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ANNUAL REPORT

IICA OFFICE IN JAMAICA



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Inter-American Institute for Cooperation on Agriculture

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Inter-American Institute for Cooperation on Agriculture

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Dr. Armando Reyes-Pacheco Representative

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WHAT IS IICA?

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agriculture of the inter-American system. The Institute was founded on October 7, 1942 when the Council of Directors of the Pan American Union Approved the creation of the Inter-American Institute of Agricultural Sciences.

IICA was established as an institution for agricultural research and graduate training in tropical agriculture. In response to changing needs in the hemisphere, the Institute gradually evolved into an agency for technical cooperation and institutional strengthening in the field of agriculture. These changes were officially recognized through the ratification of a new Convention on December 8, 1980. The Institute's purposes under the new Convention are to encourage, facilitate and support cooperation among the 32 Member States, so as to better promote agricultural development and rural well-being.

With its broader and more flexible mandate and a new structure to facilitate direct participation by the Member States in activities of the Inter-American Board of Agriculture and the Executive Committee, the Institute now has a geographic reach that allows it to respond to needs for technical cooperation in all of its Member States.

The 1987-1991 Medium Term Plan, the policy document that sets IICA's priorities, stressed the reactivation of the agricultural sector as the key to economic growth. In support of this policy, the Institute is placing special emphasis on the support and promotion of actions to modernize agricultural technology and strengthen we processes of regional and subregional integration.

In order to attain these goals, the Institute is concentrating its actions on the following five programs:

- Agricultural Policy Analysis and Planning
- Technology Generation and Transfer
- Organization and Management for Rural Development
- Marketing and Agroindustry
- Animal Health and Plant Protection

These fields of action reflect the needs and priorities established by the Member States and delimit the areas in which IICA concentrates its efforts and technical capacity. They are the focus of IICA's human and financial resource allocations and shape its relationship with other international organizations.

To further reach its objectives of encouraging, promoting and supporting the efforts of the Member States in the area of agricultural and rural development, the Institute renders technical services aimed at strengthening national institutions involved in this sector and serves as a multinational body for cooperation among member countries. IICA also provides direct advisory services and consultancies, implements projects, and acts as a forum and vehicle for the exchange of ideas, experiences and cooperation between the countries, organizations and other entitites active in the agricultural arena.

The contributions provided by the Member States and the ties IICA maintains with its twelve Permanent Observer Countries and numerous international organizations provide the Institute with channels to direct its human and financial resources in support of agricultural development throughout the Americas.

The Member States of IICA are: Antigua and Barbuda, Argentina, Barbados, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Dominica, the Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, the United States of America, Uruguay and Venezuela.

The Permanent Observer Countries of IICA are: Arab Republic of Egypt, Austria, Belgium, Federal Republic of Germany, France, Israel, Italy, Japan, Netherlands, Portugal, Republic of Korea and Spain.

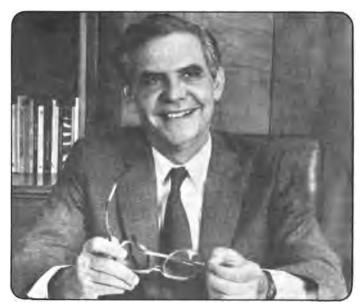
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FOREWORD



DR. MARTIN PINEIRO
HCA DIRECTOR GENERAL

The Inter-American Conference on Agriculture held in Washington, D.C., in 1930, under the aegis of the Pan American Union, put forward the idea of creating an inter-american institute for tropical agriculture. Twelve years later, in 1942, the Inter-American Institute of Agricultural Sciences was born, being formally inaugurated in March 1943 in Turrialba, Costa Rica, with the purpose of promoting research and training on tropical agriculture.

During the late 1960s and early 1970s, the Institute expanded the scope of its action to include the entire hemisphere, establishing offices in each of the Latin American countries and in several Caribbean states. Jamaica joined IICA in 1972.

These changes meant that, the original Convention signed in the 1940s, had to be revised. As a result, a new Convention was signed in 1980 which broadens the purposes of the institute to "...encourage, promote and support the efforts of the Member States to achieve their agricultural development and rural welfare." IICA started to reorganize in order to adjust to the new convention.

The new convention came about at a time when a deep crisis was setting in the countries of the region. Debt, capital flight, domestic policies that hurt the agricultural sector and rural-urban migration, were some of the most salient characteristics of the times. As a result, countries started adjustment programs which made evident that agriculture was closely related to macroeconomic policies, that it had shown more resilience to the crisis than other economic sectors and that the export capacity of the agricultural sector was improved by adjusting real exchange rate policies.

IICA closely monitored the situation and it became evident that a new development paradigm was needed, one in which agriculture plays a more important role, in accordance with its potential. This was discussed and agreed upon at the Ninth Inter-American Conference of Ministers of Agriculture (IMCA) in Ottawa, when IICA was called upon to design a plan of hemispheric scope (PLANLAC) that promotes joint action among member countries, emphasizing the importance of agriculture in the sub-regional integration process.

The recent Tenth ICMA, held in Madrid, Spain (1991), went further in its analysis of the situation. Considering that besides the situation described, unprecedented changes in the political and economic milieu were taking place, it provided more specific elements for a plan to reactivate agriculture. In essence, the ministers agreed that agriculture must be modernized, and that this modernization should include three essential characteristics: it should be comprehensive - so as to ensure the broadest participation possible in the reaping of benefits; it should include wtersectoral linkages with input providers, processing and distribution in response to the changes in demand and technology that have diluted the once clear borders of the "primary" sector; and it should be sustainable to ensure the well-being of future generations.

Within this dynamic framework, IICA's strategy in Jamaica in the recent years has been to support the generation and transfer of technology - seeking to improve the institutional system and to develop strategies for a more sustainable hillside agriculture; agricultural policy seeking to help in the transition to the new agriculture; and farm management targeting small farmers as part of the strategy to boost their participation in the development process.

This report of IICA activities in Jamaica, is presented to the Government and the public at large as a contribution for improving understanding of our institution and for strengthening the collaboration between the Government of Jamaica and IICA.

THE JAMAICAN ECONOMY An Overview

Jamaica is a middle income country which had, in 1989, a real GNP per capita of approximately U.S. \$1,000. The economy is largely dependent on bauxite, alumina, sugar, bananas and tourism. These activities account for nearly 50% of the country's GDP and employment and compose two thirds of its gross foreign exchange.

Tourism continues to be a major component of the Jamaican economy. In 1989 alone, gross receipts from tourism amounted to more than U.S.\$600 million. The Gulf War impacted negatively on Jamaica's tourist industry during the winter of 1991. However, the 1992 season is expected to make up the loss. The annual growth rate in this sector is about 16 percent and is expected to peak in 1992.

The mining sector, another major component of Jamaica's economy, continues to gradually improve and the future prospects for this sector remain very favorable. The relative performance of the manufacturing sector, however, is described as dormant with its contribution to the GDP remaining at approximately 16 percent in the years from 1979 and 1988.

Jamaica's economy is extremely vulnerable to natural disasters. Throughout most of 1990, and to a lesser extent in 1991, Jamaica continued to recover from the devastation wrought by 1989's Hurricane Gilbert. The 32% to 48% calculated damage to the GDP resulting from the hurricane, posed a serious setback to Jamaica's economy. Agriculture, housing, public infrastructure, tourism and essential infrastructure were the sectors most seriously affected and many of these sectors have only recently been restored to their near pre-hurricane capacity.

Although Jamaica will continue to be vulnerable to natural disasters, it is also vulnerable to exogenous factors in the international economy. In the last decade, the performance of most sectors, without exception, was seriously affected by the global economic recession. The escalation of oil prices that began in the early 1970s, coupled with a decrease in the international market demand for Jamaican bauxite, harmed the country's balance of payments and foreign exchange earnings resulting in an extremely high debt burden.

The country continues to record an external debt representing 133% of GDP (slightly in excess of \$2 billion U.S.). Moreover, debt servicing absorbs 46% of export earnings. Current GNP per capita is only about 80% of that of the mid-1970's period. Jamaica's dependence on imported oil, cereals, dairy products and meat has resulted in higher prices for consumers.

In an effort to reduce its debt constraints, implement sound fiscal and monetary policies, the Government of Jamaica (GOJ) has adopted a series of structural adjustment policies and is presently trying to achieve growth and development within the context of a market economy. The overall objectives pursued by the GOJ since 1988 have been the restructuring of export-led agriculture, maximization of revenues from tourism, increasing employment and human resource development, and a reduction the size of the public sector.

The economic program, in the last two years, has been to strengthen economic recovery and implement stabilization and structural macro-economic reform measures. In addition, since January 1st, 1990, the Government of Jamaica has been operating under a standby agreement with the International Monetary Fund. The IMF program has been designed to restore balance to the economy and to create a suitable environment for entrepreneurship and economic growth. Despite many difficulties during 1989 and 1990, the GOJ has brought some positive results, as shown by the following macroeconomic achievements:

- Overall, Jamaica's economy grew by 3.8%
- Jamaica's 1990 trade deficit was U.S. \$710.5 million (\$6 billion Jamaican Dollars) down from U.S. \$822 million (J.A. \$6.98 billion) in 1989
- Net International Reserves improved by U.S. \$70.8 million
- Imports grew by 1.7% to reach U.S. \$1,850 million
- Exports grew by 14.2% to reach U.S. \$1,140 million
- The Public Sector deficit was reduced to 3.3% of Gross Domestic product (GDP), from 6.4% in 1989
- The Debt service ratio fell from 34% of GDP in 1989 to 26.4%
- Jamaica's Current Account deficit on the Balance of Payments was reduced to less than 9% of GDP, down from 11% in 1989
- International competitiveness was maintained by a 16% depreciation in the exchange rate
- Unemployment declined from 18% to 15% and the "job seeking" rate fell from 9.4% to 6.9%

In October 1991, the GOJ initiated a series of adjustments in the foreign exchange market with the aim of liberalizing its market. As a result, over a twelve month period, the Jamaican dollar has been devalued from a previous rate of J.A.\$7.00 to one U.S. dollar, to a current rate of J.A.\$20.00 per \$1.00 U.S. These measures have improved Jamaica's international competitive position and is creating a positive environment for investment.

In November 1991, the GOJ introduced the General Consumption Tax (GCT). The GCT is a 10% general sales tax that applies to most goods and services, except for some main food items. The new tax replaces other taxes resulting in overall lower taxes for many commodities and therefore reducing the inflationary impact that the devaluation has had on prices.

In addition to being vulnerable to changes in the international economy, Jamaica is also susceptible to the changes that occur in the international political scene. Recent events in Eastern Europe are expected to have spin-off effects for Jamaica. The establishment of a single European Common Market in 1992 and the evolving political scenario in Eastern Europe will presumably affect both the scope and size of monetary assistance and aid to the country, as well as affecting Jamaica's international trade.

In short, the structural adjustment policies implemented in 1989, 1990 and 1991 have brought some stabilization to the economy. The economy grew by 2.8% in 1990/1991 and is expected to continue its recovery throughout 1992. The process of adjustment and the opening of the Jamaican economy, reaffirms the desire of the government and its people for a promising outlook for the revitalization of the economy, especially agriculture which enjoys natural comparative advantages.

AGRICULTURE IN JAMAICA



Agriculture has long been part of Jamaica's heritage, but is small with respect to its monetary contribution to the total economy. In fact, its contribution to GDP has decreased over the years over the years from 8.8% in 1984 to 7.8% in 1990. Within this context, in 1990, export agriculture contributed 1.1%, domestic agriculture 3.4%, livestock 2.8% and forestry and fishing 0.4%.

Sugar cane is the largest single crop contributing to agricultural GDP (about 11 percent in 1987). Other export crops besides sugar accounted for 7.9 percent in the same year. Root crops contributed 20.6 percent. Fruits, vegetables and other miscellaneous domestic crops contributed 32.3 percent. Livestock composed 19.5 percent, forestry 2 percent, and fishing formed 6.6 percent of agricultural GDP. Total agricultural exports in 1988 were U.S.\$146 million, or 17 percent of total merchandise exports. In 1990, it increased to U.S. \$161 million. Imports of foods for the same year were U.S.\$172 million and involved mainly wheat, flour, maize, rice, soybeans, meat, fish and dairy products.

Despite its declining contribution to GDP, agriculture remains crucial to the Jamaican economy because it employs approximately 20% of the total employed labor force and generates about 20% of the country's foreign exchange. The great majority of Jamaica's rural population is to be found in the hilly interior where small farmers manage diversified farming systems that include staple foods, fruits and vegetables, as well as livestock such as goats, pigs, beef, dairy cattle and chickens for family consumption and for the domestic market.

Land Tenure

According to the Ministry of Agriculture's 1978 census, there are approximately 180,000 farms containing 1,320,000 acres in Jamaica. At least 99 percent (178,000) can be considered small (under five acres). More than 62.5 percent of the lands were under single ownership. Eighty percent of farms under less than five acres involve only 16 percent of the total land, while those with more than 25 acres amount to 64 percent. A fair number of small farms are fragmented into smaller parcels, sometimes into two or three subdivisions.

At the other extreme of land distribution, 295 farms of more than 500 acres each, account for more than 44 percent of the total farm area and occupy the highly fertile, coastal plains which are most appropriate for agricultural development.

Women own about one fifth of the farms, but this proportion is declining. About 90 percent of farms owned by women are in the 0-5 acre category, with 47 percent having less than one acre. Women farmers are generally older than the norm, implying acquisition to land through widowhood.

The highly skewed land tenure patterns in Jamaica pose serious problems for the country's agricultural development. Although approximately one-third of Jamaica's labor force is employed or self-employed in agriculture, labor productivity and income remain low. Small farmers and agricultural workers, especially women, remain one of the poorest remunerated of all social groups in the country. Low income, partly because of poor land management practices, and partly because of unequal tenancy patterns, has resulted in high rural-to-urban migration among this group.

Agriculture and the Environment

The island has an area of nearly 4.25 thousand square miles, yet only 13 to 15 percent of the approximate 2.7 total million acres are suitable for intensive cropping (characterized as relatively flat, fertile and arable lands of slopes less than 15 degrees). The other 30%, with slopes of 5 to 20%, require considerable conservation measures for the sustainable production of annual crops. An additional 25% of the land area has slopes of 20-30% and is suitable only for perennial tree crops and forestry. The remaining 30% of land area has slopes greater than 30% and should remain under continuous vegetative cover.

Actual patterns of land use often deviate from the limitations posed by these natural constraints, resulting in watershed degradation, soil erosion, water pollution, the destruction of wildlife and wildlife habitat, as well as coastal and marine resource degradation.

This has resulted in the further erosion of a significant amount of hillside agricultural land since much of the forest and grassland which is cleared for agriculture is abandoned as its productivity diminishes.



The combination of these factors means that Jamaica's agricultural development can be characterized as suffering from the following constraints:

- Extensive environmental degradation.
- Insecure land tenure and disparity, which leaves the small farmer with inadequate
 plot size, location limitations, low productivity and inappropriate land use systems.
- Low technical skills and technological limitations resulting in low productivity.
- Endemic praedial larceny.
- Inaccessibility to credit and a limited range of production alternatives due to high production costs and high risks.
- High cost of debt capital and inadequate equity financing.

Agricultural Policy Strategies

Ideally, Jamaica would like to reduce its need for imported foodstuffs by meeting its own food requirements domestically. The country would also like to increase its export earnings through improved agricultural production.

In keeping with its commitment to a mixed market economy, the GOJ's new thrust for agriculture is to increase efficiency and competitiveness based on comparative advantage and adoption of appropriate technology. To meet the macro-economic targets and to counteract international financial influences, the Government has identified two major agricultural directions: food self-sufficiency and crop diversification - both of which place emphasis on domestic food production and non-traditional crops such as cucumbers, pumpkins, sweet peppers and horticultural crops. Certain traditional crops such as coffee, cocoa and citrus fruits are also being promoted, essentially for export markets.

The GOJ's further commitment to agricultural restructuring is evident in its identification of the following goals:

- To develop an environmental policy referring to the protection of the environment and the country's watersheds
- To develop export marketing facilities through the restructuring and rationalization of pricing mechanisms and regulatory bodies
- To attempt a land reform process by increasing the number of titled land holdings and increasing the size of farms
- To promote the use of credit
- To develop projects to enhance the quality of rural life and to improve the standard of living in rural areas
- To encourage institutional strengthening of the extension and research services in agriculture.

In pursuit of these goals the GOJ has introduced the following institutional reforms:

Land Use Policy

The implementation of the Land Development and Utilization Act represents an effective approach to the rationalization of agricultural production, by encouraging more intensive, but sustainable use of good agricultural land.

The has been aimed at the modernization of agriculture, with emphasis on non-traditional export crops, fishing and livestock, crop-zoning, optimal land use, efficient management and implementation of discrete commercially viable projects. The private sector is encouraged to spearhead these activities, and the Government is committed to provide basic infrastructure and has promoted joint-ventures with foreign and local entrepreneurs.

The Agricultural Structural Adjustment Loan (ASAL) The ASAL program is targeted to the development of exports and domestic food production.

Five-Year Food and Agricultural Policy and Production Plan

The last Five-Year Food and Agricultural Policy and Production Plan complemented the SAL and AGRO-21 programs by ensuring that production objectives harmonized and were congruent with other medium-term objectives.

Environmental Policy

A new strategy for improving land use in hillsides, fostering alternative cropping patterns is now being tested. The GOJ has also recently announced the creation of a new statutory agency, the Natural Resources Conservation Authority (NRCA), to coordinate programs and policy reforms in environmental protection area including protection of the country's watersheds.

Export Marketing

Measures have been taken to improve the efficiency of the export marketing of coffee, cocoa, citrus and pimento, through the introduction of improved pricing formulae and a reduction in the export monopoly powers of the corresponding regulatory bodies. In addition, the sugar and banana industries have been subject to significant restructuring and rationalization with good results.

Support Services

A variety of institutional initiates have been undertaken by GOJ in the 1980s and through the 1990s to support agricultural development. In 1986, a National Irrigation Commission was created to absorb the operation of all public irrigation systems.

Credit Services

In 1982, the GOJ undertook a major reform of its credit delivery system for agriculture. The Government eliminated the several public agricultural credit institutions and instead established the Agricultural Credit Bank (ACB) - a second tier financial institution that wholesales credit to private financial intermediaries such as commercial banks and cooperatives, which in turn lend to farmers.

Research and Extension

The GOJ has restructured public extension services through the creation of the Rural Agricultural Development Authority (RADA) in 1990. This statutory, semi-

autonomous agency was established to assist the Ministry of Agriculture (MINAG) with its extension responsibilities. A proposal for the establishment of a new National Agricultural Research Institute (NARI) is currently pending approval.

• Price Controls and Domestic Marketing

A large number of price controls have been eliminated, although some basic foodstuffs and animal feeds continue to have their wholesale and retail prices set by Government. The Agricultural Marketing Corporation (AMC) is to provide technical assistance and other services aimed at facilitating domestic trading of foodstuffs by private, domestic agents.

The performance of the agricultural sector, despite its response to the wide array of policy adjustment, has been quite acceptable overall, especially given the serious economic constraints facing the country as a whole. Nevertheless, further efforts will continue to meet the Government's goals of improving domestic production and increasing exports.

IICA and the Plan of Joint Action for Agricultural Reactivation In Latin America and the Caribbean (PLANLAC)



Background

The Plan of Joint Action for Agricultural Reactivation in Latin America and the Caribbean (PLANLAC) was approved by the Inter-American Board of Agriculture (IABA) during its Fifth Regular Meeting, held in San Jose, Costa Rica, October 9-12, 1989. This meeting was the culmination of a long process of consultation and a search for consensus which began in 1987 in Canada with the issuance of the Ottawa Declaration during the Ninth Inter-American Conference of Ministers of Agriculture (ICMA).

The Plan reflects the political will of the ministers of agriculture of the region to give the agricultural sector a new role in economic reactivation, with a view to making the sector the driving force behind growth and development. Among the distinctive characteristics of the Plan is its conceptual framework, which establishes a new strategic view of agriculture in the region, the principal parameters of which include: modernization of production and institutions, equity and sustainability.

In addition to being a theoretical framework, the PLANLAC is a concrete plan of action that contains multinational programs and projects aimed at solving the problems that are common to two or more countries of the region, and which can be dealt with more successfully through joint actions rather than through individual efforts. The proposals contained in the Plan are designed in such a way that they enhance the actions taken by the countries to promote

agricultural reactivation. They are dynamic, participatory and flexible, so that strategies in the Plan can be adjusted on an ongoing basis to reflect the many and rapid changes in external conditions.

To provide follow-up, the PLANLAC relies on technical and political mechanisms that already exist in the region. Three levels of follow-up have been established: 1) overall follow-up, provided by the IABA, the ICMA and the Executive Committee; 2) sub-regional follow-up, by the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA); the Caribbean Community (CARICOM); the Board of the Cartagena Agreement (JUNTA) and the Advisory Council for Agricultural Cooperation in the Countries of the Southern Area (CONASUR); and 3) national follow-up by the countries, with the collaboration of the Inter-American Institute for Cooperation on Agriculture (IICA) when necessary. All parties involved in the agricultural development of Latin American and the Caribbean share responsibility for executing the Plan: member countries, specialized agencies, and IICA.

Preparation and Execution of Projects

Since approval of the Plan, efforts have been aimed principally at preparing projects identified and approved for the Plan. Of 77 proposals (hemispheric and sub-regional) originally approved by the IABA in October 1989, 63 were in the planning stage, feasibility studies were being conducted for two, and 12 were in progress.

As of December 1990, and as the result of concerted efforts by IICA's different operating units, 73 proposals remain, of which 10 are in the planning stage, feasibility studies are being conducted for 31 and 32 are currently under way, for a new total of 73.

	October Number	1989 Percent	December Number	1990 Percent
Planning	63	81	10	16
Feasibility Studies	2	4	31	42
Underway	12	15	32	42
TOTAL	77		73	

TABLE 1: Status of PLANLAC Proposed Actions

The dynamics of the Plan and the evolution of events both within and outside the region led to changes in some of the originally approved proposals. Some projects were eliminated because they were considered politically or economically unfeasible and others were merged in order to achieve economies of scale and to bring them more into line with the requirements of international funding agencies. At the same time, new projects are being prepared, which respond to new priorities established by the ministers of agriculture in sectoral fora.

One of the key elements of the strategy for implementing the Plan is the emphasis on sub-regional actions, which makes it possible to follow up on the different projects through selected sectoral fora. Such fora are political bodies in which the member countries can achieve integration, and wherein it is possible to gradually adjust the strategy and actions to changing regional and international circumstances. By grouping countries into subregions, it is possible to analyze more accurately the heterogeneous nature of Latin America and the Caribbean (LAC).

In implementing this sub-regional strategy, IICA turned to existing integration fora, including the Advisory Council for Agricultural Cooperation in the Countries of the Southern Area (CONASUR), which was recently established by the countries of the Southern Area. In the Central subregion (countries of the Central American isthmus, Mexico and the Dominican Republic), actions are coordinated through the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA) and the Regional Council for Agricultural Cooperation in Central America, Mexico, Panama and the Dominican Republic (CORECA). In the Caribbean subregion (Antigua and Barbuda, Barbados, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago), actions are carried out within the framework of CARICOM and the Organization of Eastern Caribbean States (OECS). In the Andean subregion (Bolivia, Colombia, Ecuador, Peru and Venezuela), actions have been coordinated through the Board of the Cartagena Agreement (JUNTA). Lastly, in the Southern Cone (Argentina, Brazil, Chile, Paraguay and Uruguay), CONASUR held its first meeting in November 1990 in Brazil.

Caribbean Subregion

The strategy for the Caribbean Subregion is to support and complement CARICOM's Regional Agricultural Sector Program, which promotes agricultural revitalization. CARICOM's approach involves making full use of integration mechanisms to coordinate actions and negotiations outside the region, strengthening sectoral institutions, developing projects to promote the participation of the private sector, and establishing common sub-regional priorities.

During 1990, the following actions were initiated or continued:

- Designing Strategies for Policy Analysis, Planning and Management in Support of Agricultural Development in the Caribbean
- Supporting the Organization and Management of Technology Generation and Transfer Systems in the Countries of the Eastern Caribbean
- Supporting the Development of Tropical Fruit Crops in the Caribbean. This action receives support from the Center for International Cooperation in Agricultural Research for Development (CIRAD)
- Strengthening Farmers' Organizations in the Countries of the OECS
- Follow-Up of Animal and Plant Diseases in the Caribbean (CARAPHIN). This
 receives support from the Canadian International Development Agency (CIDA)
- Institutional Strengthening and Promotion of International Cooperation for Technological Development in Haiti
- Supporting the Development of Livestock Production Systems in Guyana and Suriname

Funding

During 1990, preliminary steps were taken to develop ideas and to make contacts to secure external resources. The strategy calls for coordinated action among the Programs responsible for carrying out the actions and IICA's Directorate of External Relations (DIREX). Typically, IICA supplies quota resources as seed money, which are augmented with external resources.

During the year, IICA continued to work closely with donor countries such as Canada, members of the European Economic Community, Korea, the United States, Finland, France, the Netherlands, Japan and Sweden. Contacts were also made with cooperation agencies such as the Canadian International Development Agency (CIDA), the United States Agency for International Development (USAID), the International Development Research Centre (IDRC), the French Institute of Scientific Research for Development in Cooperation (ORSTOM), the Spanish International Development Agency (AECI), the German Agency for Technical Cooperation (GTZ), and the Center for International Cooperation in Agricultural Research for Development (CIRAD), among others.

Working and cooperation agreements have been signed, or are under negotiation, with several international funding agencies such as the Inter-American Development Bank (IDB), the World Bank, the Andean Development Corporation (CAF), the Caribbean Development Bank (CDB), and the Organization of Petroleum Exporting Countries (OPEC).

Also, efforts have been stepped up to organize meetings with donors in the four subregions of the PLANLAC. Of special interest are the meetings held in the Central Area during the second quarter of 1991, in Managua, Nicaragua, within the context of the Special Program of Economic cooperation for Central America (PEC), and the donors meeting for the Caribbean Area, coordinated by CARICOM, held in St. Lucia in June 1991.

IICA'S INSTITUTIONAL LINKAGES IN JAMAICA

As an international technical cooperating agency on agriculture, IICA works specifically in conjunction with several related national agricultural organizations. These primary organizations are listed here.



Ministry of Agriculture (MINAG)

The largest and most important agency with which IICA cooperates is the Jamaican Ministry of Agriculture (MINAG). MINAG contributes to policy-making and coordinates and prepares the implementation of sectoral plans. MINAG is also responsible for all agricultural research and extension services, agricultural statistical operations, crop protection, and natural resource surveying and conservation. The Ministry also has a direct role in the operations of many Export Marketing Organizations.

Recently, MINAG has experienced a significant change in its institutional infrastructure for the transfer of agricultural technology through the establishment of the new Rural Agricultural Development Authority (RADA). RADA is the primary agricultural extension arm of MINAG and is structured on a three-tiered basis:

 At the Parish Level, RADA operates as the main agricultural extension and development division.



- The four Regional Advisory Board Levels Eastern, North Western and Central provide advice to the National Board regarding agricultural extension and related rural development needs of farmers in each region.
- RADA's National Board reports directly to the Minister of Agriculture.

RADA's mission is:

- To enhance the development of farming with a focus on small- and medium-sized farming operations.
- To improve the quality of life for rural farm families.
- To advance the development of rural infra-structure consistent with the programs and objectives of other rural development bodies.

The expected creation of the National Agricultural Research Institute (NARI) to replace the Research and Development Division (R&DD) of the Ministry of Agriculture is still pending.

These new institutions require technical cooperation to allow them to develop and fully execute effective extension and research management systems. Thus IICA's technical cooperation activities are being focussed mainly on the development and strengthening of these two agricultural systems through RADA and NARI.

Jamaica Promotions Ltd. (JAMPRO)

This statutory agency was established in 1988 through the merger of three previous agencies to be responsible for promotion of foreign direct investment in all sectors, the promotion of exports, and industrial and commercial training.

Export Marketing Organizations (EMOs)

Among the most important EMOs in Jamaica are the Coffee Industry Board (CIB), Cocoa Industry Board (COIB), Citrus Growers Association (CGA), and the Banana Export Company (BEC), Jamaica Cane Products Sales Ltd. Besides their role in export marketing, the EMOs provide some research, extension and other services to their client farmers.

Farmer Organizations

IICA also works in conjunction with the many farmer organizations existing in Jamaica, most notably the Jamaica Agricultural Society (JAS). Producers of export crops have their own individual commodity essociations as well.

Other Institutions

Also important in the agricultural sector are: the Sugar Industry Authority (SIA), which plays a role in the importation and domestic marketing of sugar and in the regulation of the industry generally; the Jamaica Agricultural Development Foundation (JADF), which operates as a venture capital institution and a source of private research funding; and the National Irrigation Commission (NIC), mentioned earlier, the JCTC which acts as an importer for a number of basic foodstuffs and a range of other products.

Planning Institute of Jamaica (PIOJ)

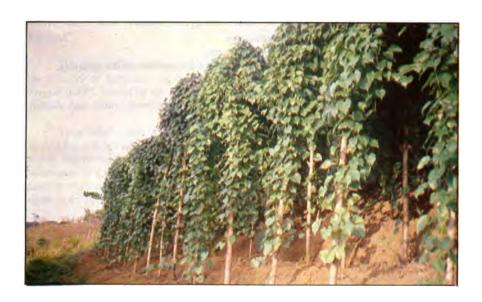
The Planning Institute of Jamaica plays a central planning role in the formation of policies for the agricultural sector and the main governmental statistical source.

Institutional constraints still persist within the organizational structure in Jamaica. IICA's efforts are geared to the institutional strengthening of the agricultural sector, in their operational planning and management capacity. This means that IICA's technical cooperation program must be critical and meaningful to Jamaica's agricultural institutional services.

IICA shares productive working institutional relationships with different governments, bilateral missions, international and regional organizations, such as the United States Agency for International Development (USAID), the Inter-American Development Bank (IDB), the Canadian International Development Agency (CIDA), United Nations Development Program (UNDP), the Food and Agricultural Organization of the United Nations (FAO), the Caribbean Agricultural Research Development Institute (CARDI), the University of the West Indies (UWI), the Government of Israel, European Economic Community (EEC), the World Bank (WB), the Caribbean Development Bank (CDB), the International Development Research Centre (IDRC), and the Caribbean Economic Community (CARICOM).

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IICA'S ACTION STRATEGY IN JAMAICA



As an international cooperating agency on agriculture, IICA's mandate is to support and enhance the agricultural development of the countries within which it operates. The Government of Jamaica, as outlined, is pursuing an overall export market driven approach to developing its economy and is thus committed to:

- Increasing agricultural production and productivity to meet food and nutritional requirements of the population; increase agricultural exports and foreign exchange earnings; and encourage agro-industrial development
- Stemming environmental degradation in general, but particularly in the critical watershed areas and to pursuing development strategies with long-term conservation objectives and efficient use of natural resources
- Fostering appropriate technology through research and development and ensuring its transfer to small farmers
- And, to creating more balanced spatial development by ensuring that the deficiencies in rural sectors are taken into account in future investment decision making.

IICA shares these same objectives and has been honoring them in all of its cooperative activities in this country. Throughout 1990 and 1991, IICA has emphasized the following priorities in its technical assistance to the GOJ:

- Generation and Transfer of Technology
- Rural Development and Farm Management
- Critical short term assistance activities geared for institutional strengthening.

These activities are now discussed in more detail.

IICA'S PRIORITY ACTIVITIES IN JAMAICA

Generation and Transfer of Agricultural Technology: "The Cropping Systems Project"

The IICA Office in Jamaica has been providing technical and administrative support to the Ministry of Agriculture in their execution of two main activities: the Cropping Systems Project (CSP), funded by the International Development Research Centre (IDRC) and the Hillside Agricultural Sub-Project (HASP), funded by USAID/MINAG.

These collaborative projects were designed to strengthen the capacity of national agencies to develop a better understanding of the issues and problems facing the small scale farming sector. Experience has shown that improving the cropping practices and farm management techniques of small farmers, because of the many production constraints they face, proves farming more difficult than introducing a new agricultural variety. The CSP's activities, (which came to an end in 1991), concentrated on the following priorities:

- Introduction and institutionalization of a holistic Farming Systems Research (FSR)
 approach that involves small farmers (including women and farm families) in the onfarm research process.
- Management of establishment trials with coffee and cocoa, and the selection of farmer sites for coffee and cocoa rehabilitation trials.
- Follow-up on the expansion of cabbage production in the Watermount and Guy's Hill areas.
- Adaptation of technologies available for the production of high quality potato planting material.
- Continuation of the program to introduce small scale broiler production to small farmers in the Guy's Hill and Watermount areas of the project.
- Continuation of the program to introduce and expand yam production using the mini-sett technology over a wider area of the project, as well as outside the project area.
- Monitoring and provision of support to the farmers in the project area who have received "revolving heifers" from the Ministry of Agriculture.
- Establishment of short-term cash crops as demonstration plots and also as a post-Hurricane Gilbert recovery measure to assist farmers in the Watermount and Guy's Hill areas.

To facilitate institutional strengthening in the principles of FSR, a series of seminars, training courses, and workshops aimed at enhancing the capability of the national personnel engaged in generation and transfer of agricultural technology, were executed in collaboration with several national institutions.

For the most part, additional technical cooperation actions have covered technical writings, inter-agency linkages, examination of the structure and function of the R&DD/MINAG, strategic planning for program development and the documentation of the development of strategies and methodologies for on-farm research in Jamaica.

The positive impact of these projects is shown by the fact that:

- Several participants of the Technical Writing Workshop have published or are in the process of publishing documents which will be of value to planners, policy-makers, researchers, and extension and rural development technicians.
- RADA has taken the initiative to develop a draft "memorandum of understanding"
 for the coordination of national agencies involved in the extension, research and
 financing of agriculture and rural development which will be the basis of a protocol
 for implementation in the rural areas.

Activities and Achievements

- Workshop on Technical Writing executed on March 28, 1991, contributed toward strengthening institutional capability for technical writing. 38 persons participated from RADA, R&DD/MINAG, HASP and UWI.
- Workshop on Inter-Agency Linkage for Technology Transfer and Rural Development held April 26-27, 1991. Sixty-one persons participated. The workshop identified several possible guidelines and methodologies for inter-agency collaboration and general processes for achieving targets.
- A management audit of the R&DD/MINAG project was undertaken by the Agricultural Research Specialist and the Regional Specialist for Technology Generation and Transfer.
- Workshop on Strategic Planning for Program Development was held in collaboration with RADA, R&DD/MINAG and the Jamaica Agricultural Research Program (JARP), on November 26-28, 1991. Fifty-three persons participated
- A document entitled "The Development of Strategies and Methodologies for On-Farm Research in Jamaica" was completed.
- Videotape report of the CSP was produced.

Hillside Agriculture Sub-Project (HASP)

The Hillside Agriculture Sub-Project (HASP) was initially introduced as a support component to the Cropping Systems Project. Through HASP, R&DD/MINAG are working to improve the farming systems of small farmers in the hillside areas of the Rio Cobre watershed. Farmers are organizing and being introduced to permanent tree crops. This approach serves several priorities. It promotes environmental conservation through agroforestry cultivation; increases export-oriented production through coffee and citrus tree crops; and boosts the income of small farmers.



The R&DD/MINAG is responsible for managing and executing the project, which has already incorporated the number of farmers it targeted for collaboration. Project personnel have commenced publishing valuable agro-socio-economic information on small hillside farms that are concerned mainly with tree crops, and on the farming systems research methodologies used in this project.

IICA's role in HASP is one of support to R&DD/MINAG, through the administration of the external grant funds and the provision of technical support. Financial support for HASP is provided by USAID through HAP, the GOJ and IICA.

Activities and Achievements

Goal: To develop viable hillside agricultural production systems which contribute to increased sustainable income to small-scale farmers, while conserving watershed resources and strengthening farmers' organizations.

- Tree crop management systems are in the process of development or adaptation for specific locations.
- Fourteen trial sites were established to determine difference in soil loss per unit area, over a range of slopes, vegetation cover and soil type.
- Farmers in the project organized to coordinate production and marketing activities
 through farmers groups called FACTS. Representatives from each FACT group have
 formed local management committees which meet on a quarterly basis to input ideas
 and make recommendations for improving the management, execution and
 evaluation of the project.
- An improved marketing system has been developed and is now at the stage of being operated completely by farmers.
- Initial steps have been taken by RADA to institutionalize on-farm research through
 the deployment of extension officers to work along-side project field teams. Regular
 meetings are being organized at the parish level for reporting with all other relevant
 agencies present.
- Baseline Survey of the sub-project area have been completed and the data are currently being analyzed although some preliminary reports have been produced.
- A training program in farm record-keeping program with literate farmers is in progress.
- Economic information on the establishment, rehabilitation, and maintenance costs of tree crops has been developed and documented.
- Representative farm models of the project area have been developed and are being tested.

Technical Cooperation and Pre-Investment

This activity has been approved for the purpose of providing short-term technical cooperation activities as well as for developing project profiles and activities leading to the generation of external funding.

Within this activity, an institutional strengthening action was executed to support the Ministry of Agriculture with the creation of the Rural Agricultural Development Authority (RADA).

Other actions undertaken were those leading to the phase-out of the "Cropping Systems Outreach" project. This phase-out effort project was aimed at extending successful technologies developed through the Cropping Systems Project to a wider range and larger group of farmers in four areas of the island. In the first year it intended to reach 700 farmers in the following designated areas:

- Smithfield and Cash Hill in Hanover
- Christiana and Allsides in Manchester and Trelawny
- McNie and Douglas Castle in Clarendon and St. Ann
- Unity and Lawrence Tavern in St. Andrew

Also, by way of this activity, professionals and technical staff from the agricultural Public Sector have been supported financially and sponsored by IICA to participate in different courses, seminars, conferences, workshops, and in-service training activities throughout the Caribbean and Latin America.

Institutional Diagnosis of RADA

The institutional strengthening of agricultural-related institutions in Jamaica is one key area where IICA's cooperation is vital. IICA is currently extending this expertise to the strengthening of the Rural Agricultural Development Authority (RADA). The critical importance of this activity rests upon the fact that the establishment of RADA constitutes the major institutional policy development with the agricultural sector in Jamaica, and IICA has been asked to be present and be an active part of the strengthening of this important institutional development.



IICA believes that RADA will fulfill the role of a functional extension service, but the young agency requires more encompassing strategic planning, defined objectives and more sharply focused operational plans. These capabilities in turn require more detailed knowledge concerning production constraints and knowledge of the limitations facing small farmers. This type of information can only be identified through participatory, farming systems research surveys. From such studies, extension activities can be organized and operational plans developed. Strengthening of extension personnel will also be essential, as will adequate support through a strong applied research program.

For this reason, the purpose of IICA's short-term action was designed to:

- Improve RADA's institutional operative organizational structure
- Develop an institutional strengthening project profile for RADA to be presented for external funding.

Activities and Achievements

Goal: To Improve RADA's Institutional Operational Structure

- Direct technical assistance has already been provided to different levels of RADA's organizational structure.
- Policy frameworks have been discussed and implemented.
- The Project Profile for RADA's Institutional Development is being developed.

Farm Management Training and Generation of Information

In 1986, the Ministry of Agriculture requested IICA's assistance to review and analyze the methodology used for the preparation of production cost estimates for dairy farming enterprises, and to make recommendations for improving the system of estimating farm production costs for whole milk.

In response to this request, IICA developed a project to assist MINAG's Farm Management Section (FMS) in organizing:

- a) A permanent program for cost-of-production estimates for enterprises or enterprise combinations identified by MINAG. Also for determining co-efficients of production for most common enterprises to develop a series of partial budget and/or linear programs.
- b) The training of personnel in the FMS and Extension Services in the analysis of agricultural enterprises. Among possible areas of training are: computer-aided farm management packages, interpretation and analysis of survey data, and basic farm accounting methods.
- c) An advisory and consultancy service in other areas of farm management, including multi-disciplinary agricultural research projects and the strengthening of MINAG's capabilities in all aspects of the project cycle.

The general strategy of this effort was to strengthen the MINAG-FMS and national institutions working in the agricultural sector, through the generation of information and training materials, and through training in farm management.

The main focus of action from 1988 through to 1991 involved the:

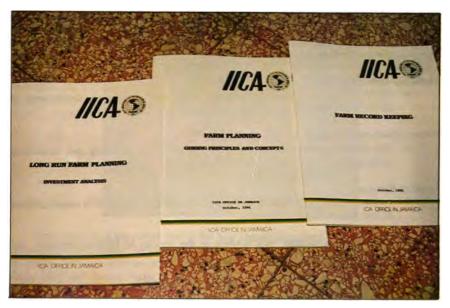
- Development of farm management training materials
- Assistance to MINAG-FM S personnel
- Training of extension personnel
- Development of cost of production and collection of data methodology
- Development of representative farm models
- Development of a record-keeping system, processing and dissemination of information

From the outset, this project's philosophy has been to cooperate with Government Organizations in the areas that GOJ policy-makers and officers considered necessary to strengthen and improve. This approach therefore ensured the continuity of project actions and the institutionalization of all project activities, in the short, medium and long term.

The project cooperated in the development of methodologies in the generation of information for research and extension recommendations and in the training of personnel who

use the information and methodologies to assist small farmers. All of the information and methodologies generated, both directly and indirectly by the project, are being used by the Government and NGOs and constitute a source for developing better methodologies and information to assist the small farmer.

The Farm Management Training and Generation of Information project finished in December 1991. The project's specific objective was to strengthen the capabilities of public and private organizations to assist small farmers to improve their farm management skills. The project was successful in generating economic information, developing training materials and training personnel.



Activities and Achievements

Development of Farm Management Training Material

 Farm planning, record-keeping and long-run farm planning training materials used to train extension personnel were completed and distributed to libraries and training institutions.

Training of MINAG Farm Management Unit Personnel

 Ten MINAG-Planning and Policy Division and two PIOJ staff were trained in the development of representative farm models using linear programming.

Development of Cost of Production Data Methodology

 A computerized permanent crops cost of production methodology was developed, tested and cost data processed in collaboration with MINAG-Farm Management Section.

Development of Representative Farm Models

 Multi-period representative farm models, including investment activities in annual and permanent crops, were developed for agricultural policy analysis and research and extension recommendations.

Dissemination of Information

 Cost of production data for ten main annual crops in 13 parishes, developed in collaboration with MINAG, were published and distributed to the main Government and NGO's working in the agricultural sector. The cost of production information for annual crops was presented and distributed to RADA's extension personnel.

Statistical Data Base

 IICA's Office has initiated the collection of Jamaican data for the development of an IICA Caribbean-wide agricultural statistics data base.

Project Monitoring Methodology

 The project participated in the development of the planning and monitoring methodology for RADA's Yam Mini-Sett project.

Training Personnel

- Assisted in training of 20 Hillside Agriculture Project (HAP) staff in record-keeping of cost and technical information.
- The project cooperated with CARDI in the training of MINAG-Research and Development staff.
- Additional cooperation with the Administrative Staff College resulted in the training of Government personnel in project preparation.





Since 1988, IICA has participated in the Yam Export Committee (YAMEX) representing sixteen public and private sector organizations. YAMEX was created to address the yam production problems experienced by small farmers in Jamaica. The Committee first met in March 1988 and formed three working groups for promotion, production and marketing respectively. These working groups subsequently met on a regular basis and produced a series of recommendations. The recommendations revolve around the setting-up a national project aimed at increasing the commercial production of yams for local and export markets by introducing the Mini-Sett yam technology and through a modification of traditional yam farming.

The Mini-Sett yam project concentrates on export varieties in the parishes of Clarendon, Manchester, Trelawny, St. Ann, St. Catherine and St. Andrew and Hanover. Training by means of on-farm demonstrations, field days and the development and use of other methods of communication (such as brochures and video programs) is the means by which the mini-sett innovation is spearheaded.

Thus the major activities in the mini-sett project are:

- To establish mini-sett and intercropping demonstration plots in cooperation with small farmers in all major yam producing areas. These demonstrations are staggered throughout the year to show the potential for year-round production and market supply, together with cost and returns data for the different planting dates.
- To undertake and continue research to further improve the productivity and profitability of the mini-sett technology.

It is expected that through this initiative, 1,000 farms will adopt the new technology, substituting 500 acres of traditional yam cultivation with the Mini-Sett innovation thereby doubling their total output of yams. Furthermore, assuming that the exportable proportion of output is increased from 65% to 85%, export of yams will be two and a half times greater than before the project began.

This project is executed by RADA as part of the National Yam Export Development Project with the administrative and technical monitoring support provided by IICA. Major funding is provided by USAID (Agricultural Export Service Project), the GOJ and IICA.

Activities and Achievements

Through this project, RADA has displayed an outstanding performance in its first year of operation, 1991, as is evident from:

- 48 Extension Officers received training on Mini-Sett technology and now a total of 60 extension officers have been trained.
- 500 farmers were trained in Mini-Sett technology. 1500 farmers attended field days.
- 245 farmers established nurseries and 163 have already transplanted and are gearing to establish and manage 0.1 acres of Mini-Sett production plots.

Training Aids Produced

- Yam production promotional brochure and booklet.
- Technical brochure on Mini-Sett Technology.
- Proceedings for the field day with a technical paper produced on Mini-Sett production.
- Videotape on commercial Mini-Sett yam production.
- Videotape produced at the Denbigh Agricultural Show on Mini-Sett production.

FINANCIAL RESOURCES

The year of 1990 was one of significant achievements for the administration and finance of the IICA Office in Jamaica. Among the most important of these was the continuing evolution of the computerized financial management system, which has now been standardized. This system, in addition to making the financial accounting management of the Office more independent, has improved the ability of the Representative to issue complete and timely financial reporting packages on a monthly basis and, in addition, has expedited the preparation of the year-end financial statements.

IICA's operations are financed by regular funds, which consist of revenues from Member States' quotas, overhead charged for administering external resources, and miscellaneous income. In addition, the office also administers external funds, or funds which are provided by national and international organizations and agencies, and which are designated for specific activities, in accordance with established objectives.

The distribution of the expenditure of quota resources the Office in Jamaica, Direct Technical Cooperation Services representing 83% of all resources expenditures, Management Costs, 15.2%, and General Costs and Provisions, 1.8%.

The IICA Office in Jamaica will continue its strategy of optimizing its human, administrative, technical and financial assets within its limited institutional resources, in order to continue increasing its technical cooperation program in Jamaica.

FUTURE DIRECTIONS FOR IICA IN JAMAICA 1992-1993

It is expected that the Government of Jamaica will continue its current strategy for increasing exports and supporting a market-driven economy. Within this context, IICA will continue its work of supporting small farmers, improving environmental conservation practices, facilitating farm management practices, and other similar activities, as it has throughout 1990 and 1991.

However, this office also anticipates a shift in demand for its own expertise to one of supporting agricultural policy development and improving the quality of relevant agricultural research and training within the new agricultural institutions of RADA and NARI (to be created). IICA expects to be working more closely in the strengthening of these two institutions and to pursue further joint applications for external funding support for projects these organizations shall execute.



As well, projects focusing on the management and organization of rural development will be encouraged. Within this strategy, further attention will be paid to the needs of women farmers, domestic agricultural diversification, improvements in rural infrastructure, and similar supportive initiatives. Through all of these activities, the importance of sound environmental practices will be maintained.

PUBLICATIONS

The following are the publications by this office during 1991, through its technical cooperation program:

- Estimated Growth in Domestic Crops Area, Yield, and Production, 1969-1988, January 1991.
- 2. Cost of Production of Food Crops, (13 Parishes), July 1991.
- 3. Farm Planning Manual, December 1991.
- 4. Long Run Farm Planning Manual, December 1991.
- 5. Farm Recordkeeping Manual, December 1991
- 6. Seasonal Variations and Variability of Prices of Main Food Crops, December 1991.
- 7. Improved Technology for Yam Production (Booklet), November 1991.
- 8. Training Day on Mini-Sett Yam Production at Bodles Agricultural Research Station (Proceedings), October 1991.
- 9. Report on the Farmers' Market Fair
- Economic Feasibility of Expanding Permanent Tree Crops on Hillsides, December 1991.















