INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE

INTER-AMERICAN DEVELOPMENT BANK

Program for the Analysis of Agricultural Policies vis-a-vis Women Food Producers in the Andean Region, the Southern Cone and the Caribbean

WOMEN FOOD PRODUCERS IN JAMAICA

NATIONAL SUMMARY

Faith Innerarity
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AREA OF CONCENTRATION IV
SUSTAINABLE RURAL DEVELOPMENT

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The authors of this document were consultants hired by the Program for the Analysis of Agricultural Policies vis-a-vis Women Food Producers in the Andean Region, the Southern Cone and the Caribbean (IICA/IDB). Therefore, the ideas, interpretations and conclusions expressed must be attributed to them, and do not necessarily reflect those of IICA, IDB or any of their Member States.

IICA's Editorial Service was responsible for the stylistic revision, typesetting and layout of this publication, and IICA's Print Shop for the printing.

Innerarity, Faith
Women food producers in Jamaica : national summary / Faith Innerarity, Conrad Smikle. — San Jose, C.R. : Inter-American Institute for Cooperation on Agriculture, 1996.
96 p. ; 28 cm.

Technical Cooperation Agreement IICA/IDB/ATN-SF-4064-RE. Program for the Analysis of Agricultural Policies vis-a-vis Women Food Producers in the Andean Region, the Southern Cone and the Caribbean.

1. Mujeres rurales - Jamaica. 2. Política agrícola - Jamaica. I. Smikle, Conrad. II. IICA. III. BID. IV. Título

AGRIS
E51

Dewey
305.4

February, 1996
San Jose, Costa Rica

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PREFACE

The Program for the Analysis of Agricultural Policies vis-a-vis Women Food Producers in the Andean Region, the Southern Cone and the Caribbean, executed by the Inter-American Institute for Cooperation on Agriculture (IICA) and financed by the Inter-American Development Bank (IDB) under Technical Cooperation Agreement ATN/SF-4064-RE, is the second phase of a program which included 18 countries in Latin America and the Caribbean: Barbados, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Suriname, Uruguay, and Venezuela.

The first phase of the Program was implemented in 1992-1993 in six countries in Central America, under the auspices of the Council of Central American Ministers of Agriculture. The second phase was carried out by request of the First Ladies during their Summit Meeting on the Economic Advancement of Rural Women, held in Geneva, Switzerland, in February 1992.

Through a better understanding of the economic and social roles played by women in small-scale agriculture, along with a critical analysis of national policies and programs focusing on the agricultural sector and on women, this joint IICA-BID program seeks to contribute to the reorientation and design of policy strategies for the sector and for rural development in general. The objective is to benefit women producers and the small agricultural units with which they are usually associated.

This document synthesizes national research results obtained over nearly a year during 1993-1994 and sets out the principal findings in the four research areas of the program, which were:

* *Analysis of the contributions of women to food production on small agricultural units and to the agricultural sector as a whole.*

* *Analysis of agricultural sector policies and programs and their effects on rural women.*

* *Evaluation of the technology utilized on small agricultural production units and the participation of women in these technological processes.*

* *A study of the roles of women in the processing and marketing of food products.*

Chapter I of this document looks at the contributions of women to national agricultural and food production through an analysis of secondary sources; a new estimate of total women employed in the agricultural sector is also provided. Chapters II, III and IV present syntheses of the principal findings of the IICA/BID Survey and other national studies on women agricultural producers. These chapters also analyze the participation of women in production, in technological processes, and in the processing and marketing of the output of small production units. An estimate of women's contribution to household income and family well-being is provided.

In spite of women's considerable contributions to all aspects of agriculture, from labor to marketing and financial management, they continue to be denied access to credit, training, extension and technology transfer, land tenure, and other benefits. This situation is analyzed in Chapter V.

Chapter VI presents conclusions and recommendations on policies and programs. While preliminary, these recommendations are intended to stimulate the formulation of new policy proposals, joint efforts with the agricultural and planning ministries, the offices of the First Ladies, and public and private agencies working in agricultural and rural development.

The methodology followed was based on the study of macroeconomic policy focused on agriculture, other sectoral policies, and their influence on the participation of women food producers.

I. PARTICIPATION OF WOMEN IN AGRICULTURAL PRODUCTION

In recent years, significant attention has been focused on bringing about substantial improvements in the economic and social well-being of rural women, particularly related to their experience of poverty; the reduction and eventual elimination of poverty is one of the greatest challenges confronting developing countries.

In the struggle against poverty, a top priority of rural development is increased agricultural output to ensure adequate and stable food supply and generate employment and income. A wide range of measures has generally been applied to stimulate economic growth in rural areas to improve productivity in crops and livestock. The principal strategies that have been employed include: agrarian reform for more equitable land distribution; promotion of appropriate technologies and sustainable farming practices; incentives to increase supply of production inputs and credit; strengthened support services, such as agricultural extension; and increased access to markets.

However, the impact of these efforts and their success in the long term closely depends on the extent to which opportunities are provided for participation by different groups of rural people. In this regard, the nature and level of women's involvement in processes of agricultural and rural development are critically important.

A. Agricultural Context and Food Production

As in many other developing countries, the agricultural sector in Jamaica plays a vital role in its national economy. An analysis of sectoral contribution to GDP shows agriculture lagging behind other sectors, although it still occupies a central position in the macro economy. In 1992, Jamaica's total GDP amounted to J$19.4 billion in current prices, and J$15.4 billion constant (1986) prices. The contribution of the agricultural sector was approximately J$5.8 billion at current prices, and J$1.3 billion at constant (1986) prices or approximately 7% of total GDP (Tables A.1 and A.2).

In spite of a declining trend in terms of contribution to GDP, the agriculture sector continues to provide employment for one-third of total labour force (Tables A.3 and A.4). This sector also remains a major contributor of foreign exchange earnings (See Table A.5).

Along with bauxite and alumina, agricultural commodities make up Jamaica's principal exports, with sugar and bananas being the leading traditional export crops.

Broadly defined, Jamaica's agricultural sector includes the following sub-sectors:

a) Export crops
b) Domestic crops
c) Livestock
d) Fisheries
e) Forestry

Among these sub-sectors, domestic crops, livestock and fisheries are the most critical for national food production requirements. Together they also constitute a large percentage of the agricultural sector's contribution to GDP. In 1992, for example, these three sub-sectors accounted for approximately J$3.7 billion at current prices or 64% of agriculture's share in GDP, whereas the export crop sub-sector accounted for an estimated J$781.9 million or 13.3%. In absolute terms, however, export crops generate much greater production value due to the significantly higher prices of these commodities as compared with agricultural produce sold and consumed locally.

Small farmers are principally responsible for national food production in Jamaica, operating under mixed farming systems rather than mono-cropping, which is typical of the large-scale export crops sub-sector.

Over fifty domestic food crops are grown, including roots and tubers, legumes, vegetables, fruits, cereals and condiments.

The Agriculture Production Index shows the domestic agriculture sub-sector experiencing more growth than export agriculture over the last decade (1981-1992) (See Table A.6). In 1992, for example, the index showed 10.6% growth in production over 1991, mainly due to an increase of 19.5% in domestic production supported by a 5.7% growth in export crops.

B. The Contribution of Women to Food Production

On the surface, agriculture may appear to be a male-dominated activity in Jamaica. However, on close examination there is overwhelming evidence that women make a significant contribution to agricultural output. Today, as in the pre-emancipation period when they controlled the provision grounds, women are intimately involved in food production and processing for both family consumption and the market place. They are represented in the agricultural labour force as own-account farmers, unpaid family labourers and paid agricultural workers. Measurement of this involvement in official statistics has been limited and generally grossly underestimated. A reassessment of this contribution based on the secondary data available reveals that a much higher percentage of women than commonly acknowledged are involved in agricultural production.

Women in farm households play a critical role in the cultivation, processing and marketing of domestic food. Taking into account women farm operators, wives and daughters who participate as unpaid family workers, female farm labourers, country higglers and women engaged in both community-based and commercial agroprocessing, Jamaican women make an impressive contribution to overall agricultural productivity.

When the employment of women in the total labour force is examined, it is clear that agriculture is one of the principal areas in which they are represented. Data on employment by sector and gender in 1982 and 1992 show the agricultural sector as the second major employer of women, after the general services sector (See Table A.7 - Appendix). Similarly, when the top ten occupational groups and categories for females are ranked, agriculture appears in the top three (See Table A.8)

The presence of women in agriculture is also reflected in the fact that they account for approximately 19% of farmers in the single-holders category.

A study undertaken in 1982 to assess the women's component of a major rural development project in Jamaica (Second Integrated Rural Development Project - IRDP II) showed that 22% of farm holdings were managed principally by women, and approximately 52% of the women were engaged in vegetable production in home gardens, 66% in animal husbandry and 26% in crop care for the total farm (Vosseler 1982).

Figures based on various censuses and surveys conducted from the early 1900s to the present indicate a decline in female representation in the agricultural labour force. However, some sources indicate that this apparent decline resulted from changes in the definition of "gainful employment." French (1988) points out, for example, that statistics compiled of female participation in the agricultural labour force (in 1911 and 1921) reported female participation to be approximately 55%, but by the time of the 1943 census it had declined to approximately 20%. This was due largely to a change in the definition of "gainful employment," which totally excluded from the labour force all women working in their own homes without salary or wages. This pattern also applied to the figures on females in own-account occupations, which declined drastically from 32,000 and 43,000 in 1911 and 1921 respectively, to 14,000 in 1943 (French 1988). The introduction to the 1953 census recognized the implications of this change in the definition of "gainful employment" and stated that:

> In 1943, women and children were thrown out of the labour force by the manner in which the definition of "gainful employment" was applied. The 1943 "gainfully occupied" concept was not closely comparable to the "productive population" of earlier censuses.

A re-estimation of women's employment in the sector undertaken for this study reveals that the actual number of women working in agriculture is more than double the official figure.

Labour force statistics for 1991 indicate that there were 61,600 women employed in agriculture, which leaves 72% (207,283) of the rural female population aged 14-64 and not attending school

unaccounted for in the agricultural labour force[1]. This number would include those working in other sectors, those classified as unemployed, "keeping house" or otherwise economically "inactive." Although in official statistics the labour force is broken down by industry groups, it is not indicated what proportion of industrial and service sector employees are in rural areas. However, based on the Statistical Institute's definition of "rural," there are very few non-agricultural activities or employment opportunities in rural areas[2]. In addition, rural unemployment rates are not available. The approach used in this study to re-estimate the number of females working in agriculture was therefore to establish criteria for reclassifying as "active" those classified as "inactive."

Table 1.1 Distribution of Rural Female Population

Rural pop. (1991 census)	1,180,379	49.5% total pop.
Rural female population	602,234	51% rural pop.
Rural female pop. aged 14-64	373,285	62% rural F/M pop.
Number in school	104,548	28% 14 + females
Number not in school	268,883	72% 14 + females
Number in agricultural labour force (official statistics)	61,600	16.5% F/M 14-64
Number not accounted for in agricultural labour force	207,283	83.5% F/M 14-64

It is known that single-holders account for virtually all farms in Jamaica (over 99%). Of the total number, 35,188 are operated by females, and it is therefore assumed that they would have been correctly classified as employed. Of the remaining 146,981 male-operated single-holder farms,

[1] The estimate of the female population over 14 years old attending school is based on percentages recorded in the 1982 census of females 14-64 islandwide; the 1991 figure was not available. However, this estimate is on the high side since, as the 1991 Labour Force Statistics show, only 14.5% of Jamaica's 14+ females were attending schools.

[2] An indirect definition is used, in that any place not classified as urban is rural. Urban is defined as any place with a population of 2,000 or more which incorporates territory devoted to commercial, industrial, transportational, government, residential or other purposes.

it is necessary to estimate how many would have at least one female family member working on the farm[3].

In this regard, one can state with a fair degree of accuracy that in Jamaica all women on small farms work in agricultural tasks, and that their participation becomes less certain as farm size increases. Therefore, to err on the conservative side, the male-operated farm number has been adjusted to include only farms of less than 5 acres, which equal 117,585 (Census of Agriculture 1978-79).

Not all of these farms have women, but male single-person households in Jamaica are less than 10% of all households. Assuming that 10% do not have women, the figure falls to 105,826. If there is only one female family member working on these "male"-operated farms, the total number of women working in agriculture would be 166,426 (61,600 + 105,826). This represents a tremendous increase (over 100%) above the official figure for females in the agricultural labour force.

It should be noted, though, that the figure of 166,426 females involved in agriculture leaves 20% (207,283) of the unaccounted female rural population aged 14-64 working in other sectors, as well as "economically inactive."

Based on official figures, the male agricultural labour force has ranged from 185,000 - 222,600 over the 1980-1992 period. What the re-estimation therefore indicates is that women are participating in the agricultural labour force in numbers relatively close to those recorded for men. It also means that their rate of participation is just under 50%, which is much greater than the 22- 32% officially recorded over the last decade, but fairly close to the 55% recorded before the National Census change in the definition of "gainful employment."

[3] These figures are based on the 1978/79 Agricultural Census.

II. CHARACTERISTICS OF THE PARTICIPATION OF WOMEN IN FOOD PRODUCTION

In Jamaica, the majority of women farmers are found among small holders, with average farm size being significantly less than for men (Table A.9). Any limitations of small-scale agriculture therefore affect women even more seriously than men.

Both male and female small holders concentrate their efforts on domestic crops in their farming systems, which normally include a mix of food crops, livestock (mainly small ruminants) and some export crops such as cocoa, coffee or pimento. In recent years, a number of food crops such as yams and other tubers have been produced for export under the label "non-traditional exports."

A 1988 study conducted in the western region indicated that women shared responsibility with men in tasks such as land preparation, planting, weeding/maintenance, application of fertilizer, harvesting, preservation/processing, management of livestock and marketing of crops and livestock (Ministry of Agriculture 1988).

An earlier study (1981) of rural families and women in agriculture in which respondents included women from St. Elizabeth, the major agricultural parish in Jamaica, had similar results. Seventy-six percent of interviewed women from farm households were engaged in some farming activity and 20% stated that farming was their main occupation. The women involved in farming did so at every level, including field work, animal husbandry, marketing and general farm management-related tasks. It was found that twice the number of women than men in the farm household acted independently in the determination of prices at which farm produce is sold. The number of times when there was consultation between both partners was equal to the number of times that the man alone made the decision. In 27% of these farm households, there were women who independently made decisions concerning changes in farming practices (Ministry of Agriculture 1981).

In addition, 72% of the women in farm families surveyed spent an average of 22 hours per week on farming activities. Seventy-three percent spent 20 or more hours on domestic activities each week.

The survey conducted in 1982 to evaluate the Home Economic/Women in Development component of the Second Integrated Rural Development Project (IRDP II) analyzed ten specific chores considered vital to the support of the farm family. Results showed that in addition to performing traditional domestic chores, women did most of the animal husbandry, gardening, higglering and record keeping. Women and girls in the household participated in every chore; men participated in seven and boys in only six (Vosseler 1982).

Results from the "Women Food Producers Survey" conducted for this study also confirm a high level of participation by women in agricultural food production activities. Of 150 respondents, 49% participated in at least one activity related to yam production and 73% in growing vegetables. These activities ranged from purchasing/preparation of planting materials and land preparation to harvesting. Forty-eight percent also participated in at least one on-farm processing

activity and in marketing produce. It should also be noted that more than 70% of most of the major food crops grown were marketed. Approximately 67% of the respondents were also involved in rearing livestock, mainly small stocks and poultry, and a few cattle.

Decision-making in respect to farm management was also very high, with 77% reporting that they independently made production and management decisions. This relates to the fact that 55% of the farm households surveyed were headed by women and 48% of all female respondents were themselves household heads (Table A.10).

Based on a 40-hour work week (though most of the women worked for many more hours), women's time was almost equally divided between productive and reproductive activities (mainly child care and food preparation). Only 7% of the respondents reported that men in their households participated in domestic chores (Table A.11).

Participation in farmer/community organisations was limited mainly to church activities, which in turn reflects the fact that Sunday was reported to be the day with most leisure time. A number of the women also reported involvement in Parent-Teachers Associations (Table A.12).

Limitations to Participation

Generally, small-farm production units are constrained by limited access to productive resources, namely land and capital. These farms have also been adversely affected by limitations in rural infrastructure, such as inadequate roads, irrigation facilities (where applicable), and marketing distribution networks.

Low levels of technical knowledge and minimal technology transfer resulting from poor extension and research linkages have also constituted a major hindrance to increased production and productivity. Women farmers have consistently been found to be at a greater disadvantage than their male counterparts in terms of access to land, credit and technology.

Among the respondents in the Women Food Producers Survey, average farm size was less than two ha and less than 20% owned the land on which they farmed or had titles in their names. Approximately 33% were operating on family land and only 2% had joint ownership with their male spouse. Only a minimal number (less than 10) had received credit and only a small percentage (less than 20%) had received agricultural training (Tables A.15 and A.16).

The principal problems they identified as hampering their operations were inadequate labour (61%) and lack of financing (57%). Some 7% pointed to gender discrimination (Table A.17).

Interestingly, the majority of respondents in the survey saw farming as a business, and though many had ambitions for their children to become "professionals," some did indicate that they would encourage their daughters to become farmers.

III. CHARACTERISTICS OF THE PARTICIPATION OF WOMEN IN THE PROCESSING AND MARKETING OF FOOD

A. Processing

The Women Food Producer Survey shows that a range of crops are being processed on small-scale production units. These include fruits, vegetables, legumes and tubers. For two of the 13 products reported to be processed, women have been the sole participants in this activity; in only one product —pickled meat— have men been involved in processing. Cassava is the crop most frequently processed (43% of the farms), providing three principal products: bammy, cassava flour and starch. According to the data, juices are the other main products being processed, accounting for 23% of the total number of farms with agro-processing activities (See Table A.18).

Processing cassava and fruit juices is traditional. The technologies used are very old, having been handed down from generation to generation. Most inputs are sourced locally, reflecting the dominant use of indigenous raw materials and traditional technologies.

The main factors that influence rural women's participation in agro-processing are demonstrated in a case study of two agro-processing projects involving women at the community level. The first is the St. Elizabeth Bammy Project. This project is perhaps the first attempt to modernize and commercialize cassava processing through community organisation of rural women. Although the project is over 20 years old and is judged to be potentially economically viable, it has never been able to operate on a sustained basis from internally generated revenues. It has continued to operate only because of periodic grants from government and external donor agencies. Each grant increment has served only to revive it from near expiration after the previous increment had been totally expended.

With this "stop and go" situation, participating women have lost interest and confidence in the project; as a consequence, the project at present has only a skeleton of its original membership and the scale of operation has been drastically reduced. It now awaits another grant.

The second case in point is the North Clarendon Development Project. This is also a community agro-processing project involving mostly rural women, but also includes men. Like the Cassava Project, this project uses indigenous raw materials and processes mainly mixed peels from a variety of fruits produced or gathered from the community. This project started in 1975 and is almost 20 years old.

Unlike the Cassava Project, it has been self-sustaining and has exploited marketing opportunities for its products. Community members have also remained loyal, motivated and interested. The main difference between the two projects lies in organisational and management aspects.

The Cassava Project had tentative management and, apparently, poor leadership. A proper management structure was never put in place. Its operation was based on the concept of a cooperative, but cooperative management structure was not fully implemented. In contrast, the North Clarendon project has had consistent leadership and a sound management structure. It

started under cooperative principles of management, but was changed to a limited liability company in which the shares were sold to the members. Furthermore, the company pursued a policy of training its members in all areas relevant to the operation of the business.

From this comparison of the two projects, it seems clear that, given the generally low educational level of rural women, the inability to identify good leadership and implement an appropriate management structure are perhaps the most important factors constraining women's participation in agro-processing at the community level.

In addition, the high price of locally produced raw materials has always been a problem for the agro-processing industry, whose products cannot compete with products processed from imported raw materials.

B. Marketing

In respect to marketing, data taken from the Women Food Producers Survey show that from the sample of 150 farms a total of 35 crops were produced and marketed (Table A.19).

For 19 selected crops, most of what is produced is marketed. The amount sold, as a percentage of the amount produced, ranged from a low of 52% for corn to a high of 91% for carrot. Only three crops —gungo peas, lettuce and corn— fell below 70%. The amount consumed as a percentage of amount produced has been generally quite low. These percentages range from a low of approximately 4% for carrot to a high of approximately 42% for corn.

From the results of the survey, it appears that small-scale producers sell the bulk (84%) of this produce at the farmgate (Table A.20). The central market ranks second to farmgate (9%), followed by neighborhood (5%).

Participation of family members in selling activities points to gender differences in the choice of market outlets as well as in the crops sold. Women appear to be involved in a wider range of crops than men. In fact, data show that men participated in selling only nine types of crops, while women are involved in all 35 listed. Women also appear to have a larger number of market outlets than men, selling in six market outlets as compared to three for men. With few exceptions, men sell all their crops at the farmgate, but most women do not. However, for both women and men the farmgate is the dominant outlet. Among the typical customers of small-scale producers, the higgler appears to be the most frequent (Table A.21 shows the distribution of customers by type of crop).

IV. THE TECHNOLOGICAL CONDITIONS OF WOMEN FOOD PRODUCERS AND THE TRANSFER OF TECHNOLOGY

Improved technology is one of the most important factors influencing productivity, but there are several elements of traditional technology which persist on the farms of small-scale producers, most notably the use of hand tools. In Jamaica, however, it appears that there are few alternatives, given the characteristically steep and sometimes stony slopes on which the vast majority of small farms are located.

The results of the Women Food Producers Survey show that women employ a wide range of inputs and that these inputs reflect both traditional and improved technologies.

In the case of planting material, there is an almost equal mix of traditional technology (53%) and improved technology (45%). This applies mainly to the production of vegetables, in which seeds are the sole planting material. In the case of other crops, however, there is a clear dominance of traditional materials (81%) over improved materials (33%) (Table A.22).

With respect to the use of commercial fertilizer, data show that the vast majority of the farms (90%) use this input. This is consistent with the findings of a recent baseline survey of fertilizer use in Jamaica, conducted by the Soil Nutrient for Agricultural Productivity (SNAP) GOJ/CIDA Project. According to that survey, 80% of farmers reported using fertilizers in 1992. It also showed that the main crops on which fertilizers were used in 1992 were yams, vegetables, coffee, sugarcane, bananas and legumes, and to a lesser extent cocoa, citrus and coconuts.

Sixty-eight percent of respondents in the Women Food Producers Survey indicated that they used fertilizers. Results also showed that 90% of the farms use inorganic fertilizers. There was some indication of inappropriate application of fertilizers, since quantities applied exceeded recommended practices.

Among the equipment and tools used by women on small-scale production units, the survey showed that hand tools dominated on almost all the farms surveyed (93.3%). Spraying equipment ranked second to hand tools (35%). The use of mechanical equipment, including the plough, tractor and mechanical digger, has been quite low. Together these account for less than 7% of the farms using equipment and tools. It is also significant that only 2% of the survey farms use irrigation equipment, and less than 1% use solar dryers.

As discussed earlier, the main types of recommended technology involve the use of certain inputs, typically fertilizers, agricultural chemicals and improved planting materials. Agricultural chemicals carry some health risk and must therefore be used in accordance with a set of precautions to minimize these risks. Such precautions include proper handling practices, storage facilities and the use of protective clothing. However, women food producers are poorly educated in the nature and use of these chemicals and therefore do not adequately appreciate the risks involved. Furthermore, they lack the resources for acquiring the necessary handling, storage and protective facilities. Considering also that women's participation in the use of agricultural chemicals is quite high, it is clear that in the present situation this element of improved technology exposes women to the associated health risks.

While the use of hand tools may not be considered an improved technology, it is in fact the dominant form of technology used by women food producers. This technology is considered inappropriate for two main reasons:

1. Hand tools are woefully inefficient when compared to motorized mechanical equipment.

2. A number of hand tools are not only inefficient but are clearly hazardous to women's health. For example, the use of hand forks and pick axes requires a great deal of physical force for pushing, lifting, and dragging, which makes them impractical for most women, particularly during pregnancy.

In the area of postharvest handling, traditional and indigenous technologies in storage, packaging and handling dominate. Apart from being inefficient, these do not otherwise pose any serious problems for women food producers. In the area of transportation, however, available facilities are inappropriate for the most part. Trucks, pick-ups, vans and passenger buses are the main means of transportation available to this group. These types of transportation are not designed to transport perishable commodities or even passengers, in the case of trucks and pick-ups. Women therefore suffer grave indignities in using these modes of transportation.

V. AGRICULTURAL POLICIES AND THE INSTITUTIONAL FRAMEWORK VIS-A-VIS WOMEN FOOD PRODUCERS

Since the early 1980s, agricultural policy has largely been determined within the framework of the Structural Adjustment Programme, designed to effect the transformation of Jamaica's economy through tight fiscal management and an export-oriented development strategy.

The institutional and policy reforms undertaken with the Structural Adjustment Programme stimulated new investments in large-scale commercial production in certain traditional exports such as citrus, coffee and bananas. The area of non-traditional exports (e.g., ornamental horticulture) also attracted a number of new investors and generated much interest among small- and medium-scale farmers. However, during the 1980s structural adjustment policies had a generally negative impact on small farmers. There has been no explicit gender focus in agricultural policies, but some programmes have been directed specifically at women.

A. Land Management Policy

Government has stated its commitment to ensuring that major decisions concerning land use are make within the context of a long-term plan aimed at achieving maximum efficiency within a framework of sustainable development.

Policy objectives and strategies therefore include:

i) substantially reducing idle land;

ii) ensuring that agricultural land use satisfies broad environmental and conservation requirements and, in particular, that soil erosion is reduced and the productivity of land is preserved or improved;

iii) discouraging the fragmentation of agricultural lands, so that economies of scale are achieved and improved land management practices put in place;

iv) promoting the use of agricultural lands in a manner that will:
- increase income in the rural areas, particularly among small farmers,
- improve access to resources and facilities for greater income generation, and
- improve social and economic infrastructure in rural areas.

In the divestment programme, priority is also being given to traditional hillside and other marginal farmers in need of arable lands. As part of the accompanying land use strategy in the critical watershed areas, alternative cropping patterns are being encouraged and emphasis placed on growing perennials to halt soil erosion and degradation. At the same time, a carefully designed programme of domestic food crop rotation is being promoted to ensure a measure of food security and self-sufficiency for farm households in the affected areas. Two major projects based on this model are currently being implemented: the Hillside Farmers Agricultural Support

Project (HFASP), funded by IFAD, and the Hillside Agricultural Project (HAP), funded by USAID.

B. Credit Policy

Since the 1980s, Jamaica's agricultural credit system has been rationalised with the creation of the Agricultural Credit Bank (ACB) of Jamaica. The ACB functions as a wholesale credit institution, its major objective being to mobilise public sector financing for agricultural credit through affiliated participating financial institutions, the People's Cooperative Banks (PCBs), as well as commercial banks. The bank has also been restructured and strengthened to improve the range of services provided to the farming community.

A major development since 1990 has been the application of market-driven lending rates for agricultural loans. For the purpose of setting the terms of loans rediscounted by the ACB, recognition has been given to two categories of farmers:

- Small farmers, defined as those with up to 10 ha of land.
- Medium and large farmers, defined as those with more than 10 ha of land.

Loans to small farmers re-discounted by the ACB are subject to the following terms and conditions resulting from agreements with the IBRD and IDB under the Agricultural Sector Adjustment Loan (ASAL):

i) Interest Rate: This must be equal to the weighted average yield of treasury bills.

ii) Loan Limit: A ceiling of US$5000 on the terms applicable to small farmers. Above this limit small farmers may only borrow additional funds based on terms applicable to medium and large farmers.

iii) Maximum Percentage of Financing by ACB: The ACB can finance up to 80% of the total cost of viable investment projects by small farmers.

Loans to medium and large farmers rediscounted by the ACB attract a rate of interest equal to the average yield of treasury bills or CDs, plus an additional margin determined by the approved financial institution. Financing is limited to 60% of the total cost of viable projects.

The application of market lending rates for agricultural credit has resulted in diminished borrowing, especially among small farmers, because of the high risk involved (Figure A.2). Consequently, the government has announced that for fiscal year 1994/1995 rebates will be granted to bring interest rates to a level of 30% for loans up to US$50,000 for new investments. This should provide needed relief in view of the fact that nominal interest rates for loans to small farmers soared as high as 49% in April 1992.

In an attempt to widen distribution channels for loans to small farmers, the ACB has also changed its credit policy to allow any qualified financial intermediary to rediscount loans for these farmers. Therefore, institutions such as credit unions can now access funds from the ACB to lend to farmers.

C. Technology Generation and Transfer Policy

The first explicit policy on technology was the Scientific Research Council (SRC) Law, in 1960. Under this law, the Council was empowered to:

a) Promote research on the use of indigenous raw materials.

b) Undertake management of scientific and technological information and coordinate scientific research within the public sector.

Following the establishment of the SRC, government continued to emphasize the importance of technology in the agricultural sector, as evidenced in the establishment of a number of regional, statutory and central government institutions, including seven agricultural research laboratories and agricultural research stations islandwide. In spite of these efforts, however, a number of specific problems have plagued the development and transfer of technology in Jamaica. The most important of these are the lack of focus on indigenous technology, poor science education, the shortage of research scientists, and failure to direct research toward the real needs of the productive sector.

It was against this background that the Science and Technology (S&T) Five-Year Plan was prepared as part of the 1990-1995 National Five-Year Plan. The specific aims of science and technology policy as contained in the plan are wide-ranging, but those with greatest relevancy to the agricultural sector are the following:

i) Assess, develop and manage (as appropriate) the nation's natural resources

ii) Utilize the results of worldwide research and development to strengthen productive sectors such as agriculture, industry and manufacturing

iii) Ensure that scientific and technological developments improve the welfare of citizens

iv) Increase the nation's competitiveness in trade

v) Enhance the cultural, social and economic development of the country and contribute to the programme of self-reliance

These policies are expected to redress the imbalance in technology-oriented development which has largely focused on traditional export crops with only marginal benefit for small producers because of their predominant involvement in the domestic crops food sector.

D. Agricultural Education and Training Policy

It is increasingly recognized in Jamaica and the Caribbean as a whole that greater emphasis on agricultural education and training is necessary in order to fully utilize resources and opportunities available for agricultural development.

Agricultural education has generally been focused toward specialized agricultural schools and colleges at the secondary and tertiary levels, but in recent times there has been an attempt to strengthen facilities for agricultural education at the primary level and in traditional high schools. Through the collaborative efforts of the Ministry of Agriculture and Ministry of Education, a programme for "Revitalization of School Gardens" is being implemented as part of the government's youth in agriculture thrust. This programme aims to reintroduce and strengthen the teaching of agricultural science by including practical training.

Vocational training in agriculture also forms part of government's Human Employment and Resource Training Programme (HEART), aimed at school drop-outs who lack employment skills.

There have also been a number of new initiatives in agricultural education and training at the regional level, spearheaded in the main by policymakers in the agricultural sector. These involve the Faculty of Agriculture, University of the West Indies (FA/UWI), and include the following:

i) Technology-oriented option added to the first degree programme in response to the concern of the ministers of agriculture that FA/UWI graduates were not being sufficiently exposed to practical training in agriculture.

ii) Continuing Education Programme in Agricultural Technology (CEPAT), established in July 1990 as a programme of FA/UWI. CEPAT's main objective is to fulfill the short-term training needs of the region by providing a mechanism for the rapid introduction of improved technologies in agriculture. Target groups include: interested farmers and other individuals; university graduates; diploma and certificate graduates of agricultural schools and other tertiary institutions in the region; secondary school graduates; and employees of agricultural organisations.

Educational statistics for the Caribbean and Jamaica in particular indicate that, overall, females are out-performing males; however, this disguises the fact that gender-biased specialisation along traditional lines is still evident in the educational system, including agricultural education. Currently, both the College of Agriculture (COA) in Jamaica and the FA/UWI have more male

than female graduates. Over the past four years, females have constituted between 22% - 38% of COA graduates and between 23% - 46% of FA/UWI graduates.

E. Marketing Policy

The importance of marketing to agricultural production has made agricultural marketing policies notable priorities. However, marketing policies affecting small-scale agricultural producers, including women, have been fewer and less sustained than those affecting large producers. Indeed, early policies appear to have focused largely on the export sub-sector, where small-scale producers have had limited involvement. Generally, agricultural marketing policies in Jamaica have tended to reflect the sectoral priorities of government over the years.

The creation and support of Commodity Boards has traditionally been the main government policy for marketing of traditional export crops. However, a significant policy shift in respect to traditional export crops came with the deregulation policies enunciated by government. This policy removed the monopoly power of Commodity Boards to market crops such as coffee and cocoa. As a result, a number of private marketing companies have sprung up in competition with the traditional commodity boards.

Traditionally, the marketing of domestic food crops has been the most problematic among agricultural products in Jamaica, and consequently clear policies in this area have always been a urgent need for the small-scale producers. There are many policies that have impacted directly or indirectly on the marketing of domestic food crops, but perhaps the most notable are:

a. Creation of the Agricultural Marketing Corporation (AMC) in 1963, which was the most significant policy for the domestic food-crops sub-sector in the 1960s and 1970s. This institution was dismantled in the early 1980s under the Structural Adjustment Programme.

b. Creation of a marketing division in the Ministry of Agriculture when the AMC was closed. This division was established to provide a range of services such as marketing information and intelligence, produce inspection and pre-clearance facilities, and services for exporting fresh produce.

c. Provision of parish markets, a policy that has been maintained by government over the years. The most recent initiatives include the "Sixteen Rural Markets Upgrading Project," and the "West Kingston Market Expansion Project," both funded by the IDB.

F. Extension and Rural Development Policies and Programmes

The latest initiative in regard to agricultural extension and rural development was the establishment of the Rural Agricultural Development Authority (RADA) in 1990, as a statutory arm of the Ministry of Agriculture in charge of extension. RADA is mandated to ensure the

provision of advisory services on production and marketing, and assist in the provision of social services to improve quality of life for rural families. RADA applies an integrated approach to rural development, involving coordination and collaboration with other community-based groups, including non-governmental organisations.

Extension officers attached to RADA are currently using various methods for maintaining continuous contact with farmers in the transfer of appropriate technology for increased production and productivity in crop and livestock enterprises. The principal methods employed include group meetings, training and field days, and individual farm visits.

Extension activities have revolved around implementation of the National Food Production Programme and its various sub-programmes, such as soil conservation, poultry production and other enterprises, under the government's Social and Economic Support Programme for vulnerable groups negatively affected by the adjustment process.

The Social Services/Home Economic Division of RADA, which principally has targets farm families and women, has also undertaken a number of activities complementary to the overall extension thrust. These include:

i) Training sessions for community groups on topics such as Food and Nutrition, Home Management, Consumer and Population Education, Crops and Livestock Production, Income-generating and Decision-making Skills.

ii) Assisting families to set up home gardens and distribute seeds and printed information on home gardening.

iii) Establishment of agro-processing projects and training in agro-processing.

The Social Services/Home Economics Division is currently receiving technical assistance from the Food and Agriculture Organisation (FAO) to train field staff and rural women in agro-processing techniques and to establish commercially viable projects for a range of processed products.

G. Existing Policies on Rural Women

In 1987, a National Policy Statement on Women was drafted by the Women's Bureau in Jamaica, with the collaboration of a number of agencies. This statement represented a major step in recognizing the need for a gender approach in policy formulation and was later adopted formally by Cabinet. Certain immediate goals were identified for various sectors, including agriculture. In reference to this sector, it was stated that:

> Recognizing the benefits to the economy and to women of increased opportunity and income in entrepreneurial and agricultural activities, the government will promote the

identification and upgrading of women's existing skills and promote new opportunities, as well as taking measures to address constraints such as access to credit, access to markets and the need for support services"[4]

Preparation of the National Five-Year Development Plan for 1990-1995 saw the elaboration of policies related to women. Women's potential contribution to rural development was addressed by the Women's Task Force, headed by the Bureau of Women's Affairs. Among the policy objectives and strategies outlined in the document produced by the task force (Five-Year Development Plan for Women 1990-1995), the following are related to rural women:

i) to devise appropriate systems of training for women in agriculture;

ii) to upgrade women's limited access to credit, marketing and support services in agriculture, with particular emphasis on women's entrepreneurial and agricultural activities;

iii) to mobilise farmers and unemployed women in the development of small community-based farm projects that will improve domestic food crop production.

Specific programme and project areas suggested include small farmers, with special emphasis on providing women farmers access to land, credit, and cooperatives; and collaboration with community councils and community organisers in devising training modules to enhance the development of micro-enterprises in agriculture.

Generally, implementation of the Women's Five-Year Plan has not been effective due to lack of integration with the respective sectoral plans.

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[4] Bureau of Women's Affairs, National Policy Statement on Women, 1987 Kingston, Jamaica.

VI. CONCLUSION AND RECOMMENDATIONS

The major conclusions and recommendations of this study cover the policy implications of women's access to productive resources, training, technology and marketing.

A. Conclusions

1. Productive resources and training

In general, government policy initiatives in the agricultural sector are intended to apply equally to men and women. It follows that participation in development projects and programmes is open to both. In reality, however, there is usually a marked differential in policy benefits accruing to men as compared with women. This is most pronounced in respect to access to productive resources such as land and credit, and participation in extension and training programmes. In these areas, women are represented in much smaller proportions than men, not only in absolute terms, but also in relation to their level of participation in agriculture, as reflected in official statistics which grossly underestimate their contribution.

Under the government land divestment programme, for example, women so far make up only 10% of the beneficiaries. Similarly, only 14% of loan recipients under the current IFAD/GOJ-funded Hillside Farmers' Support Project are women. In addition, with the exception of the activities under the umbrella of the Social Services/Home Economic Division of RADA, the principal benefactors of extension advisory services and technical training have been men, as they constitute over 70% of farmers attending field days organized to demonstrate agronomic practices and other farming technology.

Women's unequal access to resources and benefits of current policies and programmes within the agricultural sector usually cannot be traced to outright discrimination from a legal, regulatory or institutional standpoint. The factors that account for this state of affairs are largely related to cultural traditions, sometimes reinforced by stereotypes held by officials involved in rural development. For example, some women complain that male extension officers do not regard them as "serious" farmers.

Women themselves are unaware of policies and programmes from which they might benefit, which has also been a contributory factor to their limited access to agricultural development benefits.

Merely introducing a "Women's Plan" or implementing "Women's Projects" is not sufficient to overcome the constraints faced by female farmers. Agricultural planning must be undertaken within a gender sensitive framework which will allow specific focus on the needs of women, and also men, where this is warranted.

2. Technology

Although a fair number of improved technologies are available for small-scale producers in Jamaica, rates of adoption remain largely inadequate. Recommended practices are either not followed, as in the case of land use, cropping system and postharvest handling, or misused, as in the case of fertilizers and chemicals for crop care. As a consequence, productivity remains below expectations. Several factors appear to have contributed to this state of technology on the farms of small-scale producers generally, and on farms operated by women in particular:

a. The government agricultural extension service, the main agent for technology transfer, has never been provided with the resources for adequate coverage of the large number of producers.

b. The generally low educational level of small-scale food producers has seriously constrained their access to improved technologies through the print media, widely used in the form of pamphlets, brochures, labels, manuals, etc.

c. The operations of small-scale food producers are characterised by a persistent shortage of working capital, which is linked to their limited access to a credit. This has restricted the purchase of vital inputs relating to improved technologies.

d. The dual roles of women in production and reproduction have curtailed their participation in agricultural training activities, which are normally planned and executed without gender concerns.

Notwithstanding the availability of improved technologies in many aspects of small-scale agricultural production, much remains to be done. Research so far in the domestic food crops sub-sector has focused mainly on traditional problems such as varietal improvements, fertilizer use and disease control. Less attention has been placed on techniques which would take explicitly into account the inherent problems regarding water, terrain and the financial resource base of small-scale producers.

The prevalent use of traditional implements and tools on the farms of small-scale producers contributes to inefficiencies in production; in addition, some of these tools are clearly inappropriate for women, particularly during pregnancy. Under these circumstances, normal farming activities on women's farms are severely hampered.

Historically, less attention appears to have been given to developing technologies for food processing at the farm level than has been afforded to crop and livestock production, or even to postharvest handling. Until recently, whatever was accomplished in this area was restricted largely to the efforts of the government Food Technology Institute, but even in this case the focus has been on the formal agro-processing sub-sector. In recent years, however, a number of initiatives have been directed toward the development of agro-processing at the farm and community levels, with women playing leading roles. While market studies indicate positive

responses to products, the availability and price of raw material are serious constraints to the success of these operations.

3. Marketing

Women have been the leading distributors of agricultural commodities on the domestic market over many decades. Today, upwards of 20,000 women (popularly known as higglers) make a livelihood from this economic activity. Given an average household size of about five individuals, this occupation impacts directly on well over 100,000 family members annually. It is very likely that women will continue to hold this position during the foreseeable future, and that their numbers may even increase with greater production of the products they sell.

As small individual operators with generally low level of education, they lack many resources to provide themselves with the infrastructure, facilities and services required for carrying out marketing functions efficiently and economically. Accordingly, their operations are affected by:

a. The lack of appropriate techniques for storing, grading, packaging and general handling of commodities they trade, and of adequate facilities.

b. Reliance on private transportation services which are not designed for transport of perishable agricultural commodities or, in many cases, passengers.

c. Reliance on government market buildings which often do not provide basic amenities or marketing facilities; even when provided, they are usually not properly maintained.

As a consequence, not only are the higgler operations regarded as economically inefficient, but they themselves suffer great hardships and indignity in providing what is generally accepted as a very vital service. For the most part, their survival has been due to the resilience and resourcefulness they display.

B. Recommendations

1. Gender focus in policy formulation and resource allocation

Proposed actions are:

i) To improve the data base on women's and men's specific activities in food production processing and marketing, for use in policy formulation.

ii) To incorporate specific references to women, where appropriate, in the technical sections of the Five-Year National Development Plan, particularly the Agricultural Sector Plan,

and not simply in the separate "Women's Plan," where these issues will be overlooked by technical ministries.

iii) To reorient resource allocation in the agricultural sector, as well as monitoring and, where necessary, modifying the allocation of resources between men and women in mixed projects.

2. Increasing access to productive resources and credit

In order to increase women's access to land and investment capital, and raise productivity and income, the following measures are proposed:

i) To ensure that women and men have equal opportunities to secure land under the Land Titling Project.

ii) To ensure the implementation of inheritance laws by educating women as to their legal rights, so they can inherit a fair share of land and other real estate.

iii) To promote local informal savings groups and cooperatives with full participation by women to facilitate the financing of investments beyond the capability of individual small farmers.

iv) To provide training and assistance in financial management, savings and investment.

3. Access to training and extension

Extension services and training programmes could contribute more effectively to improvement of women's food production by adopting the following measures:

i) Emphasis on the role of women in food production in the curriculum of agricultural training institutions, particularly in extension and farm management.

ii) Restructuring of programmes carried out in farmer training centres to account for the technical needs, time and cultural constraints of women farmers.

iii) Development of appropriate teaching/learning aids which can be used by extension staff at field demonstrations and as reference material for farmers, bearing in mind literacy levels.

iv) Provision of effective training to women's groups in basic agricultural practices, so that they can serve as agricultural paraprofessionals to assist women involved in crop production, animal husbandry, fisheries and food processing.

4. Improving agricultural practices and technologies

a. Crops

The effective introduction of improved agronomic practices could be enhanced by fully involving women in the following:

i) Introducing new crops and improved varieties or expanding crops that are higher-yielding, more resistant to drought and disease, or have lower labour requirements.

ii) Introducing rotation and inter-cropping systems that maximize total output and returns on male and female labour.

iii) Encouraging the use of low-cost techniques for improving soil fertility.

iv) Controlling erosion through a variety of conservation methods.

b. Livestock

To improve livestock production, greater attention should be given to:

i) Involving women in feed improvement programmes and fodder/pasture management.

ii) Providing women with appropriate technologies for milking, processing and storage of dairy products.

iii) Fish farming, which could also be promoted among women, as it can often complement their other productive and domestic activities.

c. Food processing

Women's productivity could be improved by introducing appropriate technologies for the production and processing of food products. The design and diffusion of such technologies may be facilitated by:

i) Carrying out socio-economic surveys to identify women's constraints and potentials, to ensure that new technologies will not disrupt the balance of male and female labour input.

ii) Improving methods of food processing preservation and preparation, to enhance nutrient uptake, remove toxins and ensure that foods are hygienic.

iii) Manufacturing appropriate technologies locally, using local materials and cheap energy sources and involving women in design and testing where possible.

iv) Training men and women at the local level in the maintenance and repair of equipment produced locally or imported.

v) Combining research and extension efforts directed at raw material production for agro-processing, with the objective of reducing costs through increased productivity.

Women's participation in and benefits from commercialized food processing could also be improved by providing them with employment and income in the following ways:

i) Locating commercial processing plants in rural areas and, whenever possible, employing women on flexible time schedules and also purchasing women's home-processed produce for more refined, industrialized processing.

ii) Encouraging women's cooperative groups to operate larger-scale, more commercially viable enterprises.

5. Improving marketing

Improvements in women's productivity must be accompanied by increased access to marketing and storage facilities. This could be achieved by:

i) Improving marketing networks, particularly for fresh or processed food products which are produced in relatively small quantities, but which may have high economic or nutritional value.

ii) Promoting institutional development by organizing higglers into legal entities that would permit their ownership and sharing of appropriate marketing infrastructure, facilities and services. The producers' marketing organisation concept and the government's privatization programmes may be good starting points in considering a policy for higglers.

iii) Providing long-term credit for the provision of necessary facilities and services, including transportation.

In the final analysis, any programmes involving rural women and men must be placed within the context of overall rural development goals. The design of programmes would anticipate the effects of gender-related socio-cultural factors and the institutional environment.

As observed by a rural development expert, the interactions among policies, institutions, people, physical resources and technology are diverse and complex. Consequently, no single progamme package will be universally applicable; the specific local context must in the end be the decisive factor.

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APPENDIX

TABLES AND FIGURES

Table A.1. Gross domestic product, Jamaica, 1988 to 1992 (Current Prices) ($JM)

	1987	1988	1989	1990	1991	1992
Gross Domestic Product						
1. Agriculture, Forestry and Fishing	992	1392.6	1622.6	1973.1	3072.9	5777.4
1.1 Export Agriculture	189	201.6	192.8	257.4	366.2	781.9
1.2 Domestic Agriculture	510	896.4	1098.7	1251	2013.0	3748.9
1.3 Livestock and Hunting	197	195	215	336	527	959
1.4 Forestry and Logging	33	35	36	28	42	50
1.5 Fishing	64	64	81	102	125	238
2. Mines and Quarries	1147	1727.3	2199.3	2831.3	4816.6	6845.0
3. Manufacturing	3460	3810.2	4581.7	5929.0	8436.4	14 399.0
4. Construction and Installation	1405	2021.1	2672.4	3586.8	5564.7	9381.8
5. Transport, Communication and Public Utilities	2088	2342.8	2607.9	3450.6	4360.8	7418.6
6. Other Services	8095	9332.3	11,197.3	14,746.6	20,295.5	34,583.6
7. Less Imputed Service Charges	821	1190.5	1526.9	2004.5	2419.2	5422.6
Total Gross Domestic Product	16,364.9	19,435.8	23,354.3	30,512.9	44,127.7	72,982.8

Source: Economic and Social Survey, Jamaica 1992.

Table A.2. Gross domestic product in Jamaica for the 1987-1992 period (constant prices) ($JM)

	1987	1988	1989	1990	1991	1992
Gross Domestic Product						
1. Agriculture, Forestry and Fishing	889	1065.3	968.5	1080.2	1078.3	1217.0
1.1 Export Agriculture	151	162.9	149.5	159.4	158.5	158.8
1.2 Domestic Agriculture	447	650.6	572.9	647	651.9	796.3
1.3 Livestock and Hunting	204	168	170	206	201	195
1.4 Forestry and Logging	32	35	28	14	15	15
1.5 Fishing	54	49	50	54	52	52
2. Mines and Quarries	956	913.0	1238.1	1520.5	1606.7	1566.0
3. Manufacturing	3085	3308.3	3559.4	3706.4	3422.6	3455.4
4. Construction and Installation	1241	1424.6	1680.5	1707.2	1718.2	1725.5
5. Transport, Communication and Public Utilities	1986	2149.3	2277.9	2379.8	2464.2	2581.1
6. Other Services	7290	7538.6	7949.0	8380.6	8743.1	9293.6
7. Less Imputed Service Charges	678	989.5	1195.3	1365.2	1575.0	2171.2
Total Gross Domestic Product	14,768.5	15,409.6	16,478.1	17,409.5	17,458.1	17,667.4

Source: Economic and Social Survey, Jamaica 1992.

Table A.3 Employed labour force by sector in Jamaica in 1982 and 1992

Activity	Total 1982	Total 1992
Agriculture, Forestry and Fishing	278,100	245,500
Mines and Quarries	8,500	4,600
Manufacturing	109,300	99,200
Construction & Installation	45,600	59,300
Transport, Communications & Public Utilities	40,900	41,900
Other Services	437,000	449,800
Industry not specified	6,400	7,100
Total Employed Labour force	925,800	907,400

Source: Statistical Institute of Jamaica (STATIN).

Table A.4: Agricultural labour force trends, Jamaica 1980-1992

Year	Total Labour Force	No. in Agriculture Forestry and Fisheries	% Total Labour Force in Agriculture
1980	1,006,900	298,200	29.6
1981	1,022,900	285,000	27.9
1982	1,045,600	278,100	26.5
1983	1,026,300	258,000	25.1
1984	1,047,500	262,900	27.4
1985	1,049,800	287,800	26.1
1986	1,055,500	275,900	25.8
1987	1,079,200	278,500	25.3
1988	1,075,100	271,600	32.0
1989	1,058,500	250,000	23.62
1990	1,060,100	237,300	22.4
1991	1,076,600	258,400	24.0
1992	1,078,900	245,500	22.75

Source: Statistical Institute of Jamaica (STATIN).

Table A.5: Exports of traditional commodities during the 1988-1992 period (US$ 1000)

Period	Total Traditional Export	Bauxite	Alumina	Gypsum	Sugar	Bananas	Citrus and Citrus Produc.	Coffee and Coffee Produc.	Cocoa and Cocoa Produc.	Pimiento	Rum
1988	570,400	104,850	312,322	386	91,853	15,734	8,600	10,698	6,915	5,138	13,704
1989	712,664	111,028	474,896	275	67,658	19,360	4,119	10,166	4,491	4,590	16,081
1990	899,574	102,973	625,295	425	85,767	37,591	8,953	9,529	6,342	5,504	17,195
1992	830,151	112,913	542,959	551	87,446	45,109	4,454	12,221	5,510	3,544	15,444
	735,040	88,759	88,759	704	82,535	39,560	8,117	16,684	5,939	3,714	17,958
Percentage Change											
1989/1988	24.90	5.90	52.10	-53.10	-26.30	23.00	-52.10	-5.00	-35.10	-10.70	17.30
1990/1989	26.20	-7.30	31.70	54.50	26.80	94.20	117.40	-6.30	41.20	19.90	6.90
1991/1990	-7.70	9.70	-13.20	29.60	2.00	20.00	-50.30	28.30	-13.10	-35.60	-10.20
1992/1991	-11.50	-21.40	-13.20	27.80	-5.60	-12.30	82.20	36.50	7.80	4.80	16.30

Source: Economic and Social Survey, Jamaica 1992.

Table A.6: Agriculture production index in Jamaica for the 1981-1992 period (1981 = 100).

Year	Subsector				
	Export	Domestic	Meats & Poultry	Fisheries	Total
1981	100.00	100.00	100.00	100.00	100.00
1982	97.59	185.21	97.73	103.73	91.10
1983	102.53	95.40	102.33	106.06	99.10
1984	91.10	115.54	110.52	107.69	110.30
1985	94.31	109.32	100.73	111.42	106.20
1986	96.05	103.04	96.27	126.81	102.60
1987	100.87	106.15	98.73	124.71	103.50
1988	80.86	93.75	105.64	123.31	95.40
1989	85.86	91.72	107.68	124.71	95.70
1990	94.13	102.01	124.51	135.67	107.20
1991	103.42	102.04	120.13	131.70	107.40
1992	109.36	121.98	119.97	131.70	118.80

Source: Economic and Social Survey, Jamaica 1992.

Table A.7: Employment by sector and sex in Jamaica in 1982 and 1992

Activity	Total	Male	Female	Total	FeMale
		1982			1992
1. Agriculture, Foresty and Fishing	278,100	210,700	67,400	245,500	188,800
2. Mines and Quarries	8,500	7,000	1,500	4,600	4,200
3. Manufacturing	109,300	78,000	30,700	99,200	57,600
4. Construction and Installation	45,600	44,000	1,600	59,300	57,500
5. Transport, Communication and Public Utilities	40,900	30,800	10,100	41,900	38,200
6. Other Services	437,000	149,500	287,500	449,800	278,400
7. Industry not Specified	6,400	3,600	2,800	7,100	3,700
Total Employed Labour Force	925,800	524,200	401,600	907,400	589,900

Source: Statistical Institute of Jamaica (STATIN).

Table A.8: Top ten occupation groups for women in 1977 and 1987.

Occupations Group	Rank Order	Number Employed in 1000s	Rank Order	Number Employed in 1000s
Personal service occupations	1	53.3	1	74.8
Self-employed in distributive trades	2	36.7	2	50.8
Self- employed in agriculture	3	33.5	3	39.9
Clerical occupations	6	18.0	4	22.9
Workers in garment manufacturing	10	5.0	5	21.16
Unskilled workers in farming, fishing, etc.	4	29.3	6	20.6
Teaching occupations	5	21.1	7	18.4
Occupations in sales	7	13.9	8	15.7
Self- employed garment manufacturers	8	7.9	9	12.3
Health diagnosing and treating occupations	9	7.3	10	7.9

Source: People No. 3, 1990. A Newsletter of the Population Policy Co-ordinating Committee.

Table A.9: Single-holders: Number, hectares and average size of farm by sex in Jamaica in the 1978/1979 period.

	No. of Holders		No. of Hectares		Size of farm (Hectares)	
	Male	Female	Male	Female	Male	Female
ALL JAMAICA	146,981	35,188	291,487	38,790	1.98	1.10
St. Andrew	7,187	8,238	20,595	1,196	1.15	0.71
St. Thomas	9,206	2,289	16,085	1,941	1.75	0.85
Portland	7,031	1,390	18,382	1,534	2.61	1.10
St. Mary	10,195	2,225	20,392	2,676	2.00	1.20
St. Ann	12,640	2,297	28,116	3,241	2.22	1.41
Trelawny	8,524	2,094	19,489	1,767	2.29	0.84
St. James	7,115	1,447	16,480	2,082	2.32	1.44
Hanover	6,061	1,571	13,085	2,516	2.16	1.60
Westmoreland	14,053	3,439	30,560	4,839	2.18	1.41
St. Elizabeth	14,811	4,260	35,092	4,413	2.37	1.04
Manchester	14,070	4,043	23,354	3,965	1.66	0.98
Clarendon	19,172	4,627	33,167	4,681	1.173	1.01
St. Catherine	16,916	3,820	29,038	3,944	1.72	1.03

Source: Census of Agriculture 1978-1979, STATIN.

TABLE A.10: Women's participation in production and management decisions on farm, Jamaica 1993.

Resources	Decision Maker							
	Respondent		Man/Companion		Both		Other	
	N	%	N	%	N	%	N	%
Inputs-crop production	94	9.6	8	14.5	43	14.0	4	13.3
Purchase machine/equip.	46	4.7	10	18.2	17	5.5	1	3.3
Crops to be planted	106	10.8	4	7.3	37	12.0	3	10.0
Livestock to be raised	70	7.2	7	12.7	22	7.1	2	6.7
Products to be sold	115	11.7	2	3.6	24	7.8	1	3.3
What markets	107	10.9	2	3.6	15	4.9	3	10.0
Price of goods	100	10.2	4	7.3	11	3.6	7	23.3
Use of loans	34	3.5	4	7.3	12	3.9	1	3.3
Farm management	65	6.6	2	3.6	37	12.0	2	6.7
Use of profit	106	10.8	3	5.5	25	11.4	2	6.7
Organization of production	51	5.2	3	5.5	27	8.8	2	6.7
Hiring farm labour	83	8.5	6	10.9	27	8.8	2	6.7
Other	2	0.2	-	-	1	0.3	-	-

Source: Women Food Producers Survey, 1993.

Table A.11: Women's use of time in reproductive activities, Jamaica 1993.

Domestic Activities	Aver. Hrs. /Week
Prepare food	24.69
Gather firewood	2.60
Carry water	5.34
Wash clothes	6.66
Iron clothes	2.46
Clean house	5.02
Child care	28.80
Shopping	4.18
Repair house & furniture	4.22
Sew/mend clothes	1.37
Pay bills	1.59
Clean yard	5.70
Tend garden	11.63
Transport children/other	13.33

Source: Women Food Producers Survey, 1993.

Table A.12: **Women's participation in productive/community organizations, Jamaica 1993.**

Organization	Percentage of all Respondents	Level of Participation %			
		Not Stated	Often	Occasionally	Seldom
Sports club	2.6 (4)	100	-	-	-
Social club	2.6 (4)	-	50.0	50.0	-
Church club	62.0 (93)	-	63.4	26.8	9.2
Farmer organization	2.0 (3)	-	66.0	-	33.0
Community group	8.0 (12)		8.3	83.3	8.3
Parent/Teachers Association	32.0 (48)	2	43.7	41.7	12.6
Other	1.0 (2)	-	-	100	-

Source: Women Food Producers Survey, 1993.

Table A.13: Percentage distribution of farms by size and tenure, Jamaica 1993.

Size of Farm (ha)		Type of Tenure						
	TOTAL	Own	Rent	Lease	Family Land	Squatting	Joint Ownership	Other
Total	100% (150)	17.3	20	18.7	32.7	3.3	2.0	6.0
0.4	100%(24)	4.1	16.7	8.3	58.3	12.5	-	-
0.4 -<2.0	100% (96)	13.5	22.9	25	28.1	2.1	1.0	7.3
2.0 -<4.0	100% (22)	40.9	18.2	4.5	31.8	-	4.5	-
2.0 -<10.0	100%(8)	37.5	-	12.5	12.5	-	12.5	25.0

Source: Women Food Producers Survey, 1993.

Table A.14: Names on contract by type of tenure, Jamaica 1993.

Type Of Tenure	Name of Contract																					
	Total		No Response		Single Response		Married Response		Common Law Resp.		Other U/Status Response		Man/ Companion		Both		Response Family Name		Man's Family Name		Other	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Own	26	100	3	11.5	1	3.8	1	3.8	-	-	3	11.5	12	46.2	3	11.5	3	11.5	-	-	-	-
Rent	30	100	14	46.7	3	10.0	2	6.7	-	-	-	-	6	20.0	-	-	1	3.3	1	3.3	3	10.0
Lease	28	100	5	17.9	4	14.3	7	25.0	3	10.7	2	7.1	5	7.1	5	17.9	2	7.1	-	-	-	-
Family land	49	100	17	34.7	-	-	1	2.0	-	-	-	-	5	10.2	-	-	21	42.9	5	10.2	-	-
Share	7	100	3	42.9	-	-	-	-	-	-	-	-	-	-	-	-	1	14.3	-	-	3	42.9
Squatting	5	100	5	100	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-
Joint ownership	3	100	1	33.3	-	-	-	-	-	-	-	-	-	-	2	66.7	-	-	-	-	-	-
Other	2	100	2	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table A.15: Distribution of farms requesting loans and receiving loans, by applicant, Jamaica 1993.

Source of Loan	Farms that requested loans		Farms that received loans		Applicant			
	No.	%	No.	%	Women	Men	Both	Not Stated
Total	100	67	7	5	-	-	-	10%
AC Bank	15	15	2	2	-	100%	-	-
Credit Union	15	15	-	-	67%	33%	-	-
P C Bank	15	15	3	3	33%	67%	-	-
NGO	5	5	1	1	100%	-	-	-
Informal Lender	10	10	2	2	100%	-	-	-
Other	20	20	-	-	90%	-	-	-
Not Stated	15	15	-	-	33%	-	10%	-

Source: Women Food Producers Survey, 1993.

Table A.16: Area of training by persons who received training, Jamaica 1993.

Subject area	Who received training			
	Respondent	Man/ companion	Both	Other adult male
Seed selection/production	3	2	1	2
Use of fertilizers/pesticide	5	3	1	2
Postharvest storage	-	-	-	1
Marketing	3	-	-	1
Feeding & grazing	1	-	-	-
Farm management	1	1	-	1
Packaging	2	-	-	-
Processing	1	-	-	-

Source: Women Food Producers Survey, 1993.

Table A. 17: Principal problems faced by women farmers, Jamaica 1993.

Problems	No. of Women	As percentage of all women
Theft	17	11.33
Insects/pests/animals	29	19.33
Drought	45	30.00
Expensive inputs	48	32.00
Labour problems	92	61.33
Lack of financing	85	56.67
Lack of equipment	16	10.67
Spoilage	1	0.67
Lack of external assistance	3	2.00
Natural disaster	2	1.33
Lack of roads/ transportation	14	9.33
Lack of water	9	6.00
Low farmgate prices	24	16.00
Inadequate information	15	10.00
Lack of markets	6	4.00
Gender prejudices	10	6.67
Lack of technical assistance	1	0.67

Source: Women Food Producers Survey, 1993.

Table A.18: Processed products by family member participation in processing, Jamaica 1993.

Products	Total	Respondent	Man/companion	Other women
Bammy	41	38	-	3
Pastries	1	1	-	-
Cassava flour	9	9	-	-
Starch	4	4	-	-
Juices	29	29	-	-
Jams	5	5	-	-
Jellies	1	1	-	-
Pickled vegetables	5	5	-	-
Pickled meat.	6	4	2	-
Salted/roasted nuts	8	8	-	-
Peanut butter	1	1	-	-
Dried coffee beans	2	2	-	-
Other goods	13	13	-	-

Source: Women Food Producers Survey, 1993.

Table A.19: Production and disposal by crop, Jamaica 1993.

Crop	Amount Produced (kg)	Amount Consumed (kg)	Amount Lost (kg)	Amount Sold as (kg)	Amount Sold as % of amt.. produced	Amount Consumed as % of amt.. produced
Broad bean	45.36	45.35	0.00	0.00	0.00	100.00
Gungo	4 643.96	1 102.70	906.75	2 634.51	56.73	23.74
Red peas	4 387.39	628.69	430.01	3 280.68	74.78	23.74
Peanut	8 226.49	577.89	267.62	7 380.98	89.72	7.02
Beet root	46 239.98	130.60	45.36	46 063.99	99.62	0.28
Carrot	44 475.93	1 839.80	2 036.66	40 599.47	91.28	4.14
Turnip	775.66	49.90	226.80	498.96	64.33	6.43
Cabbage	36 669.02	2 068.42	7 216.78	27 383.83	74.68	5.64
Lettuce	18 230.18	657.72	6 822.14	10 627.85	58.30	3.61
Cauliflower	3 544.88	324.32	498.96	2 721.60	76.78	9.15
Celery	226.80	0.00	0.00	226.80	100.00	0.00
Pak choi	3 333.96	360.91	1 075.03	1 898.32	56.94	10.82
Zucchini	2 268.00	22.68	136.08	2 109.24	93.00	1.00
Broccoli	332.06	36.29	24.95	260.82	80.99	11.27
String bean	1 592.14	90.72	312.98	1 188.43	74.64	5.70
Tomato	81 457.49	3 229.63	8 260.06	69 967.80	85.89	3.96
Cucumber	5 066.71	360.61	623.70	4 082.40	80.57	7.12
Pumpkin	20 752.20	476.28	1 746.36	18 529.56	89.29	2.30
Escallion	9 609.52	415.04	780.19	8 414.28	87.56	4.32
Hot pepper	226.80	0.00	45.36	181.44	80.00	0.00
Sweet pepper	1 485.54	118.84	283.50	1 083.20	72.92	8.00
Thyme	90.72	0.00	0.00	90.72	100.00	0.00
Pimento	140.62	0.00	0.00	140.62	100.00	0.00
Green banana	1 528.63	294.84	0.00	1 233.79	80.71	19.29
Plantain	57.15	16.33	0.00	40.82	71.43	28.57
Melon	10 727.64	1 156.68	3 447.36	6 123.60	57.08	10.78
Corn	4 297.41	1 787.64	238.59	2 271.18	52.85	41.60
Irish potato	33 650.32	2 585.52	4 046.11	26 973.32	80.16	7.68
Sweet potato	10 491.77	1 828.01	1 292.76	7 371.00	70.26	17.42
Cassava	73 165.68	2 789.64	4 354.56	52 322.76	71.51	3.81
Coco	780.19	163.30	72.58	544.32	69.77	20.93
Dasheen	2 748.82	95.26	22.68	2 630.88	95.71	3.47
Yam	333 425.48	20 532.20	15 372.50	291 261.10	87.35	6.16
Coffee	261.27	0.00	0.00	261.27	100.00	0.00
Cocoa	158.76	22.68	0.00	136.08	85.71	14.29

Source: Women Food Producers Survey, 1993.

Table A.20: **Participation of family members in the sale of selected crops in typical market outlets, Jamaica 1993.**

	Place of Sale											
	Farm gate		Neighborhood		Village market		Town market		Central market		Factories	
Who sells	Women %	Men %	Women %	Men %	Women %	Men %	Women %	Men %	Women %	Men %	Women %	Men %
Red peas	88	100	6						6			
Beet root	100	50										50
Cabbage	79	100							21			
Cucumber	83	-							17	100		
Green banana	100	100	-									
Sweet potato	100	100										
Yam	87	60	4				6		3	40		
Coffee	100	100										

Source: Women Food Producers Survey, 1993.

Table A.21: Typical customers by crop type, Jamaica 1993.

Crops	Customer				
	Not stated (%)	Consumer (%)	Higgler/ hawker (%)	Agent/ middle-man (%)	Processor (%)
Gungo	-	17.65	82.35		-
Red peas	5.71	14.29	77.14	2.86	-
Peanut	-	6.25	93.75	-	-
Carrot	3.33	10.00	80.00	3.33	33.33
Cabbage	11.54	19.23	42.31	26.92	3.33
Lettuce	5.88	11.76	29.14	52.94	-
Cauliflower			10.00		-
Pak choi		11.11	44.44	44.44	-
String bean	14.29	14.29	57.14	14.29	
Tomato	8.33	11.11	77.78	2.78	
Cucumber	14.29	14.29	71.43	-	-
Pumpkin	-	-	71.43	28.57	-
Escallion	7.69	7.69	84.62	-	-
Sweet pepper		12.50	62.50	25.00	-
Corn	6.25	12.50	81.25	-	-
Irish potato	7.69	26.92	61.54	3.85	-
Sweet potato	-	21.43	78.57		-
Cassava		8.33	58.33		33.33
Yam		9.64	83.13	3.61	-

Source: Women Food Producers Survey, 1993.

Table A.22: Vegetables.

Indicator	Traditional technology	Improved technology
Planting materials: (improved varieties)		X
Land preparation (manual)	X	
Fertilization (NPK blends & straights) Fertilizer practices[a]		X
Weed control (manual) (chemical using herbicide)	X	
Pest & disease control (imported commercial pesticides & fungicides)		X
Production systems (inter-cropping & pure stands)		X
Postharvest handling & storage (makeshift facilities at room temperature)	X	

[a] Includes quantities used and methods of application.

Table A.23: Legumes and cereals (peas, beans and corn)

Indicator	Traditional technology	Improved technology
Planting materials: (seeds) (locally produced)	X	
Land preparation (manual)	X	
Fertilization (imported inorganic fertilizer: NPK)		X
Weed control (mainly manual)	X	
Production systems (inter-cropping & pure stands, layout & spacing arbitrary)	X	
Pest & disease control (imported commercial agricultural chemicals)		X
Postharvest handling (traditional methods of drying, storing, threshing, shelling)	X	

Table A.24: Plantains and bananas

Indicator	Traditional technology	Improved technology
Planting materials: (suckers, in the case of improved varieties)		X
Land preparation (manual, using hand tools)	X	
Fertilization (commercial NPK blends & straights)		X
Weed control (mainly using herbicide)		X
Pest & disease control (imported agricultural chemicals)		X
Production systems (inter-cropping & pure stands)		X

Table A.25: Root crops (yams, sweet potato, dasheen and cassava)

Indicator	Traditional technology	Improved technology
Planting materials: (recycled vegetable material)	X	
Land preparation (manual, using hand tools)	X	
Fertilization (commercial NPK blends & straights)		X
Weed control (manual, using hand tools)	X	
Pest & disease control (chemicals imported)		X
Production systems (inter-cropping & pure stands)	X	
Post-harvest handling storage (makeshift storage facilities)	X	

Figure A.1. Agricultural labor force trends by sex in Jamaica in the 1980-1992 period.

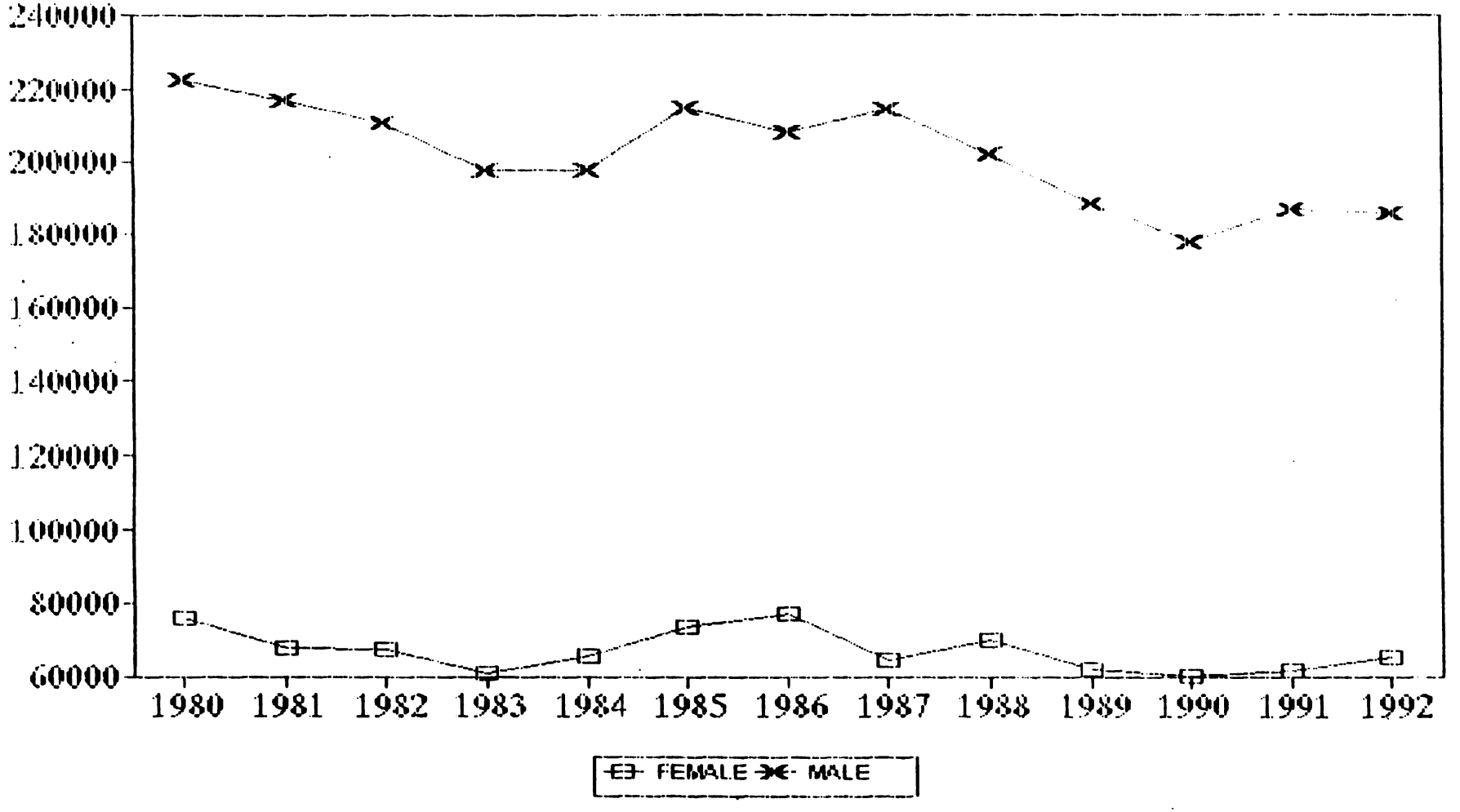

Figure A.2. Loan allocation to agricultural sector in Jamaica in the 1987-1992 period (J$000).

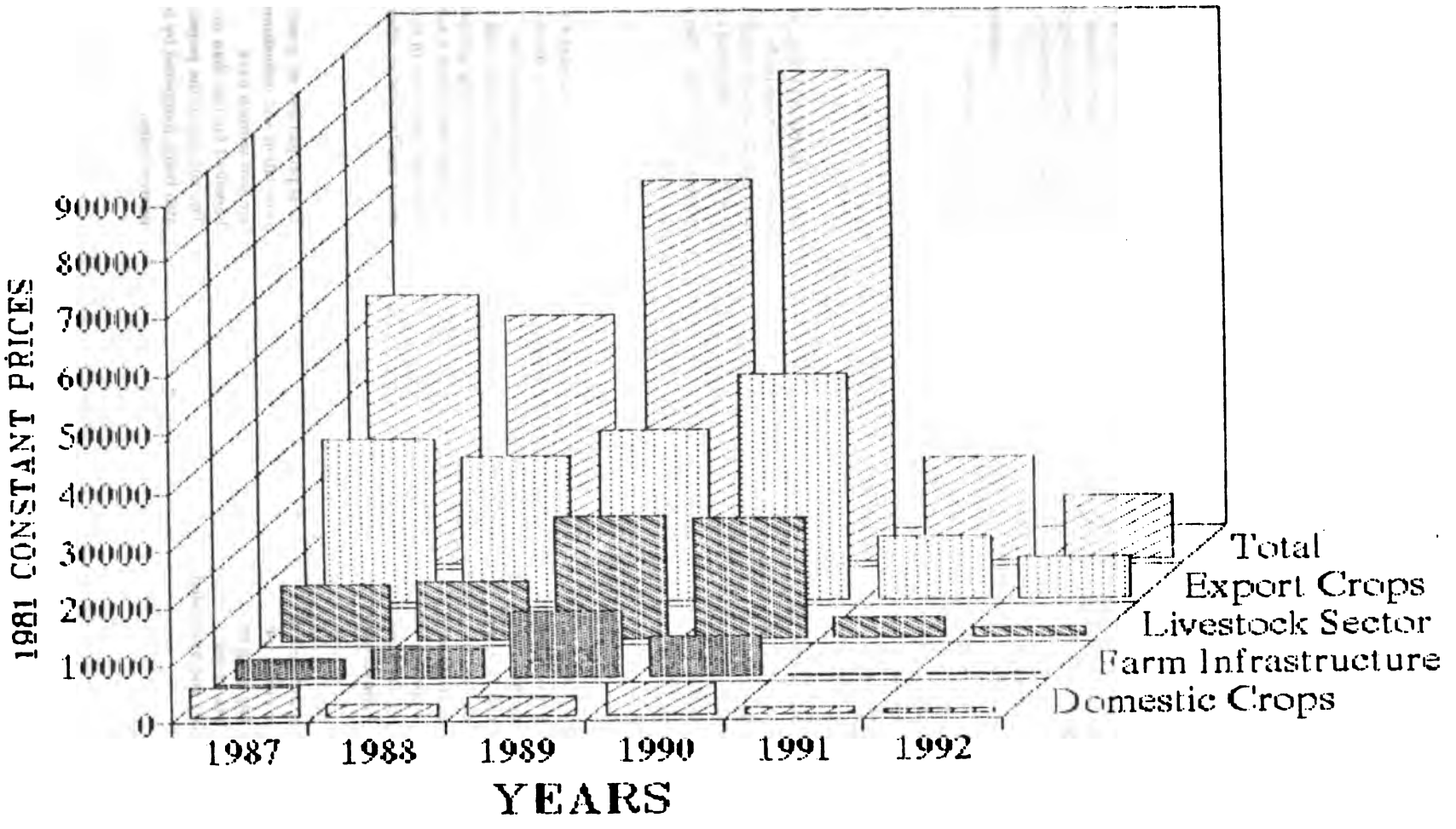

Table A.26: Agricultural and rural development policies and programmes - Jamaica 1980-1993

Policies and Programmes	Description	Orientations by size of producer: Small	Medium	Large	Gender orientation: Women farmer	Other women	Comments
I. Land policy							
a. Land divestment programme	In an effort to reduce land idleness and increase production, large tracts of unutilized government lands are sub-divided and distributed to farmers on both freehold and lease-hold basis. This includes leasing/selling of government lands to investors for large-scale commercial agricultural projects.	o	o	o			There is no gender focus in this programme, but the majority of beneficiaries are men. Young agricultural graduates have been targeted for special consideration. Political favouritism is the most frequent problem associated with this programme.
b. Land titling project	Improvement in facilities and process for issuance of registered titles to government land settlement properties. Target of issuing 12 000 titles was set.	o					Since inception (1989), this project has been fairly successful and will reach its target by the scheduled end of project date (1994). There is no gender focus.
c. Small farmers development programme	Implemented 1983-1988. This programme provided credit and extension assistance to small farmers to increase production of a range or domestic food crops. Special emphasis was also placed on on-farm and community soil conservation techniques.	o					This was the first major small farmer credit programme implemented under the rationalized system, and served as a testing ground for its producers. It had a mixed outcome, successes in some areas and failures in others.
d. Hillside farmers support project (IFAD/GOJ)	Six-year project initiated in 1990 to provide credit for small farmers engaging in cultivation of tree crops (coffee & cocoa) and associated inter-crops.	o					This project has no gender orientation and indications are that women have benefited far less than men. The success of the project is also being hampered by high interest rates.

Table A.26: Agricultural and rural development policies and programmes - Jamaica 1980-1993 (cont.).

Policies and Programmes	Description	Orientations by size of producer			Gender orientation		Comments
		Small	Medium	Large	Women farmer	Other women	
II. Credit policy							
a. Rationalization of agricultural credit institutional framework	This was marked by the creation of the Agricultural Credit Bank (ACE) in 1981 to function as wholesaler of agricultural credit through network of Peoples' Co-operative Banks (PCBs), commercial banks and other financial intermediaries.	o	o	o			This step was takem to improve the credit delivery system for agriculture, with emphasis on supervised credit to eliminate high rates of arrears on agricultural loans, particularly among small farmers. The ACB has successfully upgraded the operations of a number of PCBs and has drastically reduced arrears in the systems.
b. Introduction of market-led interest rates under the Agricultural Sector Loan (ASAL)	Since 1990, this effectively brought interest rates in the agricultural sector to market rates by linking them with the yield of treasury bills.		o				This policy brought an end to subsidized lending in the sector and drastically reduced effective demand for loans, especially among small farmers.

Table A.26: Agricultural and rural development policies and programmes - Jamaica 1980-1993 (cont.)

Policies and Programmes	Description	Orientations by size of producer			Gender orientation		Comments
		Small	Medium	Large	Women farmer	Other women	
III. Agricultural Extension and Rural Development -Creation of Rural Agricultural Development Authority	This is the most significant policy initiative of the last decade. RADA, a statutory body, is now responsible for extension functions previously undertaken by the Ministry of Agriculture. RADA's mandate is to provide an efficient and effective extension service to farmers, resulting ultimately in an improved standard of living for the rural family.	o	o			o	Generally, effectiveness of RADA has been hindered by staff cuts at the field level with the "down-sizing" of the public sector. Men are reported to benefit more than women in general extension activities, but there is a distinctive focus on women in its home economics/ social services programmes.

Table A.27: Women's programmes in Jamaica 1980-1993

Institutions, Programmes and Projects	Descriptions	Types of Programmes							Orientation		Results/Comments
		Welfare	Reproductive activities	Animal husbandry	Productive Activities Agricultural			Others	Rural women	Urban women	
					Pre-harvest	Post-harvest & Agro-indus.	Marketing				
I. Public Institutions a. Ministry of Labour, Social Security and Welfare/Bureau of Women's Affairs	Established in 1975. Is responsible for policy and research on women, public education project development and monitoring; full staff complement is ten.	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Has generally been effective in creating public awareness of women's issues, but is hampered by limited staff.
i) National Policy Statement on Women	The BWA serves as co-ordinator for inter-ministry committee to monitor and review implementation of development policies and plans relating to women.	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Policy statement and National Five-Years Plan for women have not been effectively implemented due mainly to institutional weaknesses.
ii) Develop Plan for Women in National Five-Year Plan 1990-1995		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	
iii) Parish Advisory Committees (PAC)	BWA has strong, wide-ranging rural focus through the PACs, which initiate and implement projects and lobby on behalf of local women's groups. PACs are comprised of volunteers from varied professional and socio-economic backgrounds.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	The PACs are dynamic in rural areas and have been exposed to significant amounts of training on gender issues.

Table A.27: Women's Programmes in Jamaica 1980-1993 (cont.)

Institutions, Programmes and Projects	Descriptions	Types of Programmes							Orientation		Results/Comments
		Welfare	Reproductive activities	Animal husbandry	Productive Activities Agricultural			Others	Rural women	Urban women	
					Pre-harvest	Post-harvest & Agro-indus.	Marketing				
b. Ministry of Health, Primary Health Care Programme	Specific components for reduction of maternal and child mortality and promotion of better nutrition for pregnant and lactating mothers.	Yes	Yes						Yes	Yes	These programmes have been very successful because there has been significant reduction in maternal death and infant and child mortality
c. Ministry of Agriculture/Rural Agriculture Develop. Authority (RADA)											
i) Rural Farm Family Dev. Programme	Provides training for women in production and processing family life, education.	Yes	Yes	Yes	Yes	Yes	Yes		Yes		This programme has strong home economics orientation, but is also very effective in increasing food production by women.
ii) Kitchen Gardens	Planting vegetables for home consumption and rearing of small stocks.	Yes	Yes	Yes	Yes	Yes	Yes		Yes		Generated much participation by both rural and urban women

Table A.27: Women's programmes in Jamaica 1980-1993 (cont.)

Institutions, Programmes and Projects	Descriptions	Types of Programmes							Orientation		
		Welfare	Reproductive activities	Animal husbandry	Productive Activities Agricultural			Others	Rural women	Urban women	Results/Comments
					Pre-harvest	Post-harvest & Agro-indus.	Marketing				
II. Political Groups											
a. Peoples National Party (PNP) Women's Movement	These are the women's arms of the two major political parties and are focused on a wide range of social and economic issues affecting women.		Yes	Yes				Yes	Yes	Yes	These groups have been most effective in lobbying on socio-economic issues affecting women.
b. Women's Arm of the Jamaica Labour Party (JLP)			Yes	Yes				Yes	Yes	Yes	They have also assisted in bringing about legislative changes beneficial to women.
c. Women's Political Caucus	Broad-based group with no specific party affiliation; basic objective is to increase women's participation in the political process.							Yes	Yes	Yes	The political caucus has participation of many high-profile women, but its impact is not yet very strong.

Table A.27: Women's programmes in Jamaica 1980-1993 (cont.)

Institutions, Programmes and Projects	Descriptions	Types of Programmes							Orientation		Results/Comments
		Welfare	Reproductive activities	Animal husbandry	Productive Activities Agricultural			Others	Rural Women	Urban women	
					Pre-harvest	Post-harvest & Agro-indus.	Marketing				
III. Non-Government Organizations (NGOs)											
a. Association of Women's Organizations in Jamaica (AWOJA)	This is an umbrella organization seeking to represent common interests of all women's groups for more effective action on behalf of women.							Yes	Yes	Yes	This organization has been involved in a wide range of ties such as workshops, newsletters, exhibitions, as well as education and economic ventures. Significant impact in creating public awareness of women's issues.
b. Women's Centre of Jamaica Foundation	Main function is the operation of a programme for adolescent mothers. This involves education, training and counseling.	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Has been very effective in reducing repeat teenage pregnancies.
c. Sistren Theatre Collective	Dramatic presentations and research on women's issues	Yes	Yes					Yes	Yes	Yes	Has strong grassroots appeal.
d. U.W.I. Women's Study Group	Research and seminars is the major focus.							Yes	Yes	Yes	Significant research on women in the Caribbean has been

undertaken.

Table A.27: Women's programmes in Jamaica 1980-1993 (cont.)

Institutions, Programmes and Projects	Descriptions	Types of Programmes								Orientation	Results/Comments
					Productive Activities Agricultural						
		Welfare	Reproductive activities	Animal husbandry	Pre-harvest	Post-harvest & Agro-indus.	Mar-keting	Others	Rural Women	Urban women	
IV. International Agencies											
a. UNICEF debt swap funds implemented through BWA	The overall objective of this project is to organize women in all 14 parishes in Jamaica to meet their basic needs, such as health, education, housing, employment and a safe environment for themselves and for their children.	Yes	Yes					Yes	Yes	Yes	This programme has been effective in strengthening the operations of the Parish Advisory Committees of the Bureau of Women's Affairs.
b. Food and Agriculture Organization (FAO)											
i) Pilot Project for Strengthening of the Rural Farm Family Develop. Programme.	Technical assistances, training and credit.		Yes	Yes	Yes	Yes	Yes	Yes	Yes		Very successful in western region, but funding was not available for expansion island-wide.
ii) Agro-Processing Project	Training for RADA field staff and rural women.		Yes			Yes	Yes		Yes		Effective in technology transfer for agro-processing.

PROJECT PROFILES

PROJECT PROFILE

Title: **Improvement of Statistics and Data Bases on Gender in Agricultural Development in Jamaica.**

Problem/Justification

Over the last decade, there has been a growing number of studies on the role of women in agricultural production and rural development. Notwithstanding, there is still a considerable data gap with respect to comparative analyses of the nature and scope of the respective participation of men and women in the production process. This poses a limit on the extent to which a gender framework can be applied in agricultural planning and policy formulation.

Gender-specific information is not only important for an accurate measurement of the contribution of women to agriculture, but is also necessary to provide indicators of equality or inequality between men and women.

In addition, gender differentials are most critical when establishing poverty lines, in order to distinguish the relative situation of women and men who are living in absolute poverty, and to assess the extent of which sex biases contribute to such conditions.

The production, analysis and dissemination of meaningful gender-based data will also assist in dispelling misconceptions that have developed concerning women's role in the agricultural and rural development thrust. This should result in greater consideration being given to women's needs at both social and economic levels, and also serve to increase their visibility as they participate in and benefit from the economic and social life of the country.

Goal

The goal of the project is to provide a comprehensive gender-disaggregated data base to increase the effectiveness of planning and policy formulation for agricultural development, thereby enhancing the full participation of both men and women in the process.

Specific Objectives

The specific objectives are:

1. To collect, analyze, retrieve and disseminate gender-specific data on agricultural production, processing, and marketing in rural areas.

2. To use the data base established to develop a framework for the effective incorporation of gender in agricultural planning, including policy formulation and the design of projects and programmes.

Expected Outputs

The expected outputs include:

1. Established data bank of accurate gender-based data and information covering economic, social, decision-making and all other relevant spheres in the rural agricultural sector.

2. Acceptance and practice of gender sensitivity at all levels of the agricultural planning system.

3. Increased recognition of the contribution of women relative to that of men in agricultural development.

4. Availability of more valid and reliable data on the role of gender in development.

Activities

1. Revision of definitions and concepts used in determining the economically active population by the Statistical Institute (STATIN).

2. Disaggregation by gender of all standard data items collected by STATIN.

3. Undertake rural/urban disaggregation of official statistics.

4. Through national censuses and surveys, as well as special studies, collect gender-disaggregated data on rural population in the following subject areas:

a. Economic sphere

-Economic activity of population
-Income
-Production and distribution
-Access to means of production
-Participation in agricultural rural production.

b. Social sphere

-Demographic features of the population

-Household type and composition
-Time use
-Education
-Nutrition and food consumption
-Housing and facilities

c. Decision-making sphere

Expected Duration

It is expected that at least four years would be required to implement this system.

Estimated Cost

-Administration	$192 625
-Development of survey instruments	$89 328
-Training	$104 405
-Enumeration	$973 538
-Data processing	$12 682
-Dissemination	$61 843
TOTAL	$1 434 421

Executing Agency

The Statistical Institute of Jamaica in collaboration with the Data Bank and Evaluation Division of the Ministry of Agriculture.

PROJECT PROFILE

Title: Informal Credit System for Agricultural Producers

Problem/Justification

Small farmers as a group and women in particular experience difficulties in accessing credit from formal banking institutions, due mainly to lack of collateral and high interest rates. Within the context of a liberalized, market-driven economy, this problem becomes more acute.

In Asia and Africa, a number of innovative credit systems have been successfully utilized by mainly female small-scale producers. These include the Grameen Bank in Bangladesh and the informal savings collectors in Ghana known as "Susu."

The traditional partner system in Jamaica is very similar in nature to the West African "Susu" and can be successfully promoted to mobilise funds for use by both men and women in small farm development.

Goal

To increase the access of female and male small-scale producers to credit for agricultural production through the development of informal systems of savings and loans groups, using cooperative principles.

Specific Objectives

1. To develop an informal rural financial services network which could serve as intermediary to formal systems.

2. To promote rural savings.

3. To expand the scope and potential of the traditional "partner" system.

4. To create a locally-based pool of funds for lending to small-scale producers.

Expected Outputs

1. Network of small-farmer savings groups islandwide with full participation by women.

2. Availability of low-cost credit to small farmers with equal access by men and women to these resources.

3. Increased on-farm investments and greater productivity of small-scale producers.

Activities

1. Review and analysis of the functions of the traditional "partner" system as it relates to rural areas.

2. Promotion and organisation of small-farmer savings group with special efforts to incorporate the participation of women.

3. Conducting training in financial management and cooperative development among small farmers, ensuring equal participation of men and women.

4. Design of a rural informal credit network with mechanisms for linkage with the formal financial services sector.

Expected Duration

A period of three years would be required to organize and establish this informal credit system.

Estimated Costs

		US
1.	Administration Expenses	
	Project management	180 000
	Administrative support	30 000
2.	Technical Assistance	
	Institutional develop. specialist	100 000
	Credit specialist	100 000
3.	Training Courses	50 000
4.	Equipment	
	Vehicles	40 000
	Training equipment	15 000
5.	Study of Informal Credit System	90 000
	TOTAL	605,000

Executing Agency

The Association of Development Agencies (ADA), in close collaboration with the Rural Agricultural Development Authority (RADA) and the Agricultural Credit Bank of Jamaica (ACB).

PROJECT PROFILE

Title: Extension Training Programme for Women Food Producers in Jamaica

Prepared under the IDB/IICA Women Food Producers Study 1993/1994

1. Summary

This project plans to train some 4000 women farmers in the application of improved farming practices including the proper use of fertilizers, agricultural chemicals, the Mini-sett yam technology, and other improved farming practices. The main objective will be to improve the productivity of small-scale women producers.

Training will be provided through on-farm demonstrations on some 80 plots strategically located in the parishes of Trelawny, Manchester and St. Ann. A public education awareness programme will be an integral part of the training strategy. A technical assistance team involving agricultural extension, gender issues and subject matter specialists will design and deliver the training.

The project will be implemented through RADA under the Technology Transfer and Training Division. A project manager will be assigned specific responsibility for implementation.

The project is estimated to cost just over US$ 1 million and will have a duration of some five years.

2. Problem Statement

Agriculture continues to be the fastest-growing sector in the Jamaican economy, growing at 8.8% in 1993 and accounting for 24% of the employed labour force that year.

Women food producers account for between 20% to 25% of independent farmers. In absolute terms, this amounts to between 35,000 - 40,000 female farmers islandwide.

Domestic food crops comprise the bulk of agricultural production and are produced largely by small-scale producers. In 1992, the total area of these crops was approximately 490,000 ha. Small farms, however, suffer from relatively low levels of technology and consequently low productivity and farm family income.

While a fair amount of improved technologies are available, there is still a need for much more. Improved seeds, commercial fertilizers and agricultural chemicals represent the main areas of available technology at present. Improved technology is also urgently needed in other areas such as farming system approaches and on-farm equipment and tools.

Improved technologies are not only inadequate, but small-scale producers have limited access to what is available. As a consequence, recommended practices are only partially adopted. For example, fertilizers are widely used, but incorrectly. The same is true for agricultural chemicals. Similarly, conservation structures are put in place, but not maintained; recommended cultural practices are initiated, but there is no follow-through.

Several factors contribute to the low rate of adoption:

a. The main technology transfer institution, the Government Agricultural Extension Service (now RADA), is inadequately staffed and lacks the financial resources to give adequate coverage to the large number of individual producers, while at the same time operating efficiently and effectively.

b. Small-scale producers generally have a poor education and have little or no access to improved technologies that are provided through the printed media, mainly in the form of bulletins, brochures, manuals, labels, etc.

c. The operations of small-scale producers are characterised by a shortage of working capital linked to limited access to credit. Hence they are unable to purchase recommended inputs in recommended quantities and on a timely basis.

d. Planning and implementation of agricultural extension training do not explicitly take into consideration the special circumstances of women; women have less time and less flexibility of available time for participating in extension training.

Given government's growing tendency to reduce spending, it cannot be expected that meaningful technological improvements will take place through traditional government interventions.

It is against this background that a special project is needed to address the problem.

3. Objectives and Outputs

The broad objective of this project is to increase the productivity and income of small-scale women food producers in the parishes of Trelawny, Manchester and St. Ann.

The specific objectives are:

1. To train some 4000 women farmers in the three parishes in the following subject areas:

    a. proper use of commercial fertilizers and agricultural chemicals
    b. improved methods of post harvest handling
    c. the mini-sett yam technology and other improved methods of farming

2. To design a system to facilitate the continued dissemination of information by trained farmers to other community members

The main outputs of the project will be:

1. Eighty demonstration plots distributed among the three parishes and strategically located in each parish.

2. 4000 small-scale women producers trained in improved agricultural practices, including the proper use of inorganic fertilizers and agricultural chemicals.

3. A community-focused arrangement in place and functioning for the continued dissemination of improved agricultural information among community members.

4. Technology

The project will be achieved through the combination of a public awareness programme and a series of on-farm demonstration sites strategically located in selected farming communities in each parish. Each parish will have between 20 and 30 sites. Sites will be located on private farm holdings on a voluntary basis. Demonstrations and discussions will take place on these sites on scheduled days. The public education programme will inform community members of the location of sites and the schedule of demonstrations and discussion sessions. Further dissemination of the information received at demonstration sites will be passed on to family members, neighbors and friends through existing community communication channels.

5. Resource Requirements

A. Scarce skills

The scarce skills requirement for this project will include agricultural extension and gender issues. The former will be available from the pool of active or retired agricultural extension specialists in Jamaica. The gender issues specialist may be available from government or regional institutions in Jamaica, or in the Latin America and Caribbean region.

6. Organisation and Management

RADA will be the institutional home for this project, which will fall directly under its technology transfer and training division (TTTD). The director of this division will therefore have overall responsibility; a project manager will be assigned specific responsibility for day-to-day implementation activities. A technical advisory committee, chaired by the director of the

TTTD and with representation by a cross-section of relevant bodies, will be established to support the project manager.

7. Project Schedule and Duration

The project will be implemented in phases over four to five years. Phase one will be implemented as a pilot project in one parish. Phases two and three will include the other selected parishes.

Project Costs (US$)

1. Technical Assistance	
60 person-months of extension specialist assistance @ 4000 =	240 000
12 person-months of gender issues specialist @ 4000 =	48 000
24 person-months of subject matter specialist assistance @ 4000 =	96 000
Socio-economic studies	120 000
<u>Demonstration plots</u>	
80 plots established @ 400 =	32 000
<u>Motor vehicle & equipment</u>	
4 pick ups @ 20 000	80 000
On-farm equipment	10 000
Vehicle maintenance	16 000
<u>Project administration</u>	
Project manager 60 person-days @ 3000 =	180 000
Administrative support	30 000
Public education	50 000
Subtotal	902 000
Contingency (20%)	180 400
TOTAL	1 082 400

PROJECT PROFILE

Title: Higglers Associations and Business Ventures

Prepared under the IDB/IICA Women Food Producers Study 1993/1994

1. Summary

This project plans to assist rural higglers in organizing themselves and to establish a marketing organisation owned and operated by them. Specifically, associations of higglers will be formed on a parish basis. The associations will then establish business entities to provide market facilities and infrastructure to the population of higglers.

The main objective of the project is to improve the efficiency of domestic marketing and the working conditions of higglers.

A programme of technical assistance involving institutional development agricultural marketing and gender issues specialists, in collaboration with the marketing division in the Ministry of Agriculture and the Bureau of Women Affairs, will plan and establish the association. The project will be executed by the Ministry of Agriculture through its Marketing and Credit Division.

2. Problem Statement

Women have been the leading distributors of agricultural commodities on the domestic market for many decades. Today, upwards of 20,000 women (popularly know as higglers) make a livelihood from this economic activity. This means that, with the size of the household averaging about five individuals, this occupation impacts directly on well over 100,000 family members annually. It is very likely that women will hold these positions for the foreseeable future and that their numbers may even increase with planned increases in production of the products they sell.

As small individual operators with generally low levels of education, they lack much of the resources to provide themselves with the infrastructure, facilities and services required to carry out the functions of marketing efficiently and economically. Accordingly, their operations are characterised by:

a. A lack of not only the appropriate techniques for storing, grading, packaging and general handling of the commodities in which they trade, but of the proper facilities as well.

b. A reliance on private transportation services which are not designed or prepared for the transport of perishable agricultural commodities or for the transport of passengers.

c. A reliance on government market buildings which often lack basic amenities and marketing facilities. Even where these are provided, they are usually not properly maintained.

As a consequence, not only are the operations of the higgler regarded as economically inefficient, but they suffer great hardships and indignity in providing what is generally accepted as a very vital service. For the most part, their survival has been at a subsistence level and has been made possible by their own resilience and resourcefulness. It is not surprising that the vast majority of higglers have not been able to accumulate savings after 20 or 30 years in the business. Instead, their standard of living remains one of the lowest in society.

3. Objectives and Outputs

The broad objectives of this project is to improve prices and income of small-scale producers, particularly women.

The specific objectives are:

1. To improve the physical working conditions of rural higglers

2. To improve income for this group

3. To reduce existing inefficiencies in the internal distribution system of domestic agricultural production

The main outputs of the projects are:

1. An association of rural higglers, legally established and functioning.

2. A marketing company owned and operated by higglers

3. A core group of higglers trained and skilled in the operation of the marketing company

4. Adequate, appropriate and reliable transportation services owned or otherwise controlled by higglers

5. Postharvest handling services and facilities owned and operated by higglers

4. Methods and Technology

The objectives of this project will be achieved through a programme of institutional development and training, specifically for rural higglers islandwide. Higglers will first be organized into legal associations on a parish basis. Each association will then establish a business entity (marketing

companies) to provide various marketing services and facilities. For example, under the government's privatization programme, parish markets could be divested to associations of higglers. Similarly, the associations will purchase or otherwise acquire transportation services appropriate for transporting goods as well as passengers. The venture will be financed through equity contribution in the form of shares from association membership and loans. A technical assistance programme, which would include a long-term institutional development advisor, will work with the Bureau of Women's Affairs and selected NGOs to assist in the establishment of higglers associations and subsequent business entities.

5. Scarce Skills

No scarce skills are required for this project.

6. Organisation and Management

The Ministry of Agriculture will have over all responsibility for the project through its Marketing and Credit Division. Day-to-day implementation will be the responsibility of a project manager.

7. Project Schedule and Duration

The project will be implemented in phases over a period of about eight years. Phase 1 will be implemented in the parishes of Manchester and Trelawny as a pilot project.

8. Project Cost (US$)

Phase 1

A. Technical assistance

1. Institutional development specialist	
24 person-months @ 4000	96 000
2. Socio-economist/marketing specialist	
24 person-months @ 4000	96 000
3. Gender issues specialist	
12 person-months @ 4000	48 000
B. Studies	
Socio-economic studies	30 000
Feasibility studies	10 000

C. Training

D. Project management

Project manager 60 person-months @ 3000	180 000
Administrative support	30 000

E. Equipment & vehicle

Subtotal	640 000
Contingency (20%)	128 000
TOTAL	768 000

FECHA DE DEVOLUCION

producers in
nal summary

Nombre del solicitante

PROGRAM FOR THE ANALYSIS OF AGRICULTURAL POLICIES VIS-A-VIS WOMEN FOOD PRODUCERS IN THE ANDEAN REGION, THE SOUTHERN CONE AND THE CARIBBEAN

This Program, executed by the Inter-American Institute for Cooperation on Agriculture (IICA) and financed by the Inter-American Development Bank (IDB) under Technical Cooperation Agreement ATN/SF-4064-RE, covered 18 countries in Latin America and the Caribbean. The first phase was implemented in 1992-1993 in six countries in Central America, under the auspices of the Council of Central American Agricultural Ministers in its XII Ordinary Meeting in March 1992. Results were published in the book *Mujeres de Maíz* (IICA/IDB 1995).

The second phase was carried out in the Andean Region (Bolivia, Colombia, Ecuador, Peru and Venezuela), the Southern Cone (Brazil, Paraguay and Uruguay) and the Caribbean (Barbados, Guyana, Jamaica and Suriname), by request of the First Ladies during their Summit Meeting on the Economic Advancement of Rural Women held in Geneva, Switzerland in February 1992.

Three documents were prepared for each country presenting the technical results from the four areas of research of the Program: a) assessment of the participation of women in the agricultural sector and their contribution as food producers on small-scale farms; b) analysis of agricultural policies and programs and their effects on rural women as food producers; c) evaluation of the technology used on small farms by women in food production processes; and d) analysis of the role of women in processing and marketing farm food products.

Other Program activities included the elaboration of regional comparative documents, the formulation of policy proposals and related actions, national and regional seminars for discussion of Program recommendations, and the publishing and distribution of the final results.

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