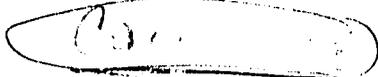


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Interim Report of Research on

THE ECONOMIC ROLE OF WOMEN IN SMALL-SCALE
AGRICULTURE IN THE EASTERN CARIBBEAN:
ST. LUCIA

by

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93003000

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The recommendations included in this Interim Research Report were the outcome of a Workshop organized by WAND and CRC, and held in St. Lucia, 10-11 June 1981. Participants in the Workshop included representatives of various ministries of the Government of St. Lucia, the four cooperating agencies, such regional organizations as CARDATS, the MUCIA field project to assist local agricultural extension agencies, and USAID. WAND has issued a separate, detailed report of the deliberations of the Workshop. WAND will also issue the formal report of the field research.

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SECTION I

INTRODUCTION

St. Lucia is not an isolated case study of the economic role of women in agriculture. St. Lucia, like other island nations of the Eastern Caribbean, many countries of Africa, and an increasing number of other third world states, is faced with a serious development dilemma: while primarily agricultural economies, these countries are increasingly becoming food importers. A partial cause of this development dilemma lies in the "invisibility" of the "female factor" in agriculture.

Data from other parts of the world reveal an alarming disregard for the realities of the interconnection between agricultural productivity, famine, and the "female factor" in food production. Based on micro-level studies, the Economic Commission for Africa (U.N., 1978:5) estimates that 60 to 80 percent of agricultural labour in Africa is provided by women. Yet their access to nonformal agricultural education, such as extension services, was estimated at less than 20 percent of all access. National and international macro-level statistics, upon which economic and social planning are usually based, invariably continue to claim a far lower participation level for women than for men.

Moreover, recent studies indicate that the economic marginality of women farmers is rising despite increases in per capita income. Work loads for women are increasing, fuel and land are becoming more scarce, and credit continues to be difficult to obtain. At the same time as women spend more time on agricultural tasks, they receive little more agricultural education.

Empirical (as contrasted with theoretical) explanations for the "invisibility" of women in development planning are fairly consistent: (1) poor rural women frequently have little control over the resources of production (e.g., land, credit); (2) official statistics continue to count primarily the monetized sector of the economy; and (3) government officials, donor agencies, and others make plans according to their stereotyped notions of the "proper" roles of women while ignoring their actual economic responsibilities (Blumberg, 1979).

A. Purpose and Objectives

The purpose of this study is twofold: to ascertain the extent and nature of economic participation by women in small-scale agriculture in St. Lucia, and to suggest policies and strategies for the most efficient delivery of agricultural support services to improve the economic well-being of these women and their families. Specific research objectives were:

- 1) to ascertain the percentage of small-scale farmers who are female;

- 2) to ascertain the division of labour and time allocation within the household group;
- 3) to identify decision-makers in agricultural households and the factors perceived to affect those decisions;
- 4) to acquire data on the economic responsibilities and social characteristics of female agriculturists;
- 5) to identify social groups in which rural women participate; and
- 6) to assess the perceived needs of women agriculturists.

The rationale of the study is based upon the premise that the usefulness and appropriateness of agriculturally oriented policies, plans, and projects are a direct function of the quality and quantity of information available. Hopefully, the data presented here will have immediate usefulness to ongoing action programmes to assist small-scale farmers, especially low-income rural women.

B. Methods

The economic analysis of the agricultural sector and the role of women therein is based primarily upon official national statistics. Up-to-date secondary interpretative commentaries on the St. Lucian economy are few and fragmentary, or made after a very limited direct exposure to the country. The methods employed in the design of the survey are described below.

1. Questionnaire Construction

Two basic questionnaires were used, one covering general household demography and farming operations and one focusing upon the "principal" woman in the household. In addition, a third questionnaire, used by WID, Inc., for a study of low-income women in Barbados, was adapted for use in measuring functional literacy in St. Lucia. This questionnaire was used after a final screening question which asked the respondent "who reads printed materials" which are received in the household. Use of the instrument in St. Lucia was, of course, complicated by the prevalence of the nonwritten patois. The research team would have preferred to do additional refinements of the test for use in St. Lucia, but that step was not possible within the project's resources. Nonetheless, it was useful "as it was" with minimal adaptations to suit the St. Lucian situation. Only 53 persons took the literacy test. It is in no way a random sample of the population; hence interpretation of the test results are highly speculative.

The first two questionnaires drew items from the World Bank's household study, from an earlier CARDI study, and from a questionnaire on rural development prepared at the University of Guyana, with other items specifically formulated for the St. Lucian study. Questionnaire

items were reviewed by members of the four cooperating agencies and local resource persons in January 1981 and modifications made to "West Indianize" them. An oral patois translation was prepared on tape by a St. Lucian linguist during the training of interviewers in early 1981 and a final patois version was agreed upon. Interviewers then copied in their own orthographic version key words onto their master questionnaire.

2. The Sample

In the planning of the project, adequacy of the universe to be sampled was a chief concern. A farm list, prepared by the Ministry of Agriculture, was said to exist, but there was uncertainty as to its currency and even its physical existence. On consultation with the agricultural statistical officer in January 1981 it was discovered that the "farm list" was close to ideal. Hurricane Allen with its devastating consequences for St. Lucia occurred in August 1980, five months before the arrival of the survey team. In that interval, the farm lists had been completely redone, locality by locality, for purposes of assessing damaged crops. Not only had the Ministry of Agriculture been interested in accomplishing the task for operational purposes, but each individual farmer had an incentive to be listed, since he/she expected this recording to be the mechanism through which hurricane damage compensation would be distributed.

The process of creating the farm list was long and arduous. Agricultural extension officers used a worksheet, filled out for each farmer. In a few cases, a sheet was filled out for each separate plot upon which a farmer worked. When this happened the agricultural statistics staff collapsed the information for separate plots onto a single card. As worksheets for individual farmers came into the agricultural statistics office, information was transferred to a summary sheet, by district, thus making up the master list. At the same time, the one card per farmer was made up with the basic acreage and crop information. These cards were used to draw the sample. Only small-scale farms (15 acres and under) were used in the survey. The number of registered farmers in St. Lucia with acreages below 15 totaled 6,991 (see Table I-1). The Ministry of Agriculture considers the lists essentially complete, representing the current universe of farm operations on St. Lucia.¹

1. The one exception of this above assessment of the farm lists in terms of adequacy might be the young persons who have identified themselves as Rastafarians. They, it appears quite clear, do not want to be involved with government programmes in any way, and were not listed. Therefore, for all practical purposes, they do not appear in the sample. It is impossible to estimate accurately the percentage of the overall population of small-scale farmers which might fall in this group, but observers feel it is almost certainly less than 5 percent.

Table I-1

St. Lucia Farm List, 1981

	<u>TOTAL REGISTERED FARMERS</u>	<u>LARGE FARMERS (more than 15 acres)</u>	<u>LARGE FARMERS AS A PERCENT OF TOTAL FARMERS</u>	<u>SMALL FARMERS (15 acres or less)</u>	<u>SMALL FARMERS AS A PERCENT OF TOTAL FARMERS</u>
South	914	46	5.0	871	95.0
East	1,133	57	5.0	1,076	95.0
Southwest	1,118	76	6.8	1,042	93.2
Central	2,775	106	3.8	2,669	96.2
North	<u>1,442</u>	<u>109</u>	7.6	<u>1,333</u>	93.4
	7,382	394		6,991	

TABLE I-2

Sample of Small-Scale Farmers Drawn by District

	<u>TOTAL</u>	<u>PERCENT</u>	<u>SAMPLE</u>	<u>PERCENT</u>
South	871	12.5	36	12.4
East	1,076	15.4	44	15.3
Southwest	1,042	14.9	44	15.2
Central	2,669	38.2	110	37.9
North	<u>1,333</u>	19.1	<u>56</u>	19.3
	6,991		290	

For administrative purposes, St. Lucia is divided into five agricultural districts. Table I-1 illustrates that only slight variations are found between these districts in terms of the proportion of farms which are larger than 15 acres. The overwhelming bulk of farming on St. Lucia in 1980 (94.7 percent in terms of numbers of farmers) was conducted in small-scale operations, that is, 15 or fewer acres.

The size of the sample drawn, 290 households, is shown in Table I-2. Sample size was based upon the number of variables to be utilized in the analysis, the time and financial resources available, and the estimated loss to refusals, inability to locate respondents, deaths, and other unknowns. The sample was drawn randomly. To facilitate the physical handling of the cards, the sample was drawn district by district. All cards for farms of over 15 acres were removed. The remaining cards were thoroughly mixed to ensure no periodicity, even though none apparently existed before the extensive mixing process. A random start was made, following which every twenty-fourth case was drawn. No problems were encountered for the first four districts--east, south, southwest, and north. Some problems occurred, however, in the case of the central district, the largest and the one where some three hundred individual farmer sheets had not been "cleaned" and transferred to the master list, and some of the cards had been completed. Double or even triple listings of farmers happened a few times when information was recorded by plot. The sheets were used "as is" after estimating from the finished cards that a maximum of 7.3 percent of the first 2,500 cards had had multiple plots recorded. However, a discrepancy of 189 continued to exist between the final number of the agricultural statistics summary lists and the actual number of cards. To the best of our knowledge the error was a random one. That is, no localities were completely left out; no variable, such as size of farm, could be postulated. Since this final district had not been completely "cleaned," the error was most likely located in inaccurate recording (e.g., skipping a line or a page) in the transfer of data from list to card. The researchers determined it to be least inaccurate to draw on the basis of existing cards. There exists the possibility then, that the sample may be slightly underrepresented for Central district, by six or seven households or approximately 2 percent. This slight underrepresentation in Central district is not thought to be a serious flaw in what is otherwise a totally random sample drawn from a nearly complete listing of the universe under study.

Once the sample of 290 households was drawn, information from the card was transferred to a cover sheet and attached to the first questionnaire. Identification numbers were assigned. A logging system for the sample and the questionnaires was established to facilitate assignment of particular households to interviewers. A second list, giving locality information, was prepared to facilitate the physical location of the interviewees, through help from extension officers, local informants, and resource persons.

The original plan to select women farmers for the second questionnaire called for completing the first questionnaire and then drawing a second random sample from the females of the original small-scale farm households sample. The fallback position, forced into use in order to complete the work within the available time and money, was to choose one woman from each of the households which had women present in them, which was all but 29, or 216 (88 percent). Of that number, women from 198 households were interviewed. Three of these interviews were incomplete and not coded; therefore, the final sample of women numbers 195.

The number of women not interviewed is larger in the northern district, as it was the last district in which the first questionnaire was administered and therefore there was less time to complete the second round. With that exception the districts are all equally represented. Failing the opportunity to sample randomly, the interviewers were instructed to seek the "principal woman" in the family, who turned out to be a daughter in a few cases. Therefore, the sample of women can be described as the "principal women" in 195 of 216 (90.2 percent) cases of a randomly drawn sample. Given these qualifications, one cannot so safely generalize from this population to the total population of St. Lucian farm women, as is possible with the household sample.

3. Selection and Training of Interviewers

Immediately prior to the arrival of the research team on St. Lucia, a paid advertisement was placed on Radio St. Lucia. The advertisement consisted of information about the survey and the need for women to serve as interviewers. Two days after the advertisement ran several times, the interviewing of candidates for the eight jobs began at the Caribbean Research Centre. The reception room and the yard of the Centre were completely full of woman applicants--over one hundred arrived. The great bulk of the group was very young women, mostly just out of secondary school and without experience in the work world. The women to be hired as interviewers were to be mature, bilingual in standard English and patois, and with a rural background. Ultimately ten women were engaged. They ranged in age from 25 to 38, averaging 30 years. Most were married women and all had children. Five lived in the Castries area, though all but two had lived at some point in rural areas. The five others came from different parts of the island, representing all areas except the section north of Castries. All had work experience in the community, such as teacher, community health aide, family life educator, social worker, census taker, or police officer.

Almost two weeks were spent training interviewers and pre-testing the questionnaires. Training took place at the Caribbean Research Centre with all four cooperating agencies participating--WAND, WID, Inc., CRC, and MUCIA. In addition, officials from the St. Lucian Ministry of Agriculture and local social scientists contributed their expertise.

Interviewers engaged in a variety of activities through which they were given practice in interviewing. They participated in exercises which helped to sharpen their visual and audio discrimination and perception and their accuracy in recording information. Participants role-played, interviewed each other, and criticised each other's performance. Interviewers held detailed and prolonged discussions on the questionnaire, its format, objectives, administration, and translation into patois.

Pre-tests of the questionnaires were done as training exercises; the first week the literacy test was administered to persons in the neighbourhood, and the household questionnaire the second week. Problems encountered were discussed and adjustments made in the questionnaires.

4. The Field Work

The original plan for the field work called for two teams of five interviewers, each led by a field supervisor. The two field supervisors were Ministry of Agriculture staff seconded to the project. Both were professional agronomists, both had participated in a share of the training, though not fully as they were still involved in other Ministry activities. The plan, conceived off the island and without full knowledge of transport complexities, was for the supervisor to deliver her team of interviewers to prearranged places each day and then proceed to make the next day's arrangements/appointments. The plan proved to be unworkable and other arrangements were thus necessary. A retraining day was scheduled for the interviewers and a new field plan instituted. In this new plan interviewers were assigned cases in their own areas, to locate and travel to on their own, not in teams. This reorganisation facilitated the orderly assignment of cases to individual interviewers and allowed full advantage to be taken of the very considerable experience and wide knowledge of community which the interviewers possessed. This field plan continued, with weekly meetings held at which the interviewers turned in their completed cases and were reassigned work for the coming week. As the work in each region ended, a car and driver were assigned to "mop up" the difficult-to-locate or difficult-to-get-to cases. Three of the interviewers were able, essentially single-handedly, to do entire regions. In the large central district several persons were assigned and had to use project cars frequently at the latter stage of field work. There was no interviewer from the northern region, and hence it was more difficult to locate sample cases in that region. Teams of persons with frequent use of vehicles were assigned to conclude this district's cases.

The original plan had been to conclude the first phase of interviewing (questionnaire on the household) before starting the second questionnaire, which was to be used with the women of the households. When, as described above, interviewers were trying to find the most difficult-to-reach cases, it seemed appropriate to stop and retrain them in the use of the second questionnaire, in order not to

have to travel to these difficult-to-reach cases twice. Therefore, on February 16, about midway in the field work, there was a day of retraining and patois translation of the second questionnaire, following which the interviewing process continued. A small number of the first questionnaires were therefore done at the same time as the second, the female-focused questionnaire, sometimes both by the same interviewer, or sometimes done by team partners, one interviewing a farm male as respondent for the first questionnaire and the other the woman for the second.

Field work had been scheduled to last for five weeks. It became evident early that this period was not sufficient, for it had been planned very tightly around the availability of resources. When some of the unplanned contingencies mentioned occurred, there was simply no time to spare. In addition, there were periods of rain when it was impossible to get into back country areas. The field work extended, therefore, into a sixth week and finally concluded in fact at the beginning of the seventh week.

The final usable sample included 245 cases (see Table I-3). Forty-five cases were lost in the following ways: 19 households were never located; 1 household had more than 15 acres; 5 households refused to cooperate; and 2 questionnaires were incomplete. Those who refused cited anger at the government (which always asked questions and never gave any help) as their reason for refusal. After interviewing, an additional 18 cases were lost: 5 had more than 15 acres of land; 5 were discovered to be duplicates; and 8 farm holdings were vacant.

C. Interpretation of the Data and Organisation of the Report

The findings are presented in a descriptive way, as it was decided that their interpretation was to result from discussions of participants attending a workshop held in St. Lucia in June 1981. Thus, the findings consist of the analysis of raw data, drawn directly in most cases from the initial computer printouts. Further analyses will be made as requested for either analytical or theoretical purposes for operational objectives of the Ministry of Agriculture in St. Lucia and local and regional agencies. The raw data, computer printouts, and copies of the report are stored at the Caribbean Research Centre and WAND for use in the region.

The following report is divided into four sections. The first section is an analysis of the agricultural sector of St. Lucia, focusing especially on the structure of the agricultural labour force and the role of women. The purpose of this analysis is to provide a background against which to evaluate and compare the empirical findings of the field survey of small-scale agriculture which forms the next two sections. The final section is a set of policy recommendations and program ideas for improving the delivery of services to women engaged in small-scale agriculture.

TABLE I-3

Reasons for Losses between Sample Drawn and Sample Used

<u>AGRICULTURAL DISTRICT</u>	<u>SAMPLE DRAWN*</u>	<u>LOST IN INTERVIEW STAGE</u>			<u>TOTAL INTERVIEWS COMPLETED</u>	<u>LOST IN CODING STAGE</u>			<u>TOTAL CODED</u>
		<u>Unlocatable</u>	<u>Refusal</u>	<u>Incomplete Interview</u>		<u>Too Large</u>	<u>Duplicate</u>	<u>Vacant</u>	
Southern	36	2			34				34
Southwestern	44	3			41	1			40
Eastern	44	2	1		41		1		40
Central	110	8	2	1	99	2	2	6	89
Northern	55	4	2	1	48	2	2	2	42
TOTALS	289	19	5	2	263	5	5	8	245

* Original sample = 290; after drawing the sample, 1 household was found to have more than 15 acres of land and was therefore dropped.

SECTION II

AGRICULTURE, WOMEN, AND THE ECONOMY

Agriculture in St. Lucia has been, is, and probably will continue to be the primary source of income, foreign exchange earnings, and employment for the foreseeable future. Yet imports of agricultural products produced in insufficient quantity in St. Lucia continue to affect adversely the balance of payments. Further, agricultural development is constrained by limited arable land, an antiquated land tenure system linked to difficulties in obtaining credit, and an inefficient system of marketing. Despite the predominance of agriculture in St. Lucia's economy, the share of agriculture in GDP and exports has been declining.

A. The Economy

1. Agriculture and Gross Domestic Product (GDP)

Since the early 1970s, tourism and industry have assumed an increasing place in GDP, overseas trade, and employment, while agriculture's (including fishing, forestry, and quarrying) share of GDP has been slowly decreasing. Agriculture contributed just over 14 percent to GDP in 1978, down from 21 percent in 1969. Conversely, manufacturing, hotels, transportation, construction, and finance and insurance have increased their share of GDP during the past decade (St. Lucia, Statistical Digest 1978/79, Table 55, p. 41).

2. Agriculture and Overseas Trade

The slowly declining position of agriculture in the monetized economy is even more clearly seen in foreign trade. Agriculture, until the mid-1970s, was the mainstay of St. Lucian overseas trade and foreign exchange earnings. Bananas predominated, but agricultural exports also included coconut products, fruits and vegetables, cocoa, spices (especially ginger), and butter (see Table II-1). In 1974, clothing and paper industries developed, which captured 13 percent of the export market that year. These products were joined by beverages in 1976 to capture a high of one-third of the export market, but the share of consumer industries decreased to 30 and 26 percent of the export market in 1978 and 1979, respectively. Thus, agriculture declined from about 100 percent of total exports in 1973 to only three-quarters of exports in 1979.

This diversification of foreign trade is undoubtedly a positive economic trend considering the precarious elasticity of agriculture in response to world market prices and climatic conditions. Until the 1950s, sugar was the major agricultural export crop, but declining

TABLE II-1

Exports of Major Commodities, St. Lucia, 1969-79
(000 EC\$)

<u>COMMODITY</u>	<u>1969</u>	<u>1972</u>	<u>1974</u>	<u>1976</u>	<u>1978</u>	<u>1979P</u>
AGRICULTURE						
Bananas	13,867	8,313	21,219	21,072	32,705	36,503
Coconut oil	701	2,086	3,217	4,768	5,409	7,211
Coconut meal	27	150	235	200	344	491
Fruits & vegetables	19	92	451	642	1,188	1,427
Cocoa	162	176	421	388	974	913
Spices	15	103	198	200	213	325
Butter	-	-	-	433	217	408
Subtotal (percent)	(100)	(100)	(87)	(66)	(70)	(74)
INDUSTRY						
Beer & ale	-	-	-	1,623	3,054	4,292
Paper & cardboard	-	-	3,420	8,563	7,782	5,192
Nonalcoholic drinks	-	-	-	570	1,954	2,003
Clothing	-	-	304	3,308	5,969	4,760
Subtotal (percent)	-	-	(13)	(34)	(30)	(26)

SOURCE: Adapted from St. Lucia, Statistical Digest 1978/79, Table 46, p. 34.

P = provisional.

world prices, amongst other reasons, caused an abrupt shift from sugar to bananas. Bananas, too, are sensitive to climatic conditions and world market prices. Successive years of drought in the early 1970s significantly reduced exports of bananas. The drop in agricultural exports was even greater in 1980 due to the widespread destruction of the banana crop and public infrastructure by Hurricane Allen. In the last quarter of 1980 no bananas were exported; in the first quarter of 1981 banana exports were down 75 percent from the second quarter of 1980 (Interview with the Ministry of Agriculture statistical officer, 12 June 1981). The first shipment of bananas since the hurricane took place in February 1981. Cocoa production also declined and a long spell of dry weather was expected to adversely affect production of vegetables.

Social factors also affected agricultural production in 1980. Labour disputes early in the year led to the temporary shutdown of the coconut processing plant at Soufrière. Poultry farmers were forced to import feed from Florida when the local feed plant at Vieux-Fort was gutted by fire. These declines in production were partly offset by increases in world prices of St. Lucia's major exports (Agricultural Statistics Quarterly Digest, January-March 1980, pp. 1-2).

Imports are also a serious economic problem (Table II-2). The expansion of industry and associated construction increases the trade deficit due to the increased importation of raw materials. As Table II-3 illustrates, St. Lucia also imports food products which could be produced locally. The development of industry and the necessity of food imports have contributed to a mounting adverse balance of trade (Table II-4). In order to minimise the trade deficit, agricultural policy objectives include import substitution by domestic production of selected food products and the diversification of agricultural exports (St. Lucia, National Plan). Such policies have not been successfully implemented. For example, due to fixed prices for domestic products and the absence of sufficient duties on imported products, local farmers continue to be undersold by foreign producers. Moreover, local advertising of foreign products continues to encourage consumers to "buy foreign."

3. Women and Access to Productive Resources

St. Lucia's 233 square miles can be divided into three kinds of land: (1) urban land (10 percent), mainly in the northwest around Castries; (2) forest and woodland (30 percent), primarily in the center of the island extending from the leeward or west coast between Canaries and Soufrière, across the Barre de l'Isle ridge to the east or windward coast between Dennery and Grand Anse; and (3) agricultural land (60 percent). Fifteen percent of agricultural land is devoted to intensive cultivation of bananas in areas scattered throughout the island, but especially the Roseau and Cul-de-Sac Valleys. A quarter of the agricultural land, mainly in coastal areas, is scrub and natural pasture of low agricultural productivity. The remaining 60 percent of more productive agricultural land is primarily in mixed agricultural

TABLE II-2

Imports of Selected Commodities, St. Lucia, 1969-79
(000 EC\$)

<u>COMMODITY</u>	<u>1969</u>	<u>1972</u>	<u>1974</u>	<u>1976</u>	<u>1978</u>	<u>1979P</u>
Meat	1,186	2,356	2,882	5,615	9,130	14,442
Milk and cream	602	1,134	1,934	2,140	3,602	4,798
Fish	63	439	492	273	97	232
Wheat flour	1,399	1,721	3,846	5,146	619	931
Sugar	557	289	1,850	2,585	5,696	1,890
Beer and ale	563	1,427	1,226	867	174	174
Distilled alcoholic beverages	1,065	1,642	2,097	1,904	2,668	3,365
Wood and lumber	1,505	1,711	2,397	2,320	4,226	5,739
Motor spirits	307	524	2,280	3,665	4,824	7,596
Fuel	131	1,046	2,755	4,895	6,618	14,994
Soap and cleansing preparations	225	544	910	1,324	2,238	2,558
Fertilizer	1,583	1,836	1,552	2,680	2,277	3,538
Paper and cardboard	832	2,186	4,834	7,117	9,471	4,722
Footwear	779	1,187	1,268	1,706	2,430	3,254
Cement	584	1,017	923	1,565	2,468	2,116
Iron and steel	2,071	2,310	2,160	2,417	3,505	20,575
Electric machinery and appliances	1,759	3,713	3,876	6,062	9,417	14,242
Motor vehicles	2,349	3,787	2,971	3,974	12,915	13,416
Clothing	1,452	2,117	3,120	2,519	3,506	4,509

SOURCE: St. Lucia, Statistical Digest 1978/79, Table 47, pp. 35-36.

P = provisional.

TABLE II-3

Value of Selected Agricultural Imports, St. Lucia, 1979

<u>COMMODITY</u>	<u>000 EC\$</u>
Meat	14,442
Dairy products and eggs	7,313
Fish	2,640
Cereal and cereal production	11,782
Fruits and vegetables	6,044
Sugar and honey	3,429
Coffee, tea, cocoa, and spices	2,317
Animal feed	785
Miscellaneous food preparations	<u>3,335</u>
TOTAL	52,087

SOURCE: Provisional data, St. Lucia, Statistical Digest 1978-79, Table 45, p. 31.

Note: Items selected were those products which St. Lucia also exported or could produce.

TABLE II-4

Balance of Trade Deficits, St. Lucia, 1968-79

<u>YEAR</u>	<u>TRADE DEFICIT (EC\$)</u>
1968	16,899,600
1970	45,859,700
1972	53,572,400
1974	58,206,100
1976	75,798,700
1978	151,079,700
1979P	186,764,300

SOURCE: St. Lucia, Statistical Digest
1978/79, Table 42, p. 29.

P = provisional.

use including bananas intercropped with other produce (Statistical Digest 1978/79, Table 1).

It is important to note that much of the arable land is suitable only for cultivation of tree crops (e.g., bananas, coconuts) or for farming only under intensive measures of conservation (St. Lucia, National Plan, p. 22). Although about a third of the forest and woodlands is protected forest reserve, farm squatters have been encroaching upon these areas, presenting serious problems of water conservation and management (White, 1981). Not only is water essential to the human population of the island, but many crops in the nonforest areas depend upon irrigation. Thus, expanding the area of land under cultivation by converting forest to farms does not appear to be a rational means to increase agricultural productivity. Rather, more efficient management of existing agricultural land is necessary.

Although there is disagreement, most published sources suggest a major problem associated with agricultural productivity is land tenure. Intestate succession results in the increasing incidence of "family land," whereby farm holdings are divided equally amongst an ever-increasing number of heirs. In addition, the lack of clearly defined boundaries and the lack of fee simple title are said to be major constraints to the acquisition of credit (St. Lucia, National Plan, p. 22).

Available data (see Tables II-5 and II-5) suggest several characteristics of farm holdings in St. Lucia. First, the majority of farm holdings are operated by the individual owner or renter, with the exception of holdings over 100 acres. The total number of farm holdings is listed in the 1973/74 agricultural census as 10,938, of which more than 10,000 were operated by individuals, rather than by corporations, partnerships, cooperatives or government agencies. Secondly, it is impossible to tell from the published data how much of the "owned" land is "family" land. Thirdly, the majority of holdings (large and small) are operated by individuals over 45 years of age. Fourthly, farmers with 5 acres or less account for 83 percent of all holdings, yet occupy less than 15 percent of all farm acreage. Farmers with 100 acres or more represent less than 1 percent of farm operators, yet hold almost 53 percent of total farmland. Finally, and most importantly for this study, the data on farm holdings are not disaggregated by gender.

Reports agree that the number of farm holdings and acreage in agricultural production on St. Lucia have decreased over the past two decades. Between 1961 and 1973/74 the number of farm holdings decreased from 13,008 to 10,938 and farm acreage declined from 87,375 to 72,001 acres. The statistician in the Ministry of Agriculture attributed this decline of more than 2,000 holdings and 15,000 acres to land being converted to other uses (such as housing and hotels), to the ceasing of farm operations because of the unprofitability of agriculture and probably to inaccuracies in both the 1961 and 1973/74 data sets (Agricultural Census 1973/74, pp. 2-3). In the 1981 farm

TABLE II-5

Farm Holdings, Holders, and Tenure, St. Lucia, 1973/74

NUMBER OF HOLDINGS:

Operated by holder	10,706
In partnership	58
By a manager	<u>174</u>
TOTAL	10,938

HOLDERS BY LEGAL STATUS:

Civil person	10,772
Corporation or company	19
Co-operative	-
Government	37
Other	<u>110</u>
TOTAL	10,938

HOLDINGS BY TENURE:

Owned	7,563
Rented	2,001
Mixed tenure	472
Other	<u>400</u>
TOTAL	10,436*

SOURCE: St. Lucia, Agricultural Census 1973/74, pp. 9-10.

* It is not clear from the data why this figure is 502 cases less than the others.

TABLE II-6

NUMBER AND AREA OF HOLDINGS, BY AGE OF OPERATOR
AND SIZE OF HOLDING (ACRES), ST. LUCIA, 1973/74

	<u>Total</u>	S I Z E G R O U P (H O L D E R S)						
		<u>0-1</u>	<u>1-5</u>	<u>5-10</u>	<u>10-25</u>	<u>25-50</u>	<u>50-100</u>	<u>100+</u>
Total	10,938	5,232	3,828	1,082	475	199	58	64
Under 35 years	2,200	1,401	632	135	18	2	5	7
35-44 years	2,527	1,424	769	177	87	51	9	10
45-54 years	2,672	1,030	1,052	331	155	67	22	15
55-64 years	2,100	773	898	238	107	48	14	22
65 years & over	1,439	604	477	201	108	31	8	10

	<u>Total</u>	S I Z E G R O U P (A C R E S)						
		<u>0-1</u>	<u>1-5</u>	<u>5-10</u>	<u>10-25</u>	<u>25-50</u>	<u>50-100</u>	<u>100+</u>
Total	72,001	1,733	8,471	7,068	6,396	6,299	4,269	37,765
Under 35 years	7,706	452	1,190	848	232	60	356	4,568
35-44 years	12,957	531	1,610	1,092	1,283	1,472	716	6,253
45-54 years	22,264	352	2,343	2,122	2,084	1,957	1,612	11,794
55-64 years	20,251	239	2,176	1,616	1,413	1,652	1,058	12,097
65 years & over	8,823	159	1,152	1,390	1,384	1,158	527	3,053

SOURCE: St. Lucia, Agricultural Statistics Census, 1973/74, Table 14, p. 50.

list, small-scale holdings (10 acres and under) further declined to under 7,000.

Although there are little "hard" data available disaggregated by gender, it is generally held that certain social factors impose special constraints upon women's access to productive resources. While there are no legal restrictions on women owning land or acquiring leaseholds in St. Lucia, culturally conditioned norms apparently lead to a pattern of predominantly male ownership or control of land. Since the obtaining of credit in some cases is dependent upon ownership or control of such assets as land for collateral, women have more difficulty than men in obtaining credit (Antrobus, pp. 10-11). The plight of women is vividly seen in data from the Agricultural and Industrial Bank (AIB). In 1980 women received only 15 out of a total of 163 loans disbursed by the AIB. These 15 loans amounted to EC\$47,894 (approximately US\$18,000), only 1 percent of the total loans disbursed (EC\$4,325,662, or more than US\$1.6 million).²

The link between credit acquisition and land tenure, however, is far from clear. The Government of St. Lucia now offers some credit on the basis of crop liens. Some of these credit lines are not fully disbursed. This latter situation suggests that factors other than land tenure are also constraints to women (and men) receiving credit, e.g., unfamiliarity with the process of credit application, hesitancy to take the economic risk of poor harvest, and unwillingness to sell crops at Marketing Board prices. Undoubtedly land tenure underlies many agricultural problems, including obtaining credit, but available information suggests that other factors are involved and that constraints upon women's (and men's) access to productive resources is a subject for further research.

As has been shown elsewhere, despite poor agronomic practices, lack of credit, indefinite land tenure, and other disadvantages, small-scale farms, on the whole, contribute more to exports than do large units; the latter frequently lie idle for long periods of time for various reasons, including land speculation and poor returns on agricultural investment. While farms of less than 10 acres accounted for only about one-quarter of total acreage under cultivation in 1974, they generated almost 60 percent of the total crops exported (Agricultural Census, 1973/74). Moreover, because of the number of persons residing on these small-scale farms, they are the source of much of the food produced for local consumption which does not enter national accounts.

2. Data provided by the Agricultural Statistical Officer, Ministry of Agriculture, St. Lucia.

B. Agriculture and the Labour Force

The data on agricultural employment are not so clear as that on farm holdings and farm acreage. It is an observable fact as one drives through the countryside or visits the marketplace that St. Lucian women are engaged as farm labourers, farm operators, and marketers of farm produce. However, what percentage of women are engaged in agriculture and what kind of labour they perform on small-scale farms is not precisely known. While individual officials in government are intimately knowledgeable about farming conditions and problems from years of practical experience, the data on the composition of the agricultural labour force is confusing. Who actually does the work of small-scale farming on St. Lucia according to official statistics?

The primary source of contemporary data on employment in St. Lucia is the census. Four population censuses have been taken in the post-war period: 1946, 1960, 1970, and 1980. The last agricultural census was taken in 1973/74. Quarterly statistical reports are compiled by the Ministry of Agriculture, but for some quarters these documents have not been issued.

Employment in agriculture appears to be gradually declining in the long-run, but apparently fluctuates in the short run. The 1960 census figures indicate over 15,000 persons were "gainfully occupied" in agriculture (53.1 percent of total employment); the 1970 census figures showed about 10,500 persons (39.4 percent of the labour force) (St. Lucia, National Plan, p. 14), a drop of almost 14 percent. A sample survey in 1977 indicated 43.8 percent of the labour force was in agriculture, up 4 percent in seven years. Another survey in 1978 reported only a third of the labour force was in agriculture, down in a year by 10 percent (Table II-7).

The 1973/74 Agricultural Census of St. Lucia lists (see Table II-8) the adult (15 years and older) "farm population" as 27,923 (51 percent female) and the total "employed in agriculture" (Table II-9) as 33,012 (42 percent female). This figure for agricultural employment represents 25,273 "dependents" (44 percent female) of the farm operator, 3,339 "other unpaid workers" (44 percent female), and 5,402 "paid workers" (35 percent female) unrelated to the farm operator. To this employment figure of just over 33,000 agricultural workers must be added the approximate 10,500 "farm operators" (25 percent female).³

3. The 1973/74 Agricultural Census introduction (p. 8) states that "farm population" figures "include the 'farm operator'," but that "farm employment" figures do NOT include the farm operator who is considered "as an employer rather than as being employed." The "farm operator" is defined (p. 4) as "the person directing the day-to-day operations of the farm." He or she may be the owner, the lessee, or employed as the manager by the owner or lessee. It appears as though the population census figures for the agricultural labour force are only "farm holders" or "farm operators."

TABLE II-7

Employment by Industry, St. Lucia, 1977-78

<u>INDUSTRY</u>	PERCENT OF WORKING POPULATION	
	<u>1977^a</u>	<u>1978^b</u>
Agriculture (including forestry, fishing, mining, and quarrying) ^c	43.8	34.0
Community and social services	22.0	21.2
Manufacturing	5.9	10.7
Electricity and water	0.7	1.3
Construction	7.3	10.4
Wholesale and retail trade	8.0	6.1
Hotels and restaurants	3.5	6.9
Transport and communications	4.7	7.0
Finance and insurance	4.1	1.6
Handicrafts	n.a.	0.8

SOURCES: ^a From a "sample survey" reproduced in St. Lucia, Statistical Digest 1978/79, Table 13, p. 9.

^b St. Lucia, Central Planning Unit, reproduced in Etherington and Simon, p. 99.

^c These economic activities have been combined because fishing and forestry were aggregated with "agriculture" in one set of data but not in the other set. These agriculture-related items represent less than 2 percent of the aggregated "agriculture" total above.

TABLE II-8

Farm Population by Size of Holding, St. Lucia, 1973/74

	<u>TOTAL</u>	<u>0-1</u>	<u>1-5</u>	<u>A C R E S</u>		<u>25-50</u>	<u>50-100</u>	<u>100+</u>
				<u>5-10</u>	<u>10-25</u>			
FARM POPULATION:								
Total	52,283	23,541	17,359	6,077	3,772	1,109	240	185
# of males	25,580	11,159	8,629	3,066	1,946	540	129	111
# of females	26,703	12,382	8,730	3,011	1,826	569	111	74
15 YEARS AND OVER:								
Total	27,923	12,425	9,320	3,583	1,727	575	144	149
# of males	13,712	5,935	4,541	1,866	895	311	75	89
# of females	14,211	6,490	4,779	1,717	832	264	69	60
UNDER 15 YEARS:								
Total	24,360	11,036	8,119	2,494	2,045	534	96	36
# of males	11,868	4,704	4,588	1,220	1,051	229	54	22
# of females	12,492	6,332	3,531	1,274	994	305	42	14

SOURCE: St. Lucia, Agricultural Statistics Census, 1973/74, Table 20, p. 87.

TABLE II-9

Persons Employed in Agricultural Work, by Size of Holding
St. Lucia, 1973/74

	<u>TOTAL</u>	<u>0-1</u>	<u>1-5</u>	<u>A C R E S</u>				
				<u>5-10</u>	<u>10-25</u>	<u>25-50</u>	<u>50-100</u>	<u>100+</u>
NUMBER OF PERSONS EMPLOYED:								
Total	33,013	12,441	11,340	3,876	1,921	1,114	305	2,015
Males	19,175	7,182	6,453	2,422	1,089	837	193	999
Females	13,838	5,259	4,887	1,454	832	277	112	1,016
DEPENDENTS OF FARM OPERATOR:								
Total	25,273	11,094	9,392	2,749	1,260	665	61	52
Males	14,109	6,306	4,986	1,583	681	474	42	37
Females	11,164	4,788	4,406	1,166	579	191	19	15
OTHER UNPAID WORKERS:								
Total	2,339	918	828	421	78	73	17	4
Males	1,541	529	591	290	58	61	10	2
Females	798	389	237	131	20	12	7	2
PAID WORKERS:								
Total	5,402	429	1,120	706	585	376	227	1,959
Males	3,525	347	876	549	350	302	141	960
Females	1,877	82	244	157	235	74	86	999

SOURCE: St. Lucia, Agricultural Statistics Census, 1973/74, Table 19, p. 86.

Part of the short-run fluctuation in labour force statistics in agriculture appears due to the method of accounting. First, "gainfully occupied" is defined in St. Lucian statistical data as "persons having worked for any period over [the] 12 months preceding the census. Included are employers, employees, own account workers as well as unpaid workers in businesses and farms operated for profit" (St. Lucia, Annual Statistical Digest, 1977, p. 7). Thus, there is no distinction made between full-time, year-round employment and part-time or seasonal employment. The data in Table II-9 do not tell us whether the persons recorded as engaged in unpaid agricultural labour or as dependents of the farm operator held other jobs or what percentage of their time was spent in unpaid labor on the farm. It is a generally accepted notion that considerable numbers of St. Lucians residing on farms engage in short-term off-farm employment. The precise numbers of such persons, their gender and the pattern of their off-farm employment are not precisely known.

Secondly, official statisticians and consulting economists have been undecided as to how to handle the large amount of "unpaid family labour." For example, in one of the most recent studies of small-scale farming in St. Lucia, the author, using the same original table as that reproduced here as Table II-9, omits "dependents of farm operator" on the basis that "it is not clear what employment status is given to the farmer's wife" (Le Franc, pp. 124-125). Such categories do not fit into the usual ones used by Western-trained economists in setting up labour accounts. But this reporting is more than merely a statistical problem: it is also a conceptual problem. What does "farmer" mean? Does it mean the person who owns or rents the land, the person who tills the land, or the person (present or absent) who makes the farm decisions or takes the economic risks?

The problem of how to account for unpaid female labour appears in general labour force accounts and not just in those for agriculture. The Statistical Digests for 1977 and 1978/79, both purportedly based on the 1970 population census, have different totals for female employment. In the 1978/79 version of the Statistical Digest (Tables 58 and 59, pp. 44-45), the total female "gainfully occupied" population is 18,000 more than in the 1977 edition of the Statistical Digest (Tables 9 and 10, pp. 6-7). These 18,000 women have been added in 1978/79 to the occupation "not stated" and income "not stated" columns (Tables II-10 and II-11). The adding of these women to the latest available documentation increases their number to near the recorded 1970 total adult female population. Does this increased accounting mean that almost all adult females are "gainfully occupied" but not paid?

Several additional questions are raised by national statistics concerning the economic role of rural women. First, female farm operators who are recorded as being paid receive less income than males (Table II-12). Secondly, the production of food crops (e.g., dasheen, tannia, eddoe, breadfruit, yam) for household consumption usually does not enter into national accounts, thereby understating the economic

TABLE II-10

Gainfully Occupied Female Population, by Occupation, St. Lucia, 1970

<u>OCCUPATIONAL GROUP</u>	<u>NUMBER OF FEMALES</u>	<u>% FEMALE</u>
Professional and technical	1,159	60
Administrative and managerial	43	19
Clerical and related	918	62
Transportation and communications	26	17
Sales	1,288	68
Service	1,726	72
Farm managers, supervisors, and other agricultural workers	2,700	25
Production workers	1,181	18
Occupation not stated	<u>18,284</u>	79
	27,325*	

SOURCE: St. Lucia, Statistical Digest 1978/79, Table 59, p. 45.

* The total number of women gainfully employed is listed in the source as 27,345.

TABLE II-11

Gainfully Occupied^a Female Population,
by Economic Sector, St. Lucia, 1970

	<u>NUMBER OF FEMALES</u>	<u>% FEMALE</u>
Agriculture	2,567	25
Mining and Manufacturing	1,043	47
Construction	118	4
Electricity and commerce	1,966	54
Transport	82	8
Services	3,421	60
Occupation not stated	<u>18,148</u>	80
TOTAL	27,345	56

SOURCE: From Population Census for 1970, in St. Lucia, Statistical Digest 1978/79, Table 58, p. 44.

^a Person having worked for any period of time over the 12 months preceding the census. Included are unpaid workers on farms operated for profit.

TABLE II-12

Income of Agricultural Labour Force, 1970 (EC\$)

<u>INCOME</u>	<u>MALE</u>	<u>FEMALE</u>	
Under 500	1,713	1,330	
500-999	3,737	885	
1,000-1,999	1,484*	102	
2,000-2,999	312	25	
3,000-3,999	105	10	
4,000-4,999	57	1	
5,000-5,999	37	-	
6,000-6,999	28	-	
7,000-7,999	9	1	
8,000-8,999	6	-	
Over 9,000	24	2	
No income or not stated	<u>412</u>	<u>211</u>	
TOTAL LABOR FORCE	7,924	2,567	11,099
	(76%)	(24%)	

SOURCE: Population Census 1970, reproduced as Table 58, St. Lucia, Statistical Digest 1978/79, p. 44.

* A typographical error of 600 in this figure appears in the original table.

role of women in St. Lucian agriculture. Thirdly, not only is the economic contribution of women to agricultural production ignored statistically, but their economic responsibilities for child support largely go officially unrecognized. The St. Lucian Registrar of Civil Status indicates that during the 1970s an average of 80 percent of live births were "illegitimate" (Statistical Digest 1978/79, Table 9). Since civil law in St. Lucia, like that in other nations of the Eastern Caribbean, derives from a British model, fathers cannot easily be held legally liable for child support (Report of the National Commission on the Status of Women in Barbabos). One must also keep in mind that in 1979 almost 50 percent of the estimated St. Lucian population was under fifteen years of age (Statistical Digest 1978/79, Table 8, p. 5). One must ask: does this data mean that the burden of clothing, feeding, sheltering and educating St. Lucian children falls (at least in law, if not in fact) upon St. Lucian women? Do women bear the primary responsibility, not only for child rearing (which is acknowledged), but also for child support?

Fourthly, unemployment from 1970 census data indicate a figure of 9.1 percent (Zuvekas, 1978). However, one of the few micro studies available suggests a much higher rate of unemployment, at least for men. In a study of school graduates, about half of the youth interviewed from Vieux Fort junior and senior secondary schools reported their fathers were unemployed (Table II-13). Since there is not an official program of unemployment compensation or welfare, who feeds these men and their children? Moreover, women's child bearing and child rearing responsibilities limit the acquisition of training, particularly if such programs are residential. The lack of marketable skills in turn limits income earning opportunities. Other domestic responsibilities, such as the gathering of fuel and water, impinge more heavily upon women than upon men and thereby absorb more time, as do household maintenance tasks, such as food preparation, washing and cleaning. The multiple work responsibilities of women beyond agricultural tasks suggest that policies aimed at increasing agricultural productivity should take into consideration not only improved agronomic practices, but technologies to reduce the labour time of women in other work tasks.

A review of the data on women and the agricultural labour force suggests that much of the work rural women perform and the socioeconomic responsibilities they apparently carry go generally unnoticed and unrecorded in official statistics. Most of the research that has been conducted on Caribbean women has focused on their reproductive rather than their productive roles (Massiah, 1979). The partial "invisibility" of the "female factor" in agricultural production affects the delivery of appropriate agricultural information.

C. Women and the Delivery of Agricultural Information

The delivery of agricultural information is dependent upon a variety of factors, some of which include the extent and nature of the

TABLE II-13

Implications for the Economic Responsibility
of Women in St. Lucia, 1979

<u>SCHOOL</u>	<u>N</u>	<u>% WITH UNEMPLOYED FATHERS</u>	<u>% WITH DECEASED FATHERS</u>
Castries Comprehensive Secondary School	73	26	3
St. Mary's College	22	9	9
St. Joseph's Convent	26	15	12
Vieux Fort Senior Secondary	92	51	2
Entrepot Junior Secondary	23	13	9
Vieux Fort Junior Secondary	95	49	2
Vieux Fort Primary School	58	22	7

SOURCE: A. Etherington and L. Simon, p. 97.

existing formal and nonformal educational systems, literacy levels of the population to be served, the availability of trained staff, and comparative costs of different options.

1. The Educational System

There are two basic organised ways of delivering agricultural information--through the formal school system and in various non-formal educational programmes including agricultural extension. St. Lucia utilizes both ways with varying degrees of success and with differential participation by women.

a. Formal Education

The formal educational system offers seven years of primary, five years of secondary, and several two-year "post-secondary" programs. Students must leave the island for university studies and for "post-secondary" agricultural education. Primary education includes a three-year infant (Stages 1-3) and a four-year junior cycle (Standards I-IV). Students may then sit for a "common entrance examination" to determine which type of secondary school, if any, they will attend. Only 40 percent of primary school leavers successfully pass this examination and enter either one of the seven lower secondary schools (Forms I-III), or one of the three combination lower/upper (Forms I-V) secondary schools (St. Joseph's Convent, St. Mary's College, or Castries Comprehensive) (Educational Priorities, p. 27). A fourth senior secondary institution, the Vieux-Fort Senior Secondary School, offers the last two years of secondary education and recruits by a separate examination. The senior secondary schools prepare students for the GCE "O" level examinations (Educational Priorities, p. 32).⁴ Some of the students who are not accepted into secondary schools extend their education in primary schools, some of which offer a three-year post-primary course (Standards V-VII), an historical vestige of the past.

Most post-primary schools are concentrated in the Castries area, including those at the Morne Educational Complex and the Farm or Cadet School at Union Station. "Post-secondary" education (two years) is centered at the Morne Educational Complex and includes an A-level College leading to university matriculation, a Teachers Training College (including a technical teacher training unit) to prepare primary school teachers, a Technical College which turns out technicians and middle-level management for commercial firms and government, and the University Centre of the Extramural Department of the University of the West Indies.

4. This report and figures in Table XIV do not include private secondary schools. The largest such schools are Seventh Day Academy and Mrs. Phillips' Institute, which enroll approximately 500 and 300 pupils, respectively, in a five-year academic program.

productivity and greater monetary returns" will young people return to agriculture (pp. 8-9). The fallacy lies in the belief that an inappropriate (i.e., academic) curriculum stimulates rural exodus. The three-year Cadet School for agriculture is located next to the agricultural research station at Union Station. Enrollment in 1979 was fifty students, including eight women. The extension division of the Ministry of Agriculture fills entry level positions with graduates from this school (USAID, Annex K, p. 6).

In 1976, the last year for which such data are evidently available, 92 percent of children aged 5-11 were in school, although daily absenteeism was as high as 46 percent in some primary schools. Educational participation rates for children 12-14 years of age was reported as 30 percent in 1977 (Educational Priorities, pp. 24-32). One should note (see Table II-14) that female participation rates are approximately the same as those for males in primary schools and outdistance boys in the secondary and "post-secondary" schools, with the exception of the Technical College.

Formal schools are viewed as one means of dealing with the problems of agriculture. Indeed, one of the major problems facing the agricultural sector is the declining interest in farming amongst young people due to poor crop yields on small-scale farms and thus low financial returns (St. Lucia National Plan, pp. 7, 13). Suggestions for improving agricultural productivity through the school system center upon manipulating curricula. Recognizing the need for St. Lucia to become self-sufficient in the production and preservation of food for domestic consumption and that young people frequently prefer unemployment to participation in agriculture, the National Plan, the Final Report of the Committee on Educational Priorities, and the National Consultation on Education Conference all stressed the need for improved agricultural and agriculture-related curricula within the formal school system. The study of science should be linked to agricultural production within a framework of "Nature Studies or Environment Studies" rather than being taught as an isolated subject as is now done (Educational Priorities, pp. 68, 100; National Consultation on Education, pp. 8-9). Moreover, all rural schools should have a school farm which should serve as a "centre of learning, a symbol of productivity and an example to the Community" (Educational Priorities, p. 101). The Committee on Educational Priorities, in their Report (pp. 99-105), also recommended that native handicrafts receive an equal emphasis with agricultural education, especially at the secondary level, in order to help young people develop skills in general crafts utilizing local raw materials. The hope, of course, is to reduce unemployment, to slow down or reverse rural exodus to Castries and other towns, to save foreign exchange through import substitution and to bolster the tourist industry through increased production of locally grown exotic tropical fruits and fresh vegetables not now produced in sufficient quantities.

While the National Plan and the Educational Priorities Report called for practical training in agriculture in all rural schools,

TABLE II-14

Educational Participation Rates by Gender, St. Lucia, Selected Years

	<u>TOTAL</u> <u>ENROLLMENT</u>	<u>% FEMALE</u>	<u>% FEMALE</u> <u>TEACHERS</u>
Primary education	30,610	50	75
Secondary education	4,879	56	46
Teachers college*	162	51	73
A-level college*	111	73	40
Technical college*	237	26	3

SOURCE: St. Lucia, Statistical Digest 1978/79, pp. 58-60, Tables 72, 73, 76; and Educational Priorities (1974/75 statistics), p. 43.

* 1974/75. Other figures for 1979/80.

discussions at the National Consultation on Education (p. 3) warned of the potential fallacy of solely relying upon ruralizing curricula. Their report cogently points out that "only through increased productivity and greater monetary returns" will young people return to agriculture (pp. 8-9). The fallacy lies in the belief that an inappropriate (i.e., academic) curriculum stimulates rural exodus. The discussions at the Conference pointed out that the introduction of agriculture in school curricula "would be of little avail" absent better facilities in rural areas, markets for farm produce, and economic incentives for youth wishing to take up farming as a career. Experience in other developing countries suggests rural migration in itself is much more a response to economic opportunities, perceived or real, than the result of formal school curricula (Hanson, pp. 26-56).

b. Non-Formal Education⁵

There are over ten private and governmental agencies involved in non-formal education, but they serve "few people and do not cover all communities. The aggregate effort is merely scratching the surface." (Educational Priorities, p. 82). Existing community groups (e.g., Mothers Unions, Parent/Teacher Associations, sport and cultural clubs, church organisations, cooperatives) might well be utilized for non-formal agricultural education programmes. The Final Report of the Committee on Educational Pricrities (p. 94) even proposes a voluntary National Service Programme, beginning at age eight, whereby school children and youth would be encouraged to engage in nation-building activities, including agriculture.

The largest and most pervasive non-formal educational agency in St. Lucia is the extension service of the Ministry of Agriculture. However, women farmers receive less attention from the extension service field staff than do male farmers. For example, in 1979 the male extension supervisor for the northern district estimated that out of 600 farm visits, only about 10 involved female farmers. Female extension assistants in the same district, however, reported that they made at least a quarter of their visits to female farmers (USAID, Annex K, p. 21). This difference in farm contacts by male and female agricultural extension personnel suggests two things: (1) communication networks are gender related, i.e., men find it more comfortable to communicate with men and women with women; and (2) such differentiated communication patterns reinforce the need for more female extension officers if more female farmers are to receive agricultural services. While St. Lucia has been a leader in the training and appointment of female agricultural extension staff in the Eastern Caribbean, apparently more are needed.

5. Includes any organised educational activity outside the formal education system that is intended to serve learning objectives.

Radio St. Lucia is also a potential strong agency of non-formal education in agriculture. The station currently prepares news and agricultural information reports in both English and patois. Since a majority of rural households possess a transistor radio, this medium of nonformal education has much to offer.

2. Literacy

The choice of the means (e.g., print, audio) of delivering agricultural information is partly dependent upon the level of literacy of the population to be served. The latest available comparative data indicate St. Lucia ranks highest amongst the English-speaking countries of the Eastern Caribbean in terms of adult illiteracy (Knopp, pp. 310-359). Illiteracy in St. Lucia has apparently decreased or remained relatively stable over the past 25 years, depending upon how the concept is measured. Illiteracy in the 1946 census was reported as 48.2 percent; in 1960 it had fallen to 26.2 percent and to 18.2 percent in 1970. The estimate for 1979 was 11.3 percent. The method by which data on literacy was gathered varied, however, in the 1946, 1960, and 1970 censuses and the 1979 estimate. The 1946 figure was based on the "number of persons unable to read and write" in response to such a question, while the 1960 and 1970 figures were extrapolated from those who reported "no education." The 1979 estimate was made by projecting the population and corroborating the illiteracy figure so derived with the number of persons opting for finger printing in the 1979 elections (Report of the Feasibility, pp. 7-8).

No field survey has been undertaken in St. Lucia to ascertain the number of persons who are functionally literate. Based on the assumption that those with less than five years of schooling are not functionally literate, the committee to study literacy estimated that in 1980, 46.5 percent (about 30,000 persons) of the adult population (15 years of age and over) of St. Lucia were functionally illiterate, about the same number as reported illiterate in 1946 (Report of the Feasibility, pp. 4, 9).

As with many sets of data, illiteracy figures are not disaggregated by gender. Generally, illiteracy is much higher among women than among men in developing countries. It is likely, given the high educational participation rates of women, that St. Lucia (as well as the entire Eastern Caribbean) will be an exception to the rule.

The problem of illiteracy is affected by the language situation of St. Lucia: English is the official language, but most persons speak Creole as their first and possibly only language. Creole is a French-based patois without a standardized orthography. "Use in printed forms tended towards a Francophone base with individual interpretation according to personal preference" (Report of the Feasibility, p. 17).

There was "no doubt" among members of the literacy committee that "100 percent of the illiterate population in St. Lucia are Creole

speakers" (Report of the Feasibility, p. 16). Moreover, public attitudes toward the use of patois "are at best ambivalent" (Report of the Feasibility, p. 17). English is the language of prestige and social mobility. Experience in other projects in St. Lucia indicates that people "do not want to learn to read and write Creole" (Report of the Feasibility, p. 19) because no one else reads Creole, and literacy in Creole would not lead to better economic and social opportunities. While there has been some "weakening of earlier polarized views for the use of Creole," and the gradual use of Creole on Radio St. Lucia, nonetheless, Creole remains "an unofficial, second-class communications system" (Report of the Feasibility, p. 17). Despite social attitudes toward Creole, three recent reports (Report of the Feasibility, pp. 4, 22-23; National Consultation on Education, p. 3; and Educational Priorities, p. 91) have recommended to Government a bilingual language policy for St. Lucia: Creole should be recognized along with English (possibly even as an official national language); a standardized orthography should be developed for Creole; and various efforts should be undertaken to create a more bilingual population.

3. Trained Personnel

The delivery of improved agricultural services is, of course, also dependent upon trained personnel. While unemployment among youth is high, trained professionals are in short supply in St. Lucia. For example, there are only a handful of individuals with training in adult education (Report of the Feasibility, p. 32). The formal school system finds the demand for qualified and trained teachers continues to exceed the local supply (Educational Priorities, p. 48, 119).⁶ The shortages of trained personnel suggest the more intensive use of non-formal educational agencies, such as community organizations, the extension service, and Radio St. Lucia.

Section II has attempted to present the published socio-economic realities of the agricultural sector, the perceived problems of agricultural development at the national level and government's stated agricultural policy. The section has also attempted to document the partial "invisibilities of the female population" as presented in official national statistics. It is now useful to compare these national accounts with the realities of a random survey of St. Lucian small-scale agriculturists where nonstereotypic questions have been asked.

If small-scale farms are principal agricultural producers, the central questions are: who are small-scale farmers? how do these individuals receive agricultural information? what are their perceived needs? and how can these needs be met in order to increase further agricultural production and the well-being of farm households? Are St.

6. PCVs were used in the junior secondary schools and expatriates were recruited from Canada and Britain for senior secondary schools.

Lucian women making a major contribution to GDP, but, like women in many countries, without their contribution to food production entering national accounts and hence going unrecognized in economic statistics? How does the St. Lucian woman participate in the farming process? How much autonomy do women have in farming? What economic returns do women accrue? To what use is the income put? Hopefully, the answers to these and other questions will provide some guidance for government officials and planners in designing programmes and policies to assist rural women (and men) in increasing their agricultural productivity and the well-being of their households.

SECTION III

SURVEY FINDINGS: THE RURAL HOUSEHOLD

A. Characteristics of the Farm

Farmers in the sample generally work on only one plot of ground (Table III-1). Of the 245 households, only one held as many as five plots, five had four. The remainder had only three or fewer plots, with 71 percent holding only one plot, another 21 percent with two.

Similarly, in terms of size, the sample in the current study farm on an average 4.4 acres (Table III-2). In this sample, the modal size is one acre, with 21 percent or more than one of five farms, in this size category. In actuality, the size is even smaller, for amounts totalling less than one acre, that is, a half or quarter, were all coded as one. Fifty-one percent, or more than half the sample, work on farms which are three acres or smaller, with the other half of the sample population distributed in decreasing amounts up to the 15-acre maximum size. About ninety percent of the sample work on 10 or fewer acres, or to look at it the other way, 10 percent have as much as ten acres.

The tenure question is of considerable concern to persons interested in agriculture in St. Lucia. Family land is far the most common tenure pattern of farmers in the sample (Table III-3). The second most common mode of land tenure is owner-purchased with 28 percent of all plots held in this manner, followed by rental with 14 percent of all plots. These figures are derived by adding the tenure of all plots held by the farmers in our sample for a total of 338 plots (held by the 245 households).

It is important to know the distance between house and plot, as an indication of time and energy spent in crop movement. Ninety-one percent of the sample walk to their plots, with only the small remainder (9 percent) going to their plots by some motorized means (Table III-4). Most commonly, persons are within ten minutes walking time, while 23 percent must walk up to half an hour, with 29 percent walking more than thirty minutes each way in order to accomplish the agricultural tasks of the day. Similarly in looking at the distance from the plot to a main road (defined as one where motorized public transport is available) 50 percent are within ten minutes walk from that road, the rest more (Table III-5). Of that remainder, 29 percent walk between 11 and 30 minutes, 7 percent 31-60 minutes and 5 percent more than an hour.

Farmers in St. Lucia have been farming for a long time. The range of length of time spent farming on the plot or plots is from one to fifty-nine years. Thirteen percent, or slightly more than one in eight, have farmed for five years or less on the farm they currently

TABLE III-1

Number of Separate Plots Worked Upon

1	174
2	102
3	39
4	20
5	<u>5</u>
TOTAL	340

TABLE III-2
Size of Plot (first plot)

<u>NUMBER OF ACRES</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
1	51	20.8
2	39	15.9
3	35	14.3
4	21	8.6
5	20	8.2
6	18	7.3
7	15	6.1
8	5	2.0
9	5	2.0
10	11	4.5
11	7	2.9
12	3	1.2
13	2	0.8
14	3	1.2
15	4	1.6
No information	<u>6</u>	2.4
TOTAL	245	

Mean size = 4.41 acres.

TABLE III-3

Land Tenure (All Plots)

<u>TYPE OF TENURE</u>	<u>NUMBER OF PLOTS</u>	<u>PERCENTAGE</u>
Owned, inherited	21	6.2
Owned, purchased	95	28.1
Long lease	4	1.2
Rent	46	13.6
Family land	134	39.6
Squatting, Crown	12	3.6
Squatting, Private	20	5.9
Other	<u>8</u>	1.8
TOTAL	340	

TABLE III-4

Distance from House to Plot (first plot)

<u>DISTANCE</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Walking:		
0-10 minutes	96	39.2
11-30 minutes	57	23.3
31-60 minutes	36	14.7
more than 1 hour	34	13.9
Motorized:		
0-10 minutes	0	0
11-30 minutes	14	5.7
31-60 minutes	3	1.2
more than 1 hour	4	1.6
No information	<u>1</u>	0.4
TOTAL	245	

TABLE III-5

Distance from Plot to Main Road (first plot)

<u>DISTANCE</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Walking:		
0-10 minutes	123	50.2
11-30 minutes	70	28.6
31-60 minutes	17	6.9
more than 1 hour	13	5.3
Motorized:		
0-10 minutes	8	3.3
11-30 minutes	7	2.9
31-60 minutes	2	0.8
more than 1 hour	1	0.4
No information	<u>4</u>	1.6
TOTAL	245	

occupy. The average number of years is twenty, with the median year at the same point. That is to say, as many have farmed over twenty years as less than that number. More than 70 percent have farmed more than ten years. These indicate that the farm population on St. Lucia is a stable one.

All farmers who had been on the plot(s) for less than ten years (46 farmers) were asked about their previous history in agriculture, that is, what were they doing prior to occupying this farm. Half of the group had been in other occupations and had only recently (up to ten years) turned to farming. The remaining half had moved from one farming area to another, become farmers rather than farm laborers, or purchased a plot they previously rented. This meant that they had been farming for some time even if not on the present plot.

As described earlier, the cases in the sample were derived from the Ministry's farm lists. That information was transcribed onto sheets, and then compared with the acreage given by the interviewee. It seems clear that acreage is not a very exact figure, since there is substantial disagreement between the figure recorded by the Ministry of Agriculture for acreage for individual farmers, and that which was formally told to the interviewers. This variation is in both directions--in 32 percent of the sample, the acreage listed by the Ministry of Agriculture was higher, in 41 percent lower than the figure told by the farmer to interviewers in this sample, while 28 percent gave the interviewers the same figure (Table III-6). The variation in most cases was not large, but only variations of more than two acres were recorded as different.

Similarly the cropping patterns, that is the number of crops grown, were listed as recorded by the Ministry and as asked by the interviewers. Here the variation between the two sets of answers is considerably greater (Table III-7). The Ministry of Agriculture listed more crops in 66 percent of the cases, less in 19 percent. While some variation in number and types of crops is to be expected, it seems clear that some explanation for this phenomenon must be sought.

The interviewers recorded the acreage used for the growing of various crops. That amount of acreage was then recorded as it compared to the amount of land held by the farm operator (Table III-8). In 39 percent of the sample interviewed, there was an indication of land not under cultivation, that is, less acreage was reported in use for one crop or another than the farmer owned, rented, or squatted upon. No empty land was noted in 53 percent of the cases; it was not possible to tell with certainty in the remaining 8 percent.

In summary then, the study describes a population with small acreages, mainly in one or two plots, the majority of which are within walking distance (with a sizable number walking a considerable distance) both from their homes and from the main road to which products must be transported. It is a population which has not changed much in the past decades in terms of location and occupation, but rather one with established patterns on the particular plot or plots.

TABLE III-6

Variation in Acreage from Ministry of Agriculture List

<u>VARIATION*</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Ministry of Agriculture listed more land	67	27.3
Ministry of Agriculture listed less land	87	35.5
Ministry of Agriculture listed same acreage	82	33.5
No information	<u>9</u>	3.7
TOTAL	245	

* Only variations in excess of 2 acres were recorded.

TABLE III-7

Variation in Cropping Pattern from Ministry of Agriculture List

<u>VARIATION</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Ministry of Agriculture listed more crops	144	66.4
Ministry of Agriculture listed fewer crops	42	19.4
Same crops as Ministry of Agriculture	24	11.1
Same number of crops, but different ones	7	3.2
Same crops; different amounts	1	-
No information	<u>27</u>	-
TOTAL	245	

TABLE III-8
Indication of Empty Land

<u>INDICATION</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Some empty land	75	39.0
No empty land	101	52.6
Uncertain	16	8.3
No information	<u>53</u>	-
TOTAL	245	

B. Characteristics of the Housing

Housing of small farmers in St. Lucia is predominantly in wooden houses (76 percent) mostly with foundations of wood or stones. The number of rooms in these rural houses averages 3.6 with the modal number 4, and a range in size from 1 to 8 rooms.

Some combination of bottled gas and charcoal is the most common cooking fuel used (29.7 percent) followed by wood, and then by charcoal used alone. The high demand for wood to be used for fuel is clear, particularly as fossil fuel derivatives are uncertainly available and increasing expensive.

St. Lucia has had a systematic programme of providing pure water to its citizens through provision of stand pipes throughout the rural areas. Nearly three-quarters of the rural small farm population is thus served, with one out of six of these having water piped further into their homes or yard. The remaining quarter of the small farm population, however, are forced to rely on other water sources, rain water (4.8 percent), a nearby river (18.1 percent) or a spring (3.6 percent). This population without access to pure water is no doubt an increase from past years, for the 1980 hurricane did enormous damage to many of the water-bearing pipelines, many of which have not yet been repaired. The health problems represented by these facts are a matter for concern.

The research inquired into a variety of types of modern amenities present or absent in the small farm homes. The percentages of households having each of the listed "amenities" is as follows: electricity (45 percent), radio (83 percent), refrigeration (29 percent), bicycle (4 percent) and sewing machine (14 percent).

The radio is clearly the most common of these modern possessions. This fact would seem to have considerable implication for provision of education and agricultural information. A rough kind of scale, a crude index of modernity, can be derived from the straight number of the modern amenities listed above possessed by each of the small farm households in the sample: 44 percent have only one such amenity; 18 percent two; and 23 percent have three. Only small percentages have as many as four or five (6.9 and 7.5 percent, respectively).

C. Household Demography

Against the background of farm and home characteristics, the next set of information concerns characteristics of the occupants of these rural homes. Size of family ranged from one to twenty-two in one house. A total of 1,412 persons are in the population surveyed: 186 pre-school children, 481 school-age children, and 745 adults. Average size of household is 5.8 persons, that figure is made up of 0.8

pre-school-agers, 2.9 school-agers, and 3.0 adults. As happens frequently, that overall figure masks interesting and important facts about the families. Twenty-one percent of the families in the sample have no children present in the household, which means, of course, that of families with children, the average size of household is substantially larger.

To present a more complete picture of the families, they have been categorized as follows:

Nuclear families (male and female with at least one child in the household, including those with children who are adult)	151	61.6%
Single parent households (male or female head with at least one child in the household)	42	17.1%
Households without children (adult couples or single persons, or two same-generation adults, e.g., siblings)	52	21.1%
	—	
TOTAL	245	

Of the families with children (that is, categories 1 and 2 above) the households can be further described as follows:

Households with only pre-school children	23	11.9%
Households with pre-school and school-age children	92	47.7%
Households with only school-age children	65	33.7%
Households with only adult children	<u>13</u>	6.7%
TOTAL	193	

The nuclear category can be further subdivided into several distinct sub-types: (1) those with a male and female couple and their own children; (2) grandparents and their grandchildren; (3) three-generation families--grandparents, parents, children all resident in the household; and (4) extended families, defined as a male and female couple with their own children, plus other assorted relatives, i.e., siblings, friends, etc., in the household. The distribution of nuclear families and their average size among these sub-categories is as follows:

		<u>Percentage of All Nuclear</u>	<u>Average Number of Persons</u>
Simple Nuclear	94	62.3	6.5
Grandparent-grandchildren	2	1.3	3.0
Three generation	36	23.8	7.8
Extended	<u>19</u>	12.6	10.2
TOTAL	151		

The single person headed households can be divided into those headed by men and those headed by women, as follows, with average size of these families indicated:

		<u>Percentage of Single-Headed</u>	<u>Average Number of Persons</u>
Male-headed households	10	23.8	6.3
Female-headed households	<u>32</u>	76.2	6.4
TOTAL	42		

The 52 households with no children resident in them have 82 persons, by definition all adult. An average number of persons in these household is 1.6, making them clearly the smallest households. In fact of these 52 households, 20 are adult couples, that is male and female partners. Twenty-three persons lived alone, 17 men and six women. Eight households had two single same-sex residents, and one adult household had three members, same-sex, and not related to one another.

The households in the sample show thus a wide range of types and sizes, ranging from a rather substantial number of single person households, only slightly under 10 percent (9.4 percent), to some very large and complex extended family units. One in five households had no children present in the household. Another one of five were households without two parent figures, three-quarters of these headed by a woman. The overwhelming bulk of the families, however, are large and complex, a majority of these with both a mother and a father person present and a number of children of all ages. The presence of substantial numbers of adult "children" in the household is a notable characteristic of these farm families, related to the facts cited frequently in Caribbean social science literature about the relatively advanced age of marriage and the existence of "visiting" relationships for young men and women.

In these rural households, persons work both on the land and off the farm. The questions about employment were based on the World Bank's household survey form, and asked what work the individual spent the most time on in the past twelve months. It was surprising to note that nearly one-fourth (23.7 percent) of the households had no adults whose principal work was on the farm. In 42.4 percent of the families, only one person was a full-time agriculturist, while 22 percent had two adults employed full-time on the farm.

Looking at the issue the other way around, however, 50 percent of the farm households had no members whose principal occupation was in employment off the farm. Twenty-eight percent had one member employed off the farm as the principal occupation, another 14.7 percent had two, and 6.9 percent had three to five members. Almost 40 percent of the households had one person who indicated agriculture as a secondary occupation--in many cases these were women who had listed housework as their principal occupation. Only a small number (16.3 percent) indicated secondary occupations off the farm. To sum this factor, the households in half the cases had one or more persons with a principal occupation off the farm. As would be expected, on-farm employment is the principal occupation of one or more members of the household in two-thirds (66.1 percent) of the households. The somewhat surprising circumstance of no persons working principally in farming in 23.7 percent of the households requires further explanation.

A final question in the section on demography of the household concerned the principal farm worker in the household. This question was coded from answers given earlier to the "principal employment" question. If male adult(s) were listed as principally employed in agriculture while no women were, the item "principal worker" was coded male, and vice versa (Table III-9). In cases where male and female figures both were coded as employed principally in agriculture, the coding was called joint. In 30 percent of all the households, both men and women listed agriculture as their principal occupation. Fifty-one percent of the households had only a male, 13 percent only a female, while 6 percent used principally hired labour.

As mentioned above, the 245 households contained 1,412 persons. The following information is a brief description of their personal characteristics. The questionnaire did not ask for much information about the pre-school children in the sample. More than half of the households (126 of 245, or 51.4 percent) had none. The 186 youngsters under five years of age were children of our respondents in 55 percent of the cases, grandchildren in 32 percent; the rest were assorted relationships such as siblings, step-children, and nieces or nephews. There are somewhat more girls (52.3 percent) than boys (47.6 percent), not uncommon in a very young population. They are cared for largely by their own mothers (81 percent) or by their grandmothers (15 percent) or by others (4 percent).

School-age children in the sample numbered 481. They range in age from 4 to 21; with only a single instance in each of the extremes--the 4-year-old in a nursery school setting and the 21-year-old in a

TABLE III-9

Sex of Principal Worker on Farm

<u>CODE</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Male	122	51.0
Female	31	13.0
Both are principals	72	30.1
Hired labour	14	5.9
Vacant land	4	-
No information	<u>2</u>	-
TOTAL	245	

post-secondary programme--they thus are classified as "school age." Seventy-two percent of this population are children of the sample's respondents, 13.8 percent are grandchildren, and the rest in assorted relationship categories. These school age children are nearly equally divided between males and females (49.2 percent and 50.8 percent). Only small percentages (15.4 percent) are in the higher educational levels. Eighty-four percent of the group are in the primary levels. By definition, all of these children have, as a principal occupation, attendance in school, but a number are considered by their families (at least by the respondent) to have secondary occupations. The occupations are most commonly described as assistance to the household in some form of housework (78.3 percent).

Participation in agricultural work is seen as the child's secondary occupation in 20.2 percent of the cases, with a very small number (1.5 percent) listing other occupations. Another look at the participation of St. Lucian children in agricultural tasks is in the section on labour allocation.

The adult population is fairly equally distributed between male and female, with 51.5 percent males and 48.5 percent females. What must be remembered in interpretation of these data is the presence of large numbers of young adults--many of whom do not work on the farm itself, but rather are still resident in the family home prior to establishing their own households.

<u>Age</u>	<u>Number</u>
15-19	154
20-29	173
30-39	114
40-49	97
50-59	86
60-69	58
70-79	25
80-89	6
90+	1

One-quarter of this population has had no schooling at all. The largest single number (46.2 percent) of this population attended primary school to the Standard IV-VI level and 17.7 percent have had some education beyond the primary level. Since this population contains all of the adults, including grown children, most of whom would have had more primary educational opportunities, the figures do not accurately represent the current principal farmers, most of whom have had very limited schooling.

Earlier in this section, the employment of members of the household was discussed. Looking at this variable from the perspective of the individual, it can be seen that agriculture, unpaid (that is, family worker), was the largest category of work for this population (41.4 percent), followed by housework, unpaid (again, family worker), with 27.3 percent of the population. The other significant category of employment is off-farm labour of various kinds, with 24.5 percent of the population. Small numbers are in school (1.2 percent), handicapped (0.8 percent), self-employed (1.5 percent), or in paid agricultural work, that is, farm labourers (2.0 percent). Secondary occupations show half of the population in unpaid agriculture, 37.7 percent in housework, 7.9 percent in other paid occupations. Self-employed as a secondary occupation has 3.1 percent of the population.

D. Cropping Patterns and Labour Allocation

St. Lucian farmers grow a range of crops, but the majority grow three or fewer, with only a very small number having more--up to eight crops (Table III-10). Just over half of the sample grow three crops, this being then the modal number, with growing two crops the next most common pattern.

Almost three-quarters of all small farmers in St. Lucia grow bananas as their principal crop (Table III-11). No other crop approaches bananas in terms of importance to rural households, as measured initially by the amount of land devoted to the crop.

Coconuts are the first crop in importance for 13.1 percent of the households. No crops, other than bananas and coconuts, were listed in any significant numbers as crops number one or two. As the second crop listed, coconuts were listed by 38.4 percent of the farmers, while bananas were second for 9.2 percent. Clearly these two crops are preeminent in terms of land use. Dasheen and yams appear next most frequently as the second crop in terms of land use, followed by breadfruit, citrus, plantains, avocado, cocoa, and potatoes. A long list of other food crops are grown, widely dispersed among the rural farmsteads.

A similar analysis can be done for crops in terms of their importance to farmers by virtue of the dollars they earn. While some of the percentages differ, the picture of cropping patterns is essentially the same. Bananas and coconuts lead the field by far, followed by the same food crops as above in numbers far smaller than those related to the major crops. Similarly, farmers were asked as a way of corroborating the factual data, which of the main crops they received most money from. Their answers did corroborate the cropping patterns as above (Table III-12).

In terms of the disposal of crops, it is of course clear that the bulk of all bananas and coconuts are grown as cash crops, and thus they

TABLE III-10
Number of Crops Grown

<u>NUMBER OF CROPS</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
0	3	1.2
1	15	6.1
2	47	19.2
3	123	50.2
4	16	6.5
5	12	4.9
6	11	4.5
7	8	3.3
8 or more	8	3.3
No information	<u>2</u>	0.8
TOTAL	245	

TABLE III-11

Principal Crop Grown on Plots

<u>CROP</u>	<u>PLOTS</u>	<u>PERCENTAGE</u>
Bananas	182	74.3
Coconut	32	13.1
Dasheen	4	1.6
Tannia	2	0.8
Cocoa	1	0.4
Plantain	2	0.8
Potatoes	7	2.9
Mango	1	0.4
Cabbage	2	0.8
Yam	1	0.4
Tomato	1	0.4
Ginger	1	0.4
Coffee	1	0.4
Sugar	1	0.4
Carrot	1	0.4
Peanut	1	0.4
Citrus	1	0.4
Christophine	1	0.4
Vegetables	2	0.8
No information	<u>1</u>	0.4
TOTAL	245	

TABLE III-12

Farmers' Perception of Main Crops, by Value

<u>CROP</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Bananas	177	72.2
Coconut	30	12.2
Dasheen	9	3.7
Cocoa	2	0.8
Plantain	1	0.4
Potatoes	3	1.2
Mango	3	1.2
Yam	2	0.8
Tomato	2	0.8
Ginger	1	0.4
Carrot	2	0.8
Peanut	2	0.8
Christophine	1	0.4
Vegetables	2	0.8
Don't know	1	0.4
Not applicable	1	0.4
No information	<u>6</u>	2.4
TOTAL	245	

are nearly totally sold. Larger proportions of food crops, however, are used at home. In general, however, until the fourth and fifth crops, most products of agriculture are sold, rather than used at home. Analysis of this data needs to be done, by each crop, in order of its full use. However, the patterns are quite clear. Major energies of St. Lucian farmers are put into cash cropping, rather than agriculture for feeding the household, or even for enhancing the food self-sufficiency of the island.

Patterns of labour allocation are very complex to understand and do not necessarily lend themselves well to analysis by means of questionnaire; greater exactness would require observation methods. What persons perceive to have been the case, what persons recall from days past, what persons may feel is the socially approved answer is--all these and more may be a part of the answers given. However, with the qualifications attendant upon this methodology, the questionnaire data can be seen in Table III-13. (For questions asked about labour allocation, see Appendix A.)

While more detailed analysis can and will be done, it is clear from the aggregated data that agricultural tasks are done by adults and not by the younger generation, that is, those under 15 (as defined by the questionnaire). More than 95 percent of all the labour on all the tasks is done by adults alone. In only a very few cases (less than 4 percent of the totals) did families state that young people participated in the tasks. Tasks are done exclusively by juveniles in only 1.1 percent of the cases, and in combination with adults only slightly more (2.5 percent of the cases), with some variation by task, as Table III-13 shows.

It is therefore safe to say that the young are not currently perceived as playing any major role in agriculture. In the harvesting task, a somewhat higher number of juveniles and adults working jointly is seen, but that still is only true in 5.8 percent of the cases.

To a marked degree, therefore, labour is done by adults. Males alone are described as doing the tasks in proportions varying from 47.7 percent (marketing/selling) to 82 percent (soil preparation). Women singly are represented most in marketing (36.7 percent of the tasks performed), and this is true to a greater degree for food crops as compared to bananas and coconuts, the major cash crops. In addition, in storage, fertilizing, weeding and pest control, women alone are seen doing between 11.6 percent and 23.2 percent of the tasks, substantially more than in the remaining tasks of soil preparation, planting, and harvesting where they represent only very small proportions of the total.

Men and women working together are most common in weeding and in harvesting activities. It can be seen that there are tasks which are roughly sex linked, such as soil preparation and planting particularly, though some women participate in all to a limited extent. Weed control, fertilizing, marketing are closer to joint tasks, while harvesting appears to call on a broader range of family members.

TABLE III-13

Tasks Associated with Cropping
(up to three crops per household)

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<u>PEOPLE</u>	<u>SOIL PREP- ARATION</u>	<u>PLANTING</u>	<u>WEED CONTROL</u>	<u>PEST CONTROL</u>	<u>FERTIL- IZING</u>	<u>HARVESTING</u>	<u>STORAGE</u>	<u>MARKETING</u>	<u>TOTAL</u>
Adults	121 (96.0)	486 (96.2)	434 (97.3)	67 (97.1)	421 (96.3)	489 (94.2)	88 (92.6)	475 (98.5)	2,581 (95.7)
Male	104 (82.5)	384 (76.0)	214 (48.0)	52 (75.4)	242 (55.4)	280 (53.9)	49 (51.6)	230 (47.4)	1,555 (58.0)
Female	3 (2.4)	16 (3.2)	71 (15.9)	8 (11.6)	92 (21.1)	40 (7.70)	22 (23.2)	177 (36.7)	429 (16.0)
Both	14 (11.1)	86 (17.0)	149 (33.4)	7 (10.1)	87 (19.9)	169 (32.6)	17 (17.9)	68 (14.1)	597 (22.1)
Juveniles	3 (1.6)	6 (1.2)	3 (0.7)	2 (2.9)	7 (1.6)	3 (0.6)	4 (4.2)	3 (0.6)	30 (1.1)
Male	1	1	0	0	3	0	0	1	6
Female	1	5	3	2	4	3	4	2	24
Both	0	0	0	0	0	0	0	0	0
Mixed sex and age	3 (2.4)	13 (2.6)	9 (2.0)	0	9 (2.1)	27 (5.2)	3 (3.2)	4 (0.8)	68 (2.5)
Number doing task at all (all crops)	126	505	446	69	437	519	95	482	2,679

Note: Based on potential of 3 x 245, or 735. Many households had only one crop.

Analysis, by crop, of this question should yield information useful for purposes of planning agricultural education offerings. Looking at the aggregate, however, the data show general patterns which are very clear in terms of the distribution of tasks between age groups and the sexes. It should also be noted that many tasks are not done extensively, particularly pest control and storage of crops. Soil preparation is also not a big item, related to the fact that much of St. Lucian agriculture is tree cropping with soil preparation and replanting only done at relatively long intervals.

Of the families interviewed, 52.9 percent used no hired labour. However, the rest at least on a few occasions in the year and for some tasks did use hired personnel. This fact was not anticipated and therefore unfortunately no questions were asked about the kind of person who makes up the temporary farm labour pool. Most used hired labour for multiple tasks, particularly in harvesting and next in soil preparation and planting. Four percent of the population surveyed (presumably old and incapacitated persons), hired virtually all of the labour done on the plot of ground.

E. Animal Husbandry

Care and use of domestic animals is not a big item in St. Lucian agriculture, somewhat contrary to what might have been expected. Close to one half of the sample, both before and after the 1980 hurricane, had no animals (Table III-14). Just under one quarter of the households had one variety of animal, the remaining quarter two to five types. Cattle, pigs, and chickens are the most commonly held animals. Only very few households have more than two or three of the larger animals, and a dozen chickens is the norm.

Perhaps most surprising is the fact that the largest number of households with some kinds of animals indicated that they made little or no use of this agricultural asset. They did not sell them, they did not use them at home; rather, they kept the animal for use at some unspecified future occasion. This fact is perhaps related to the lack of refrigeration or other storage capability, or limited food processing capabilities. Eggs and milk (from cows, not goats) are used in the household, but the meat of animals is rarely indicated as used in any way. This fact is perhaps due to limitations of the data itself; it is, however, an accurate representation of what was told to the interviewers.

Cattle are the source of most dollars, as limited as that phenomenon is, and are seen as requiring the most labour. Only one in ten of the households indicate that any feed is purchased for animals (10.2 percent); feed for chickens is half of that number. Other animals principally graze and are fed spoiled fruit and vegetables, as available.

TABLE III-14

Animals Owned by Households

<u>ANIMALS OWNED BY HOUSEHOLD</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
None	116	47.3
Cattle	69	28.2
Pigs	30	12.2
Goats	8	3.3
Sheep	9	3.7
Poultry	<u>13</u>	5.3
TOTAL	245	

Tasks associated with animal husbandry were also the subject of inquiry. Analysis was made by task. The tasks had been discussed in advance with local colleagues, but the categories of labour were to some degree arbitrary. The tasks and questions asked can be seen in Questionnaire I (Appendix I).

The distribution of labour between the various tasks is seen in Table III-15 with the many possibilities of combination between male and female and juvenile and adult. Adult men do most of the care of animals; adult females are next. Use of the juvenile and child population in these categories is less than observers would have estimated. The striking part of the information seen in the table is the fact that so few tasks associated with animals seem to be done at all. Those families who do think of animals as work, however, indicate that time is spent on the tasks, with nearly one-third (32.6 percent) saying that tasks associated with the care of animals take between one and two hours daily, and 29.0 percent more indicating that the work takes more than two hours daily.

The use of animals is interesting, and a puzzling piece of information. Many persons (43.6 percent) said they did use the animals either to sell or for home use. Inquiry suggests that animals are principally used for celebratory purposes, such as Christmas, weddings, etc. Milk and eggs are used principally in the home with small amounts occasionally sold to neighbours or at a local market. But no systematic or substantial commercial use is seen at all, nor can the animals be thought of as providing any major share of the population's food. Cattle and chickens provided a few dollars to a very few people, but any selling of products of animals is distinctly atypical.

F. Marketing

St. Lucia is a small island, only 238 square miles. Castries, the major city with its immediate environs, contains nearly 40 percent of the island's population, and, of course, much of its commerce. Though the sample was widely dispersed in terms of residence, much of its day-to-day buying is done in Castries, with 48 percent of the respondents stating that the city is the place where they purchase foodstuffs regularly (Table III-16). Local markets (18 percent) and Vieux Fort (18 percent) were also cited as were the island's smaller communities, in small numbers. But the central pull of Castries for commercial purposes is clear.

For many persons the buying endeavour represented a substantial trip, up to 11-20 miles for the largest number of cases (27 percent) (Table III-17). One of five (20 percent), by contrast, are within one mile of their shopping place. The bulk of the rest travel from five to ten miles (42 percent). These facts highlight the current dependence of the populace on motorized transport, a fact which makes actual and potential gasoline shortages a serious concern. Overwhelmingly, these

TABLE III-15

Tasks Associated with Care of Animals

<u>PERSONS</u>	<u>HOUSING/ FENCING PREPARATION</u>	<u>DAILY CARE</u>	<u>GETTING PRODUCTS</u>	<u>SLAUGHTERING</u>	<u>STORAGE</u>	<u>MARKETING</u>	<u>TOTAL</u>
Adults	15	115	36	13	9	12	200
Male	14	72	19	11	5	5	126
Female	0	19	12	1	3	6	41
Both	1	24	5	1	1	1	33
Juveniles	1	13	5	1	0	0	20
Male	1	2	0	0	0	0	3
Female	0	8	3	1	0	0	12
Both	0	3	2	0	0	0	5
Mixed age and sex	0	11	3	0	0	0	14
	N=16	N=139	N=44	N=14	N=0	N=12	N=234*

* Number of households actually owning animals = 129, but typically more than one person in each of these households helped to care for the livestock.

TABLE III-16
Major Shopping Place

<u>SHOPPING PLACE</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Vieux Fort	43	17.6
Castries	118	48.2
Mon Repos	1	0.4
Laborie	4	1.6
Soufrière	3	1.2
Dennery	2	0.8
Micoud	21	8.6
Canaries	2	0.8
Anse Le Rey	1	0.4
Lafayette	1	0.4
Unknown	1	0.4
Local	44	18.0
No information	<u>4</u>	1.6
TOTAL	265	

TABLE III-17

Distance of Major Shopping Place from Home

<u>MILES</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
0-1	50	20.4
2-3	17	6.9
4-6	34	13.9
7-10	52	21.2
11-20	67	27.3
21-30	16	6.5
31+	4	1.6
No information	<u>5</u>	2.0
TOTAL	245	

distances for shopping and selling as well, are travelled by the privately operated vans and small buses which serve the Island as public transport. The 20 percent within one mile of a shopping place can, of course, walk.

In terms of selling, bananas are taken to the closest boxing plant and then further transported by banana enterprise personnel and means. The boxing plants are dispersed widely throughout the island, hence the farmer does not have huge distances to cover for the sale of this crop. Many are able to walk with their banana loads; others with somewhat longer distances use the van or bus for transport.

With other crops, coconuts for example, longer distances are involved in sale. The bulk of coconuts eventually go to the plant at Soufrière, a substantial distance for most farmers, though the problem is not as severe since the times of selling are not as frequent. Hired trucks are used for this task. The further rationalizing of small farmers' marketing procedures, given the urgency of fuel/energy issues, both in terms of potential shortages and cost factors, appears to be a need. The Marketing Board's "Market Gate" truck is one such answer and needs to be evaluated as to effectiveness. None of the farmers in the sample told us they used this service.

G. Agricultural Problems

It has been noted above that the small farm population is a stable one, made up of predominantly middle-aged persons with long histories in farming on the plot they currently occupy. This population has in addition not made many major or even minor changes in agricultural practices. Two hundred and eight of the 245 (85 percent) households indicate they have not made any changes in practice, even following quite clear probes around such questions as fertilizer use and pest control. The 37 farmers who mentioned any changed practices cited crop rotation (32 percent) and fertilizing (29 percent) most frequently. Essentially no one indicated any major changes in their farming patterns, such a shift to totally different crops, different land use, and so on. More than 97 percent said "no" to this question.

Because so few farmers have made changes only a small percentage of the population answered the question about assistance or advice which was related to the change. It is, however, significant to note that of the group of "changers," two out of three (68 percent) cited the agricultural extension officer as the influential person. The only other source of advice was a family member, with 13 percent citing this source as the influential person in a change decision.

Everyday agricultural decision-making in the sample is most frequently made by the man alone (41.2 percent), followed closely by a pattern of joint decision-making between the man and woman (36.0 percent) (Table III-18). Women alone make agricultural decisions in 12.3 percent of the cases in the sample.

TABLE III-18
Agricultural Decision-Making

<u>DECISIONS MADE BY</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
Man alone	94	38.4
Woman alone	28	11.4
Man and woman joint	82	33.5
Man consulting woman	7	2.9
Man consulting outsiders	2	0.8
Father and children	5	2.0
All household	7	2.9
Children alone	1	0.4
No information	<u>19</u>	7.8
TOTAL	245	

In terms of the perceptions of small farmers of their major problems, a large number, more than half or 54 percent, cite none. Of those citing problems (up to four problem areas were recorded on the questionnaire in response to the question), the largest number (22.6 percent) said their principal agricultural problem had to do with availability and cost of fertilizers. Issues around roads and transportation were next in importance (18.6 percent), with credit and financial problems following (14.0 percent), then pest and weed control (13.1 percent).

In an attempt to understand long-range plans for their land, farmers were queried as to whom the farmer anticipated would farm the land when she/he retired. This question apparently presented difficulties for the interviewers, who reported that the respondents were uncomfortable and uneasy with this question, and therefore reluctant to answer. Perhaps, they felt, it was because the question suggested the farmer's own mortality, or perhaps it reflected the rather "fatalistic" approach to life which is suggested strongly in the more focused data on women. At any rate, 45 percent of the population in the sample either gave no answer or indicated uncertainty as an answer (Table III-19). Those who did respond mostly suggested their children, some specifically sons, and other relatives.

H. Literacy and Numeracy

The last item on the first questionnaire asked who read printed materials when they were received in the home. (See Table III-20.) Five percent of the households surveyed did not answer the question. Of those who did respond, 9 percent or nearly one in ten indicated that no one did. Respondents and their spouses indicated they could read materials coming to the house in 32 percent of the cases. An additional 9 percent indicated that everyone in the household was able to read. But the largest single number (37 percent of the sample) said that their children do the reading for them; others indicated they were aided in this way by grandchildren, neighbours and friends. To sum this factor, nearly all of the households have reading help available to them (91 percent). Of these the principal farmers themselves (respondents, spouses, or all the family members) can read in 41 percent of the households, and 49 percent get assistance from the younger generation and assorted others in the neighbourhood.

Fifty-three persons took the literacy/numeracy test (Table III-21). These persons ranged in age from 15 to 73; average age was 30.7 years, with women averaging 29.3 years, and men 32.0 years. For five of the group, the interviewer indicated that it was not the respondent whom they had interviewed, but rather a grandson, child, neighbour, or other family member who read for them.

As can be seen in Table III-22, the females in this population score higher, on average, than do males, and females also ranged somewhat wider.

TABLE III-19

Who Will Farm

<u>RESPONDENT</u>	<u>NUMBER OF HOUSEHOLDS</u>	<u>PERCENTAGE</u>
No one	3	1.2
Male/son	34	13.9
Daughter	5	2.0
Children	57	23.3
Spouse	9	3.7
Uncertain	103	42.0
Wife and children	4	1.6
Other members	19	7.8
Other	4	1.6
No information	<u>7</u>	2.9
TOTAL	245	

TABLE III-20

Reader(s) of Printed Material Received in the Household

	<u>NUMBER</u>	<u>PERCENTAGE</u>
No one	22	9.4
Respondent (male)	36	15.5
Respondent (female)	20	8.6
Spouse (male)	5	2.1
Spouse (female)	14	5.7
Children in household	86	36.9
Everyone in household	21	9.0
Grandchildren	8	3.4
Neighbours and friends	21	9.0

TABLE III-21

Literacy/Number Test Sample, by Gender and District

<u>DISTRICT</u>	<u>MALES</u>	<u>FEMALES</u>	<u>TOTAL</u>
South	1	6	7
East	7	5	12
Southwest	8	4	12
Central	11	9	20
North	<u>0</u>	<u>2</u>	<u>2</u>
TOTAL	27	26	53

TABLE III-22

Literacy/Numeracy/Raw Test Scores

	<u>AVERAGE LITERACY</u>	<u>AVERAGE NUMERACY</u>	<u>RANGE OF SCORES</u>
Males	42.4	28.8	10 - 74
Females	<u>49.5</u>	<u>35.4</u>	<u>0 - 83</u>
AVERAGE	45.9	32.1	0 - 83

TABLE III-23

Grade Equivalents of Literacy/Numeracy Test Scores

<u>LITERACY SCORES</u>	<u>LITERACY GRADE EQUIVALENT</u>	<u>NUMERACY GRADE SCORES</u>	<u>NUMERACY GRADE EQUIVALENT</u>
1 - 12	Standard 0 - I	1 - 10	Standard I
13-36	Standard I - II	11 - 36	Standard I - II
37 - 77	Standard III - IV	37 - 69	Standard III - IV
78 - 100	Standard V - VI	70 - 100	Standard V - VI

TABLE III-24

Equivalence of Literacy/Numeracy Test Scores
to Standard School Attainment, by Gender

	<u>LITERACY</u>	<u>NUMERACY</u>
Men	3.0	2.4
Women	<u>3.7</u>	<u>2.7</u>
TOTAL	3.4	2.5

Crude equivalence to grade level educational attainment has been done for Barbados, where the literacy test was developed. While not directly comparable, using that measure, the St. Lucian scores can be roughly evaluated (Table III-23). Men and women can also be compared (Table III-24).

Average literacy scores are roughly equivalent to the third to fourth year of primary school; numeracy scores are a year lower. Since the average of the population had some 4-6 years of school, this roughly indicates that even primary school education will not assure a very literate or numerate population. Literacy and adult education are obviously major topics for St. Lucian policy-makers, along with the question of creating an agreed upon orthography for patois usage.

SECTION IV

SURVEY FINDINGS: THE RURAL WOMAN

By contrast to the first questionnaire focusing on the household unit of small scale farms, the second one looked in greater depth at the characteristics of women in those households. (See p. 5 for a description of how this sample was drawn.)

A. General Demography

The population of women in this second sample ranged in age from 17 to 80, with an average of 43.3 (Table IV-1); median age is 43 as well. The population is not, however, distributed in a "normal" curve, but rather reflects the older age of the small farm population described earlier. Nearly two-thirds of the women were married (63.6 percent) and 3.1 percent widowed or divorced (Table IV-2). The remaining 32.3 percent are single. It is not entirely certain that "married" means married in a legal sense, but perhaps more accurately can be said to mean living in marriage-like relationships with a male. It did not seem necessarily of interest, nor feasible, for us to inquire in depth into the legality of the marital circumstance. It is unfortunate that it is not possible from the current state of the 1980 census data to tell how this might compare to the St. Lucian population as a whole.

The rural women, as anticipated, were largely raised in rural areas, with only a very small percentage having grown up in one of the island's cities, such as Castries, Vieux Fort, or Soufrière (5.4 percent) or off the island (1.5 percent). Sixty-two percent grew up in villages of the countryside, 31 percent in the island's small towns. More than half of their fathers were either farmers (40.5 percent), or engaged in some combination of farming combined with a secondary occupation (13.6 percent). The next highest number of women (11.5 percent) of the total said they had not known their fathers, and hence, did not know their father's occupation. The remaining fathers' occupations were mainly in the range of rural service occupations.

The occupation of mothers of the sample similarly was heavily agriculturally oriented with 47 percent listing farmer or farm labourer. An additional 9 percent listed labourer, unspecified, which may likely be farm labour as well in most cases. The next highest category of mother's occupation was housewife (17.4 percent) while 13 of the sample (6.7 percent) had not known their mothers. The remaining mothers were self-employed with a scattered few in white collar employment, such as teacher, nurse, secretary.

TABLE IV-1

Age

<u>AGE</u>	<u>NUMBER OF WOMEN</u>
17-21	11
22-26	13
27-31	18
32-36	27
37-41	15
42-46	23
47-51	21
52-56	19
57-61	17
62-66	13
67-71	8
72 and over	3
No information	<u>7</u>
TOTAL	195

TABLE IV-2
Marital Status

<u>STATUS</u>	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
Married	124	63.6
Single	63	32.3
Widowed	5	2.6
Divorced	1	0.5
No response	<u>2</u>	1.0
TOTAL	195	

Thirty percent of the female population studied had never been to school at all (Table IV-3). Sixty-four percent had had some elementary school, the largest number having completed something in the range of Standard IV-VI. Only a small number (4.6 percent) had been to school beyond the primary level. The overall literacy level is therefore low, a fact with significance in planning for improved agricultural extension services to this population. Only a small number of women sampled (Table IV-4) had had any type of additional education or training beyond formal public schooling, 10 (or 5 percent) in some white collar field (teaching, nursing, secretarial) and 20 (or 10 percent) in domestic services (seamstress, hotel work).

Women in the sample are divided almost equally between those who have never worked for wages outside the household (48.4 percent) and those who have at one time or another done so (51.6 percent). However, currently only 9 percent of the sample were employed outside the home with that number (18) spread widely among various service occupations. Employment outside the home seems to have been a temporary phenomenon for women and not a common pattern throughout their lives.⁷

B. Childbearing and Health

The sample of St. Lucian women illustrates the high birth rate which characterizes the island, as discussed in much of the health literature on this region. Of the total 195 women, 17 have had no children at all (one person in the sample had had multiple miscarriages, but no live births.) The number of pregnancies ranged from one to nineteen, with an average number of 6.7. Twenty-two percent of the total had had one or more miscarriages or stillbirths, from one to five in number, with one the modal number. Sixty three miscarriages were recorded for 39 women. It is difficult to assess the accuracy of this figure, for it is obviously a very sensitive and potentially painful subject, and therefore could be assumed to be an undercount.

Forty percent of the women interviewed had lost one or more children, following the child's live birth. The 71 women with this sadness in their lives, had lived through the deaths of from one to, in one case, seven children. The largest number of these women, 46 percent, had lost one child to death, 30 percent two children. The largest number of these deaths were very young children; 75 percent of the total were below one year of age. Older children died, of course as well, with accidents the most common cause of death in adulthood, unspecified childhood illness the causes of death in the young.

7. There is the possibility of an underreporting of casual farm labour--since in another section we report on the rather widespread use of hired labour for certain farm tasks--and women form, we believe, a significant part of this casual labour pool.

TABLE IV-3
Level of School Completed

<u>CLASS COMPLETED</u>	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
None	59	30.3
Stage 1 - 3	6	3.1
Standard I - II	9	4.6
Standard III	17	8.7
Standard IV - VI	92	47.2
Standard VII - VIII	3	1.5
Form 1 - 3	4	2.1
Form 6 or higher	3	1.5
No response	<u>2</u>	<u>1.0</u>
TOTAL	195	

TABLE IV-4

Training beyond Formal Schooling

	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
None	155	79.5
Hotel	9	4.6
Sewing	11	5.6
Teaching	6	3.1
Secretary	3	1.5
Nursing	1	0.5
No response	<u>10</u>	<u>5.1</u>
TOTAL	195	

Average age at first pregnancy of these St. Lucian women were 19.5 years, with the age range between 14 and 41. The average number of children living for the sampled population, a figure which takes into account the still births, miscarriages, and deaths of born alive children, is 5.2. Of these, an average of 3.0 children currently live in the home with the women in the sample, that figure ranging from one to twelve, with a modal number of one. Taking out of the sample for analysis those women with no children living in the home, the average number of children in the home is 3.6.

Women with living children not currently a part of the household constitute a substantial part of this population, just under half or 97 out of 195 women. These are for the most part adult children living elsewhere on or off the island, though in some cases a younger child is living with another relative elsewhere for school or personal reasons. Of these children living elsewhere (257 of them for 97 women, or an average of 2.7 children per woman) more were female than male (57 percent to 43 percent). The largest number of these children (37.4 percent), were part of the out-migration stream from Caribbean islands to the United Kingdom, Canada, and the United States, or other Caribbean islands, where employment prospects appeared brighter. The next largest number, 20.8 percent, remain in rural areas of the island, in many cases in the same community or nearby their mothers. And the third largest group, nearly the same size (19.7 percent) have joined the urban migrant stream and live in the city of Castries, which now has close to 40 percent of the island's population.

Against this background of high birth rates and fairly substantial family size, it is of interest to note that 40 percent of the sample of women who are still in the child bearing ages (defined for this purpose as under 50) expect to have additional children. Three percent of the sample, were, in fact, pregnant at the time of interviewing.

No doubt related to the above set of facts are the answers to a set of questions concerning knowledge of birth control. Well over half (57.7 percent) of the sample who responded to this question stated that they did not know of any methods couples use to keep from having additional children. Two-fifths (41.5 percent) do know of such methods and two responded that they knew of them, but did not believe in the use of birth control methods.

Of those who are familiar with existence of birth control measure, most knew of a variety of methods, with the pill and tubal ligation the most commonly cited. Of this group indicating knowledge, 44 percent have used birth control methods, or are currently using them, 56 percent have not in the past nor are currently using them. Of those who are currently using a birth control technique, the pill and tubal ligation are most commonly used, with very small incidence of the use of injections, intrauterine devices, "natural" or rhythm methods, or the condom.

The breast-feeding of children is a near universal in St. Lucia, with more than 97 percent of the sample indicating their babies were fed from the breast for up to a year in the majority of cases (57 percent) and longer even in another large number of cases (32 percent). The most common pattern of weaning is a rather sudden transition to the food adults eat. That is, the child when taken from the breast as principal food source, has already begun to eat "from the family pot." Only a few cases of use of special baby formulas or other special foods were noted.

Slightly over half of the women in the sample had used a health clinic in the past year for themselves. Seventy-five percent used the clinics for their children in the past year for such health problems as respiratory illnesses, the principal reason cited (37.9 percent of the sample of mothers using clinics). Next most common are the gastrointestinal complaints of children, with a large number of women also having used clinics for multiple health problems.

C. The Work Day of Women

The common time of arising for farm women in St. Lucia is daybreak, with 28.6 percent of the sample getting up at 5:00 a.m., 17.3 percent at 5:30 and 39.5 percent at 6:00 a.m. Thus, 85 percent are up and about with the sun, the rest all shortly thereafter. After getting the fire started and coffee/breakfast for the family, a long day of work follows. The estimated hours of work on various tasks are arrayed in Table IV-5.

Farm work is the largest occupier of women's time with more than half the women in the sample indicating they spend five to six or more hours daily (during the usual work week). Housework is next in importance in average hours spent followed by child care. Some 57.6 percent of the women with children have some assistance with child care either from a relative, often her own mother or an older child; 40 percent have no such help, the remaining 2 percent either hire help or have help only very infrequently. Marketing takes less time and for the percentage of women it is an occasional activity only.

It is clear, verified by observation, that St. Lucian women work long and hard in the multiple tasks of housework, agriculture, child care, and marketing. Many seem not to feel this amount of work is too much, for more than three-fourths of the total (77.6 percent) feel they have leisure time, usually on Sunday. Twenty two percent say they do not have the luxury of any leisure at all.

D. Women and Finances

One section of the second questionnaire asked about the woman's financial circumstances if she did any marketing, as many had indicated

TABLE IV-5

Percentage of Women Spending Stated Hours on Listed Tasks

<u>AVERAGE HOURS SPENT</u>	<u>HOUSEWORK</u>	<u>FARM WORK</u>	<u>CHILD CARE</u>	<u>MARKETING</u>
None	2.9	15.8	6.4	48.1
1	5.8	5.3	9.6	1.3
2	9.2	4.4	22.3	6.3
3	22.5	7.0	14.9	3.2
4	20.2	11.7	11.7	3.8
5	19.7	24.0	21.3	4.4
6+	19.1	26.9	11.7	9.5
Occasional	0.6	4.7	2.1	23.4

they do occasionally. The majority of women did not market produce. Of the 96 women who did some marketing, 54 women (56.2 percent) felt that money to be their own; 34 women or 36 percent felt it to be either theirs and their husbands jointly (18.8 percent) or the whole family's (17 percent). That money, whoever she perceives it to belong to, is used for the basic household necessities--children's needs, clothing, etc., all of which might probably be appropriately categorized as basic needs. Fifty-eight percent of those answering the question said they did not use financial institutions, such as banks, while 42.5 percent did. Only a very small number, just under 4 percent of the sample, do now or have in the past belonged to a woman's credit union.

Animal use, as mentioned earlier, is a minimal part of St. Lucian agriculture, and fewer people still use them as a money source. Of the small number, however, mainly men had purchased the animals (56 percent), followed by women (25 percent), and the remainder by children or other relatives.

An estimate of the proportion of income spent on various expenditure categories, such as food, clothing, and school expenses, is of crucial importance. The question demanded good recall and willingness to make estimates, for few persons keep exact records of their expenses. Less than half of the sample felt able to answer this question (97 persons or 47.2 percent), but for those who did the information is quite interesting. The distribution of percentages of income spent on the various categories is shown in Table IV-6. As can be seen, food is the only category in which significant numbers of the sample indicate a majority of their income is spent. Sixty-six percent of the sample estimate that they spend more than 40 percent of all their disposable income on this item. Clothing is the next, though the largest number of people indicate they spend little or none on this category. All other expenditure categories absorb only small percentages of available dollars.

Similarly, the research attempted to look at the question of responsibility for the various categories of expenditures. Again these questions were difficult for the respondents to answer and hence there is less than complete response. Table IV-7 arrays these responses for perusal. The percentages listed are that fraction of the sample which suggested the various persons as responsible for the different categories of expense. Because of the low response, the figures should be used with caution.

Men are somewhat more responsible for farm supplies, women for food, and both for the expenses connected with children. Of the women in the sample, 36 percent were receiving at least some remittances from relatives who live abroad--children, siblings, etc. While the financial topics were not pursued further, they being the most sensitive of all in the interviewers' perception, the importance of remittances is clear, as the literature on Caribbean economics indicates.

TABLE IV-6

Income Spent on Categories of Expense

<u>PROPORTION</u> <u>(in percentages)</u>	<u>FOOD</u>	<u>CLOTHING</u>	<u>RENT/TAX</u>	<u>FARM</u> <u>SUPPLIES</u>	<u>OTHER</u>
1-16	0.0	31.5	75.0	63.0	34.3
17-33	2.2	63.0	16.7	37.0	62.9
34-39	31.9	5.5	8.3	0.0	2.9
40-66	20.9	0.0	0.0	0.0	0.0
67-88	26.4	0.0	0.0	0.0	0.0
84-100	18.7	0.0	0.0	0.0	0.0

TABLE IV-7

Distribution of Economic Responsibility

	<u>FOOD</u>	<u>FARM</u> <u>SUPPLIES</u>	<u>TRANSPORT</u>	<u>CHILD</u> <u>EXPENSES</u>	<u>MEDICAL</u>
Woman	36.5	22.3	29.6	30.8	28.6
Man	29.6	46.5	32.9	23.9	31.8
Joint responsibility	27.7	24.8	29.3	39.3	30.5
"The family"	4.4	5.7	3.3	4.3	3.9
Nonrelatives	1.9	0.8	2.0	0.0	1.3

E. Women's Organisations and Agricultural Information

Information about agriculture was for the most part transmitted to the women in the sample by their parents (Table IV-8). However, 16 percent of those who responded claim never to have received any agricultural information from any source. The women's husband and various combinations of husbands, parents, and other relatives account for the remainder. Only 14.9 percent recall having had an opportunity to learn from an agricultural extension officer; the rest indicate they have never done so (Table IV-9). Fifty-six percent can, however, recall an agricultural extension visit in the last year, the remaining 45.6 percent cannot. Those who can recall such a visit cite the provision of agricultural services, such as assistance with seeds and plants, fertilizer use, and the like, but most recall unspecified services.

When asked about what kind of assistance they would like to have provided through agricultural extension, a long list emerged. (Table IV-10). Assistance with credit topped the list, followed by provision of equipment to aid in agricultural tasks. Educational help, transportation, roads, seeds, fertilizer, pest control chemicals, help with drainage, all were on someone's want list. The bulk of people listed only one type of desired help and many were unable/unwilling to provide an answer at all.

At a somewhat more general level a similar question was asked about the way respondents would utilize agricultural extension help were it available next year (Table IV-11). Again, more than half of the respondents did not answer the question. Help with the accomplishment of agricultural work itself was what appeared most often on the wish list of small-scale farm women, followed by material help, such as the provision of seeds, plants, and fertilizer. The third category of wants was education. A few were still seeking assistance to repair or replace property lost in the 1980 hurricane.

Earlier it was noted that the vast majority of farm homes have radios. It is no surprise therefore to note that St. Lucian farm women receive regular news largely from this source (63.3 percent). The second most common source of information is word of mouth (23.9 percent) to a far higher degree than the newspaper, a response not difficult to understand given the literacy level of the population. The newspaper is indicated as a source by only a small percentage (12.1 percent), and only two households indicated the use of television (0.6 percent). As a specific example, the sample was asked about methods of getting news of the 1980 hurricane. Radio and word of mouth were similarly the prime source of information in that disaster situation.

Most women in the sample know their representative to the national government of the island. More than three-quarters of the women sampled know the individual personally; another 12.8 percent know the name (Table IV-12). Only 5.6 percent did not know the person who represents their interest in the governing process of St. Lucia.

TABLE IV-8
Source of Agricultural Information

	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
None	26	13.3
Mother	19	9.7
Father	15	7.7
Parents	65	33.3
Husband	10	5.1
Parents/husband	17	8.7
Other	9	4.6
No information	<u>34</u>	17.4
TOTAL	195	

TABLE IV-9
Education from Extension Officer

	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
Yes	29	14.9
No	144	73.8
Don't know	1	0.5
No information	<u>21</u>	10.8
TOTAL	195	

TABLE IV-10
Agricultural Services Desired

<u>SERVICE</u>	<u>NUMBER OF RESPONSES</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Education	37	13.5
Credit	81	29.6
Transportation	34	12.5
Equipment	62	22.7
Seeds/plants	12	4.4
Fertilizer	11	4.0
Pest control	5	1.8
Roads	22	8.1
Irrigation/drainage	<u>9</u>	3.2
TOTAL	273*	

* Total is more than 195. Multiple answers were recorded, up to three stated needs, to produce the total of 273.

TABLE IV-11

Agricultural Assistance Desired from Extension Officer

<u>TYPE</u>	<u>NUMBER OF RESPONSES</u>	<u>PERCENTAGE OF THOSE WHO ANSWERED</u>
Material agricultural goods	98	37.5
Education	53	20.3
Help with agricultural tasks	102	39.1
Replace hurricane damage	2	0.8
Land	1	0.4
Irrigation	1	0.4
Don't know	<u>4</u>	1.5
TOTAL	261*	

* As in Table IV-10, multiple answers were recorded when given.

TABLE IV-12

Knowledge of Political Representative

	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
Know name	25	12.8
Do not know name	11	5.6
Know person personally	153	78.5
No response	<u>6</u>	3.1
TOTAL	195	

TABLE IV-13

Knowledge of Extension Officer

	<u>NUMBER OF WOMEN</u>	<u>PERCENTAGE</u>
Know name	83	42.6
Do not know name	101	51.8
No response	<u>11</u>	5.6
TOTAL	195	

Fewer people know the agricultural extension officer, with only 42.6 percent of the sample stating they are familiar with the person in this position who serves their area (Table IV-13). More than half, then, have no personal acquaintance with the agricultural extension officer, nor can they identify her/him.

Only a relatively small proportion of women belong to any formal organisation (29.2 percent); the rest do not. Of those who are "joiners," the organisations to which they belong are heavily religious in nature (59.6 percent). The second most common organisation to which women belong is a mutual aid group through which individuals receive health and funeral benefits (17.5 percent). Mothers' groups are next in order of frequency (14.0 percent), followed by small numbers belonging to agricultural organisations, various community service groups, and some which are social/fun organisations. But the bulk of women in the sample (70.8 percent) do not belong to any formal group. On St. Lucia, then, the organisations as currently constituted would not reach large numbers of small-scale farm women.

In further attempts to perceive communication and influence patterns, the interviewers inquired about where persons turned for help. One-third (33.1 percent) of the women said they would turn to a government figure of some sort for help; fellow citizens and neighbours were the second most commonly perceived source of help (22.0 percent). The family and the church were further down on the list of places to turn for help (12.3 and 9.1 percent, respectively) of the sample. Almost 15 percent (14.9) of the women said they would turn to no one and others simply did not know. Pursuing this topic yet further, interviewers asked about the actual pattern of help requested after the hurricane in 1980. Answers show a somewhat different pattern from those given to the "to whom would you turn?" question. Table IV-14 allows a comparison of the two responses.

In the actual event, less people turned to anyone for help, perhaps because many actually needed no help, somewhat confounding the answers. In another question, respondents were asked about help people had needed, and nearly one-fourth (23.6 percent) of the sample had needed none. The largest need suggested had been simple shelter, followed by home and building materials, food, and agricultural supplies to start over again (56.3 percent). A majority of these people did not feel they received the help they needed.

Pursuing the issue of influential and powerful persons, respondents were asked to tell who they considered to be influential persons in their communities. Many people gave one person only, though they were asked to name three. That person was most apt to be a local citizen, not in any public office, but simply someone whom they trusted. An agent of the government was the person suggested by the next largest number of women. Government persons are seen strongly as having the most influence on national and village level issues, while agricultural issues are settled closer to home within the family.

TABLE IV-14

Communication Patterns of Women (in percentages)
(N = 195)

	<u>WOULD TURN TO FOR HELP</u> <u>(hypothetical disaster)</u>	<u>DID TURN TO FOR HELP</u> <u>(1980 hurricane)</u>
Family members	12.3	8.1
Church	9.1	2.7
Government	33.1	36.0
No one	14.9	35.1
Don't know	8.4	1.8
Neighbours/citizens	22.0	16.2

It must be said that many persons were reluctant to answer these questions, no doubt in part due the polarized political situation present on the island during the field work. However, another pattern shows up as well in another response in that many of the persons who answered (about 20 percent) the questions about the "most influential person in the community" stated "No One," perhaps indicating a lack of clearly perceived leadership, or concern with leadership at one or more levels of government and community life.

Agricultural women spend most of their free time with their families (88.4 percent) with nonfamily members accounting for the rest. Similarly, they talk mostly to neighbours, family members and friends. The social world of the St. Lucian small-scale farm woman is a rather small one, bounded principally by her family and the nearby community, with communication patterns principally involving the persons resident within those boundaries.

Farm women view community needs as follows in order of importance to them. Numbers in this case indicate the number of time a particular need was cited by the group, with each woman encouraged to suggest three such ideas. Enhanced employment opportunities (92), better roads (90), more adequate water supplies (67), and educational opportunities (56) headed the list. Less frequently mentioned, by small numbers only, were such things as laundry facilities, community centers, telephone services, and playing fields.

F. Household Technologies

Eighty percent of the women in the sample indicate they save seeds for use in replanting; 20 percent do not. Forty-two percent use natural fertilizers; 58 percent do not. Hand tools are the only equipment in use for 98 percent of the population. These need to be replaced at only infrequent intervals, at most annually.

Women in St. Lucia do not, by and large, process food for preservation purposes. Only 11 out of 195 women in the sample indicated they did any food processing at all, ten of these by some form of canning process, one by drying. Reasons cited for the non-use of food preservation techniques were (1) no perception of need (47 percent) and (2) lack of knowledge of technologies for doing the tasks (22 percent). The remaining others cited no time to do food processing, their perception of canning as a bother, and one stated she had no food to process, since all was eaten daily.

G. Attitudes

A final section of the questionnaire asked farm women about a range of values and attitudes. St. Lucian women generally feel quite

positively towards agriculture as a way of life, with 67.9 percent of those who responded (134 women) expressing either wholly positive views, or positive views with some qualifications. Only 19.4 percent of those who responded expressed negative views towards farming. The others were neutral or had no opinion.

In this connection, interviewees were asked what ideas they might have about ways in which agriculture might be made more attractive as an occupation for the young. The largest number (46.7 percent) were clear that better income would be the best way to accomplish this task. Other suggestions were: educational opportunities in agriculture (12.0 percent), better roads to facilitate marketing of products (10.9 percent), with the remainder (30.4 percent) perceiving no problem around the issue of the attractiveness of agriculture as an occupation for the next generation.

A majority of women, however, do not desire agriculture as an occupation for their children. Of the women in the sample, slightly more than one-fourth (26.7 percent) suggested agriculture as the occupation they desired for their sons. Not a single woman suggested agriculture as an appropriate or desirable occupation for their daughters. Other suggested occupations for sons were hotel/tourist work (29.6 percent), doctor (11.9 percent), construction work (8.9 percent), and many others in small numbers. For daughters, nursing led the list (suggested by 34.7 percent), followed by hotel work (28.2 percent) and teaching (9.7 percent). Traditional, sex-linked occupations are clearly the aspiration of women for their children.

Respondents were asked what type of life they desired for their daughters. While the majority of women gave what were essentially non-answers in something like "a nice or happy life" (39.0 percent), some were more specific. Sixteen percent specified some sort of traditional female domestic role, such as a "good husband to support her," while 11.4 percent aspired for a career for their daughter(s). Almost 5 percent hoped for a combination of marriage and a career. The few remaining women hoped mainly that their daughter(s) would have easier lives, or were content to accept whatever God or the daughter's own inclinations might bring.

The respondents expressed strong views in response to a question about their personal (as opposed to community) needs. The need for improvement in their financial circumstances was expressed as a major need by 72.5 percent of the group who responded (175 women). To a substantially lesser degree, household amenities of various kinds were the next most commonly expressed personal need or desire, followed by better health care and improved educational opportunities.

In a hypothetical vein, women were asked how they might spend money which unexpectedly turned up from a relative overseas. Of the 170 women who responded most would not, by and large, spend their money on personal desires, but rather would buy life's necessities

(39.5 percent) or would invest in the future by buying some tangible asset such as land or a house (35.3 percent). A few would try to make their current life easier (14.0 percent) by buying household amenities, while others would save or put aside for the person who sent it. One woman rather poignantly said, "the very prettiest dress I can find."

The Bank Holiday can be a big occasion, offering as it does a respite from daily work. Half of those who responded (50.9 percent) stated that they would use that holiday at home with their families. About one-third (32.3 percent) would like to have a trip of some sort—to the beach, the country, or even another island. A small set of work-driven women would engage in everyday work activities (5.4 percent), while some would like social/fun-type activities (6.6 percent). Three percent suggested that they would engage in church activities, while the small remainder had no ideas how they would use a holiday.

Women in the sample believe strongly that the roles played by women in society are changing (Table IV-15). Almost three-quarters of those who responded (73.9 percent) replied in the affirmative to this question, 15.7 percent did not think so, and 0.8 percent were uncertain. Forty-two women offered no response to the question. The 101 women who offered descriptions of the change noted a variety of circumstances: women are more prominent in public life (30.7 percent); women now do things as well as men, i.e., different types of jobs (13.9 percent); women earn more dollars now than they previously did (11.9 percent); women are generally more assertive in their style of functioning in society (6.9 percent) (Table IV-16). A very small number (2 percent) felt that women work too hard. More than a quarter (27.7 percent) of those who responded expressed the idea that women are changing in ways deemed negative in nature; that is, women are more vulgar, women do not want to work anymore, women are shameless, etc.

Women were asked if and how they believe that their lives are different from those of their mothers. While such answers are difficult to categorize, of the 140 women who responded almost equal numbers expressed precisely opposite opinions; 39 persons (27.9 percent) said that their mother's life was harder or worse, with 40 (28.6 percent) claiming that their mother's life was easier or better, with a rich range of descriptive data accompanying the answer. Another group (numbering 37, or 26.4 percent) described without valuing the differences as better or worse, such as rural-urban differences (2.1 percent), differences in family pattern (large versus small numbers of children, for example--16.4 percent), or just different occupations and interests. Twenty-four women (or 16.8 percent) felt there was little or no difference, that their mothers' and their own lives were essentially the same.

Women were asked what they felt "caused" the good and bad things which happen to individuals in the course of their lives. Almost half (47.6 percent) of those who responded expressed ideas such as fate or luck, that is, a determinism related to factors outside the control of

TABLE IV-15

Women's Roles in Society

<u>ROLES CHANGING</u>	<u>NUMBER OF WOMEN</u>	<u>TOTAL PERCENTAGE</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Yes	113	57.9	73.9
No	24	12.3	15.7
Uncertain	15	7.7	9.8
Answer not applicable	1	0.5	0.7
No response	<u>42</u>	21.5	
TOTAL	195		

TABLE IV-16

Nature of Change in Women's Roles

<u>NATURE</u>	<u>NUMBER OF WOMEN</u>	<u>TOTAL PERCENTAGE</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Any change	2	1.0	2.0
Women more prominent	31	15.9	30.7
Women do things as well as men	14	7.2	13.9
Women paid better	5	2.6	5.0
Women now work for money	12	6.2	11.9
Women work too hard	2	1.0	2.0
Women are more assertive	7	3.6	6.9
Negative comments	28	14.4	27.7
Not applicable response	35	17.9	---
No response	<u>59</u>	30.3	---
TOTAL	195		

TABLE IV-17

Perception of Cause of Events in Life

<u>CAUSE</u>	<u>NUMBER OF WOMEN</u>	<u>TOTAL PERCENTAGE</u>	<u>PERCENTAGE OF THOSE WHO RESPONDED</u>
Fate	68	34.9	47.6
Personal control	29	14.9	20.3
Both	24	12.3	16.8
Something in world	15	7.7	10.5
Love/affections	5	2.6	3.5
Don't know	2	1.0	1.4
No response	<u>52</u>	26.7	--
TOTAL	195		

an individual (Table IV-17). One-fifth expressed the opposite view--that individuals themselves are responsible for events in their lives--and one-sixth (16.8 percent) feel both factors operate. A small number (10.5 percent) consider other factors in the world such as human relationships (individual greed, lack of love between people, etc.) to be the major causal factors. The relatively heavy amount of fatalism reflected here has been earlier seen in attitudes towards childbearing and use of birth-control methods.

H. Summary: Profile of Woman Farmer

In summary, the St. Lucian small-scale farm woman is in her middle-forties. She has one adult child living in the home with her and her husband/partner, in addition to one small grandchild and two school-age children. She was born in rural St. Lucia and lives in circumstances quite like those in which she was raised. She attended primary school for four years, and reads a little English, but speaks patois for everyday use. She is a "married" woman, and has close relationships with her own mother and others of her family. One of her children lives overseas and from time to time sends some money to aid the family.

She and her family live in a small wooden house, some distance from the main road and accessible only by a 15-minute walk from the end of the bus route. The house is simple, but has water at a nearby standpipe, electricity, and a radio.

The St. Lucian farm woman has had six children, one of whom she lost in its early infancy from a respiratory disease. Much of her everyday life revolves around the care and feeding of her children, including a year of breast feeding each one of them.

Her work day is a long one. She rises very early, feeds her children and husband, then completes a portion of the work in her house before going to the field, frequently weeding for some 4 hours on their land, which lies a 30-minute walk away. She returns to the house in the late afternoon and begins the evening household work, dinner, and cleanup. On Friday she will often spend a half-day or more in the market at Castries, selling extra vegetables which have been harvested during the week. Her husband/partner will likely have taken charge of the harvesting and sale of bananas. An older child takes care of the grandchild and assists with the housework.

Finances of the St. Lucian small-scale farm woman are a topic of great concern, for rising prices mean even food is hard to purchase in quantity and variety enough to be satisfactory. Almost 75 percent of total income is spent for foodstuffs. Clothing and school uniforms are also expense items, but necessary, for education of the children is highly valued by parents.

Agricultural patterns employed on the farm have not changed much in her lifetime. In fact, she learned most of what she knows about farming from her own parents. Periodically she has had some farm animals, but currently has none. She does not know much about their husbandry. She participates with her husband/partner in many of the decisions made on the farm, but there are not really many decisions made, for in general they farm much as their parents did before them. Persistent problems for them are obtaining enough fertilizer and having means to transport their crops to the various marketing places, many of which are at a considerable distance from their home. She has had relatively little contact with the agricultural extension agent, though she knows he has been on the farm occasionally consulting on problems.

The farm woman is much aware of the changing roles of women in contemporary society, and generally feels it means additional opportunities for women. She, however, wants a traditional home and family for her daughter, possibly including a nursing career as well.

The St. Lucian small-scale farm woman does not belong to any organisations except for her church. She, however, is aware of political events on the island, and knows her political representative well. She is somewhat skeptical about leadership in general and trusts mainly people she knows. Her principal contact with the larger world outside the immediate community is the radio.

Her overall approach to life is a somewhat fatalistic one, as if control of her life were not very much in her own hands. Her principal personal desires revolve around maintenance of the family's way of life. On balance, she feels her life as a farm woman and mother has been a satisfying one.

SECTION V

RECOMMENDATIONS

St. Lucia, as the introductory economic analysis has indicated, faces the development dilemma of being an agricultural-based economy increasingly becoming a food importer. A variety of factors accounts for this dilemma: the mass communications media encourage consumption patterns and attitudes which lead to the purchase of foreign-produced food products; national pricing and marketing practices frequently intentionally or unintentionally favour foreign producers; local methods of food production by small-scale farmers are antiquated; and access to productive resources is restricted by various social and economic constraints.

The agricultural sector analysis and the findings of this survey⁸ have documented the nature and extent of women's economic roles in small-scale agriculture in St. Lucia. Women in St. Lucia, as in many other LDCs, play a significant economic role in small-scale agriculture. Moreover, women receive less attention from the extension service than do male farmers. Women farmers are subject to the general constraints cited above, but frequently in ways different from those that touch men.

In addition, women, because of their multiple work roles (agriculture, child care, home maintenance) within the farm household and because of stereotypic notions of these roles, confront special problems in becoming more efficient food producers.

The net result of these factors is that small-scale agriculture is not profitable. The lack of profitability of small-scale farming is illustrated by the fact that almost one quarter of the households surveyed contained no person who listed working on the farm as "principal employment" so that farming in many cases is subsidized by wage labour. Farming is also subsidized by the unpaid or low paid labour of women. Just under half of rural St. Lucian women engage in substantial farm work, but on the average women farm operators receive less income than men and many of these women classify themselves as "housewives." Thus another important explanation for the food

8. Belize, a territory which is participating in the Caribbean Agricultural Extension Project, is culturally different from the Eastern Caribbean. While the findings in this report may to some degree be generalizable to the Eastern Caribbean, Belize is a separate case. However, one should bear in mind that many of the recommendations, despite cultural differences, have general applicability.

production/importation dilemma, which is frequently overlooked, is the "female factor" in local food production.

The following recommendations are aimed at increasing the efficiency of the delivery of agricultural support services to women farmers in an effort to increase their economic well-being and that of their families. Based upon consideration of the agricultural sector analysis and the survey findings, these recommendations resulted from discussions at a Workshop held in St. Lucia, June 10-11, 1981. While many of these recommendations could apply to male farmers the needs of women farmers have been specifically addressed. These recommendations are based upon a general development strategy which aims at a reduction in the level of unemployment, maximization of local resources, achievement of self-sufficiency in food production and an improvement in the quality of life for all members of society.

A. Recommendation No. 1 (National Extension Service Personnel)⁹

Since the survey findings indicate that both men and women are engaged in farm work, national and community level programmes in agriculture should be aimed at the farm family or household, not just the male farmer. This focus should be reflected in the selection and training of extension personnel and in their general sensitivity to the economic and social roles of small-scale farm women.

1. Sensitivity to Reality

National extension service personnel should be reoriented to increase their sensitivity to the realities of small-farm households, especially the roles of women. We recommend continuing attention be given to ways of increasing the awareness of extension personnel to the issues raised by this St. Lucian survey and workshop. It is particularly important NOT to assume:

- a) that the man is usually or always the principal farmer;
- b) that the man alone controls decision-making on the farm;
- c) that there is a ready or easy transfer of knowledge or practices between family members, e.g., between male and female or young and old; and

9. These recommendations are taken from WAND's Report on The Economic Role of Women in Small-Scale Agriculture Workshop, Castries, St. Lucia, June 11-12, 1981 (October 1981), pp. 20-30. The "We" in these recommendations refers to the Workshop participants. See Appendix E for a complete listing.

- d) that because a women says she is a "housewife" that she is not also a principal farmer and farm decision-maker.

2. Selection and Training

Because extension and rural development is a full-time job, requiring unusual commitment and special individual capabilities that are difficult to measure or screen for, it is recommended:

- a) That potential extension trainees be apprenticed as agricultural helpers under working extension officers before they are sent for formal training. This practice should help them know what extension is really like and enhance a realistic self-selection process in extension. In this connection we suggest that the "apprentice extension" system currently operating in St. Lucia be studied and evaluated to see if it improves the quality of extension personnel over time and is transferable to other nations in the Eastern Caribbean.
- b) That outreach personnel from all ministries be involved in three kinds of ongoing training at the national level:
- 1) a programme of integrated in-service training in rural development, community organisation, and communication methods for rural areas regardless of the Ministry out of which they work;
 - 2) a programme of technical training specific to area of needed expertise and Ministerial responsibility (e.g., agriculture, health, or community development); and
 - 3) a women in development component (in cooperation with WAND) sensitising outreach personnel to the special constraints and needs of women farmers.
- c) That more women agricultural extension officers be appointed both to serve as role models for young women and to enhance the sensitivity of the extension staff to the needs of women farmers.

B. Recommendation No. 2 (An Integrated, Participatory Approach)

Related to the selection and training of outreach personnel is the question of development methods. The small-scale farmer can and should play a more prominent role in the improvement of her/his agricultural productivity. That is, the "trickle down" theory of the dissemination of agricultural information from expert to farmer (or from male to female) should be replaced by a participatory approach. With regard to extension methods and communications training, it is desirable that

participatory community decision-making methods be included because these approaches contain the message that people can and should take responsibility for and have some control over their own lives and development destinies. Decision-makers, policy-makers, and extension personnel need to recognise that:

- 1) for extension to be effective, it must be part of an overall strategy for rural development;
- 2) that extension personnel have an important role to play in the two-way flow of communications between government and farmers; and
- 3) that use of grassroots farmers to "talk to each other" (e.g. via media) is a means of enhancing their own self-concept and concern with development.

This kind of enhancement of self-concept and organisation of women is necessary to mobilise women. Over 50 percent of the women in the sample believed that they had no control over the major events that affect their lives and few belonged to formal organisations. Yet over 80 percent personally knew their political representative. That is, they had access to policy makers, but for whatever reasons did not use that access. Relationships in St. Lucia are personalised. One needs, therefore, to personalise relationships in the development process so that women begin to feel that they have some power to change the circumstances of their lives.

In order to integrate rural development, especially at the district and community level, it is recommended:

- 1) that various ministries with outreach staff make known to each other their respective programmes;
- 2) that some sort of formal coordinating mechanism (e.g., a committee) be established at the local level in order to facilitate this integrative approach; and
- 3) that not only farmers but other local resource persons (e.g., teachers) and organisations be included.

C. Recommendation No. 3 (Delivery of Agricultural Information)

Extension personnel have important roles to play as intermediaries in the two-way flow of information between farmers and national policy-makers. It is recommended:

- 1) that use be made of existing women's organisations to convey agricultural information and to train professionals from amongst rural women;

- 2) that more use be made by the extension service of Radio St. Lucia's patois broadcasting, given the low functional literacy rates in rural areas and the widespread possession of radios;
- 3) that more attention be directed to nonformal methods of education, given the resistance to change of most formal education systems;
- 4) that media programmes directed to farm women be at times when these women are able to listen; and
- 5) that media programmes utilize actual farmers in programmes so that farmers are "talking" to farmers and are not passive recipients of advice from experts.

D. Recommendation No. 4 (Access to Productive Resources)

The economic analysis and findings of this report indicate that women lack, yet desire, more ready access to productive resources.

1. Credit

While lack of clear title to land is a serious constraint to the acquisition of credit, other factors are also present. Therefore, it is recommended that assistance be provided to women (and men) in understanding the purpose, process and advantages of credit acquisition, management and repayment.

2. Improved Agricultural Technology

It is recommended that:

- 1) Appropriate technologies, already known in the region, which take into consideration initial low cost, energy conservation, minimum maintenance and use of local materials be introduced to the small-scale farmer.
- 2) Food processing and storage projects be developed to preserve foodstuffs in an effort to reduce the "glut-famine" sequence of food production and to generate additional income for farm households.
- 3) The impact on the utilization of women's time be kept in mind in the introduction of any income generating projects.
- 4) Appropriate technologies be introduced to reduce the time women must spend on household maintenance tasks so that they have more time to spend on agriculture should they wish.

E. Recommendation No. 5 (Data Base, Research, and Evaluation)

It is recommended:

- 1) that some method be adopted to count "unpaid family labour" in the agricultural work force in a more economically visible way and to recognise the differential economic and social work loads of men and women;
- 2) that micro-level studies of women and agriculture be encouraged. A recent report published by the Caribbean Development Bank notes with regard to St. Lucia: "there are pitifully few micro-studies that could give a real insight into the dynamics of the social, political and economic relations" in the small farm sector (Le Franc, p. 139). Perhaps UWI students could be encouraged to write senior theses and masters papers on these topics as law students now do on legal topics within the region (Massiah). Such studies should include household economics, economic factors on the macro level affecting household economics, time budgeting, division of labour, and socio-cultural constraints;
- 3) that the agricultural statistics division of the Ministry of Agriculture establish regular procedures to obtain gender disaggregated data as the basis for policy planning;
- 4) that procedures be established to measure gains in the economic well-being of women engaged in small-scale agriculture. Since increased productivity and economic well-being of women are not necessarily the same, criteria (e.g., lower-fertility, increased disposable income, improved nutrition) for evaluation should be established as early as possible;
- 5) that efforts be made to evaluate existing innovative programmes, such as the "barefoot extension" programmes of the St. Lucian Ministry of Agriculture; and
- 6) that procedures be established to evaluate comparatively pilot projects in the region aimed at women and agriculture and to disseminate and share results.

An adequate data base is essential if women's actual rather than stereotyped economic roles and work loads are to be recognised and women integrated into development planning and not continue to be an "invisible factor." Moreover, without a continuing source of baseline data, it is difficult to engage in any kind of meaningful evaluative process of new programmes. Changing the methods of national accounting is frequently a slow process. Micro-level studies not only can be done more quickly, but can point directions for national accounting for action programmes.

F. Recommerdation No. 6 (Micellaneous)

Several issues arising from the data were only touched upon in the discussions of the Workshop due to the limited time available. They are listed below and are worthy of further consideration.

- 1) The findings indicate that only about half of farm households reported owning livestock. Expansion and diversification of animal husbandry appears to be a fruitful way of expanding food production.
- 2) Transport of produce from farm to market was listed as a principal constraint by many farmers in the sample. Such constraints exacerbate the problem of "glut/famine" in the provision of local foodstuffs, e.g., by increasing spoilage.
- 3) Marketing problems affect the potential profitability of small-scale agriculture. Ways need to be created to increase the regularity of volume and delivery of food produced on small-scale farms so that larger and more profitable outlets (e.g., hotels, supermarkets) can be found for local fruits and vegetables. For example, should producer cooperatives be established?

G. Recommendation No. 7 (Action Pilot Project)

It is recommended:

- 1) that a pilot project be initiated in several of the island nations of the region which will do the following:
 - a) result in a sensitised community which can identify problems and solve them and which will be sensitised to women's issues as different from those of men;
 - b) provide research information on how to go about accomplishing this task and to help identify constraints to increasing farm incomes;
 - c) provide an experimental training situation for extension agents and farmers; and
 - d) develop a mechanism for replication in other communities;
- 2) that the location of each pilot project be in an area or village, if possible, where other local or regional programmes or projects exist e.g., CARDI, CARDATS;

- 3) that this pilot project utilize the community and the household as basic units, instead of focusing on "the farmer";
- 4) that each community select a facilitator who will be trained and sensitised and who will work within the community and coordinate other outreach services;
- 5) that the facilitators be trained and sensitised by well-prepared individuals (perhaps senior extension agents);
- 6) that nonformal participatory methods of education be used;
- 7) that macro-policies of government be communicated to women and other rural dwellers and via the pilot project help them take action toward fulfilling these policies, e.g., import substitution, breast-feeding, eating local foods, etc.;
- 8) that women be assisted in forming groups and organisations which can provide mutual support and serve as foci for training and the delivery of agricultural information;
- 9) that appropriate agricultural and household technologies now available in the region (e.g., new seeds, solar ovens) be regularly tested to ascertain their practicality and the constraints in a "real" rather than experimental environment, and that this information be conveyed back to the designers, developers and manufacturers;
- 10) that the whole process of community development and its constituent parts be the subject of micro-studies. This research could be carried out by students on the campuses of UWI.

This Pilot Project recommendation is made on the basis that there is need to experiment with methods for helping communities solve their own problems and to help rural women learn to participate in problem solving. The main issue is to make farming profitable by removing constraints on the local, regional, national and international levels. Farmers can learn how to identify and remove those constraints which are within their power to alter. Women have a special constraint in that they have intertwining multiple roles. Thus, their labour can be easily overexploited and poorly recognised.

This proposed experimental Pilot Project concept embodies most of the recommendations made in this report. The concept brings together the notion of rural development as an integrated ongoing process of (1) data collection, (2) participatory planning and implementation, and (3) training small-scale farmers and community facilitators. The extension agent is an intermediary who both trains and learns and communicates needs regularly to the national level for purposes of policy making, planning and for replication in other communities. The pilot project,

thus, serves as a testing ground for new rural development strategies and technologies to find out what works, as a training environment and as a data collection site, all utilizing participatory approaches.

H. Recommendation No. 8 (Regional Cooperation)

It is recommended that:

- 1) This report be circulated to CAEP¹⁰ (through the ministries), governments, CARDI, CARDATS, USAID and others;
- 2) CARDI and CARDATS be urged to give consideration to the incorporation of these recommendations within their own programmes;
- 3) Regional training institutions (e.g., UWI, JSA, ECIAF) also be encouraged to provide three kinds of training for future outreach personnel;
 - a) integrated rural development, community organisation and communications;
 - b) technical training in a speciality (which all do now); and
 - c) a women in development component in cooperation with WAND sensitising outreach personnel to the special constraints and needs of rural women;
- 4) each of the participating governments of CAEP be informed of the Pilot Project concept as an experimental extension technique and a micro study, and request that they consider including this concept in their extension improvement plans;
- 5) UWI with help from MUCIA cooperate with the Pilot Projects by supervising research for the micro studies. Local institutions such as the Caribbean Research Centre, should be used to coordinate this research; and
- 6) WAND coordinate the publication of a book on women and extension in the Caribbean for use in programme development.

10. The Caribbean Agricultural Extension Project of UWI and MUCIA.

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APPENDIX A : QUESTIONNAIRE I

A. Characteristics of Farm

1. How many separate plots of land do you work upon?
Will you tell me about each of them separately?
For plot number 1 (and each subsequent one), if any?
2. What is the size of the plot?
3. Is this plot of land (Try to choose one category. If more than one needed to explain, please describe on back of sheet.)
 - a) owned by you (if so, inherited or purchased)
 - b) long lease
 - c) family land
 - d) rented
 - e) squatting, crown land
 - f) squatting, private land
 - g) other: Specify
4. How far from your house is this plot of land?
Answer in terms of time by
5. Means of getting there? (i.e., walking, by bus if distant, etc.)
6. How far from the main road is this plot of land?
7. How long have you been farming on this plot/plots? If long time, ten years or more, ask no further questions about this. If less, inquire about earlier farming and describe briefly.

B. Cropping Pattern

Next, I would like to ask some questions about your use of each plot which you and your family are working on. On the plot (and repeat for each plot if more than one, using separate sheets).

1. What is the principal crop grown?
2. How much of your _____ acres is used for this crop?
3. Can you estimate the amount of this crop which you harvested in the year before Hurricane Allen?
4. Indicate the measure used, that is, pound, basket, bag, with description when not obvious. How did you use that crop?
(Estimate amounts in each category below).
- 5.1 Did you consume it in your household, that is, feed it to your family or use it for livestock? How much?
- 5.2 Do you have any of it in storage? How much?

5.3 Do you sell it? How much?

5.4 Did some of it spoil? How much?

Now, let's talk about your second plot--if any. (Use separate extra sheet.) If no second plot, go on to

6. Of your main crops, which did you make the most money from? (Probe for three).
7. Of these main crops, which took most labour time to cultivate and harvest? (Probe for three).
8. Of these main crops, which one took the least labour time to cultivate and harvest?

C. Livestock Pattern

Next, I would like to ask you about any livestock you may have on your farm, or may have had during the year before the hurricane.

9. Did you or do you now have any animals? What kind? And how many?
10. Did you use some of the products from your (animal) at home. (If cow, milk; if chicken, eggs; (etc.)). Estimate amount by time period. If they tell you _____ eggs per week, record it in that way and refigure later).
11. Did you sell some of the products of your animals? (Estimate amounts as above).
12. Do you have any livestock at the present time?
13. Of the livestock you have mentioned, which earned for you the most money? (Probe for three).
14. Which of the livestock required the most labour time to care for?
15. Do you buy feed for any of your livestock? If yes, specify which.

D. Household Demography - Infants and Children

This set of questions concerns the members of your household. First, let's talk about the children in your household. (This section is for infants and pre-schoolers).

1. Who is the youngest member of the household?
2. How is _____ related to you?
3. How old is _____?

4. Sex of child - if not obvious, ask.
5. Who does the principal care of _____? (Probe here around work of mother, etc).

Who is next youngest? Continue through all of pre-school children. When the age of the next youngest reaches school age, move to the next set of questions. (This section is for school age, up through age 14).

6. Who is the next youngest? Oh, this child is school age, I see.
7. How is _____ related to you?
8. How old is _____?
9. Sex of child--if not obvious by name, ask.
10. How many standards/forms has _____ completed?
11. What school does she/he go to? or what was the last school attended? (If no longer in school).
12. What does _____ do most of the time - for the last twelve months? (Probe here for principal occupation - most time spent on). (If in school, write school; if working, describe in categories of (a) For pay or (b) Unpaid family worker).
13. In addition to above, some children/young people also do other work. Did _____ do any other work last year for pay or helping the family. (If not the principal. Probe around helping with child care, care of animals, garden work etc.)

When age of next youngest reaches 15, move to next set of questions and answer sheet. (This section for adults 15 and up. Be sure to include respondent).

14. Who in your family is next in age?
15. How is _____ related to you?
16. How old is _____?
17. Sex, if not obvious.
18. What is the highest level of schooling completed by _____?
19. Is _____ presently in school? (Drop question for older adults.)
- 19a What school does she/he go to? or what was the last school attended?

20. What did _____ do most of the time during the past 12 months?
(Principal occupation and describe).

(Probe around how most of persons time was spent and select one of two below categories to record and describe). (Choose one).

20a Was this work for pay - for an employer? What kind of work was it?

20b Or was it unpaid work for the family? What kind?

21. Besides principal occupation, some people also work for pay or other benefits in addition to above?

21a If yes, was this work paid for by an employer? What kind of work?

21b Or on own farm or business - unpaid family? What kind of work?

22. Considering all jobs, how many weeks would you say _____ was not working at all (neither part time nor full time?)

23. Which of the following reasons best explain the fact that _____ did not work those weeks?

Illness	No work available
Vacation - holiday	Looking for work
In school	Busy with housework, children
Seasonal lull in work	Other (specify)

Let me just be sure now that I have everyone in the household - probes. Is there anyone who usually lived here who is now temporarily away for some reason? Are there any other people who lived here, such as lodgers, workers for you, or others who have not been mentioned? Are there any visitors who lived and ate with you for six or more months last year who have not been mentioned? If any, add to roster. Use extra sheet if needed.

E. Labor allocation - Crop

The next set of questions concerns the way your family divides its work. We would like to know what kinds of work different members do. Let me first ask you about your main crop. (Check on page 2.)

Interviewer: If more than one person works at a specific task, estimate proportion of work done by each. Identify person by name if household member; if hired labor, identify (for example, government service, neighbor, city relative, etc.)

With regard to Crop 1.:

1. Who does the preparation of the soil when new trees/plants/ seeds are to be planted?

- 1a Could you give me an estimate of how many hours per day that person(s) works during the time when this work is done and days per year?
2. Who does the planting itself?
- 2a Could you give me an estimate?
3. Who is responsible for aspects of maintaining the soil during the growing season, such as: (Could you give an estimate?)
Hoeing
Weed control
Pest control
Fertilizing
4. Who does the harvesting of the crop? Estimate of hours?
5. Who takes charge of the storage work for the crop until it is used or sold? Estimate of hours?
6. Who does the tasks involved in marketing? Estimate of hours? Who helps to transport the crop to market? Estimate of hours? Who does the actual selling? Estimate of Hours?
7. Who does the record keeping? Estimate of hours?
8. Other tasks? Estimate of hours?

Repeat all of above for other main crops to maximum of three.

E. Labor Allocation - (continued) Livestock

May I ask the same kind of questions about the work involved in caring for your animals. I see that you have (animals with largest number).

Let me first ask about their care. (Record answers as with crops, previous page.)

1. Who prepares the housing or fencing that is needed for your animals? (Can you give me an estimate of the number of hours per day that person works at this task? How many days per year?
2. Who is responsible for the daily care of animals, such as feeding and watering? Estimate of time per day/days per year.
3. Who is responsible for getting products from live animals, i.e., milking, gathering eggs, etc.? Estimate of time per day/days per year.
4. Who does the slaughtering of animals? Estimate of time per day/days per year.

5. Who takes care of the products until they are used or sold, including any preparation. (i.e., washing bottles for milk, etc.) Estimate of time per day/days per year.
6. Who does the tasks involved in marketing? Who helps to transport the product to market? Estimate of time . . . Who does the actual selling? Estimate of time . . .

Repeat for next most important animal.

F. Marketing

1. Where do you buy foodstuffs regularly? (means day to day purchases.)
2. How far is this local market from your house?
3. How do you get there?
4. Where do you sell any products? (Ask about each crop or animal product which they may sell. Probe to see if more than one market is used.)
5. For each market, how far away from your house is that market?
6. How do you and your crops/products get to that market?

G. Agricultural decision Making

1. With regard to the major agricultural decisions your family makes, such as what crops to plant, who does what work, and so on, how is that done in your household? Describe and probe to see which category fits. If none fits accurately, use "other" and describe fully. (Probe: e.g., decision of male alone, joint male and female decision, female alone.)
2. Have you changed any of your farming practices recently (last year) based on advice given to you? (Probe: new uses of fertilizer, chemical weed control, pest control methods, etc.) Specify.
3. If yes to question above, who or what helped you to make that decision for each change mentioned? (Probe: relative outside the household, agricultural extension person, radio programme, advertisements about products, newspaper information, other.)
4. Have you in the last three years made any major changes in the cropping pattern you use? (Probe: major shift from bananas to vegetables, convert land to quite different uses, shift from farming for subsistence to cash crops, other.)
5. What major problems are you having for which you need help? (Probes: agricultural information on increasing productivity,

better credit opportunities, equipment or labour saving devices, better seed and fertilizer, veterinary assistance, help with crop disease control, irrigation, improved infrastructure such as roads and transport, other.)

6. Whom do you expect will farm this land when you are retired? And why?
7. Is there anything else you would like to tell me about the farm or the household which would help the University of the West Indies as it works to improve agricultural extension services to you?
8. And lastly, I would like to ask - When you receive a letter or subsidy card, or other written things, who in the family reads it? If says "I do" ask if willing to fill out short form. If says "My son _____ does," or "I do, but I have misplaced my glasses" move to the Thank you statement.

APPENDIX B

Identifying Data - Fill in as much as possible from the earlier questionnaire and verify with the female respondent.

A. Personal Characteristics

1. I see from the earlier questionnaire that you are _____ years old, is that correct?
2. And also I note that you are (Married/single), right?

Childhood

First I would like to ask a few questions about your childhood.

1. Where did you live when you were a child? Please describe it for me (if not obvious).
2. What did your father do to make a living? What about your mother?

Education

1. How many standards in school did you complete?
2. Any other education or training? (teacher training, nursing, hotel work, etc.)

Work History

In our earlier questionnaire we asked about your work in the home and on the farm. Now, I would like to ask a few questions about any work you may have done outside of the household.

1. Have you worked for wages outside the home at any time? If so, what was the first job you had? What type of work? Full or part time?
2. Current work outside of household?
Previously: 1st, 2nd, type of work? How long? Full or part time?
Currently: type of work? How long? Full or part time?

Health and Child Bearing

1. I note that you have _____ sons and _____ daughters living in the home. Is that correct?
2. Do you have other children who live in some other place?
Could you tell me their names?
Where do they live?
What kind of work they are doing?

3. Number of children living in household?
Sons _____ Daughters _____
(verify from other questionnaire)
4. Children living in other place?
Name Sex Living where Occupation

5. Let me be sure I have this correct. You have had a total of _____ children born alive, is that correct?
6. Are you currently pregnant?
7. Do you expect to have any more children? If so, how many more?
8. For a couple in your circumstances, what would be the best number of children to have had when your childbearing years are over? (If says, "up to God" or "fate" ask: What would be the best number to hope for?)
9. Next, I would like to ask a few questions about your past pregnancies. How old were you when you had your first baby?
10. In addition to the children recorded above, were you pregnant other times? Number?
11. In total then you have been pregnant _____ times? _____ are still alive, _____ were still born, and _____ number were born alive, but died later. Of the children who are now deceased, at what age did the death occur? What sex was the child and what was the cause of death?

Of deceased: Sex Age of death Cause of death

Births of Children

I would like next to ask a few questions about the births of your children.

1. Where were most of your children born? Did any doctor, or midwife help at the birth?
2. Were any of the births different from that?
3. What about your most recent birth?

4. Thinking about your most recent pregnancy, did you visit a clinic during the time of your pregnancy because of the pregnancy? How many times?

Breast-Feeding

1. Did you breast-feed your children? For how long did you do so for most of them?
2. With the most recent birth, how long did you breast-feed?
3. Do you stop breast-feeding all of a sudden, or gradually? What foods did you feed your baby when she/he started to eat real food?

Use of Clinic/Hospital

Now I want to ask a few questions about visiting a clinic or hospital.

1. You said that you did/did not visit the clinic during your pregnancy.
2. Did you go for other reasons in the past twelve months?
3. How often?
4. Did you take your baby to a clinic after the birth? When children get sick, some mothers will care for them at home, while others will take them to a hospital or clinic. Did any of your children go to a hospital or clinic for health reasons during the past twelve months?
5. If so, how many times and
6. What was the health problem?

Birth Control

1. Earlier I asked you about the ideal family size. Do you know of any methods couples use to keep having children? What are they?
2. Have you ever used any method to keep from having children?
3. Are you now using any of these methods?
4. What method?

B. Agricultural Tasks

Next, I would like to ask a few questions about the nature of the work you do on the farm, to supplement what we learned in our first visit to your home. Would you please describe your working day for me.

1. What time do you usually get up?
2. What is the first work you do in the morning, after you arise?
3. About how much time do you spend on work in the house such as cooking and cleaning?
4. How much time do you spend in work on the farming operation itself?
5. How about time spent on child care?
6. Does someone else help you with that?
7. What about time spent on marketing any extra farm products?
8. Take yesterday, for example, how did it differ from the day you have described for me above?
9. And finally, do you have any time for leisure?

C. Economic Responsibilities

(To be used if spend time marketing)

You have told me you spend some time on marketing activities?

1. With regard to the money which you earn, do you consider it to be your money?
2. What do you usually use it for?
3. Do you use the services of a bank or a cooperative for your financial transactions?
4. Do you now, or have you previously belonged to a meeting turn?
5. Who purchased the animals on your farm?
6. Who keeps the money from their products?
7. Do you receive remittances from relatives abroad?
8. Of the money you earned last year what proportion was spent on:

Food:

Clothing:

Rent/taxes:

Seeds, plants, tools:

Other:

9. Who in your household pays for the following things:

Food purchases at the grocery store:
Farm tools (e.g., cutlasses, hoes):
Seeds, plants:
Transport:
Children's clothes, shoes:
Children's school expenses:
Medical costs:
Other:

D. Farm and Household Technology

1. Do you save your own seeds for the next year? Do you use any kind of "natural" fertilizer? Do you make any of your own tools?
2. What kinds of tools do you own for farming? How often do they have to be replaced? How often do they have to be repaired?
3. Do you preserve or process any of the products you grow? If so, how? If not, why not?
4. What kind of cooking fuel do you use?
5. What kinds of utensils do you use for the preparation of food? (List.) What kind of utensils do you use for the eating of food?

E. Agricultural Information

1. How did you learn what you know about the best way to care for the various crops and animals you have on your land?
2. Do you ever have the opportunity to learn about agricultural work from the extension agent?
3. Has an agent visited you in the past twelve months?
4. Have you ever been provided with any agricultural services such as fertilizer or seeds?
5. What services would be most helpful to you in your farming operation? (Probe around educational assistance, credit, transportation, equipment, etc.)

F. Social Networks

1. Outside of your working hours, with whom do you spend any free time you have? (Probe: family members, non-family, social groups, etc.)
2. Do you belong to any organised (such as churches, etc.) formal group?

3. If so what is the purpose of the group?
4. What benefits do you gain from it?
5. Do you participate in other community social activity?
6. If yes, describe purpose and nature of your involvement.
7. It is interesting to know how people spend their free time. How would you spend your next Bank Holiday, if you could do just exactly what you would most like to?
8. Who, outside of your family members, do you talk to the most?

G. Relationships to outside World

1. By what means do you get news of events outside of the community you live in? (Probe: newspaper, radio, television, word of mouth, etc.) For example, what was the means by which you learned about the coming of Hurricane Allen last summer?
2. Who is your representative to the House of Assembly? Do you know him personally?
3. Who is the extension agent who works on this part of the island? What was the nature of the last time you can remember her/his having been there?
4. Who is the chairperson of the village council nearest to you?
5. In the event of a disaster, to whom would you initially go for help?
6. For example, in the hurricane last year, if you needed assistance, to whom did you go for help? What was the nature of the help you needed? Did you receive that assistance?
7. Whom do you consider to be the three most influential persons in your community? Why do you think so?
8. What person would have the most influence on your thinking about: (1) the future of the nation; (2) closer to home issues such as village improvements and (3) agricultural decisions made in your family.

H. Attitudes

1. What occupation would you choose for your children if you could do so? First, what about your sons? Daughters? If respondent does not say agriculture, ask why not?
2. Are there ways in which you believe agriculture might be made a more attractive occupation for young people?

3. What do you believe to be the major needs of this community?
(Probe: roads, electricity, water, jobs, health care, better schools, etc.)
4. And what about your personal needs, what are your principal unmet needs currently? (Probe: financial help, health care, more leisure, education, etc.)
5. How do you feel about farming as a way overall? (Probe: if you could start again, would you do the same work? Are there things you like about farming? dislike? What things could make life better on this farm?
6. What do you believe is principally responsible for the good and the bad things which happen to people in their everyday lives?
7. Do you believe that the roles which women play in society are changing today? If so, in which way?
8. Could you describe for me the way in which your life is different from that of your mother?
9. What kind of life would you like to have your daughter have?
10. If you had a relative in North America who started sending you money, what would he/they/you decide to spend it on?
11. If an agricultural extension officer spent considerable time with you next year, what would you like that agent to help you with?
(Probe for at least three tasks.)

Please answer the following question. Answer even if you do not have children. Answer even if you do not pay for child care at this time.

10. How much money would you pay for child care?
\$ _____ each day \$ _____ each week \$ _____ each month

Please circle your answer, for each question.

11. I work at a job, away from home.	Yes	No
I work at a job, in the home.	Yes	No
I work full time.	Yes	No
I work part time.	Yes	No

If you work at home, to make money, please write what you do.

12. Most women do some work in the home. Please put an X next to the work you do at home.

child care	clean house
cook or help with meals	yard work
wash or iron clothes	mending or sewing

13. How do you spend more than half your time at home? How many hours a day do you spend?

Write the number on each line.

14. How many animals are there at this house? There are:

Fowl	_____
Goats	_____
Sheep	_____
Pigs	_____
Donkeys	_____
Horses	_____
Cats	_____
Dogs	_____

Add the number of animals and put the total here. _____

15. There is a garden at this house. Yes No
We grow the following things in the garden:
Because of the food we grow, we save money every week. I estimate that we save _____ % (percent) of our money every week by eating the food we grow.

Please answer the following questions by writing the answers on the correct line. You may do the maths on this page.

16. Whether we grow food or not, we must also purchase food from a market.
I estimate that we spend \$ _____ every week on food.
I estimate we spend \$ _____ per month on food or about \$ _____ per day.
The amount of money we spend is _____ % (percent) of our weekly budget.
_____ % (percent) is spent on everything other than foods, each week.
-

Many people in St. Lucia like to read. Please answer the following questions about reading.

- | | | |
|---------------------------|-----|----|
| 17. I like to read. | Yes | No |
| I have time to read. | Yes | No |
| I read a newspaper. | Yes | No |
| Name of newspaper: | | |
| I read magazines. | Yes | No |
| Name of magazines: | | |
| I like to read books. | Yes | No |
| The last book I read was: | | |

Please put an X next to the right answer.

- I last read a book:
last week
last month
last year
more than a year ago.
-

18. It is often interesting to discover how people choose to spend whatever free time they may have. In St. Lucia, a Bank Holiday is often an opportunity for people to spend a day as they please. How would you spend the next bank holiday? What would you most like to do with a day free of work?

APPENDIX D : LIST OF INTERVIEWERS

Theresa Amos
Hospital Road
Castries
St. Lucia

Miranda Blackman
Flora Villa
Canaries
St. Lucia

Catherine d'Auvergne
Odsan, P.O. Box 153
Castries
St. Lucia

Cynthia Hinds
Union, La Clery
Castries
St. Lucia

Matilda Jean
Saltibus
Laborie
St. Lucia

Margaret Laurent
Arundell Hill
Castries
St. Lucia

Carmel Lionel
Jacmel
Roseau
St. Lucia

Sybil Lloyd
Summersdale
Castries
St. Lucia

Prisca Mangal
57 The Line
Micoud
St. Lucia

APPENDIX E : ST. LUCIA WORKSHOP - JUNE 10 - 11, 1981
PARTICIPANT LIST

Local Participants

Ministry of Agriculture - St. Lucia

David DeMarque -- Chief Agricultural Officer
Laurie Auguste - Chief Extension Officer
Florence Griffith - Agronomist
Rufina Jean - Agronomist
Marcia White - Statistical Officer
Glenda Clarke -- Agricultural Extension Officer
Mary Louis - Agricultural Extension Officer
Bernadine Evans - Agricultural Extension Officer
George Alcee - Agricultural Extension Officer
Allan Cumberbatch - Agricultural Extension Officer

Ministry of Youth, Community Development and Social Affairs

Martina Mathurin - Senior Community Development Officer responsible
for the Integration of Women in Development

Caribbean Research Centre - St. Lucia

Patricia Charles - Executive Secretary (Workshop Coordinator)

Interviewers

Nerissa Williams
Theresa Amos
Carmel Lionel
Matilda Jean
Miranda Blackman

Charmaine Gardener - Sociologist

Regional Agencies

Caribbean Agricultural Research and Development Institute (CARDI)

Ronnil Pilgrim
A. E. James

Windward Islands Banana Association (WINBAN)

Andrew Desir - Banana Development Officer

Overseas Participants

Peace Corps

Edward Cumberbatch -- Associate Director/Agriculture

Caribbean Agriculture Development and Technical Services (CARDATS)

Hugh Saul - Regional Marketing Specialist

Caribbean Agriculture Extension Project (CAEP)

Mike Patton - Team Leader

Olga Stavrakis - Belize

Anthony Philgence - Liaison Officer, St. Lucia

University of the West Indies

Women and Development Unit, (WAND), Pinelands

Peggy Antrobus - Tutor/Coordinator

Pat Ellis - Programme Officer (Workshop Coordinator)

Institute of Social and Economic Research (Cave Hill)

Joyce Cole

CARICOM Secretariat

Madga Pollard - Woman's Affairs Officer

Women in Development Inc. (WID)

Lynn Allison - Director

Mid-Western Universities Consortium for International Aid (MUCIA)

Professor Barbara Yates - Consultant

Professor Barbara Knudson - Consultant

Jeanne Campbell - WID Minnesota

United States Agency for International Development (USAID)

Tom King