought to establish how much joint action there was among the farming population. Table 7 shows that 159 (75 per cent) of those interviews were not members of any organization, while 7 of them were members of more than one. The Credit Union was the most popular form of joint activity, next was the co-operative and finally

the village group. On a percentage basis, distribution of membership of an organization was about the same in North, South and East Regions whereas in the West Region it was somewhat lower.

Table 7

Joint Activity among Farm Operators by Region

	North	South	East	West	Total
Co-operative	1	6	6	6	19
Village Group	3	4	4	-	11
Buying Club	1	-	-	-	1
Credit Union	12	8	8	1	29
A. Total Membership	17	18	18	7	60
Non Membership	43	43	49	24	159
B. Total Interviewees	60	61	60	31	212
A as % of B	28%	30%	30%	23%	

Questions 7 and 10 enquired into the saving habits of farm operators. Table 8 shows that 45 per cent of those interviewed said that they saved; 44 per cent said that they did not; while the remaining 22 (11 per cent) interviewees did not give a reply. Fifty-three per cent of those interviewed in North Region and 55 per cent of those in West Region said that they saved. In East Region 47 per cent said that they saved whereas in South Region only 31 per cent said that they did.

Table 8

Saving Habits of Interviewees by Region

Category	North	South	East	West	Total
Yes	32 (53%)	19 (31%)	28 (47%)	17 (55%)	96 (45%)
No	23 (38%)	35 (57%)	29 (48%)	7 (23%)	94 (44%)
Refusals	5 (8%)	7 (11%)	3 (5%)	7 (23%)	22 (10%)
TOTAL	60 (100%)	61 (100%)	60 (100%)	31 (100%)	212 (100%)

Table 9 shows the saving facilities used by those who said that they save. The most commonly used facility was banks, in which 66 per cent of those who saved put their money. Sixteen persons (16.3 per cent) used the traditional sou-sou method of saving privately with persons whom they trusted.

Table 9

Saving Facilities used by Those who Saved

Saving Facilities	North	South	East	West	Total
Post Office	1	-	-	-	1
Bank	21	13	16	13	63
Sou-Sou	6	1	9	-	16
Other	4	5	3	4	16
No Record	-	1	1	-	2
TOTAL	32	20*/	29*/	17	98

*/ In both South and East Regions one person used two facilities.

Question 11 sought to establish if farmers were in the habit of keeping records. Table 10 shows replies to this question.

Table 10

Record Keeping Practices of Farmers Interviewed by Region

Category	North	South	East	West	Total
RECORD KEEPERS: of which	5	7	8	1	21
a. What do you plant?	3	3	5	1	7
b. How much do you reap?	2	2	2		9
c. How much money do you spend?		1			1
d. What do you spend it on?		1			2
e. How much money do you borrow?					1
NON RECORD KEEPERS	54	53	52	28	187
No reply	1	1	-	2	4
TOTAL	60	61	60	31	212

Only 21 (9.9 per cent) of those interviewed kept farm records, but Table 11 shows that 170 (80 per cent) of those interviewed said that they would keep records if they were shown how to do so by the extension staff, and 25 (11.8 per cent) others said that they did not know if they would. This suggests that a large proportion of the farming population can be encouraged to improve their farm practices.

Table 11

Replies by Interviewees when asked If They would keep Records if Shown

Category	North	South	East	West	Total
Yes	46	50	49	25	170
No	4	1	1	-	6
Don't Know	9	8	3	5	25
No Reply	1	2	7	1	11
TOTAL	60	61	60	31	212

B FARMLAND

Table 12 shows the number of parcels of land farmed by those interviewed. Eighty-six farmers, representing 40.6 per cent of those interviewed farmed only one parcel and 74 or 34.9 per cent farmed 2 parcels each. At the other extreme, there were 2 farmers who farmed 6 parcels each and 2 others who farmed 7 and 8 parcels respectively. The total number of parcels of land farmed by the sample population was 432, an average of 2 parcels per farmer.

Table 12

Distribution of Land Farmed by Number of Farmers, by Number of Parcels and by Regions

No. of Parcels	Number of Farmers				Total No. of Farmers	Total No. of Parcels
	North	South	East	West		
1	24	25	26	11	86	86
2	21	26	18	9	74	148
3	9	9	3	5	26	78
4	6	1	5	5	17	68
5	-	-	5	-	5	25
6	-	-	1	1	2	12
7	-	-	1	-	1	7
8	-	-	1	-	1	8
	60	61	60	31	212	
Total No. of Parcels	117	108	137	70		432

Question B2 aimed at finding out the acreage of each parcel of land, and whether it was located on flat land, on hillside, or on both. This question was badly handled by the field staff and the lack of proper supervision showed up very blatantly. There were wide discrepancies between the total number of parcels of land farmed, as revealed by Question B1. and the number of parcels for which acreage data were collected. The discrepancies are shown in tabular form below:

Category	North	South	East	West	Total
No. of parcels owned by respondents	117	108	137	70	432
No. of parcels for which acreage data were collected	112	91	89	40	332
Total Discrepancy	- 5	- 17	- 48	- 30	- 100

Table 13 shows the distribution of the 332 parcels of land for which acreage data were collected by topography and region. Forty-three per cent of the parcels of land farmed was classified as flat and 41 per cent as hilly. These data emphasize the importance of contouring and terracing in agricultural production in order to reduce the risk of soil erosion, for over 57 per cent of the parcels of land under cultivation was classified as "not flat".

Table 13

Distribution of Parcels Farmed by Respondents by Topography and Region

Topography	North	South	East	West	Total
Flat Land	40	39	48	14	141
Hilly Land	33	39	38	26	136
Flat + Hilly	39	13	3	nil	55
TOTAL	112	91	89	40	332

Table 14 shows distribution of land farmed by parcel sizes, acreage and topography. The data show that 238 acres, (40.7 per cent of all land farmed) were flat land; that 246 acres (or 42.0 per cent) were hilly; and the remaining 101 acres (17.3 per cent) were clarified as flat and hilly. This further emphasizes the importance of land conservation practices in farming, for over 59 per cent of the acreage under cultivation was classified as "not flat". Table 14 also shows that the total area farmed by those who responded to question B2 was 584.75 acres. This indicates that the acreage covered by the survey was 1.3 per cent of 46,577 acres of land in agricultural use, as estimated by the 1975 agricultural census.

Of the total number of parcels farmed, 42 (12.8 per cent) were 1/4 acre or less and 245 (73.8 per cent) were 2 acres or less in size. This illustrates fairly accurately the small sizes of most small farm holdings in the country.

Table 14

Distribution of Parcels Farmed by Size, Acreages and Topography

Parcel Size (acres)	Flatland		Hilly		Flat + Hilly		TOTAL	
	Par.	Acres	Par.	Acres	Par.	Acres	Par.	Acres
0.25	17	4.25	17	4.25	8	2.0	42	10.5
0.5	26	13.0	29	14.5	8	4.0	63	31.5
0.75	9	6.75	6	4.5	-	-	15	11.25
1.0	25	25.0	18	18.0	10	10.0	53	53.0
1.25	3	3.75	2	2.5	1	1.25	6	7.5
1.5	12	18.0	10	15.0	3	4.5	25	37.5
1.75	1	1.75	6	10.5	2	3.5	9	15.75
2.0	13	26.0	12	24.0	7	14.0	32	64.0
2.25	1	2.25	3	6.75	1	2.25	5	11.25
2.5	3	7.5	7	17.5	4	10.0	14	35.0
2.75	1	2.75	2	5.5	-	-	3	8.25
3.0	11	33.0	6	18.0	5	15.0	22	66.0
3.25	-	-	1	3.25	-	-	1	3.25
3.5	4	14.0	3	10.5	2	7.0	9	31.5
3.75	2	7.5	-	-	-	-	2	7.5
4.0	5	20.0	3	12.0	-	-	8	32.0
4.5	1	4.5	2	9.0	1	4.5	3	18.5
5.0	-	-	1	5.0	-	-	1	5.0
5.5	-	-	1	5.5	-	-	1	5.5
6.0	3	18.0	-	-	1	6.0	4	24.0
6.5	1	6.5	-	-	-	-	1	6.5
6.75	1	6.75	-	-	-	-	1	6.75
7.5	1	7.5	1	7.5	-	-	2	15.0
8.0	-	-	2	16.0	1	8.0	3	24.0
9.0	1	9.0	4	36.0	-	-	2	45.0
9.25	-	-	-	-	1	9.25	1	9.25
TOTAL	141	237.75	136	245.75	55	101.25	332	584.75
%		40.7%		42.0%		17.3%		100.0%

Table 15 presents a breakdown by region and parcel size of flat land and acreages of such land farmed by respondents. Most flat land under cultivation (41.6 per cent) was in East Region, while the least was in West Region (11.4 per cent). The pattern of distribution of mini-farms in each Region was more or less the same as that for all flat-land farms taken together. In each region the relative acreage under farms of 2 acres and less was significantly lower than the percentage of farms surveyed in this parcel size. For example:

In North Region 75 per cent of the parcels in the survey accounted for 44 per cent of the acreage;

In South Region 87 per cent of the parcels in the survey accounted for 64 per cent of the acreage;

In East Region 64 per cent of the parcels in the survey accounted for 39 per cent of the acreage;

In West Region 74 per cent of the parcels in the survey accounted for 35 per cent of the acreage.

These data show quite clearly that the incidence of flat land mini farms is high throughout the island, and therefore farm production policy must be concerned with the use to which these acreages are put in order to ensure mass participation in programmes designed to increase commercial production.

Table 15

Regional Distribution of Parcel Sizes of Flat Land Farmed by Number of Parcels and Acreage

Parcel Size (acres)	Number of Parcels and Acreages									
	North		South		East		West		TOTAL	
	Par	Acres	Par	Acres	Par	Acres	Par	Acres	Par	Acres
0.25	4	1.0	8	2.0	4	1.0	1	0.25	17	4.25
0.5	9	4.5	7	3.5	8	4.0	2	1.0	26	13.0
0.75	2	1.5	1	0.75	4	3.0	2	1.5	9	6.75
1.0	6	6.0	9	9.0	5	5.0	5	5.0	25	25.0
1.25	-	-	-	-	3	3.75	-	-	3	3.75
1.5	4	6.0	5	7.5	2	3.0	1	1.5	12	18.0
1.75	-	-	-	-	1	1.75	-	-	1	1.75
2.0	5	10.0	4	8.0	4	8.0	-	-	13	26.0
2.25	-	-	-	-	1	2.25	-	-	1	2.25
2.5	1	2.5	-	-	2	5.0	-	-	3	7.5
2.75	1	2.75	-	-	-	-	-	-	1	2.75
3.0	5	15.0	4	12.0	2	6.0	-	-	11	33.0
3.5	1	3.5	-	-	3	10.5	-	-	4	14.0
3.75	-	-	-	-	2	7.5	-	-	2	7.5
4.0	1	4.0	1	4.0	2	8.0	1	4.0	5	20.0
4.5	-	-	-	-	1	4.5	-	-	1	4.5
6.0	-	-	-	-	2	12.0	1	6.0	3	18.0
6.5	-	-	-	-	1	6.5	-	-	1	6.5
6.75	-	-	-	-	1	6.75	-	-	1	6.75
7.5	-	-	-	-	-	-	1	7.5	1	7.5
9.0	-	9.0	-	-	-	-	-	-	1	9.0
TOTAL	40	65.75	39	46.75	48	98.5	14	26.75	141	237.75

Table 16 shows regional distribution of parcel sizes of hilly land farmed by number of parcels and acreage. As in the case of flat land under cultivation the number of parcels farmed of 2 acres and less is a high proportion of the total number of hilly farms surveyed in each region. They were 67 per cent in the North, 87 per cent in the South, 74 per cent in the East and 54 per cent in the West. And again, the acreage covered by these farms was, as in the case of flat land, significantly lower. In the North, it was 38 per cent; South, 65 per cent; East, 40 per cent and West, 19 per cent. These mini farms, each under individual management, provide evidence of the need for a programme aimed at consolidating land under hillside cultivation and the adoption of soil conservation practices. These land reform programmes should be undertaken jointly and should aim at achieving cultivation under co-operative ownership.

Table 16

Regional Distribution of Parcel Sizes of Hilly Land Farmed by Number of Parcels and Acreage

Parcel Size (acres)	Number of Parcels and Acreages									
	North		South		East		West		TOTAL	
	Par	Acres	Par	Acres	Par	Acres	Par	Acres	Par	Acres
0.25	2	0.5	6	1.5	5	1.25	4	1.0	17	4.25
0.5	9	4.5	11	5.5	5	2.5	4	2.0	29	14.5
0.75	-	-	2	1.5	3	2.25	1	0.75	6	4.5
1.0	5	5.0	6	6.0	6	6.0	1	1.0	18	18.0
1.25	-	-	1	1.25	-	-	1	1.25	2	2.5
1.5	2	3.0	4	6.0	4	6.0	-	-	10	15.0
1.75	-	-	1	1.75	2	3.5	3	5.25	6	10.5
2.0	4	8.0	3	6.0	3	6.0	2	4.0	12	24.0
2.25	-	-	1	2.5	-	-	2	4.5	3	7.0
2.5	4	10.0	-	-	3	7.5	-	-	7	17.5
2.75	1	2.75	-	-	1	2.75	-	-	2	5.5
3.0	3	9.0	2	6.0	1	3.0	-	-	6	18.0
3.25	-	-	1	3.25	-	-	-	-	1	3.25
3.5	-	-	1	3.5	-	-	2	7.0	3	10.5
4.0	2	8.0	-	-	1	4.0	-	-	3	12.0
4.5	1	4.5	-	-	1	4.5	-	-	2	9.0
5.0	-	-	-	-	1	5.0	-	-	1	5.0
5.5	-	-	-	-	1	5.5	-	-	1	5.5
7.5	-	-	-	-	-	-	1	7.5	1	7.5
8.0	-	-	-	-	-	-	2	16.0	2	16.0
9.0	-	-	-	-	1	9.0	3	27.0	4	36.0
TOTAL	33	55.2	39	45.4	38	68.9	26	77.4	136	245.75

Table 17 shows regional distribution of parcel sizes of flat/hilly land farmed by number of parcels and acreage. There were only three farms in this topographical classification in East Region and one in the West. The majority of the farms surveyed under this category were in the North, and 69 per cent of them were in parcel sizes of 2 acres and less. These 27 parcels had a total area of 26 acres - 40 per cent of the total acreage of flat/hilly farms in this region. In the South, 77 per cent of the parcels surveyed were of 2 acres or less and the total area under this category was 10 acres. As in the case of the other topographical groups, much land under this category is under mini farms which are too small to give the farm operator a satisfactory farm income under existing land use patterns. A programme for agricultural rehabilitation must therefore be many-sided in its approach in order to achieve the goal of higher income levels for the farming population. The main components of such a programme must be:-

(a) farm engrossment;

(b) co-operative activity as an essential part of the farm engrossment programme, in order to achieve the goal of communal ownership of economic farm units instead of individual ownership of uneconomic mini-farms;

(c) soil conservation;

(d) revision of land use patterns to ensure that farmers grow high income crops.

Table 17

Regional Distribution of Parcel Sizes of Flat/ Hilly Land Farmed by Number of Parcels and Acreage

Parcel Size (acres)	Number of Parcels and Acreages									
	North		South		East		West		TOTAL	
	Par	Acres	Par	Acres	Par	Acres	Par	Acres	Par	Acres
0.25	7	1.75	1	0.25	-	-	-	-	8	2.0
0.5	6	3.0	2	1.0	-	-	-	-	8	4.0
1.0	5	5.0	5	5.0	-	-	-	-	10	10.0
1.25	-	-	-	-	1	1.25	-	-	1	1.25
1.5	3	4.5	-	-	-	-	-	-	3	4.5
1.75	2	3.5	-	-	-	-	-	-	2	3.5
2.0	4	8.0	2	4.0	1	2.0	1	1.0	8	15.0
2.25	-	-	1	2.25	-	-	-	-	1	2.25
2.5	4	10.0	-	-	-	-	-	-	4	10.0
3.0	4	12.0	-	-	1	3.0	-	-	5	15.0
3.5	2	7.0	-	-	-	-	-	-	2	7.0
4.5	1	4.5	-	-	-	-	-	-	1	4.5
6.0	1	6.0	-	-	-	-	-	-	1	6.0
8.0	-	-	1	8.0	-	-	-	-	1	8.0
9.25	-	-	1	9.25	-	-	-	-	1	9.25
TOTAL	39	65.25	13	29.75	3	6.25	1	1.0	56	102.25

Replies to Question B3 are shown in Table 18.

Table 18

Regional Land Tenureship by Type of Tenure, Number of Parcels and Acreage

Tenureship	North		South		East		West		TOTAL		
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	%
Owned	71	133.75	47	87.5	90	122.25	26	54.0	234	397.5	65.2
Leased	19	39.25	2	1.5	24	30.0	5	22.0	50	92.75	15.2
Rented	11	12.25	4	5.25	4	4.0	8	11.75	27	33.25	5.5
Managed	6	14.25	7	9.25	18	22.25	3	5.5	34	51.25	8.4
Other	-	-	17	18.0	6	2.75	12	14.5	29	35.25	5.8
TOTAL	107	199.5	71	121.5	142	181.25	54	107.75	374	610.0	100.0

The total acreage for which information on tenureship was received was greater than the acreage which, according to questions B1 and B2, was under cultivation. The difference was 25.25 acres.

Table 18 shows that 65.2 per cent of the acreage cultivated by respondents was owned by them, 15.2 per cent was leased, 5.45 per cent rented, 8.4 per cent was managed for absentees and the remaining 5.8 per cent was under other kinds of tenureship. A high percentage of utilized land under ownership often indicates that collateral requirements for long and medium term loans can be met, but absence of clear title to land in Grenada is a common barrier to credit-worthiness. Land owned was a high percentage of tenureship in all regions - 66 per cent in both North and South, 63 per cent in the East and 48 per cent in the West.

Table 19 relates parcel size of land cultivated to number of parcels, acreage and tenureship. Of the 234 parcels under ownership, 126 (53.8 per cent) were 1 acre and less but accounted for only 82.5 acres or 20.7 per cent of the owned acreage under cultivation. At the other extreme, 8 parcels of land of 6 acres and more, that is 3.4 per cent of the parcels owned accounted for

Table 19

Distribution of Acreage by Parcel Size, Number of Parcels, Acreage and Land Tenureship

Parcel Size (acres)	Owned		Leased		Rented		Managed		Other		TOTAL	
	P	Acres	P	Acres	P	Acres	P	Acres	P	Acres	P	Acres
0.25	25	6.25	5	1.25	6	1.5	6	1.5	11	2.75	47	13.25
0.5	40	20.0	12	6.0	8	4.0	7	3.5	1	0.5	68	34.0
0.75	19	14.25	2	1.5	2	1.5	2	1.5	1	0.75	26	19.5
1.0	42	42.0	7	7.0	5	5.0	8	8.0	12	12.0	74	74.0
1.25	7	8.75	2	2.5	-	-	1	1.25	-	-	10	12.5
1.5	15	22.5	5	7.5	1	1.5	2	3.0	5	7.5	28	42.0
1.75	6	10.5	-	-	-	-	-	-	1	1.75	7	12.25
2.0	25	50.0	4	8.0	-	-	2	4.0	3	6.0	34	68.0
2.25	3	6.75	-	-	-	-	-	-	-	-	3	6.75
2.5	6	15.0	-	-	1	2.5	1	2.5	-	-	8	20.0
2.75	2	5.5	-	-	-	-	-	-	-	-	2	5.5
3.0	10	30.0	3	9.0	2	6.0	-	-	-	-	15	45.0
3.25	1	3.25	-	-	-	-	-	-	-	-	1	3.25
3.5	10	35.0	2	7.0	-	-	1	3.5	-	-	13	45.5
3.75	1	3.75	-	-	-	-	-	-	-	-	1	3.75
4.0	6	24.0	2	8.0	1	4.0	1	4.0	1	4.0	11	44.0
4.5	2	9.0	2	9.0	-	-	1	4.5	-	-	5	22.5
5.0	4	20.0	1	5.0	-	-	1	5.0	-	-	6	30.0
5.25	1	5.25	-	-	-	-	-	-	-	-	1	5.25
5.5	1	5.5	1	5.5	-	-	-	-	-	-	2	11.0
6.0	3	18.0	-	-	-	-	-	-	-	-	3	18.0
6.5	-	-	1	6.5	-	-	-	-	-	-	1	6.5
7.0	1	7.0	-	-	-	-	-	-	-	-	1	7.0
7.25	-	-	-	-	1	7.25	-	-	-	-	1	7.25
8.0	1	8.0	-	-	-	-	-	-	-	-	1	8.0
9.0	2	18.0	1	9.0	-	-	1	9.0	-	-	1	9.25
TOTAL	234	397.5	50	92.75	27	33.25	34	51.25	29	35.25	374	610.0

60.25 acres or 15.1 per cent of the acreage owned. This multiplicity of owned mini farms indicates yet another dimension of the problems of agricultural development. Each of these uneconomic farm units contributes in some way to livelihood requirements of a household, but size is a severe limitation to the standard of living which a farm household can attain. Even if, therefore, farm operators have undisputed rights to ownership, such rights must in some way be made subordinate to the national good, so that these mini farms can be engrossed into large economic productive units which could raise living standards.

Questions B4 and B5 sought to establish the attitudes of farmers with only one parcel of land towards the sizes of their agricultural units. Did they want larger units or were they satisfied with what they had? Replies were recorded from 112 of the 212 farmers interviewed. They are shown in Tables 20 and 21. The former table shows that 69 (61.6 per cent) of those who answered the question wanted larger acreages than those they were cultivating. The acreages which farmers wanted to cultivate are shown in Table 20. The farm sizes for which distinct preferences were shown are 2, 3, 4 and 5 acres. The percentages of replies in favour of these acreages were respectively 23.2 per cent, 15.9 per cent, 21.7 per cent and 11.6 per cent. No farmer indicated preference for a farm of less than 1 acre. This raises an important question with respect to farm settlement policy. Though this question was addressed to only 0.6 per cent of the estimated farm population size of 11,309 (estimated from returns of 1975 Farm Survey conducted by BDD), the replies ought to raise serious doubts about the practice of distributing quarter (1/4) and half (1/2) acre farm units to the rural population.

Table 20

Regional Distribution of Farmers' Attitudes to Sizes of Farm Units

Would you like a larger parcel of land?	North	South	East	West	TOTAL
Yes	24	15	25	18	69
No	14	8	2	7	31
Don't know	6	2	2	2	12
TOTAL	44	25	25	18	112

Table 21

Regional Distribution of Farm Size Aspirations of Farmers with only one parcel of land

Farm Size (acres)	NUMBER OF FARMERS				
	North	South	East	West	TOTAL
1.0	-	1	2	1	4
1.5	-	-	-	1	1
2.0	6	5	4	1	16
2.75	-	-	-	1	1
3.0	2	4	3	2	11
3.75	-	-	-	1	1
4.0	5	2	8	-	15
5.0	2	3	2	1	8
6.0	2	-	1	-	3
6.5	1	-	-	-	1
7.0	1	-	-	-	1
8.0	1	-	-	-	1
9.0	1	-	-	-	1
10.0	-	-	1	1	2
14.0	2	-	-	-	2
15.0	1	-	-	-	1
TOTAL	23	15	21	9	69

Question B6 aimed at finding out how the respondent saw his farm as an operational unit. Was he going to work it with his own labour, with family labour, or was he going to employ labour? The replies to this question are given in Table 22 for only 68 of the 69 respondents who answered question B5. The highest preference is shown for family labour with 54 per cent of the respondents saying that this was the kind of labour they wanted to cultivate the farm size to which they aspired. Thirty-two per cent wanted paid labour, while in the remaining 13 per cent of cases the farmer was going to cultivate the farm with his own labour. It might be injudicious to formulate a national policy of creating family farms on the basis of these replies, but it would also be unwise to ignore them in planning long term organization of the agricultural sector. The obvious preferences for family farms in north and west replies are possibly very significant.

Table 22

Regional Distribution of Attitudes of Single Parcel Farm Operators to Supply of Farm Labour

Source of Labour	North	South	East	West	Total
Farmer himself	2	3	2	2	9
Family labour	15	10	11	1	37
Paid labour	8	2	7	5	22
TOTAL	25	15	20	8	68

Questions 7, 8 and 9 sought to find out from farmers who had more than one parcel of land whether having more than one parcel of land was important, and if it was, what weight did the farmer put on differences in location and topography. Table 23 gives replies by farmers who had more than one parcel of land to their preferences for only one parcel. Of the 130 respondents who gave replies to this question, 94 (72 per cent) expressed preference for one parcel, 18 per cent did not want their land consolidated into one parcel while the remainder were uncommitted. The high proportion of farmers in the first category suggest that a programme of consolidation of farmers will meet with a good response.

Table 23

Regional Preferences for Consolidated Farms

Do you prefer all your land to be in one place?	North	South	East	West	Total
Yes	27	22	31	14	94
No	7	11	2	4	24
Don't Know	5	3	2	2	12
TOTAL	39	36	35	20	130

Table 24 shows that of the 94 who said that they wanted 1 parcel, only 92 gave replies to the question on topography of the parcel they wanted. Number one preference was for land which was both flat and hilly. Sixty-two per cent of respondents expressed this preference, while 36 per cent said that they preferred flat land. Only 2 persons were interested in hillside farms. The high option for farms with both hilly and flat land possibly reveals consciousness on the part of farmers of the need to reduce risks by having farms on which they can plant crops suitable to both topographical characteristics. This is not surprising since the island occasionally suffers from natural disasters.

Table 24

Regional Preferences for Topographical Characteristics of Farm Units

Topographical Preferences	North	South	East	West	Total
Hill land	1	1	-	-	2
Flat land	9	12	10	2	33
Hill/Flat land	17	9	20	11	57
TOTAL	27	22	30	13	92

Table 25 shows acreage preferences for those respondents who wanted consolidated farms. Replies were recorded for only 84 of the 94 persons who gave affirmative replies to Q.7. The most frequent farm size indicated was 3 acres, which was preferred by 25 per cent of the respondents. Nineteen per cent of the respondents aspired to ownership of parcels of 5 acres. Question B.10 asked whether multiple parcel owners who wanted a consolidated acreage were going to work it alone, with family labour or with paid labour.

The replies which are shown in Table 26 indicate that 53 per cent of those who gave replies intended to work their farms with

Table 25

Regional Distribution of Farm Size Aspirations of Farmers with More than One Parcel of Land

Farm Size (acres)	Number of Farmers				
	North	South	East	West	Total
1.0	-	1	-	-	1
1.25	-	1	-	-	1
1.5	1	1	1	-	3
2.0	2	8	1	-	11
3.0	4	10	5	2	21
3.5	1	-	-	-	1
3.75	-	1	1	1	3
4.0	2	3	2	-	7
5.0	9	3	4	-	16
6.0	1	-	-	-	1
7.0	1	-	-	-	1
7.75	-	-	1	-	1
8.0	2	-	2	-	4
10.0	3	-	4	-	7
12.0	1	-	1	-	2
15.0	1	-	1	-	2
25.0	1	-	-	-	1
50.0	-	-	-	1	1
TOTAL	29	28	23	4	84

Table 26

Regional Distribution of Attitudes of Multiple Parcel Operators who opted for Consolidated Farms to Supply Farm Labour

Source of Labour	North	South	East	West	Total
Farmer himself	-	2	2	-	4
Family labour	5	20	11	-	36
Paid labour	7	6	10	4	27
TOTAL	12	28	23	4	67

family labour. Forty per cent said that they would use paid labour, and the remaining 4 farm operators indicated that they would use their own labour. These replies provide further evidence that there is fertile ground for the development of family farms.

Respondents who said that they did not want their land in one location were asked why in Question 11. Only 7 replies to this question were recorded. They were as follows:

- Some plants thrive well according to location
- Want to grow cash crops
- To have livestock fodder at all times
- Because I get different results
- I like mountain for nutmeg and flat for corn and peas and other crops
- I like it as it is
- I do not like my animals to damage my property e.g. poultry.

These replies reveal concern among farm operators for a regular income. This could be assured by so-to-speak, not putting all their eggs in one basket. Multiple locations reduce risk.

C - FARM INPUTS

Question 1 in Section C of the questionnaire sought information on expenditure on farm operations in 1975. Regional distribution of farmers who paid for farm operations and costs of such operations are shown in Table 27. The operation which most farmers (89) employed labour for was "brushcutting" and the average expenditure per farmer was $79.00. More than 50 per cent of the farmers who employed this type of labour were in North Region. Seventy-seven farmers employed labour for planting and spent on average $77.00. Other operations for which most farmers replying to this question employed labour were ploughing, weeding, fertilizer application, harvesting and transport. This information on farmer expenditure related to production can serve as a guide to subsidy schemes for farmers. For example, a group of farmers can be encouraged to form a co-operative which can purchase appropriate machinery for performing such operations as brushcutting, ploughing, planting, etc. The purchase of such machinery by the co-operative can be subsidised by the government.

Table 27

Regional Distribution of Farmers who paid for Farm Operations and Costs of such Operations

OPERATIONS	North		South		East		West		Total		Average Cost Per Farmer for Operation Value: EC$
	No.	Cost	No.	Cost	No.	Cost	No.	Cost	No.	Cost	
Brushcutting	47	2,112	16	479	23	3,981	3	420	89	6,992	79
Ploughing	27	1,129	20	575	12	699	1	20	60	2,423	40
Banking	12	323	3	190	2	50	1	10	18	573	32
Bed formation	12	219	-	-	2	25	1	20	15	264	17
Planting	38	992	11	342	23	4,045	5	517	77	5,896	77
Propagating	-	-	-	-	-	-	2	13	2	13	6
Weeding	33	1,247	11	431	18	1,770	3	380	65	3,828	59
Applying Insecticides	3	36	-	-	1	20	1	2	5	58	11
Fertilizer Application	32	685	2	20	21	172	1	8	56	885	16
Harvesting	26	1,047	6	385	18	2,270	2	280	52	3,982	77
Transport	26	334	11	477	17	2,360	5	75	59	3,246	55

Additional information collected from replies to Question 1 is given in Table 28, which records regional distribution of farmers who purchased inputs, showing number of farmers and quantities and value of inputs purchased. Fifty-three per cent (113) of farmers interviewed purchased fertilizer. This is a marked contrast to the small number of farmers, 19 and 13 respectively, who used weedicides and insecticides. Unfortunately, data on quantities of inputs used was not provided by all respondents and therefore this table does not provide as much information as was expected.

Table 28

Regional Distribution of Farmers who purchased inputs showing number of farmers and quantity and value of inputs purchased

Regions	Weedicides	Insecticides	Fertilizer	Bags	Baskets
North					
Farmers	2	3	33	3	-
Quantity	n.a.	n.a.	n.a.	n.a.	-
Value	110	148	7,658	1	-
South					
Farmers	1	4	37	-	-
Quantity	1/2 gal.	126 lbs.	83 bags) 2,476 lbs.)	-	-
Value	30	155	1,450	-	-
East					
Farmers	13	4	36	1	1
Quantity	10 1/2 gal.	14,013 lbs.	156 bags) 40,332 lbs.)	n.a.	250
Value	1,437	197	12,547	25	30
West					
Farmers	3	2	7	-	-
Quantity	4 1/2 gal.	2 1/2 lbs.	3 tons) 348 lbs.)	-	-
Value	291	117	2,055	-	-
Total					
Farmers	19	13	113	4	1
Quantity	n.a.	n.a.	n.a.	n.a.	250
Value	1,868	616	23,710	26	30
Average Value Per Operation (Value: EC$)	98	47	210	7	30

Table 29 records information given by farmers with respect to loans. Most farmers raised loans from friends and credit unions, but the source of most loans was commercial banks which lent a total of $94.00 to 5 farmers.

Table 29

Sources of Credit, Numbers of Borrowers and Sizes of Loans by Region

Area	North		South		East		West		Total	
Source of Credit	No.	Loans	No.	Loans	No.	Loans	No.	Loans	No.	Loans (EC$)
Friend	6	1,407	1	200	2	400	-	-	9	2,007
Agricultural Bank	-	-	1	550	2	170	-	-	3	720
Credit Union	7	1,875	2	650	-	-	-	-	9	2,525
Banana Society	-	-	-	-	4	957	-	-	4	957
Cocoa Association	-	-	-	-	4	964	-	-	4	964
Government	-	-	-	-	1	1,600	-	-	1	1,600
Commercial Banks	1	2,400	-	-	4	6,000 1/	1	1,000	5	9,400
Other	10	800	1	500	1	n.a.	-	-	12	n.a.
TOTAL	24	6,482	5	1,900	18	10,091	1	1,000	48	18,173

1/ For three borrowers only

D - FARM PRODUCE

Table 30 shows crops and their combinations grown in each parcel of land by farmers interviewed by region. Data was received for 376 of the 432 parcels which respondents said were under cultivation. The particular relevance of this data is that it shows the extent to which multiple cropping is practised by farmers. There were only 30 parcels of land under monoculture, while there were 8 parcels of land each with more than 10 crops. Table 31 shows a breakdown of the data by number of crops per parcel and number of parcels with each crop combination. Patterns of multiple cropping revealed by the survey are possibly due to:-

(1) The farmer's desire to insure himself against crop failure;

(2) The farmer's tendency towards subsistence agriculture.

These legitimate concerns of the farmer cannot be ignored but the country will not attain high levels of production for domestic consumption unless the farmer is given incentives to produce specific commodities on minimum acreages. Such a policy will give the farmer an assured level of income and also raise domestic food production.

Table 30

Crops and their Combinations grown on Each Parcel of Land by Farmers interviewed by Region

Crop Code

av - avocado pear
ba - bananas
be - beans
bf - breadfruit
bl - bluggoe
cas - cassava
cb - cabbage
ch - chive
ci - cinnamon
cl - cloves
cn - corn
co - cocoa
cot - coconut
cr - carrots
ct - citrus
cu - cucumber
cw - cashew
da - dasheen
ed - eddoes
fc - French cashew
ft - fruit trees
ga - golden apple
gf - grapefruit
gg - ginger
gn - groundnuts
le - lemon
lm - limes
lt - lettuce
ma - mangoes
md - mandarine
ml - melongene
mn - melon
nm - nutmeg
ok - ochro
or - oranges
pa - peas
pf - passion fruit
pl - plantain
pm - plums
pn - pineapple
pu - pumpkin
pt - potato
sa - sugar apple
sc - sugarcane
sd - sapodilla
sh - shallot
sp - spices
ss - soursop
sw - sweet pepper
th - thyme
to - tomato
tm - tamarind
tn - tannia
ve - vegetables
ym - yam

Crops and their Combinations	North	South	East	West	No. of Parcels
nm	3	1	5	1	9
co	2	-	4	1	7
ba	-	-	1	10	11
cl	-	1	-	-	1
bf	-	-	1	-	1
sc	-	-	-	1	1
co, ba	2	1	3	1	7
cn, pa	3	-	3	-	6
ba, nm	3	-	-	-	3
nm, co	7	9	6	-	22
nm, da	-	1	-	-	1
co, ym	-	-	1	-	1
co, or	-	-	1	-	1
co, cot	-	-	1	-	1
nm, ba	-	-	4	-	4
ba, ct	-	-	-	1	1
ym, pa	-	-	-	1	1
bl, ba, cn	1	-	-	-	1
co, nm, ba	15	4	15	4	38
nm, ba, pt	1	-	-	-	1
cn, pa, ym	1	-	-	-	1
pt, to, cb	1	-	-	-	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
nm, bl, ba	1	-	1	-	2
co, bf, nm	1	-	1	-	2
cn, pa, cas	1	-	-	-	1
ba, nm, cn	1	-	-	-	1
nm, co, cot	1	1	-	-	2
pa, cn, av	1	-	-	-	1
ba, tn, pt	1	-	-	-	1
nm, co, cl	1	-	-	-	1
co, ba, tn	1	-	-	-	1
co, tn, bl	1	-	-	-	1
cn, pa, ci	-	1	-	-	1
bf, bl, cas	-	1	-	-	1
bl, ym, pt	-	1	-	-	1
co, pl, ba	-	1	1	-	2
tn, ym, to	-	1	-	-	1
cas, tn, cn	-	1	-	-	1
co, bf, bl	-	1	-	-	1
co, cot, sc	-	1	-	-	1
cn, pa, da	-	1	-	-	1
co, nm, sp	-	1	-	-	1
sp, mn, cu	-	-	1	-	1
cas, tn, da	-	-	2	-	2
pl, co, ct	-	-	1	-	1
ba, nm, da	-	-	1	-	1
cn, pa, tn	-	-	1	-	1
co, nm, pt	-	-	2	-	2
nm, ba, cot	-	-	1	-	1
or, av, ga	-	-	1	-	1
ba, co, pt	-	-	1	-	1
co, ym, pt	-	-	1	-	1
ba, da, tn	-	-	2	-	2
nm, ct, ba	-	-	1	-	1
nm, ba, pa	-	-	1	-	1
cn, pa, pt	-	-	2	-	2
co, tn, pa	-	-	1	-	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
ba, co, ve	-	-	-	1	1
cn, nm, ma	-	-	1	-	1
co, nm, ct	-	-	1	1	2
ym, da, tn	-	-	-	1	1
co, ba, to	-	-	-	1	1
ba, cas, cot	-	-	-	1	1
co, ct, ma	-	-	-	1	1
co, ba, ct	-	-	-	1	1
co, ba, pa	1	-	-	1	2
to, pu, pl	-	-	-	1	1
co, ba, to, cb	1	-	-	-	1
be, pt, tn, ym	1	-	-	-	1
tn, ml, av, ct	1	-	-	-	1
co, ba, nm, bl	2	-	-	-	2
co, bl, ba, pa	2	-	-	-	2
co, pa, ma, or	1	-	-	-	1
cn, pa, ba, bl	1	-	-	-	1
co, nm, ba, ct	2	-	-	-	2
co, nm, ba, to	1	-	-	-	1
cas, pa, cn, ym	1	1	-	-	2
co, cl, nm, ba	1	-	-	-	1
pt, tn, cn, pa	1	-	-	-	1
co, cn, pa, bl	1	-	-	-	1
co, nm, ba, ci	-	3	-	-	3
pa, co, bl, ym	-	3	-	-	3
ba, tn, pt, to	-	1	-	-	1
ba, co, pa, cn	-	1	3	-	4
ba, nm, ci, cb	-	1	-	-	1
co, lm tn, ba	-	1	-	-	1
co, nm, ba, cot	-	1	4	-	5
ym, bl, ba, co	-	1	-	-	1
lt, to, cb, sp	-	2	-	-	2
co, tn, ym, pa	-	1	-	-	1
nm, cl, ci, co	-	1	-	-	1
co, nm, bf, ym	-	1	-	-	1
cn, pa, tn, ym	-	1	-	2	3
cn, pa, pt, cas	-	1	-	-	1
ml, pa, cn, ba	-	-	1	-	1
cn, pa, pt, pl	-	-	1	-	1
co, ba, pl, pa	-	-	1	-	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
ba, ym, da, be	-	-	1	-	1
co, cot, ma, bf	-	-	1	-	1
co, nm, ym, tn	-	-	2	-	2
nm, co, ba, bf	-	-	1	-	1
nm, co, cot, ma	-	-	2	-	2
pa, cn, ba, pt	-	-	1	-	1
pl, bf, to, ba	-	-	1	-	1
co, pt, ba, bl	-	-	1	-	1
cn, pa, ym, pt	-	-	2	-	2
cn, pa, ym, ok	-	-	1	-	1
nm, ba, ct, av	-	-	-	1	1
ba, ym, pa, cot	-	-	-	1	1
ch, cr, cb, pa	-	-	-	1	1
ym, bl, pl, cot	-	-	-	1	1
cot, pa, pl, pu	-	-	-	1	1
tn, ym, pt, cn, pa	2	4	-	1	7
be, cn, pa, cas, co	1	-	-	-	1
to, pt, cas, cn, pa	1	-	-	-	1
cn, bl, co, ba, to	1	-	-	-	1
co, cn, pa, to, cb	1	-	-	-	1
pa, pt, cn, ml, pu	1	-	-	-	1
co, nm, ba, bl, tn	1	-	-	-	1
co, cn, nm, pa, bl	1	-	-	-	1
cn, pa, nm, ba, ym	1	-	-	-	1
co, nm, ba, ym, av	1	-	-	-	1
lm, cn, pa, da, cl	-	1	-	-	1
sc, tn, ym, pa, cn	-	3	-	-	3
co, nm, tn, ba, cb	-	1	-	-	1
nm, ba, cl, pt, co	-	1	-	-	1
bl, ft, ch, th, ym	-	1	-	-	1
ym, tn, cn, pt, cas	-	1	-	-	1
cn, pa, ba, cot, pt	-	1	-	-	1
to, sp, cr, cb, lt	-	-	1	-	1
co, nm lm, ma, sd	-	-	2	-	2
co, cn, pa, tn, ym	-	-	2	-	2
co, nm, gf, bf, cot	-	-	1	-	1
da, ba, cn, cas, pa	-	-	1	-	1
nm, ba, co, ym, pt	-	-	1	-	1
nm, cn, pa, ba, bl	-	-	1	-	1
pa, ym, da, tn, pu	-	-	1	-	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
co, cn, pa, ym, be	-	1	-	-	1
co, nm, cas, cw, cot	-	-	1	-	1
nm, co, ba, tn, cas	-	-	1	-	1
ba, nm, co, bl, ga	-	-	2	-	2
ym, pt, pa, ba, bl	-	-	1	-	1
ym, cot, pt, bf, ba	-	-	1	-	1
ma, ym, tn, ba, or	-	-	1	-	1
nm, co, sp, cot, ma	-	-	-	1	1
tn, da, ct, pl, nm	-	-	-	1	1
be, pt, cb, cn, pa	-	-	-	1	1
nm, ba, tn, pt, da	-	-	-	1	1
av, ct, cn, pa, cu, pu	1	-	-	-	1
co, ba, bl, pa, cn, bf	1	-	-	-	1
pt, ym, cas, pa, cn, sa	1	-	-	-	1
co, nm, ba, pa, pt, av	1	-	-	-	1
cn, sa, pa, ym, cas, cu	1	-	-	-	1
nm, sp, co, ga, ba, av	1	-	-	-	1
co, ba, ma, bf, md, fc	1	-	-	-	1
co, nm, pa, md, gf, cot	1	-	-	-	1
co, nm, ba, pt, cn, pa	1	-	-	-	1
co, nm, tn, ba, bl, av	1	-	-	-	1
co, nm, ba, cn, av, tn	1	-	-	-	1
ym, cn, pa, tn, pt, ba	-	2	-	-	2
nm, ba, pl, cb, to, bf	-	1	-	-	1
ym, co, bl, to, sc, cn	-	1	-	-	1
co, ym, nm, ba, pa, tn	-	1	-	-	1
co, ct, cot, bl, ba, sc	-	10	-	-	10
or, gf, li, pm, ma, bf	-	-	1	-	1
ba, nm, tn, bl, co, cot	-	-	1	-	1
pa, cn, pn, ym, tn, da	-	-	1	-	1
co, bf, cot, ba, or, ma	-	-	2	-	2
ym, tn, cn, pa, ok, bl	-	-	-	1	1
sc, ym, tn, pa, cn, pt	-	-	-	1	1
cot, ct, sp, ma, nm, co	-	-	-	1	1
be, ch, ok, pu, da, pt	-	-	-	1	1
cb, lt, cr, to, pt, cas	-	-	-	1	1
nm, ct, ci, bf, tn, ba	-	-	-	1	1
nm, ba, co, pa, bf, cot	-	-	-	1	1
cn, pa, cas, pu, cu, ml	1	-	-	-	1
cn, pa, cb, cu, ym, tn, da	1	-	-	-	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
cn, pa, bl, pt, ml, pu, cas	1	-	-	-	1
nm, ba, co, cn, pa, bl, av	1	-	-	-	1
pa, cn, cas, tn, ym, pt, to	1	-	-	-	1
to, cb, be, gg, pl, ym, tn	1	-	-	-	1
nm, ba, co, cn, pa, cas, ym	1	-	-	-	1
ba, pa, bl, pt, ym, cn, tn	1	-	-	-	1
co, ba, nm, bl, cn, pa, ym	1	-	-	-	1
co, cn, tn, nm, pf, pa, ym	1	-	-	-	1
nm, ga, lm, av, ba, co, ma	1	-	-	-	1
co, pa, ba, cn, pt, cas, tn	1	-	-	-	1
to, cb, lt, sp, pa, cr, ba	-	1	-	-	1
ym, cn, pa, sa, tn, ml, pt	-	1	-	-	1
co, ym, tn, ed, pa, cn, cas	-	1	-	-	1
ym, co, pa, nm, bl, ta, da	-	-	1	-	1
da, ym, pt, nm, ba, pl, co	-	-	1	-	1
da, nm, cb, lt, ym, cn, pa	-	-	-	1	1
md, sp, cot, nm, ba, bf, co	-	-	-	1	1
nm, ct, ma, bf, tn, ym, da	-	-	-	1	1
ct, ym, tn, cb, pt, cn, pa	-	-	-	1	1
pa, ym, tn, cn, pa, cu, ba	-	-	-	1	1
to, pt, cn, pa, bl, cas, ba, pl	-	-	1	-	1
co, ba, nm, pt, bl, cn, pa, ym	1	-	-	-	1
pt, pu, ml, to, bf, cas, cn, pa	1	-	-	-	1
nm, ba, co, tn, sc, ym, ca, av	1	-	-	-	1
ba, cr, cn, pt, ym, tn, co, to	1	-	-	-	1
bl, av, ba, co, ym, pa, cas, cn, cot	1	-	-	-	1
bl, co, tn, be, to, cas, pa, ym, pl	1	-	-	-	1
co, pa, av, nm, to, pt, cn, cot, ma	1	-	-	-	1
co, nm, cn, cot, pu, bf, av, ma, bl	1	-	-	-	1
co, nm, cn, pa, lm, bf, cot, cas, tn	1	-	-	-	1
to, cb, sp, ml, cu, mn, pu, ok, pt	-	1	-	-	1
ba, pl, bl, pa, cn, tn, pt, cb, to	-	-	1	-	1
co, ba, bl, cn, ym, pa, tn, ma, cot	1	-	-	-	1
bl, ml, ba, cb, pl, pa, cas, cn, ym to	1	-	-	-	1
co, to, or, pt, ba, ml, nm, cb, pa, ok	1	-	-	-	1
co, bf, sp, pa, nm, cn, cu, av, pa, to	1	-	-	-	1
pl, ba, tn, da, pt, to, cn, pa, sd, be	-	1	-	-	1
pl, ba, tn, cw, pt, to, cn, pa, sp, be	-	1	-	-	1
da, ym, ba, cn, bl, ma, pa, cb, co, nm	-	-	-	1	1
co, nm, ct, sp, ma, ym, tn, cu, da, ba	-	-	-	1	1

Table 30 (continued)

Crops and their Combinations	North	South	East	West	No. of Parcels
nm,co,ba,to,cb,da,ch,th,sp,pt	-	-	-	1	1
co,ym,cu,ba,da,pu,ok,nm,pt,av,be	1	-	-	-	1
to,cb,ym,pa,da,cas,co,nm,ci,ba,cn	-	1	-	-	1
co,nm,ba,bf,or,gf,pa,av,ym,tn,da	-	-	1	-	1
ym,gn,sh,da,tn,pt,ba,pl,bl,cas,pa	-	-	-	1	1
to,cb,ym,co,nm,pa,cl,gg,ba,cn,pa,av	-	1	-	-	1
cn,pa,cu,cb,le,ml,pu,pt,ym,sd,to,be,lm	1	-	-	-	1
co,ba,or,gf,cot,pm,cw,av,pl,ok,pt,to,da	-	-	1	-	1
bf,cot,pa,bl,nm,co,ss,pa,sp,pl,ma,tm,ga,sa	1	-	-	-	1

Table 31

Data showing multiple crop patterns on parcels of land cultivated by farmers interviewed

Number of crops	Number of parcels under crops
Single crop	30
Two crops	48
Three crops	97
Four crops	66
Five crops	47
Six crops	39
Seven crops	21
Eight crops	5
Nine crops	8
Ten crops	8
Eleven crops	3
Twelve crops	2
Thirteen crops	2
Fourteen crops	1
TOTAL	376

Question D2 asked farmers if any of their land was in fallow at the time of the survey. Replies are shown in Table 32. Thirty per cent of the farmers interviewed reported that they had land in fallow. This indicates that some farmers follow the practice of allowing the land to rest. In planning production schedules for crops this must be taken into consideration to ensure that the land is not over-worked.

Table 32

Number of Farmers who had Land lying fallow at time of Survey by Region

Region	Yes	No	No Reply	Total
North	27	32	1	60
South	15	37	9	61
East	7	41	12	60
West	15	11	5	31
TOTAL	64	121	27	212

Tables 33 and 34 record respectively, by region, the volume of crops reaped by farmers in 1975 and the crops which in their opinion they found it profitable to grow. The importance of the first table lies not so much in the volume of crops produced, since by the very limitations of the survey they cannot be used to estimate national production, but in the distribution of production between regions. Cocoa, banana and nutmeg production is more predominant in the North and East than in the South and West. All regions produce fair quantities of ground provisions, therefore a programme for increased domestic food production can be spread over the whole country to ensure close juxta-position between producer and consumer. Green vegetable production seems to be most predominant in the South, while the West seems to be the Region which will have to be fed by the other regions with these commodities.

Table 33

Crops Reaped by Farmers in 1975 by Quantity and by Region

Crop	Unit	North	South	East	West	Total
cocoa	lb	36,940	14,297	37,165	8,648	97,050
bananas	lb	67,230	2,230	255,579	14,380	339,419
nutmegs	lb	117,703	9,414	55,395	3,000	185,512
mace	lb	1,195	97	620	605	2,517
clove	lb	120	26	-	-	146
cinnamon	lb	1,142	-	-	-	1,142
other spices	lb	-	-	50	-	50
copra	lb	920	246	4,375	-	5,541
sugar cane	lb	-	112,296	-	-	112,296
tannias	lb	3,855	3,680	1,440	1,025	10,000
yams	lb	5,509	8,989	1,735	4,350	20,583
potatoes	lb	6,585	4,250	3,845	220	14,900
cassava (bitter)	lb	100	-	-	-	100
cassava (sweet)	lb	1,245	450	935	85	2,715
plantain	lb	1,100	70	9,210	900	11,280
bluggoe	lb	5,920	490	2,030	15	8,455
pumpkin	lb	1,000	-	-	1,450	2,450
breadfruit	lb	1,090	-	5,800	-	6,890
dasheen	lb	1,140	450	1,395	2,115	5,100
eddoes	lb	-	250	-	-	250
corn	lb	11,968	5,170	2,880	130	20,148
peas	lb	10,825	4,075	2,305	875	18,080
tomatoes	lb	3,909	2,570	2,610	100	9,189
beans	lb	650	250	80	40	1,020
ginger	lb	200	-	-	-	200
melongene	lb	40	900	700	-	1,640
sweetpepper	lb	40	600	130	-	770
cucumber	lb	335	-	1,000	-	1,335
carrots	lb	60	-	1,000	-	1,060
cabbage	lb	490	4,510	1,270	80	6,350
chive	lb	-	50	-	-	50

Table 33 (continued)

Crop	Unit	North	South	East	West	Total
thyme	lb	-	25	-	-	25
lettuce	lb	5	650	600	-	1,255
ochro	lb	-	-	15	6	21
avocado pears	lb	4,150	-	1,300	-	5,450
citrus	lb	800	200	9,900	2,000	12,900
oranges	lb	400	-	-	-	400
limes	lb	500	1,205	-	-	1,705
melon	lb	100	-	300	-	400
soursop	lb	20	-	-	-	20
mango	lb	400	150	100	-	650
golden apple	lb	5,000	-	-	-	5,000
	tins	-	-	600	-	600
sapodilla	lb	750	-	-	-	750
cashew nuts	tins	-	-	7	-	7

Data in Table 34 indicate that, as expected, the most profitable crops are those exported, but the list also contains some commodities consumed locally. The inclusion of potatoes, tannias, cassava and plantain, which are all part of staple diet is a pointer to the programme for increasing production of domestic foods.

Table 34

Showing Crops and numbers of Farmers who found it Profitable to grow them by region

Crop	North	South	East	West	Total
Mainly export					
Cocoa	26	18	19	6	69
Nutmegs	15	13	13	3	44
Bananas	4	2	14	1	21
Clove	1	1	-	-	2
Mainly for domestic use					
Tomatoes	4	8	-	-	12
Peas	7	-	1	-	8
Cane	-	6	-	-	6
Corn	1	2	1	-	4
Cabbage	-	-	1	3	4
Potatoes	-	-	3	-	3
Tannias	1	1	-	-	2
Yams	-	1	-	1	2
Cassava	-	1	-	-	1
Plantain	-	-	1	-	1
Sweetpeppers	-	-	1	-	1
Copra	-	-	1	-	1
Carrots	-	-	-	1	1
Pumpkin	-	-	-	1	1

Table 35 shows collecting points for main export crops by region and the number of farmers using them. This information was collected to find out to what extent there is inter-regional movement of crops. The data show that such movement does occur and therefore in devising a food production programme on a regional basis, the fact that there already is a pattern of inter-regional movement production must be taken into account.

Table 35

Showing Collection Points for Main Export Crops by Region

Crop	Collection Points and Number of Farmers using them	Regions
Cocoa	Ramdhanny (13); Nyack (33); McIntosh (2); Grenville Agent (2);	North
	Regis (4); Mitchell (9); Sargeant (4); Rush (9); St. David's Fermentary (1); Purcell (8);	South
	Miginon, Paradise (1); Nyack, Grenville (7); Rush (2);	East
	Grenville Cocoa Association (5); La Fillette Buying Agent (2); Grenville Receiving Centre (17); Sargeant, St. David (1); Charles (1); John, Grenville (2); Noel (2); Ramdhanny (3); Purcell (2); J. Branch (1); Gibbs (3); St. Paul (2); W. Branch (2)	West
Bananas	Samaritan Boxing Plant (17); Nyack (1);	North
	Poms Field (6); Palmiste (8); Bailles Bacale Boxing Plant (3);	South
	Banana Association (3); Mirabeau Boxing Plant (17);	East
	Palmiste Boxing Plant (5)	West
Nutmeg + Mace	Sauteurs Receiving Station (10); Union Station (7);	North
	Lalsee's Station (3); Grenville Station (5); Morne Fondue (2); Marlie Station (2); Victoria Station (12); St. Mark (1); St. Paul's (4); La Tante (13); Vincennes (12);	South
	Nutmeg Pool, St. David (6); La Fillette Station (26);	East
	Grand Roi (4); Concord (5); Gouyave (5)	West
Cinnamon	Union Processing Station (1); Irene Flemming (1); Victoria (1);	North
	Inter-Church Council (3); St. George Co-operative (1); Sargeant (4);	South
	Nutmeg Association (3)	East

Questions D6 and D7 sought to collect information on disposal practices of farmers with respect to food crops. The interviewers did not deal with these 2 questions satisfactorily and therefore the data collected will not be reproduced here. The general impression gathered from the data, however, is that a high proportion of production is kept for family use.

Question D8 sought to find out how flexible farmers were in their crop production pattern. At the time of the survey, 76 farmers were growing crops which they did not grow in 1978. This is recorded in Table 36 and Table 37 shows replies of farmers to the question: "If they would plant a new crop if advised by the Ministry of Agriculture to do so".

One hundred and sixty-two farmers (76 per cent) replied in the affirmative and 36 of these gave conditional replies. This indicates that there is a high degree of flexibility in farmers' behaviour. The main requirement is to find the appropriate package of incentives.

Table 36

Showing Response of Farmers to the Query - "If they were planting a crop at survey time which they did not plant in 1975"

Replies	Number of Farmers				
	North	South	East	West	Total
Yes	27	8	27	14	76
No	24	52	33	14	113
No Reply	9	1	-	3	13
TOTAL	60	61	60	31	212

Table 37

Showing Response of Farmers to the Query - "If they would plant a new crop if advised by the Ministry of Agriculture to do so"

Replies	Number of Replies				
	North	South	East	West	Total
Yes	49	44	57	12	162
No	11	2	1	-	14
Don't know	-	4	2	2	8
Depends on what it is*	9	11	1	15	36

* Some farmers gave this as the condition under which they answered "yes".

Question D11 to D19 dealt with farm animals and their production. Table 38 records the number of farmers who kept animals. Pigs and poultry were kept, respectively, by 39 per cent and 46 per cent of the farmers interviewed. Cattle and goats were kept by 28 per cent and 24 per cent of farmers respectively.

Table 38

Showing Number of Farmers keeping Animals

Animals	Number of Farmers				
	North	South	East	West	Total
Cattle	20	16	15	8	59
Goats	15	10	17	8	50
Sheep	11	12	11	4	38
Donkeys	16	10	20	4	50
Pigs	18	31	20	14	83
Poultry	31	34	21	12	98
Rabbits	4	6	8	4	22
Other	2	1	-	2	5

Table 39 shows information given by farmers about disposal of milk from their farms. Seventy-four per cent of them said that they consume the milk produced, and only 21 per cent said that they sell to neighbours and to the general public. Four persons gave away milk to friends.

Table 39

Showing Response of Farmers to Query - "What do you do with your milk?"

Replies	Number of Farmers				
	North	South	East	West	Total
Use it	28	7	19	19	64
Sell it	2	4	-	12	18
Give it away	3	-	-	1	4
TOTAL	33	11	19	23	86

Table 40 shows the number of bottles of milk sold per day by some farmers and the price per 26 oz. bottle. All data relating to milk production, disposal and market price are important if the Government wants to increase milk production with a view to improving nutritional standards.

Table 40

Volume and Price of Milk sold per day by Respondents who kept cows and goats

Number of bottles sold per day	Price per 26 oz bottle
7	30 cents
4	30 cents
5	50 cents
6	40 cents
6	50 cents
2	50 cents
8	50 cents
10	50 cents

Table 41

Showing Disposal Practices of Farmers with respect to small stock

Disposal Practice	Number of Farmers				
	North	South	East	West	Total
Sell	-	6	4	2	12
Family use	26	17	24	11	78
Both	12	13	5	6	36

Table 42 records stock and meat sold in 1978 and payments received by respondents who kept farm animals.

Table 42

Showing Stock and Meat sold in 1978 and Payments received by Respondents

Stock	Unit	North		South		East		West		Total (EC$)	
		No	$	No	$	No	$	No	$	No	$
Goats	no.	25	2,296	2	60	12	468	1	46	40	2,870
Pigs	no.	-	-	13	1,024	30	955	-	-	43	1,979
Poultry	no.	-	-	35	140	-	-	-	-	35	140
Piglets	no.	-	-	22	620	-	-	18	430	40	1,050
Pork	lbs	-	-	150	225	-	-	-	-	150	225
Sheep	lbs	-	-	10	356	20	709	-	-	30	1,065
Cattle	lbs	-	-	1	650	-	-	-	-	1	650
Rabbits	no.	-	-	-	-	1	50	-	-	1	50

Table 43 records the quantity of meat consumed by these farm families in 1978. These data suggest that animals are reared mainly for domestic consumption and not for sale, for the numbers of animals sold were relatively low.

Table 43

Showing amount of meat consumed by respondents in 1978

North	South	East	West	Total lbs
1,577	2,564	1,105	1,035	6,281

E - FARM EXTENSION SERVICE

Section E in the questionnaire asked questions relating to the Agricultural Extension Service and mass communications. Table 44 shows regional distribution of respondents who saw extension officers in 1975 and the number of occasions on which they saw them. One hundred and sixty-six (78 per cent) respondents replied in the affirmative and reported having seen them 607 times. Forty-two respondents (20 per cent) did not see an extension officer during the year, and 4 could not remember having done so.

Table 44

Showing Number of Respondents who saw Extension Officers in 1975 and number of times they saw them

Response	North		South		East		West		Total	
	Res	No of times	Res	No of times	Res	No of times	Res	No of times	Res	No of times
Yes	43	297	58	199	34	111	31	-	166	-
No	14	-	3	-	25	-	-	-	42	-
Can't Remember	3	-	-	-	1	-	31	*	4	-
TOTAL	60	297	61	199	60	111	31	n.a.	212	n.a.

* Can't remember number of times.

Table 45 shows attendance at field demonstrations. One hundred and fifty-six respondents, that is 74 per cent of the number of farmers interviewed said that they did not attend farm demonstrations in 1975. The 31 farmers who replied in the affirmative attended 64 demonstrations.

Table 45

Showing attendance at Field Demonstrations in 1975

Category	North	South	East	West	Total
No. who attended demonstrations	9	9	9	4	31
No. who did not attend demonstrations	41	48	43	24	156
No. who could not remember	1	1	-	1	3
No reply	9	3	8	2	22
No. of demonstrations attended	13	27	22	2	64

Table 46 shows the demand for extension services. One hundred and sixty-four respondents, that is 75 per cent of those interviewed wanted to see an agricultural extension officer.

Table 46

Showing Demand for Agricultural Extension Services

Category	North	South	East	West	Total
No. who wanted to see AEO	48	52	35	29	164
No. who did not want to see AEO	12	9	23	2	46
No reply	-	-	2	-	2
TOTAL	60	61	60	31	212

Table 47 shows that, of these 78, that is 47 per cent waited for one to turn up. Forty-two showed some initiative and went to see one, 29 told a friend that he wanted to see one, while 15 took no action.

These data relating to farmers' use of and attitude to the agricultural extension service indicate that:

(a) farmers are too lackadaisical in their attitude to the service, and

(b) the Ministry of Agriculture needs to examine the service in order to ascertain to what extent it is meeting the needs of farmers.

Table 47

Showing Action taken by Farmers who wanted to see Agricultural Extension Officers

Category	North	South	East	West	Total
Told a friend	15	2	9	3	29
Waited for one	20	35	13	10	78
Went to see one	10	12	5	15	42
Nothing	3	3	8	1	15
TOTAL	48	52	35	29	164

Table 48 records replies to the question: "Do you listen to radio programmes on agriculture?" One hundred and seventy-two (81 per cent) of those interviewed reported that they listen to such programmes. When asked however about viewing films on agriculture shown by the agricultural extension service, only 20 farmers said that they had seen such films during 1975. This is recorded in Table 49.

Table 48

Showing Respondents' Radio Listening Behaviour

Listening Attitude	North	South	East	West	Total
Yes	46	49	50	27	172
No	10	9	7	5	29
No Reply	4	3	3	1	11
TOTAL	60	61	60	31	212

Table 49

Showing Respondents' Viewing of Films on Agriculture

Film Viewing	North	South	East	West	Total
Yes	6	5	5	4	20
No	50	55	51	18	174
Can't remember	3	-	-	3	6
No reply	1	1	4	6	12
TOTAL	60	61	60	31	212

One hundred and seventy-four (82 per cent) said that they had not seen any. On the general question of whether farmers were satisfied with the extension service, 127 (60 per cent) said that they were, while 58 (27 per cent) said that they were not. These data are in Table 50.

Table 50

Showing Response to Question
"Are you satisfied with the Extension Service?"

Responses	North	South	East	West	Total
Yes	34	48	42	3	127
No	14	6	12	26	58
Don't know	12	7	-	2	21
No reply	-	-	6	-	6
TOTAL	60	61	60	31	212

The final question in Section E asked farmers what improvements they wanted in the agricultural extension service. Respondents gave broad replies which covered not only this service, but also other aspects of agricultural production. Replies are shown in Table 51. The single items for which there was much demand was agricultural subsidies and most of the farmers requesting this assistance were from the West Region. There were also requests for improvement in the agricultural extension service.

Table 51

Showing Responses to Query about Improvements wanted in Agricultural Extension Service

Responses	North	South	East	West	Total
More loans	1	-	1	-	2
Land reform	1	-	-	1	2
More planting material	5	2	1	3	11
Schemes to increase livestock production	6	-	-	4	10
Fully trained extension staff	1	-	-	2	3
More tours and demonstrations	5	-	2	-	7
More farmer training	2	-	-	-	2
Free planting material	1	-	-	-	1
More efficient extension service	5	3	6	-	14
Ready markets	2	-	-	-	2
Good roads	2	-	-	-	2
Canning industry	1	-	-	-	1
More radio programmes	-	1	-	-	1
Agricultural subsidies	-	2	-	17	19
District Agricultural Committees	-	-	-	2	2
More disease control	-	-	1	1	2
More farmer incentives	-	-	1	1	2

An agricultural extension service is a vehicle through which government and farmers establish connecting links for their mutual benefit. The farmer is at the demand end of the chain and the government agricultural service is at the supply end. It will be difficult however, for farmers if they only operated individually, for then government, in order to meet farmer needs, will have to provide a very large extension service at very high cost. The first requirement therefore, in so far as the farmers are concerned is that they should be organized into groups. These should be small, comprising not more than 10 farmers and there should be regular periods when extension officers covering a particular district meet with these farming groups. This structure will enable all farmers throughout the country to keep in close touch with extension officers. In cases where particular farmers are constantly absent from these meetings, extension officers should visit these farmers to make sure that they are not in need of farming advice. The end purpose of such visits, however, should be to get these individual farmers to take part in group activity. In the final analysis farmers can be denied agricultural subsidies and other kinds of assistance if they refuse to participate in co-operative activity.

At the supply end, the government extension service must use mass media facilities to keep the farming community interested in utilizing the service. All farming groups should be informed by radio of the days on which their area will be visited by extension officers and there should be radio programmes specially designed to inform and educate the farming community. The role of radio and other mass media cannot be over-emphasized, for it is through these means that the Ministry of Agriculture can make services of the extension staff effective.

F - FARMERS' SOCIAL ATTITUDES

Questions in this section aimed at finding out farmers' attitudes towards one another and towards farming. Table 52 shows that 65 of the farmers interviewed, that is 31 per cent of the sample, revealed that they work on other farmers' lands for no payment, while 144 said that they did not.

Table 52

Showing Responses to Question "Do you work on other farmers' lands for no payment?"

Responses	North	South	East	West	Total
Yes	17	23	18	7	65
No	43	38	42	21	144
No reply	-	-	-	3	3
TOTAL	60	61	60	31	212

Table 53 shows the kind of work done by respondents for no payment. The most common free services performed are tilling, cutlassing and sowing.

Table 53

Showing Kinds of Farm Work done by respondents for other Farmers for no payment and numbers of respondents who worked

Kind of Work Performed	Number of Respondents				
	North	South	East	West	Total
Tilling	11	15	11	3	40
Cutlassing	11	15	11	2	39
Carpentry	2	-	-	-	2
Pruning	1	3	5	-	9
Harvesting	1	7	2	-	10
Sowing	1	11	10	5	27
Burning Coal	1	-	-	-	1
Draining	-	2	5	-	7
Weeding	-	2	2	3	7

Table 54 shows that 65 farmers said that other farmers also work on their lands for no payment and Table 55 shows that tilling, cutlassing and sowing are the most frequent services performed.

Table 54

Showing Response to Question
"Do other Farmers work on your land for no Payment?"

Responses	Number of Farmers				
	North	South	East	West	Total
Yes	18	22	18	7	65
No	41	38	42	19	140
No reply	1	1	-	5	7
TOTAL	60	61	60	31	212

Table 55

Showing kinds of farm work done by Farmers on Respondents' Lands for no payment and numbers of respondents who had such work done for them

Kind of Work Performed	Number of Respondents				
	North	South	East	West	Total
Tilling	12	17	10	3	42
Cutlassing	10	14	12	4	40
Pruning	1	2	2	-	5
Harvesting	4	4	3	-	11
Sowing	4	10	6	7	27
Burning coal	1	-	-	-	1
Draining	-	1	7	-	8
Weeding	5	-	2	4	11
Fertilizing	-	-	-	1	1

Table 56

Showing Attitudes of Respondents to Co-operative Full-time activity and individual part-time activity

Choices	Number of Respondents				
	North	South	East	West	Total
Owning a small piece of land alone and working it part-time	51	44	42	19	156
Working in a large acreage with other farmers full-time	8	10	15	7	40
No choice	1	7	3	5	16
TOTAL	60	61	60	31	212

Table 56 shows that 156 farmers preferred owning a small piece of land and working it alone instead of working co-operatively with a group of farmers on a large acreage. This shows that individualistic tendencies are still very dominant in the farming community. Table 57 shows the reasons given by some farmers for wanting to work alone and jointly. Fifteen farmers thought that it was more profitable to work alone.

Table 57

Remarks supporting preference shown in Question 5

Supporting Sole Action		Supporting Joint Action	
More profitable being alone	15	Cannot work alone	1
Work at leisure	6	Lot to learn working jointly	4
Want to be sole owner of land	9	If farmers are co-operative	2
Depends too much on others	9	Too much time wasted	1
More productive	1	Because of age	1

Table 58 shows how respondents working part-time on a small parcel of land would spend their spare time. One hundred and fifteen, that is 54 per cent said that they would work somewhere else during their spare time. Only 5 said that they would do nothing while 30 said that they did not know how they would spend their time. Sixty of the respondents gave no reply. These replies show how dominant is the attitude of farming as a part-time activity in the society. There is nothing wrong with this when it does not perpetuate land fragmentations but in the present situation in Grenada, continuation of farmlets puts severe limitations on the development of commercial farming. The policy should be to work towards farm consolidation. Where groups of people in a village are employed in non-farm activities, but want to do hobby or subsistence farming, communal land should be made available in plots.

Table 58

Showing how Respondents working part-time on a small parcel of land would spend their spare time

Alternatives	Number of Respondents				
	North	South	East	West	Total
Work somewhere else	46	30	27	12	115
Do nothing	1	-	2	2	5
Don't know	7	7	10	8	32
No reply	6	24	21	9	60
TOTAL	60	61	60	31	212

Table 59 shows replies to Question E7 which sought to find out the attitudes of respondents to house location relative to farm holding. Sixty-two per cent of respondents said that they prefer to own 1/4 acre of land and live on it instead of owning 2 acres of land and living away from it. The main reason given for wanting to live in close proximity to the land they cultivated was to exercise surveillance over their crops.

Table 59

Showing Preferences relating to close proximity to Farm Holding

Alternatives	Number of Respondents				
	North	South	East	West	Total
a. Owning 1/4 acre of land and living on it	39	43	25	24	131
b. Owning two acres of land and living away from it	16	7	31	4	58
c. Unable to decide on a. or b.	5	8	2	3	18
d. No reply	-	3	2	-	5
TOTAL	60	61	60	31	212

Table 60 shows attitudes of farmers towards taking co-operative action against praedial larceny. One hundred and two (48 per cent) said that they would be prepared to act jointly, while 74 (35 per cent) said that they would not participate in joint action.

Table 60

Showing Attitudes to Farmers towards taking Co-operative action against Praedial Larceny

Attitude	Number of Farmers				
	North	South	East	West	Total
Yes	34	24	22	22	102
No	17	32	19	6	74
Don't know	7	5	10	-	22
No reply	2	-	9	3	14
TOTAL	60	61	60	31	212

Question F9 sought to find out further the degree of individualism among farmers, and replies to this question are shown in Table 61. Of the 212 farmers interviewed, 137 (64 per cent) said that they do not attend farmers' meetings. But Table 62, which shows attitudes of farmers towards membership of co-operatives, reveals that 147 (70 per cent) respondents would join a co-operative.

Table 61

Showing Respondents' Attitude to attending common-interest meetings

Replies to "Do you attend farmers' meetings?"	Number of Farmers				
	North	South	East	West	Total
Yes	17	31	9	10	67
No	43	26	51	17	137
No reply	-	4	-	4	8
TOTAL	60	61	60	31	212

Table 62

Showing Attitudes of Respondents to Membership of a Co-operative

Would you join a co-operative?	Number of Respondents				
	North	South	East	West	Total
Yes	38	44	45	20	147
No	19	4	5	-	28
Don't know	3	11	10	6	30
No reply	-	2	-	5	7
TOTAL	60	59	60	31	212

The reasons given against membership are listed in Table 63. Some of them reveal that ignorance is a factor militating against membership.

Table 63

Reasons given for not wanting to be members of a co-operative

Reason	Number of Farmers				
	North	South	East	West	Total
Against saving money with others	2	-	-	No reasons recorded	2
Too old to be in a co-operative	1	-	1		2
Co-operatives in Grenada no good	2	-	1		3
Membership brings no benefit	1	1	-		2
Ignorant of the advantages	1	-	2		3
Want to be in business alone	2	-	-		2
Have no spare time	1	-	-		1
No funds to be a member	-	1	-		1

Table 64 shows how respondents think they could benefit from membership.

Table 64

Showing how Respondents think they can benefit from Membership of a Co-operative

Replies	Number of Respondents				
	North	South	East	West	Total
Can learn from one another	7	1	17	1	26
Can create enthusiasm	1	10	-	-	11
Enable you to enter business	1	-	-	-	1
Can educate its members	1	-	-	-	1
Can easily obtain loans	16	15	7	4	42
Promote savings for farmers	2	1	-	2	5
Can promote unity	3	-	22	-	25
Self-help	-	8	-	-	8
Better advice	-	8	-	-	8
Sell jointly	-	-	2	-	2
Greater productivity	-	-	-	1	1

The indications are therefore, that though there seems to be a general tendency towards individualism, a characteristic which is not surprising given the region's historical background, there is sufficient consciousness of the advantages to co-operate action to justify concerted effort on co-operative development. This will require a down-to-earth educational programme accompanied by films showing achievements of co-operatives in other parts of the world. In short, farmers have to be made to understand how, through co-operate action, they can achieve improvements in their livelihood and general living standards.

Table 65 shows response to the question "In what way do you think your living conditions can be improved?" These are categorized under the following headings:

(a) Agricultural cost factors
(b) Agricultural revenue factors
(c) Co-operative factors
(d) Non-agricultural factors

Respondents showed greater concern with increasing revenue returns from their farms, but they were also interested in reduction in production costs. The replies give helpful pointers to how agricultural policy can be geared to meet farmers' needs.

Table 65

Showing how Respondents think their Living Conditions can be Improved

	North	South	East	West	Total
Agricultural Cost Factors					
Lower cost of living	3	28	-	7	38
Better agricultural infrastructure	-	8	3	-	11
Fertilizer subsidy	-	4	13	-	17
Getting financial aid	-	-	-	1	1
Reducing cost of labour	-	-	-	1	1
Agricultural Revenue Factors					
Getting ready market	16	5	15	1	37
Getting better price	20	7	9	-	36
Having more land	7	2	19	-	28
Working harder	15	5	6	1	27
Keeping livestock	7	-	2	1	10
Grow more food	-	13	7	1	21
Co-operative Factors					
Protection from theft	-	-	1	-	1
Co-operative activity	1	-	5	1	7
Non-agricultural factors					
Getting a job	4	5	-	-	9
Getting better wages	2	-	-	3	5

G - CONSUMPTION IN FARM HOUSEHOLDS

The questions in this section of the questionnaire aimed at getting insight into consumption habits of farm households. The first question, the replies to which are shown in Table 66, sought to find out the frequency with which respondents received food items as gifts from other farmers. Information on this was thought important because one tends to make a general assumption that ability to purchase is the only factor determining living standards in rural life. It is clear from the data in Table 66 that there is much interchange of foodstuff among farmers and that most of this interchange is in staple foods such as breadfruit, ground provisions, sweet potatoes and bananas.

Table 67 showed food items which respondents bought from other farmers. Here again staples figure very predominantly, but there was also a fair amount of exchange of vegetables such as carrots, tomatoes, lettuce and cabbage. A common feature of both Tables 66 and 67 is that less interchange takes place in South and West than in North and East. The reasons for this are not apparent and further studies should be undertaken before it is assumed that this information reflects significant differences either in production or in farmer behaviour. The level of trade between farmers shown in Table 67 indicate that there is a fair amount of marketing of agricultural production at regional levels. In a programme to develop self-sufficiency in food, attention has to be focussed therefore on regional as well as inter-regional marketing.

Table 66

Regional Distribution of Food Items which Respondents received as Gifts from Friends and the Number who received them

Items	Number of Respondents				
	North	South	East	West	Total
ground provisions	15	9	21	9	54
breadfruit	18	17	14	-	49
bananas	11	13	15	3	42
sweet potatoes	6	2	12	4	24
bluggoes	5	1	12	-	18
cabbage	8	1	12	-	21
tomato	4	-	16	-	20
plantain	2	3	8	-	13
coconuts	9	1	-	-	10
carrots	1	-	8	-	9
lettuce	2	-	7	-	9
peas	4	-	5	-	9
sea foods	7	-	-	-	7
fruit	6	-	-	1	7
callaloo	4	-	1	1	6
corn	1	2	-	3	6
cucumbers	-	-	5	-	5
beet	-	1	1	-	2
water cress	-	-	2	2	2
christophene	-	-	1	-	1
beans	1	-	-	-	1
milk	1	-	-	-	1
rice	1	-	-	-	1
flour	1	-	-	-	1
avocado pears	1	-	-	-	1
ground nuts	-	1	-	-	1

Table 67

Regional Distribution of Food Items which Respondents buy from other Farmers

Items	Number of Respondents				
	North	South	East	West	Total
ground provisions	30	10	39	14	93
carrots	20	4	21	6	66
cabbage	20	5	26	3	54
tomatoes	14	3	26	3	46
lettuce	17	1	13	3	34
sweet potatoes	7	3	15	3	28
beans and peas	9	3	10	-	22
bluggoes	7	5	9	-	21
bananas	8	6	3	2	19
plantain	4	2	4	2	12
chive and thyme	4	-	6	-	10
breadfruit	2	1	2	2	7
cucumbers	4	-	3	-	7
fruits	6	-	-	1	7
avocado pears	1	-	1	4	6
beets	3	-	2	-	5
callaloo	5	-	-	-	5
coconuts	3	-	1	-	4
egg plant	1	-	3	-	4
pumpkin	2	-	1	-	3
onion	1	-	1	-	2
ochro	-	-	1	-	1

Question G3 aimed at finding out how dependent consumers were on supplies of food available mainly from shops. This information was required in order to get an idea of how much imported food had penetrated into consumption patterns of rural population. Both respondents and interviewers were most likely suffering from fatigue during the final section of the questionnaire and information recorded is somewhat patchy. Table 68 shows, however, recorded food items and the numbers of respondents who said that they purchased them. It is quite likely that some of the items listed under "50 or less" purchasers should be placed in other categories, for example, matches. Again, it is likely that "sugar" is purchased by more than the 167 respondents who mentioned this item. It is important to note, however, the heavy dependence on flour and rice, both of which are imported, the former, from non-regional sources, and the latter, mainly from within the region. Data on consumption of tinned foods were collected separately and are recorded in Table 69. Tinned meat, fish and milk feature very prominantly in consumers' purchases. Generally the data in Table 68 and 69 show that dependence on non-domestic supplies of food is so great that entry of such supplies in the economy must be monitored where there is likelihood that over-supply of a given commodity may dampen prices of locally grown produce.

Table 68

Showing Food Items purchased from Shops by Respondents

Number of Purchasers	Items purchased by Respondents
More than 200	Flour, rice
100 to 200	Sugar
50 to 100	White potatoes, onions, saltfish, butter
50 and less	Macaroni, cornmeal, chicken, peas, garlic, beans, split peas, milk, bread, cheese, biscuits, salt meat, soda, sweet potatoes, salt fish, mutton, meat, yeast, cooking oil, matches, lard, ham, bluggoe, kerosene, curry, cakes, sweets, eggs, olive oil, sweet drinks, tomato paste, fruit, soap, pepper, cocoa, smoked herring, tomatoes, pickled meat, tea, cereal preparations, pork, pig snout, baking powder, bacon, mackerel.

Table 69

Showing Tinned Foods purchased from Shops by Respondents

Number of Purchasers	Items purchased by Respondents
More than 200	-
100 to 200	Corned beef, sardines
50 to 100	Herring, mackerel, tinned milk
50 and less	Luncheon meat, ham, bacon, fruit juice, sausages, curried mutton, beans and peas, butter, salmon, beet, chicken, nuts, cocoa powder, ovaltine.

The final question aimed at finding out the incidence of farmers who lived on parcels of land which they cultivated as opposed to those who resided away from their parcels. Table 70 shows that 71 (33.5 per cent) of respondents resided away from their farms while 129 (61 per cent) lived on parcels which they farmed. Twelve cases were not recorded.

Table 70

Regional Distribution of Respondents by Place of Residence in relation to farm parcel

Respondent's Residence	Number of Respondents				
	North	South	East	West	Total
Residing on farm	34	37	43	15	129
Residing away from farm	24	16	16	15	71
No reply	2	8	1	1	12
TOTAL	60	61	60	31	212

CONCLUSION

The main policy recommendations arising from this survey were made in the "Agricultural Sector Plan for Grenada 1977 - 1981". They will not be repeated here in detail, but it is pertinent to make a general statement about agricultural development in Grenada and in the English-speaking Caribbean as a whole. The outward-oriented nature of the agricultural economy and the almost exclusive interest of private entrepreneurs in export production rather than in production for domestic consumption have, over the years, left the latter activity in the hands of a multiplicity of small peasant producers cultivating thousands of farmlets. Now that there is regional interest in a "basic needs" strategy, there must be a realistic appraisal of the region's agricultural production structure and recognition of its limitations. A clear distinction must be drawn between hobby and commercial farmers, and conditions must be created which give the latter incentives to produce. Land has to be viewed as a vital national asset, and much thought given to its use before it is irrevocably alienated from the agricultural sector. In this sector, it must be given as viable economic units only to registered commercial farmers who should continue to have title as long as they meet national farming standards.

The long traditional individualistic attitude to land which grew, in part, out of the urge to escape from plantation agriculture, needs not to be destroyed, but to be channelled towards national interest. Care should be taken therefore to ensure that the defunct private plantation system is replaced by one which leaves room for farmer incentive and initiative rather than having the perpetuation of the same system under the state. Towards this end, the Agricultural Sector Plan places great weight on internal regional organization of commercial farmers into groups, with group-interest through co-operative activity.

APPENDIX

FARM SURVEY QUESTIONNAIRE

THE MINISTRY IS CONDUCTING THIS SURVEY TO FIND OUT THE NEEDS AND PROBLEMS OF SMALL FARMERS. WILL YOU PLEASE ANSWER THE FOLLOWING QUESTIONS TO THE BEST OF YOUR ABILITY.

ABOUT FARMER

A. 1. In what year were you born? _____

2. TICK APPROPRIATE BOX /MALE/ /FEMALE/

3. Whom do you live with? Tick approximate boxes -

/ALONE/

	Ages
/HUSBAND/	_____
/WIFE/	_____
/SONS/	_____
/DAUGHTERS/	_____
/OTHER RELATIVES/	_____

4. How old were you when you left school? _____

5. In what year did you start farming? _____

6. Do you do any other work now? /YES/ /NO/

7. If answer to (6) is /YES/, give details.

_____

_____

_____

8. Are you a member of a -

/CO-OPERATIVE/
/VILLAGE GROUP/
/BUYING CLUB/
/CREDIT UNION/
/NOTHING/

9. Do you save any money? /YES/ /NO/

/THAT'S MY BUSINESS/

10. If answer to (9) is /YES/, where do you put your savings?

a. /POST OFFICE/
b. /BANK/
c. /SOU-SOU/
d. /OTHER/

11. Do you keep a record of your farm operations?

/WHAT YOU PLANT?/
/HOW MUCH YOU REAP?/
/HOW MUCH MONEY YOU SPEND?/
/WHAT YOU SPEND IT ON?/
/HOW MUCH MONEY YOU BORROW?/
/NO RECORD/

12. Would you keep records if the extension officer showed you how to keep them?

/YES/
/NO/
/DON'T KNOW/

ABOUT FARMER'S LAND

B. 1. How many parcels of land do you farm?

/_____/

2. Give the acreage of each:

a. /ON FLAT LAND/ _____

b. /ON HILLSIDE/ _____

3. Give the following information about each parcel of land:

STATUS										Acreage: Period of Lease	Payments made or received:
OWNED	A	( )	B	( )	C	( )	D	( )			
LEASED	E	( ) ( )	F	( ) ( )	G	( ) ( )	H	( ) ( )			
RENTED	I	( )	J	( )	K	( )	L	( )			
MANAGED FOR SOMEONE	M	( )	N	( )	O	( )	P	( )			
OTHER	Q	( )	R	( )	S	( )	T	( )			

IF THE FARMER HAS ONLY ONE PARCEL OF LAND. ASK HIM:

4. Would you like your parcel of land to be bigger than it is?

/YES/
/NO/
/DON'T KNOW/

IF /YES/

5. What acreage would you like it to be?

/_____/

6. Will you be able to work that acreage alone, with your family, or will you have to employ labour?

/ALONE/

/WORK WITH FAMILY/

/EMPLOY LABOUR/

IF THE FARMER HAS MORE THAN ONE PARCEL OF LAND. ASK HIM:

7. Would you prefer all your land to be in one place?

/YES/

/NO/

/DON'T KNOW/

IF /YES/

8. Where would you like it to be?

a. /ON A HILLSIDE/

b. /ON FLAT LAND/

c. /ON BOTH/

9. What acreage would you like it to be?

/_____/

10. Will you be able to work that acreage alone, with you family, or will you have to employ labour?

/ALONE/

/WORK WITH FAMILY/

/EMPLOY LABOUR/

IF /NO/ TO QUESTION 7, THEN ASK:

11. Why not?

_____

_____

ABOUT FARM INPUTS

IN THIS SECTION WE WANT INFORMATION ON WHAT INPUTS THE FARMER USED IN 1975 AND THEIR COSTS.

C. 1. TICK OFF THE OPERATIONS AND INPUTS WHICH THE FARMER PAID FOR IN 1975: GIVE COST OF EACH TO HIM AND QUANTITY WHERE APPLICABLE.

Operations and Inputs	Tick here	Cost	Quantity	Source of Input where applicable
Brushcutting				
Ploughing				
Rotating				
Harrowing				
Banking				
Bed formation				
Planting				
Propagating				
Weeding				
Weedicides				
Insecticides				
Applying Insecticide				
Fertilizer				
Fertilizer Application				
Harvesting				
Bags				
Transport				

2. ASK FARMER FOR INFORMATION ON CREDIT AND FINANCING USED IN AGRICULTURAL PRODUCTION:

Source	Size of Loan	Interest Paid	Amount of Credit	Interest Paid
Friend				
Agricultural Bank				
Credit Union				
Banana Society				
Nutmeg Assoc.				
Cocoa Assoc.				
Government				
Commercial Bank				
OTHER				

ABOUT FARM PRODUCE

D. 1. What crops are on each parcel of land now:

No. of acreage*	Crops

* Use lettering system established in reply to Question B.3.

2. Does any land lie fallow now?

/YES/

/NO/

3. Give name and amount of each crop reaped in 1975.

Name of Crop	Amount (lbs.)

4. Which of these crops did you find it most profitable to grow?

5. If you had cocoa, bananas, nutmeg or other spices, to which collecting point did you take them?

Produce	Boxing of Processing Plant
Cocoa	
Bananas	
Nutmeg	
Mace	
Cinnamon	
Other	

6. How much of the other crops did you (a) keep for yourself; (b) sell off farm; (c) sell at a market?

Name of Crop	Kept	Sold at Farm	Sold in Market

7. What price per lb. did you get for each crop sold?

Name of Crop	Average price at farm gate	Per lb. or per unit sold at market

8. Are you planting any crop now which you did not plant in 1975?

/_____/

9. Would you plant a new crop if the Ministry advised you to do so?

/YES/
/NO/
/DON'T KNOW/
/DEPENDS ON WHAT IT IS/

Other comments:_____

_____

IF /NO/

10. Why?

_____

_____

11. What animals do you keep?

/CATTLE/	/DONKEY/
/GOAT/	/PIGS/
/SHEEP/	/POULTRY/
/HORSE/	/RABBITS/
/MULE/	/OTHER/

IF FARMER KEEPS COW AND/OR GOAT, ASK HIM:

12. What do you do with the milk from your cow and/or goat?

/USE IT/
/SELL IT/
/GIVE AWAY/
/_____/

IF FARMER SELLS HIS MILK, ASK HIM:

13. To whom do you sell your milk?

_____

14. How many bottles (26 oz.) do you sell per day?

_____

15. How much do you charge for a bottle of milk?

_____

IF FARMER KEEPS SMALL STOCK, ASK HIM:

16. Do you /SELL/ your small stock, keep it for /FAMILY USE/ or /BOTH/?

IF HE SELLS -

17. How much did you sell last year?

_____

18. How much money did you get from sale?

_____

IF KEPT FOR FAMILY USE -

19. How much meat did your family consume from the farm last year?

_____

ABOUT FARM EXTENSION SERVICE

E. 1. Did you see an Agricultural Extension Officer last year?

/YES/
/NO/
/CAN'T REMEMBER/

IF /YES/

2. How many times? /_____/
/CAN'T REMEMBER/

3. Did you attend any field demonstrations last year?

/YES/
/NO/
/CAN'T REMEMBER/

IF /YES/

4. How many? /_____/
/CAN'T REMEMBER/

5. Have you ever wanted to see an Agricultural Officer for advice?

/YES/
/NO/

IF /YES/

6. What did you do about it?

a. Tell a friend to tell the Extension Officer /____/
b. Waited until Extension Officer came /_____/
c. Went to see Extension Officer /_____/
d. Did nothing about it /_____/

7. Do you listen to radio programmes on agriculture?

/YES/
/NO/

8. Did you see any film on agriculture shown by the Extension Service last year?

/YES/
/NO/
/CAN'T REMEMBER/

9. Are you quite satisfied with the Extension Service?

/YES/
/NO/
/DON'T KNOW/

IF /NO/

10. What improvement would you like to see?

_____

_____

_____

_____

ABOUT FARMER'S SOCIAL ATTITUDES

F. 1. Do you work on any other farmer's land for no payment?

/YES/
/NO/

IF /YES/

2. What kind of work do you do?

_____

_____

_____

3. Do other farmers work on your land for no payment?

/YES/
/NO/

IF /YES/

4. What kind of work do they do?

_____

_____

_____

_____

5. If you had to choose between:

   a. Owning a small piece of land alone and working it by yourself part-time

      AND

      Owning a large piece of land with a number of other farmers and working it with the other farmers full-time

Which would you choose?

/a/
/b/
/DON'T KNOW/

Other remarks: _____

_____

_____

_____

IF THE FARMER PREFERS (a) IN QUESTION 5, ASK HIM:

6. What would you do with the rest of your time?

/WORK SOMEWHERE ELSE/
/NOTHING/
/DON'T KNOW/

Other remarks: _____

_____

_____

_____

7. If you had to choose between:

   a. Owning $\frac{1}{4}$ acre of land and living on it

      AND

   b. Owning 2 acres of land and living away from it in a village with other farmers

Which would you prefer?

/a/
/b/
/DON'T KNOW/

Other remarks: _____

_____

_____

_____

8. Would you join a night-watch gang with other farmers to prevent thieves from reaping your crop or stealing your animals?

/YES/
/NO/
/DON'T KNOW/

9. Do you go to meetings to talk with other farmers about your problems?

/YES/
/NO/

IF IN ANSWER TO QUESTION A.8 THE FARMER SAID HE WAS NOT IN A CO-OPERATIVE, ASK HIM:

10. Would you like to be a member of a co-operative?

/YES/
/NO/
/DON'T KNOW/

IF ANSWER TO QUESTION 10 IS /NO/, ASK WHY.

_____

_____

_____

_____

_____

11. How do you think being in a co-operative can help a farmer?

_____

_____

_____

_____

12. In what way do you think your living conditions can be improved?

_____

_____

_____

_____

_____

_____

_____

CONSUMPTION IN FARM HOUSEHOLD

G. 1. What items of food do you eat in your household which you get for nothing from friends?

2. What items of food do you eat in your household which you buy from other farmers?

3. What items of food do you eat in your household which you buy from a shop?

4. What tinned food do you buy in shops?

5. Name all the food items including fruit eaten in your home yesterday, the quantity and the price of each which you had to pay for.

Item	Quantity	Price