

# IICA



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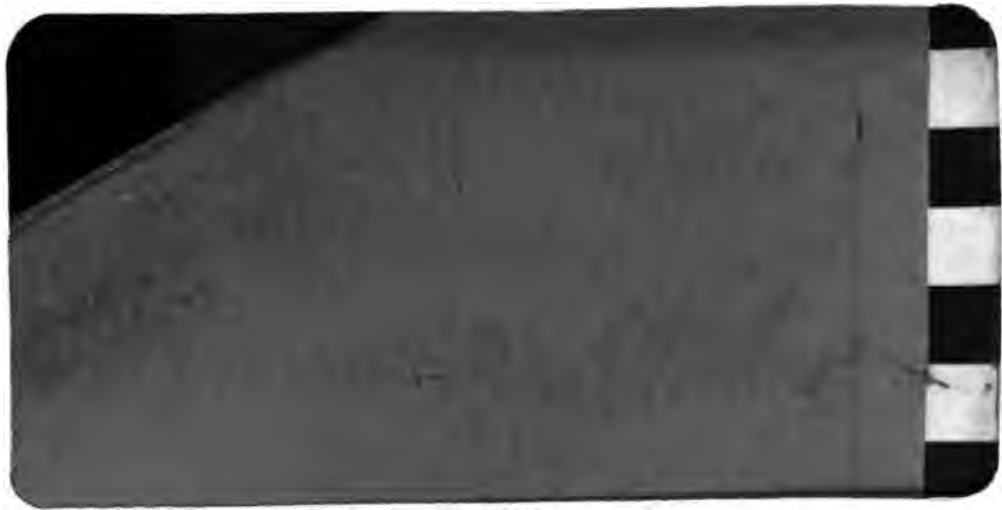
IICA — CIDIA

**ANNUAL REPORT  
TO THE  
GOVERNMENT OF ANTIGUA AND BARBUDA  
1990**

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IICA OFFICE IN ANTIGUA AND BARBUDA



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## GENERAL INFORMATION

The Inter-American Institute for Cooperation on Agriculture (IICA) is an international organization with full legal standing. It is governed by its Member States, currently thirty-two (32), which are responsible for guiding, monitoring and evaluating the institute's operations. The institute was founded in 1942 as the Inter-American Institute of Agricultural Sciences.

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

The contributions of the Member States, as well as through relations IICA maintains with 12 Permanent Observer Countries and numerous international organizations, allow the Institute to channel significant human and financial resources toward the agricultural development of the hemisphere. IICA's Permanent Observer Countries are: Austria, Belgium, Egypt, Federal Republic of Germany, France, Israel, Italy, Japan, Korea, Netherlands, Portugal and Spain.

The Inter-American Board of Agriculture (IABA) is the Institute's highest Governing Body. The IABA is made up of representatives of all the Member States, meets regularly every two years primarily for approval of policy guidelines and the two-year programme budget.

The Board works through an Executive Committee which meets every year at IICA's Headquarters in San Jose, Costa Rica and is composed of representatives of twelve (12) Member States, three from each of IICA's four (4) geographical areas, Central, Caribbean, Andean and Southern. Member States are elected for two year periods on a staggered rotational basis which ensures degrees of continuity.

The General Directorate is the executive body of the Institute, headed by the Director General, elected every four years and made up of Administrative and Technical Units responsible for coordinating and implementing the Institute's actions in accordance with policies established by the IABA.

The Medium Term Plan is the tool designed for steering IICA's activities for a specific period, presently 1987 to 1991 and now extended to 1993. The Plan is based on resolutions of the IABA, the proposals of the Director General and recommendations of a group of experts on IICA's future orientation following an evaluation conducted in collaboration with Member States.

The Ninth Inter-American Conference of Ministers of Agriculture was held in Ottawa Canada in 1987. The Ministers endorsed the Medium Term Plan and mandated IICA to develop a Plan of Joint Action for Agricultural Reactivation to fulfill recommendations under the Ottawa Declaration. This Joint Action Plan was approved by the IABA at its fifth regular meeting in Costa Rica, October, 1989 and agreed to its implementation.

PLANLAC has been incorporated into the Institute's General Policies and its projects in cooperation with member countries, are channeled through its five programs.

#### **I Agricultural Policy Analysis and Planning**

The Program's goal is to contribute to the design of a model for sustained development in which agriculture is assigned a major role whereby relations between agriculture and other sectors are strengthened while raising the level of economic activity in rural areas. The program will encourage countries to define an agricultural strategy in which policies are clearly defined, institutional reforms are adopted and investment programs are designed and put into operation.

#### **II Technology Generation and Transfer**

The Program promotes and supports Member State actions in connection with institutional development and modernization aimed at improving the design of technology policy, strengthening the planning, programming, organization and administration of national technology generation and transfer systems and promoting closer ties between these for reciprocal cooperation and improving international relations.

#### **III Organization and Management for Rural Development**

The Program aims to increase the contribution of the small farm economy and rural society to the reactivation of agriculture, strengthen the participation of small farmer groups in decisions that affect them and improve the living conditions of the rural population.

#### **IV Marketing and Agro-industry**

The Program aims to promote the agriculture, agroindustry complex as a development strategy for reactivation through the modernization of marketing systems for domestic and international trade with the promotion of agroindustry as the inter-sectoral link between primary production and consumption.

#### **V Agricultural Health and Protection**

The Program is designed to help reactivation of the Agricultural Sector by solving problems caused by the presence and impact of diseases and pests that limit marketing and reduce productivity.

The Institute's office, headed by a representative in a member country, is the institutional and administrative base for maintaining relationships with government authorities, providing logistic support to IICA's Program Activities, executing approved projects, providing technical assistance and developing projects for funding and implementation.

The Institute has developed an Investment Projects Centre (CEPPI) for agricultural pre-investment and a special Project Unit for the Caribbean area located in Barbados with similar purpose.

The Inter-American Agricultural Documentation and Information Centre (CIDIA) offers services related to subject areas selected for action by the Institute's programs.

In agreement with member countries within the Organization of Eastern Caribbean States (OECS) IICA has adopted a joint strategy and is



presently executing the following projects:

### **National Projects**

#### **Program II**

Support for the Organization and Management of Technology Generation and Transfer in the Eastern Caribbean States

#### **Program III**

Strengthening of Farmers Organizations in the OECS

#### **Program V**

Strengthening Plant Protection and Quarantine Capabilities in the Countries of the ECS for the Production and Marketing of Non-Traditional Crops

### **Multinational Projects**

#### **Program I**

Design of Strategies for Policy Analysis Planning and Management in Support of Agricultural Development in the Caribbean

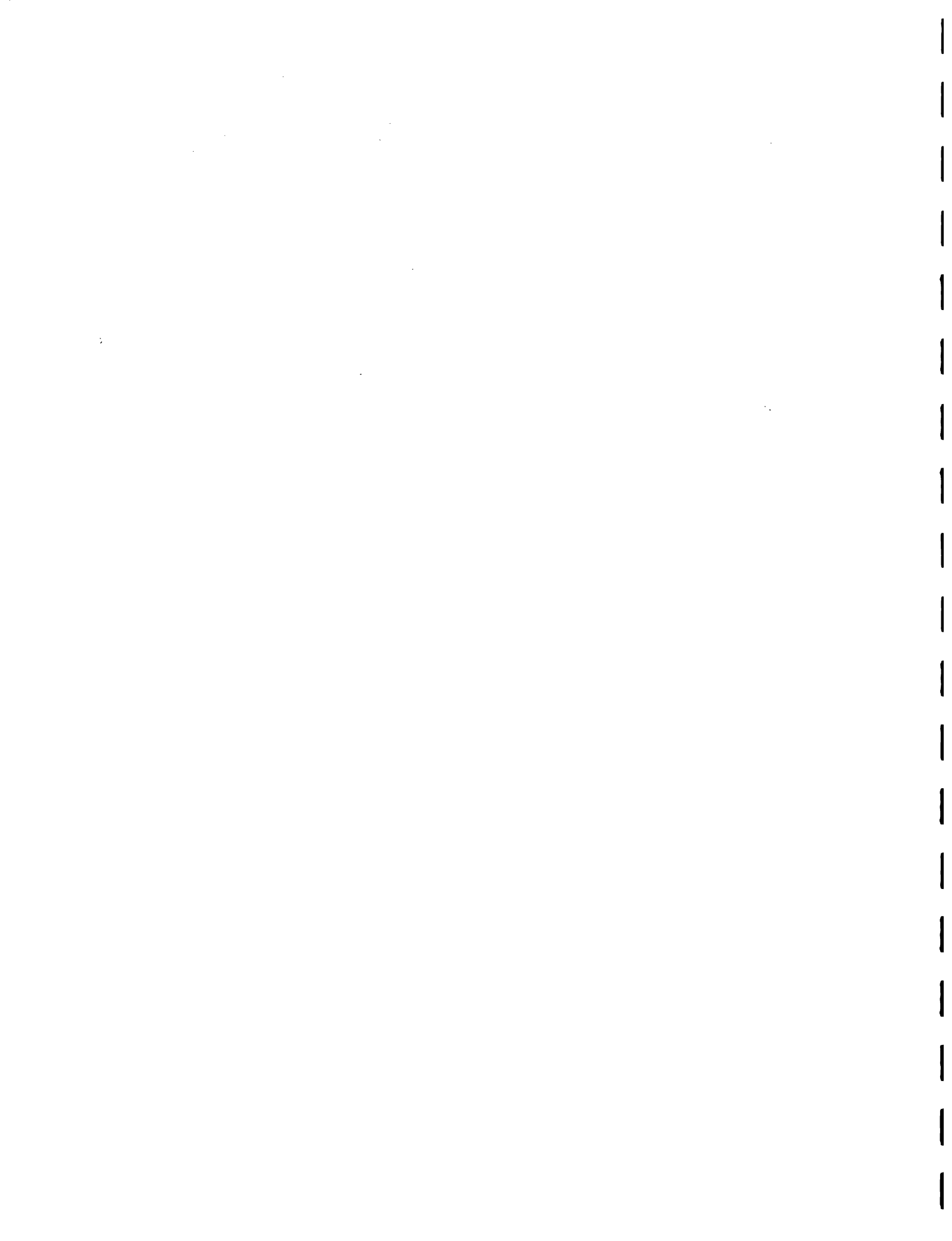
#### **Program II**

Supporting the Development of Tropical Fruit Crops in the Caribbean

#### **Program V**

Survey and Monitoring of Animal and Plant Diseases and Pests to facilitate increased production efficiency in the Caribbean

The Caribbean Animal and Plant Health Information Network (CARAPHIN)



## HISTORY OF IICA IN ANTIGUA AND BARBUDA

Antigua and Barbuda became a member of IICA in 1987. The Area Director, Dr Reginald E Pierre was relocated from San Jose, Costa Rica to Barbados in April 1989. Dr Franz C Alexander, Representative and two other international professionals, Mr Jerry La Gra, Specialist in Marketing and Rural Development and Dr Antonio M Pinchinat, Regional Specialist in Technology Generation and Transfer, operate out of the St Lucia Office.

Mr Urban Martin, National Coordinator/Plant Protection Specialist in the Dominica Office has project responsibilities for Antigua and Barbuda.

Liaison desk provided for Secretary, housed in OAS Office, Factory Road, Antigua 1990.

Technical Cooperation Actions have included:

- IICA/PAHO/USDA - Technical mission - Tropical Bont Tick and Associated diseases 1982
- IICA/USDA - Seminar/Workshop "Tick Eradication Measures" - Puerto Rico 1986
- IICA/USDA Feasibility Study for Management of *Amblyomma variegatum* in the Eastern Caribbean 1987
- Feasibility Study of Animal Health Information and Surveillance Systems - CARICOM/IDRC/IICA North Carolina State University 1987
- An Agricultural Sector Assessment for Project Identification was implemented in 1988 by a multidisciplinary IICA team in collaboration with the Ministry of Agriculture and other institutions especially OAS and CARDI. Review of the Document took place at a MOAAB/IICA workshop in 1990 and received inputs from CARDI, UWI, OAS and EDF.
- Participation in Project - Strengthening Agricultural Technology Generation and Transfer Systems in the OECS. Functional reorganization of the National Agricultural Technology Development System, Policy guidelines and assistance with national crop/livestock development work plan
- Preparation of Project Profiles "Latin American/Caribbean cooperation in collaboration with CEPPI on technical assistance for agricultural development 1988
- Preparation of project profiles 1988
- Technology Transfer and Training in Support of Fruit Crop Development in the Eastern Caribbean
- "Supporting the development of the Food and Vegetable Crops"
- "Development of the institutional framework for the production and marketing of high quality planting material"

**"Farming systems Research and Extension Network in the Caribbean"**

Country visits by Research and Extension Officers MOAAB and farmers to St Vincent and the Grenadines for vegetable production and Fruit Crop (Mango Topworking) production (1989)

Response for Hurricane Hugo relief - Short Term Action for Vegetable production (1989/1990)

Participation at International Workshop on CARAMBOLA held in Guyana (1989)

Participation in joint activities under the project "Strengthening of Farmers Organization" including establishment of the Inter-Island Steering Committee of Farmers Organizations, ISCFO and publication of quarterly newspaper "Focus on Integrated Rural Development"

Technical Assistance for Training Course in Post Harvest Handling of Perishable Crops at Davis California, USA, 1987 in which Antiguan professionals participated

Baseline document with profiles on farmer organizations in Antigua and their needs for development (1989). Guidelines to the MOAA, national strategy to strengthen farmers organizations

Analysis of the administrative, managerial and marketing institutional structure of the

Cooperative Farmers Association (CFA). Project profile prepared for the development of production and marketing activities through the CFA. Financial Management System in place and Funding obtained for support to equipment needs (1989)

- Established trading of fresh produce between farmers organizations Dominica/St Lucia and CFA. Fruit tree crop production activity (paw-paw) initiated through CTA

- Diagnosis of the Plant Protection System and recommendations for action documented "Status of Plant Protection and Quarantine in Antigua and Barbuda" (1988)

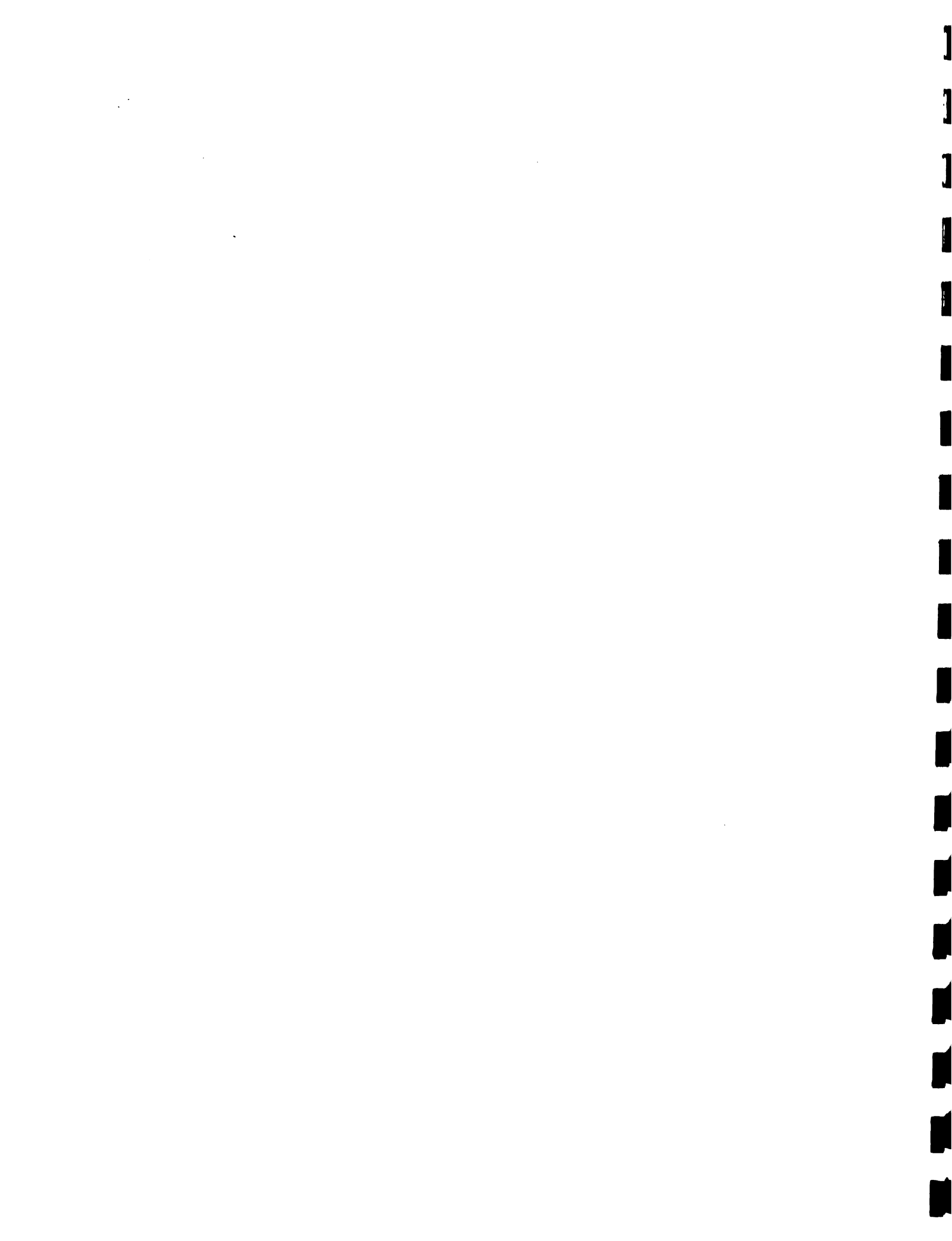
- One-week workshop for twenty (20) participants - "Plant and Animal Quarantine" organized with MOAAB with technical support from FAO and USDA/APHIS (1989)

- Participation in the meeting to discuss the plant quarantine system for the OECS and regional workshops for the formulation of recommendations of the CARAPHIN project held in Trinidad and Tobago

- Participation in the Joint Meeting FAO/IICA in Trinidad and Tobago on "Problems of the African Locust" and assistance through IICA's emergency funds to support national efforts to combat the locust incursion during 1988

Assistance to the CARICOM  
Secretariat in the formulation  
of "Regional Agricultural  
Development Programme" 1988

- Preparation of the OECS  
Agricultural Diversification  
Programme for joint marketing  
in collaboration with CDB and  
CARDI 1987-1988



## SUMMARY OF IICA ACTIVITIES IN THE OECS

IICA's projects progressed satisfactorily in the subregion. With the functional operation of the OECS Agricultural Diversification Coordinating Unit, ADCU, every effort was made by the Project specialists to collaborate, advise and support activities which contributed to the development of the Programme. Two meetings of the Management Advisory Committee were held in Dominica and several other meetings with the Coordinators in Antigua, Dominica, St Lucia and St Vincent, mainly often in associations with CARDI officials and their technicians.

IICA is recognized as a technical institute with support projects for the Diversification Programme Strategy and as the lead agency for Strengthening Farmers Organizations.

IICA's project workshops for network development were strongly supported by the ADCU and other organizations in the region as IICA reciprocally supported ADCU/CATCO workshops for marketers and post-harvest handling of fruit crops.

The Diversification Programme is receiving most support at this time through the TROPRO project funded by USAID with CARDI and CATCO as agencies responsible for Production and Marketing modules. Work programmes developed for Fruit Crop Production has incorporated IICA's support of training requirements and for specific expertise in certain crops especially papaya and carambola. The Coordinating Committee for Fruit Crop Production proposed between CARDI, IICA and UWI was welcomed with possible orientation for specific commodity development programmes.

Proposals from the French Government have been incorporated under IICA's project and through coordination by the ADCU.

Program II - Support for the Organization and Management of Technology Generation and Transfer in the Eastern Caribbean States

This Project aims at strengthening functionally the technology development and transfer systems in the countries and promoting networking among them regionally. It targets the research/extension structures in the Ministry of Agriculture (MOA) of each participating country and facilitates their capitalizing on the technical cooperation of bilateral, regional or international research institutions operating in the subregion. It assists the MOAs in defining and formulating technology development/transfer projects for external funding. Through practical training it provides methodologies and tools for upgrading the managerial capability of the MOAs in implementing their core and externally funded crop/livestock development projects.

In cooperation with the OECS Agricultural Diversification Coordinating Unit and technical support from CARDI, UWI, IRAT and INRA from France and the Republic of China (ROC) it has assisted in the operation of two OECS Regional Networks formed by Project Leaders from the MOAs. The first Network deals with Yam and the other with Vegetable Development Projects in the region. Both have received substantial financial support from ADCU and the French Mission for Cooperation (FMC) Regional Rural Development Office in St Lucia.

The MOA Antigua and Barbuda in cooperation with IICA successfully hosted the First OECS Vegetable Development Projects Workshop during July, 1990.

#### **Program III - Strengthening of Farmers Organizations in the OECS**

This four year project was initiated in January 1988 and is progressing on schedule. The Project covers five ECS countries, to be extended to six in 1991. The Project is assisted by Peace Corps Volunteers and short-term consultants financed by both quotas and external sources. Three-quarters of the way complete this Project receives strong support from farmers organizations, respective Ministries of Agriculture and diverse regional and international organizations.

The Project is well on its way to achieving its six intermediate objectives. As a result IICA has been selected by the OECS Agricultural Diversification Programme as the lead agency in working with farmers organizations in the Sub-Region.

The Project has been directly responsible for the formulation and funding of six development projects in 1990 which has generated US\$250,000 capital investment for farmers organizations. The Project had substantial impact in reorienting agricultural policy in favor of small farmers and farmers organizations. To quote from a recent evaluation of IICA actions in the OECS: "Farmers organizations in the countries have been marshalled, mobilized and motivated to new heights of performance and expectations. This is a successful project which is addressing a vital rural development need in all the countries."

The Caribbean Farmers Development Company (CFDC) consisting of 12 farmers organizations from six countries was registered under the Companies Act in St Lucia and a full time general manager hired. The CFDC is represented on the Management Advisory Committee of the ADCU and is actively engaged in coordinating marketing activities between farmer organizations. The Project has been engaged in a number of training activities in support of farmers activities.

A Commodity Systems Assessment Methodology for Problem and Project Identification has been developed by the responsible professional and is being promoted as an appropriate methodology for diversification programmes in the Caribbean, Latin America and South East Asia. The Quarterly newspaper Focus on Integrated Rural Development was published on a regular basis and both CARDI and ADCU have agreed to support its publication in the future.

#### **Program V - Strengthening Plant Protection and Quarantine Capabilities in the Eastern Caribbean for the Production and Marketing of Non-traditional Crops**

The project is being executed by two Professionals, one based in Dominica who also has responsibility for Antigua and Barbuda. The other is based in St Lucia and also has responsibility for Grenada and St Vincent and the Grenadines. Its main thrust is on institution building activities in the Ministry of Agriculture and at the level of farmer organizations often in collaboration with CARDI and other agencies.



There are three activities:

### 1. Training in Plant Protection

A commodity systems approach to the problems of the crops identified by the countries is taken. The aim is to develop a pest management system per crop.

Plant Health clinics are held together with the Plant Protection Unit of the Ministry of Agriculture and sometimes, CARDI professionals, farmers and extension officers on farmers holdings and pest problems and control strategies discussed and demonstrated;

Field visits to individual farmers at the request of the extension officer or Plant Protection Unit to provide pest diagnostic and advisory services.

Participation and support to training workshops and seminars organized by the project, the Plant Protection Unit or other institutions.

Major problems of crops have been identified and a methodology for analysing these problems has been identified.

### 2. Data base Retrieval Systems

Known data bases were examined and the Caribbean Plant Protection Commission Food and Agriculture Organization (CPPC/FAO) data base was considered adequate except that it needed to reflect the local situation. This data base was later distributed to the countries through CARAPHIN. Information on the pests of the various crops for the OECS is collected and in collaboration with

FAO, the data base is updated and distributed to other countries. In addition, it became apparent that pesticide and plant quarantine information was not properly managed. A plant quarantine data base was written and has been introduced in St Lucia. A pesticide management data base is also written. Information on specific pests of crops is being accessed and sent to the countries as requested.

The project has assisted computer training and responded to several requests for information on plant protection issues.

### 3. Inter - institutional Collaboration and Cooperation

The project continues to encourage effective quarantine and pesticide management through workshops and talks and encourage management systems. It promotes regular discussion amongst countries and agencies involved in plant protection through meetings.

Together with the MOA St Lucia the Project organized and participated in the VIth meeting of the Technical Advisory Committee of Plant Protection Directors in June 1990 at the La Toc Hotel. Some of the issues discussed were the difficulties encountered by fruit fly free Grenada and St Vincent and the Grenadines with fruit exports to the USA and Annona species in particular. The incidence and implications of Thrips palmi were also discussed.

As a result of the project many problems affecting production and marketing are being addressed.

**Monitoring of Fruit Flies in St Lucia and Dominica**

IICA signed an agreement with OICD/USDA for responsibility to monitor and evaluate project activities in St Lucia and Dominica through visits along traplines and laboratory visits to check records.

This agreement began in late October 1990 and ended in January 1991. A status report, monthly and final reports were submitted. The results of the survey indicated that the dominant fruitfly was *Anastrepha obliqua* which was present in both islands. *Anastrepha interrupta* was also found in Dominica.

In Grenada, the development of papaya demonstration plots led to the successful marketing for domestic use and exports of appreciable quantities of fruit. This country initiative executed under a technical coordinating committee composed of several agencies and assisted by the Fruit Tree Crop Project Specialist and a US Peace Corps Volunteer has promoted interest for further expansion of production by farmers. The initiative illustrates the successful approach required in the OECS where many agencies participate in the agricultural sector.

The Multinational project for Policy Analysis and Planning responded to Dominica's request for assistance in the preparation of a Sector Plan and to Antigua and St Vincent's requests for assistance in the development of the Planning Process.

Able supported by the Planning Unit, member countries have voiced their gratitude for IICA's response. The Project Unit - continued its support for the development of a project for Rehabilitation of the Coconut Industry in St Lucia and response from a Brazilian Technical Mission is awaited as well as other agencies since the project bears substantial interest for all of the Windward Islands.

The CARAPHIN Project has provided Computer equipment in all member countries and effected training in its use. Data banks have been made available and a newsletter developed.

The relocation of the office in Grenada was satisfactorily completed thanks to the generosity of the Government of Grenada and the cooperation of the Ministry of Agriculture and Works. IICA's new address in Grenada is the Villa in St George's. IICA's image in Grenada has been enhanced and this coincided with the Tenth Year Celebration of the opening of the office in Grenada which was highly appreciated.

IICA attended the regional FAO meeting held in St Lucia in support of the agricultural programme. Representation and support was provided to several workshops, seminars and meetings by professionals throughout the OECS.

IICA offices facilitated an evaluation mission during 1990 whose report attested to the appreciation by member countries of the Technical Cooperation being implemented by IICA in the OECS.

## TECHNICAL COOPERATION PROJECTS

**Project Title: Support for the Organization and Management of Technology Generation and Transfer in the OECS**

### 1. BACKGROUND AND JUSTIFICATION

This five year Project began in June 1988. It is based on previous diagnosis conducted by IICA in the Organization of Eastern Caribbean States (OECS) which revealed serious constraints to technological modernization of agriculture in the region. The major technical issues found to be contributing to this problem were:

- 1) unsettled technology policy
- 2) functionally diffused organization of the national agricultural research/extension subsystem (NARES)
- 3) insufficient managerial capability of the NARES for technology generation and transfer (TGT)
- 4) insufficient institutionalization of horizontal/reciprocal cooperation to make more efficient use of scarce public resources allocated to TGT, and
- 5) insufficient capitalization of external financial resources to fund complementary components of core national TGT development projects

### 2. OBJECTIVES

#### 2.1 General

To increase the impact of the National Agricultural Technology Development and Transfer System (NATDTS) on agricultural development in the Organization of Eastern Caribbean States.

#### 2.2 Specific

To strengthen the organization and management of NATDTS and promote sub-regional collaboration in technology identification, generation/adaptation, validation and transfer.

### 3. ACTIVITIES AT COUNTRY AND REGIONAL LEVELS

The Project's action is developed through three basic activities:

- 1) Technical Support to Functional Organization and Management of NARES in the sub-region  
Based on diagnosis of the NATDTS in each country, assistance is provided to the Ministry of Agriculture (MOA) for improving its TGT functions and operations

- 2) Support for identification and transfer of appropriate technology
- Access of the OECS-member countries to relevant technology available within or outside the sub-region is facilitated and regional horizontal cooperation networks are promoted and institutionalized
- 3) Technical Assistance for Project Development and Implementation
- Support is given to the MOAs in formulating their TGT work programmes and designing and implementing projects within the programmes

### 3.1 Antigua and Barbuda

The Project assisted the MOA of Antigua and Barbuda (MOAA) in formulating a core national vegetable development Project for both domestic and export marketing. It also facilitated the transfer to the country of improved cultivars of three vegetables (mungbean, tomato and chinese cabbage) from the Asian Vegetable Research and Development Center (AVRDC), based in Taiwan to Antigua and Barbuda.

A revised version of the Antigua and Barbuda Agricultural Sector Assessment for Project Identification was prepared by IICA in cooperation with the MOAA. It includes two project profiles: one to improve food crop production and marketing and the other, to support the organization and management of technology generation and transfer, under the leadership of the MOAA.

The Project cooperated with the MOAA in organizing and hosting a Regional OECS Workshop on Vegetable Development Projects. It also assisted the MOAA in conducting a diagnosis of the NATDTS. Together with IICA's Program I Project, it advised the MOAA Planning Unit in formulating proposals to strengthen the planning process for the sector, especially the role of the NATDTS and that of a National Agricultural Advisory Council (NAAC).

### 3.2 Dominica

The Project assisted the Ministry of Agriculture of Dominica (MOAD) in planning its technology development and transfer (TDT) work programme for 1990-1992, involving all of its four Divisions (Agriculture; Forestry; Fisheries; and Lands and Surveys).

In support of horizontal cooperation in the region, the MOAD has allowed one of its Agronomists to function as Coordinator of the recently established OECS Yam (Food Crop) Development Projects Network (YPN).

### 3.3 Grenada

The Ministry of Agriculture of Grenada (MOAG) is the national umbrella institution for the Regional OECS Vegetable Development Projects Network (VPN), established with this Project's assistance. One of MOAG's Agronomists is the VPN Coordinator. Its own national Export Vegetable, Delight Fruit (Pineapple, pawpaw) and Small Ruminant (sheep and goat) TDT projects are provided guidance by this IICA Project.

IICA assisted the MOAG in its search for planting materials of improved yam, ginger and plantain (tissue cultured) cultivars from within and outside the OECS as well as in formulating a TDT Project for each commodity. Furthermore in cooperation with IICA the MOAG Team on Agricultural Technology (TAT), comprising all Division Heads and Planning, reviewed and updated all its crop and livestock development projects. Each of these is technically supported by a Project Advisory Team (PAT) that includes the MOAG, the Caribbean Agricultural Research and Development Institute (CARDI), IICA and other relevant institutions or agencies in the country. The valuable contribution of PAT is reflected in the substantial achievements of the MOAG vegetable and delight fruit project during the year in review.

IICA assisted the MOAG in conducting a high-level one-day retreat to discuss strategies for improving the management of the country's five agricultural stations. MOAG professionals also received training in project management (implementation, supervision, monitoring and reporting).

#### 3.4 St Lucia

This Project actively supported the planning, programming formulation and implementation of TDT projects derived from the Crop/Livestock Development Programmes of the Ministry of Agriculture of St Lucia (MOAL). IICA sits as adviser on the PAT of MOAL projects in livestock, non-traditional crops, root/tuber crops, vegetables, traditional tree crop (cocoa, coconut) and cutflower/ornamental crops.

Technology development and transfer activities in these projects are coordinated by the Ministry with the technical assistance of IICA, CARDI and other relevant institutions or agencies in the country.

The MOAL in cooperation with CARDI and IICA undertook a Project to produce improved hot pepper seed. External funding was provided by the US Agency for International Development (USAID) through HIAMP.

IICA cooperated with the MOAL in training its staff on Extension Organization and Management. Particular emphasis was placed on Extension/Research linkages for the validation and transfer of agrotechnologies.

The TAT, chaired by the Director of Agricultural Services of the Ministry and assisted by IICA, gave special attention to the consolidation of the new MOAL Projects on Coconut, Cocoa, Cutflowers, Pineapple and Agri-equipment Development. With IICA's cooperation a drive began to seek external resources to fund investment components of these projects.

The MOAL received technical support from IICA in developing a strategy to spur agricultural diversification in the country, including field visits on farms and formulation of a Programme for integrating Livestock Development in the country. IICA assisted both the MOAL's NAAC and its Research and Extension Committee. This resulted in the preparation of a Report on the Consolidation of the MOAL and St Lucia Banana Growers Association (SLBGA) Extension services. It also cooperated with the MOAL in producing and publishing the official document

### **on Policy on Agricultural Stations Management.**

The IICA Project facilitated the participation of the MOAL's Cutflower Development Projects Coordinator in a training workshop on Postharvest Handling of Horticultural Commodities for Export, conducted by the IICA Office in Trinidad and Tobago.

The Ministry has been actively participating in the IICA - assisted OECS Networks on yam (food crops) and vegetables.

### **3.5 St Vincent and the Grenadines**

The IICA Project assisted the Ministry of Agriculture of St Vincent and the Grenadines (MOAV) in reviewing current and proposed TGT activities in the country. A set of recommendations was prepared by a team comprising MOAV, CARDI, IICA and other relevant agencies to harmonize projects and institutional responsibilities within the NATDTS. This is one of the major responsibilities of the newly established Research/Development Group (RDG).

IICA collaborated with CARDI in their technical support to the MOAV's Yam Development Project, implemented jointly by its Research and Extension Services. That project has been quite successful in generating increasing interest among farmers to produce and market the commodity in the country.

The Ministry has actively participated also in the IICA-supported OECS Networks on yam (food crops) and vegetables.

### **3.6 Region**

The Project established strong cooperative links with the OECS Agricultural Diversification Coordinating Unit (ADCU). Joint activities led to the organization of a Regional Workshop on Vegetable Development Projects in the OECS, which was hosted by the Ministry of Agriculture of Antigua and Barbuda. ADCU also supported the activities of the OECS Vegetable Development Projects Network which resulted from that Workshop, as well as those of the previously established OECS Yam (Food Crop) Development Projects Network.

The Project collaborated with the Seminar on Strategic Planning for Small-Country National Agricultural Research Systems, which was held in Jamaica, co-sponsored by IICA and other agencies. That training event was attended by high level research/extension professionals from the Caribbean, including the OECS.

Through the Project, IICA entered into a cooperation agreement with the French National Agronomic Research Institute/Antilles-Guyane (INRA-AG) based in Guadeloupe to support the OECS Yam (Food Crops) Development Projects Network. The French Tropical Agronomic Research Institute (IRAT/CIRAD), based in Martinique, cooperated with IICA in providing technical guidance to the OECS Vegetable Development Projects Network. Both Networks received external funding from the French Mission for Cooperation/OECS (FMC) and ADCU. IICA provided regional secretariat support whereas CARDI, UWI and the Republic of China (ROC) Technical Agricultural Missions gave technical assistance to the Networks.

IICA participated in CARDI's Programming Meeting in Port of Spain, Trinidad and Tobago. Areas of cooperation were identified, especially the transfer of technologies from Latin America to the Caribbean.

As a joint effort the University of the West Indies (UWI), FMC and IICA drew up a proposal for organizing a Regional Workshop on Extension Policy, especially aimed at improving agrotechnology transfer in the OECS. Negotiations to secure external funding for holding the workshop are underway.

In all the countries participating in the IICA Project, innovative TGT organization and management tools have been introduced including the TAT (for policy setting planning and programming) and PAT or Task Force (for guiding project implementation). All relevant parties contribute to project orientation, implementation, monitoring and evaluation through regular Project Management Meetings, grouping at least the research/extension, marketing, farmer organization and MOA planning structures in the country.

Close cooperation was developed between IICA and the Board of Directors of the Caribbean Food Crops Society (CFCS) in organizing the 26th Annual Meeting of CFCS in Puerto Rico. The basic objective was to facilitate linkages for the transfer of technology between the Spanish-speaking and English-speaking parts of the region, targeting especially the OECS. A workshop to explore a strategy to foster intra-Caribbean cooperation in agrobiotechnology was led by IICA during the CFCS Meeting.

IICA cooperated with the Caribbean Development Bank (CDB) and the German Cooperation Agency (GTZ) in reviewing and planning technical/financial support to the Caribbean (including the OECS) in biowaste management. A Regional Project was outlined, including construction and maintenance services of biodigesters; biofertilizer production/marketing; environment conservation and protection; electricity generation; and documentation and information. IICA along with CARDI and other regional or national research/development agencies in the region would be involved at different levels of responsibilities should the Project become a reality.

The IICA Project supported ADCU and the Caribbean Agricultural Trading Company (CATCO) in their Regional OECS Workshops on Fresh Produce Export Marketing in St Lucia and on Post-Harvest Handling of Root Crops, in St Vincent and the Grenadines including strengthening the generation and transfer of technology to improve produce quality and reduce pre and post-harvest losses.

A meeting of the YPN took place in St Vincent during the workshop on root crops and one of VPN was held in Martinique. The first was technically led by INRA-AG and the second, by IRAT/CIRAD. IICA's experiences in TGT organization and management in the OECS were shared with Research and Development (R/D) institutions from Africa, Asia, Central and South America and the United States of America, through an International Research Meeting organized and hosted by Michigan State University, E Lansing, MI.

IICA cooperated with the Biotechnology (Training) Programme of the United Nations University (BIOLAC), based in Venezuela, to foster training (secondment) of professionals from the Caribbean at Latin American institutions which excel in agrobiotechnology research/development. With UWI it collaborated with the US Caribbean Basin Initiative (CBI) Fellowship Programme, on behalf of CFCS, in selecting three Caribbean professionals (including one from St Lucia and two from Trinidad and Tobago) who were granted secondment at various US institutions.

IICA also, through this TGT Project, attended the Seventh General Meeting of the Regional Agricultural Extension Coordinating Committee (RAECC), sponsored by CARDI and the UWI, as part of the activities of their Agricultural Research and Extension Project (AREP). The meeting was held in Antigua and Barbuda. The participants proposed that RAECC be changed to Regional Agricultural Research/Extension Coordinating Committee (RARECC). IICA has been actively supporting closer functional and operational linkages between research and extension, to facilitate development and transfer of technology in the OECS.

#### 4. LIST OF PUBLICATIONS (Printed and distributed in 1990)

4.1 Pinchinat, AM; Degras, L; Giffard, JnB; 1989. Regional Advisory Workshop for Yam Development Projects in the Eastern Caribbean. Castries, St Lucia, July 17-19, 1989. Proceedings. IICA Reports, Results and Recommendations from Technical Events Series A2/LC-89-04. 44pp.

4.2 Inter-American Institute for Cooperation on Agriculture. Caribbean Agricultural Research and Development Institute. Ministry of Agriculture, Lands, Fisheries and Cooperatives (ST LUCIA). 1989. Proceedings of a Workshop on Research Methodology. June 15-16, 1989. Union Agricultural Station, St Lucia, 80 pp.

#### 5. PROPOSED ACTIONS AND EXPECTED RESULTS FOR NEXT YEAR (1991)

##### 5.1 Actions

According to the Plan of Operations (PO.2) approved by IICA, the Project will carry out four basic Activities in 1991.

5.1.1 Technical support to Functional Organization and Management of National Agricultural Research and Extension Systems.

5.1.2 Support to Reciprocal Cooperation.

5.1.3 Technical Assistance for (National/Regional) Project Development and Implementation.

5.1.4 Dissemination of Information.

##### 5.2 Expected Results

Among the expected results from those activities the following are highlighted.

5.2.1 Continued consolidation of functional organization of the NATDTS in Antigua and Barbuda, Dominica, Grenada, St Lucia and St Vincent and the Grenadines.



5.2.2 NATDTS of St Kitts/Nevis assessed and institutional strengthening undertaken as deemed necessary.

5.2.3 Strengthened functional and operational linkage between Research/Development and Extension (Technology Transfer) structures in the six IICA-member countries in the OECS.

5.2.4 Improved management capability of the NATDTS in each country to increase the efficacy and efficiency of its operations, especially in crop/livestock project implementation, to advance technological modernization of agriculture in the region.

5.2.5 Updated functional and operational capabilities of the OECS Yam (eventually Food Crop) and Vegetable Development Projects Networks (and others which may be set up), to achieve greater impact on agricultural diversification in the OECS.

5.2.6 Increased transfer of technology (including agrobiotechnologies) from Latin America to the OECS region.

5.2.7 At least two national and one regional TGT projects funded by external sources

5.2.8 Results evaluated and publicized as references for future action.



**Project Title: STRENGTHENING OF FARMERS ORGANISATIONS IN THE EASTERN CARIBBEAN STATES**

**1. BACKGROUND**

The IICA project "Strengthening of Farmer Organizations in the Eastern Caribbean States" came out of a comprehensive diagnosis of production and marketing constraints in the four Windward Islands, executed by IICA in 1986-87.

Farmers organizations within the Sub-region can be divided into two categories: traditional commodity societies (banana, spices, cocoa, coconuts, etc.) and non-traditional associations of small farmers whose members produce an assortment of agricultural crops and a few head of small livestock. Whereas the former have been in existence for a good number of years, have large memberships, relatively good management and offer important services, the latter are of recent formation, have small memberships, weak management and offer few, if any, services to their members.

The priority problems restricting the development of farmers organizations in the OECS were determined to be the following:

1. Weak organisational structure with a low level of farmer participation.
2. Weak management, often undertaken on a voluntary part-time basis.
3. Deficient skills of management and members of farmers organisations in administration, management of information,

project formulation and execution, postharvest handling and marketing.

4. Services provided through the non-traditional farmers organizations are weak or non-existent.
5. Communication systems between members and between farmers organizations are weak or non-existent.
6. Baseline production/marketing information for decision making is unavailable.
7. Technical and financial resources are scarce or provided to groups on an ad hoc basis with little follow-up or monitoring.
8. Farmers organizations lack the expertise or access to expertise for the formulation of systematic production and marketing programmes.

In an attempt to address the deficiencies of the non-traditional groupings of farmers, IICA, in collaboration with the respective Ministries of Agriculture in member countries, formulated and initiated in January 1988 the four year project "Strengthening of Farmer Organizations in the Eastern Caribbean States."

The project recognizes that farmers in Eastern Caribbean countries make significant contributions to the economies of their respective countries and, being small farmers, require strong organizations to

provide the necessary production and marketing services.

## 2. OBJECTIVES

### 2.1 General

Improve the managerial, production and marketing capabilities of small farmers through farmers organizations.

### 2.2 Specific

- 1) Determine the principal needs of farmers organizations in respect to the development of their organizational and managerial capabilities and their production and marketing services.
- 2) Assist farmers organizations in each participating country develop strategies to strengthen and consolidate their management and production/marketing services.
- 3) Assist farmers organizations in the formulation and execution of commodity specific production and marketing projects.
- 4) Design and execute training programmes to assist farmers organizations overcome specific priority development constraints.
- 5) Establish effective Sub-regional communication networks to meet the needs of farmers organizations for efficient production and marketing.
- 6) Assist in the improvement of inter-island and inter-institutional coordination to

improve efficiency in the use of scarce resources.

Elements of the strategy to strengthen farmers organizations include:

- promotion of an active participation of farmers in all decision making activities;
- development of decision making and managerial capabilities;
- building upon existing organizational structures;
- involving local and regional expertise in project design and execution;
- developing production/marketing programmes for niche markets, and
- improving integration and coordination among the many national, regional, international and bilateral institutions supporting agricultural/rural development.

## 3. ACHIEVEMENTS BY COUNTRY

During its third year of operation (1990) the following achievements were obtained under the project to Strengthen Farmers Organizations in the Eastern Caribbean States:

### 3.1 Antigua and Barbuda

- 1) Assisted the Co-operative Farmers Association (CFA) re-initiate inter-island trading activities with Sunshine Harvest Co-operative in St. Lucia. Eight shipments of fresh produce were made from St. Lucia to Antigua.
- 2) The CFA became a member of the Caribbean Farmers Development Company which is promoting regional and extra-regional

trade and small livestock development.

- 3) The Antigua and Barbuda livestock Improvement Co-operative Society Ltd. requested membership into CFDC and their representative participated as observer in the first Board of Directors meeting of CFDC.
- 4) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were circulated to over 200 persons and institutions in Antigua and Barbuda.
- 5) Provided technical assistance to CFA in the formulation of a project to obtain basic marketing equipment and infrastructure. Helped to access funding (US\$21,000) from Inter-American Foundation for financing of project.
- 6) Coordinated support of farmers organizations from four islands for participation in the OECS regional workshop on vegetable production and marketing held in Antigua in July 1990.
- 7) One representative from CFA participated in three planning meetings of the Caribbean Farmers Development Company.

### 3.2 Dominica

- 1) The Caribbean Farmers Development Company (CFDC) was registered in St Lucia and headquarters was established in Dominica with a full-time General Manager and Administrative Assistant.

- 2) A project was prepared for the financing of the operational expenses of CFDC and submitted to the Inter-American Foundation for funding. Said project was subsequently approved in the amount of US\$68,500.00 and is being implemented.
- 3) A project was prepared for the expansion of pasture land for the National Goat Producers Association. Funding was solicited from the Royal Netherlands Embassy in Trinidad (it was approved and is to be disbursed in early 1991 in the amount of US\$7,112.00).
- 4) Three representatives from farmers organisations (SEDPA, DHA, NPPA) participated in planning meetings of the CFDC in St Lucia and Dominica.
- 5) Two farmers from Dominica participated in meeting of OECS Exporters in St Lucia.
- 6) The CFDC was asked to sit on the Management Committee of the OECS-ADCU based in Dominica.
- 7) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were circulated to over 300 persons and institutions in Dominica.

### 3.3 Grenada

- 1) A project to provide marketing equipment to the Productive Farmers Union (PFU) was prepared, approved for funding (US\$24,000) from the IAF and is now being executed.

- 2) Technical assistance was provided to PFU in the development of their accounting practices.
- 3) Two representatives from farmers organisations (PFU, GLA) participated in planning meetings of the CFDC.
- 4) One representative of the MOA participated in a small livestock Sub-Committee Meeting of the CFDC.
- 5) Members of PFU participated in Workshops dealing with Production and Marketing of Vegetables, Postharvest Handling of Mangoes and Root crops and Exports from the OECS.
- 6) PFU initiated direct exports of mixed fruit to buyers in Holland and the UK.
- 7) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were circulated to over 300 persons and institutions in Grenada.

#### 3.4 St. Lucia

- 1) A National Steering Committee of 20 rural organizations formed in 1989 celebrated two meetings in 1990.
- 2) A Sub-Committee, including representatives of farmers organisations, MOA, exporters and Marketing Board, was formed to define a National Marketing Strategy.
- 3) A project to provide marketing infrastructure and equipment to the Sunshine Harvest Farmers Cooperative was approved for

funding (US\$36,000) and is now being implemented.

- 4) Provided technical assistance to STAFCO-OP in the areas of planning and project formulation. A project was prepared and submitted to Canadian Cooperative Association for financial assistance over the two year period 1991-93.
- 5) Provided clearing house information service to Sunshine Harvest and Bellevue farmers organizations to facilitate inter-island trade.
- 6) Assisted Sunshine Harvest and Belle Vue Coops re-initiate inter-island trade. Eight shipments were made to Antigua and Barbados.
- 7) Representatives from STAFCO-OP, Sunshine Harvest and Belle Vue Farmers Coop participated in three planning meetings of the CFDC.
- 8) Representatives from Sunshine Harvest and Belle Vue Farmers Coop participated in regional meetings on vegetable production and marketing, postharvest handling of mangoes, breadfruit and root crops and general exports.
- 9) Sixteen farmers and two extension officers participated in seven day training on problem and project identification and formulation. Six project profiles were prepared.
- 10) Two projects (construction of a honey house (US\$10,000) and the purchase of 50 hives (EC\$23,161) for the expansion

of Roots Farm bee keeping operations) were prepared, funded and put in execution.

11) Over 75 farmers from Desruisseaux Farmers Pre-Cooperative were trained in the use of the ginger tech-pack developed in Dominica.

12) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were published (3000 copies) and circulated to persons and institutions throughout the region.

### 3.5 St. Vincent and the Grenadines

1) Provided plan of action to the MOA for the development of a national strategy to strengthen farmers organizations.

2) Representatives from ORD and National Farmers Union participated in three planning meetings of the CFDC.

3) Assisted the Traffickers Small Business Association formulate project for submission to Canada Fund (EC\$17,400) for enclosing storage space and establishing revolving fund for carton sales.

4) Profiles on farmers organizations in St. Vincent and support organizations were updated and readied for publication.

5) Technical assistance was provided to farmers groups in organization and management.

6) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were circulated to

over 300 persons and institutions in St Vincent.

### 3.6 Barbados

1) A project prepared in 1989 to expand Barbados Agricultural Society (BAS) marketing infrastructure was funded (US\$43,375) in 1990 by the IAF.

2) Two shipments of fresh produce were made from BelleVue in St Lucia to the BAS in an attempt to explore market potential

3) Four issues of farmer newsletter "FOCUS on Integrated Rural Development" were circulated to over 300 persons and institutions in Barbados.

### 3.7 Achievements of a General Nature

Although many actions may be country specific, a large number of the Project activities have an impact upon as many as six islands (to be expanded to include St Kitts/Nevis in 1991). A brief summary of the project activities of a multinational nature is presented below:

1) A quarterly newspaper, "Focus on Integrated Rural Development" was initiated in 1988. Eleven editions (four in 1990) have been published (3,000 copies each) and circulated throughout the region. This publication promotes rural development, farmers organizations and serves as an instrument to facilitate the exchange of experiences among farmers.

2) The Caribbean Farmers Development Company was formed

in May 1990. This regional body of 12 farmers organizations from six countries has been created to promote the strengthening of farmers organizations and to channel support services to aid in production and marketing activities.

4. LIST OF PUBLICATIONS

- 1) La Gra, J.L., August 1990, A Commodity Systems Assessment Methodology for Problem and Project Identification. University of Idaho, Moscow, Idaho. 114 pages and 13 Annexes.
- 2) Oechsle, Susan; January 1990. Guide to Collecting Data for Pork Monitoring Database. Inter-American Institute for Cooperation on Agriculture. St. Lucia 28 p.
- 3) Barry Borland and La Gra, J.L.; February 1990. Proceedings Round Table Meeting on Organic Farming. Dominica, Inter-American Institute for Cooperation on Agriculture.
- 4) Barry Borland La Gra, J.L.; March, 1990. Proceedings Organic Farming Workshop. Dominica, Inter-American Institute for Cooperation on Agriculture.
- 5) La Gra, J.L. & Kelly Brooks; September 1990. Proceedings of Training Workshop in Project Identification and Formulation. IICA, Castries, St Lucia. 24 p. and Annexes.

5. PROPOSED ACTIONS FOR 1991

- 5.1 Development of institutional structure:

- 1) Further support will be provided to the development and strengthening of CFDC;
  - 2) Support will be provided for the development of National Steering Committees on Rural Organizations;
  - 3) Continued assistance will be provided for project identification & formulation, particularly for the supply of farm inputs and agro-processing opportunities;
  - 4) Experiences in the ECS will be expanded to cover other CARICOM countries.
- 5.2 Development of managerial and administrative capabilities of farmer organizations:
- 1) Funding will be obtained to finance activities to strengthen accounting/finance/management functions of selected rural organizations;
  - 2) Efforts will be made to assist groups in getting full-time managers;
  - 3) Training activities will be executed for managers and staff.
- 5.3 Development of agricultural production information systems:
- 1) Efforts will be made to promote a multi-national information network;
  - 2) A monthly production forecast newsletter will be initiated;
  - 3) FOCUS newsletter will be institutionalized;



5.4 Identification of niche markets:

- 1) Market opportunities will be identified;
- 2) Technical assistance will be provided to develop effective production/marketing programmes;

5.5 Development of marketing infrastructure:

- 1) Projects will be identified and formulated;
- 2) Assistance will be provided in project implementation;

5.6 Establishment of marketing fund:

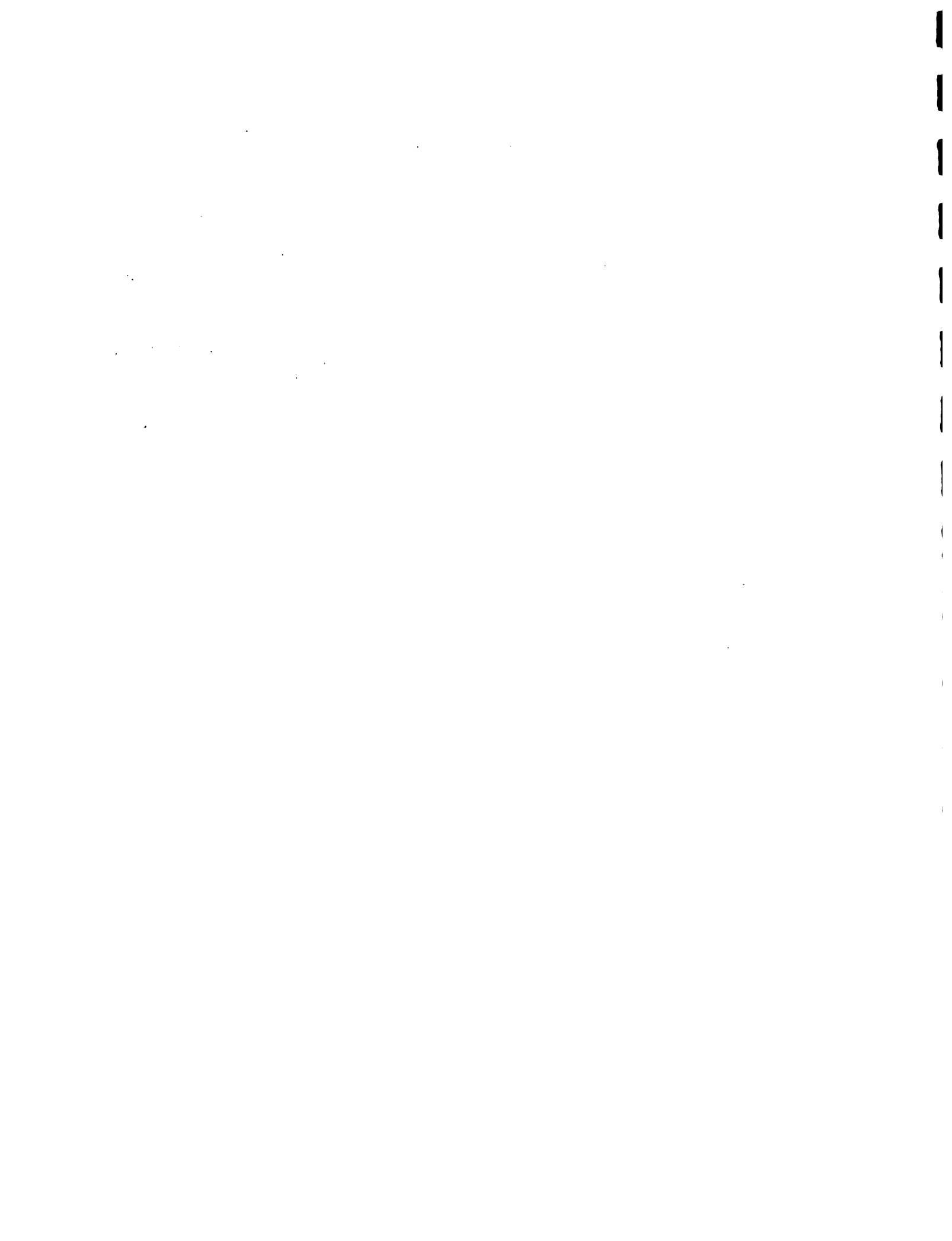
- 1) Needs of farmer organizations for operating capital will be determined;
- 2) A project will be formulated to establish fund;
- 3) Technical assistance will be provided for implementation;

5.7 Development of livestock sub-sector through farmer organizations:

- 1) Needs will be diagnosed;
- 2) Country projects and regional support activities will be designed and executed;
- 3) Technical and financial assistance will be identified and coordinated.

5.8 Development of small farmer production and marketing capabilities:

- 1) Needs for training will be diagnosed;
- 2) Training aids will be prepared;
- 3) Training activities will be organized and executed in production, post-harvest, marketing and management/administration;



**Title of the Project: Strengthening Plant Protection and Quarantine Capabilities in the Countries of the ECS for the Production and Marketing of Non-traditional Crops**

**2. BACKGROUND AND JUSTIFICATION**

The Governments of the member countries in the Eastern Caribbean States (ECS) have identified agricultural diversification as a national policy for development within the Agricultural Sector. Traditionally, the countries have been dependent upon a narrow range of export crops, bananas, coconuts, cocoa, nutmegs, spices and sugarcane. They have been promoting and developing the production of non-traditional crops (avocado, mango, breadfruit, passion fruit, plantain, papaya, pineapple, hot pepper, sweet potato and yam, within their overall diversification thrust for export enhancement and import substitution. However, these crops are being produced severally in small quantities but large numbers are proving unsuitable for export due to unacceptable and variable quality.

Furthermore, the diversification effort exposes potential economic losses from existing pests. In the case of the non-traditional crops, the threat is even greater as there is a lack of experience and expertise in the crop protection methodologies of these crops in the islands.

In some countries, a number of the current pests have been introduced and with expansion underway there will be increased dissemination. In addition, the countries are exposed

to the danger of the introduction of many other serious pests. Therefore, it is necessary to strengthen the countries' plant protection and quarantine capabilities to reduce production/marketing losses, to prevent the entry of exotic pests and diseases. It is also necessary to improve emergency disease response capability and to avoid the loss of exports through any lack of confidence by the importing country in the quarantine services.

Thus, a project was developed which was designed to assist the countries to address the plant protection and quarantine problems related in particular to those commodities forming part of the agricultural diversification effort.

**2. Objectives**

**2.1 General**

To increase the quantity of quality non-traditional crops suitable for export from the ECS

**2.2 Specific**

To strengthen the capability of the countries to reduce the plant protection and plant quarantine constraints to production and marketing of non-traditional crops.

The project was approved in mid 1988 and the following activities were implemented in the countries during 1990.

### 3. ACTIVITIES BY COUNTRY

#### 3.1 Antigua and Barbuda

A new Plant Protection Officer, Mr Vincent Belle was employed by the Ministry of Agriculture. The Project was discussed with him and areas of assistance agreed upon.

Field visits were made to diagnose and advise on the management of pests.

The CARAPHIN computer was installed at Dunbars Agricultural Station and the relevant officers given a review of its operation by Dr Theresa Bernado.

The Project facilitated Mr Belle's participation at the VIth Meeting of Plant Protection Officers of the Caribbean Area held in St Lucia in June and at the 2nd CARAPHIN Workshop held in Trinidad and Tobago in September.

#### 3.2 Dominica

During the year 1990 a total of nine (9) Plant Health Clinics were held islandwide together with the Plant Protection Unit of the Ministry of Agriculture. Over fifty (50) farmers and twelve (12) extension officers participated in these clinics.

Several field visits were made to individual farmers to provide pest diagnosis and advisory services.

The Project Specialist participated in three workshops organized by the Division of Agriculture on Pest Management and

Safe and Effective Use of Pesticides, at which over forty (40) extension agents and thirty (30) farmers attended.

The CARAPHIN computer was installed and officially handed over to the Ministry of Agriculture by Dr Theresa Bernado, who also conducted a quick review training for the plant and animal health officers who will be using it.

The Project completed the development of three (3) data bases on the computer which the Plant Protection Unit has begun to use:

- 1) for monitoring the pest situation islandwide;
- 2) for monitoring exports using data from the phytosanitary certificates, and
- 3) to record and analyze data from the Fruit Fly Survey.

Ministry of Agriculture officers were facilitated to attend the Second Meeting of the Pesticides Control Boards of the OECS in Grenada, the VIth Meeting of Plant Protection Directors of the Caribbean Area in St Lucia and the 2nd CARAPHIN Regional Training course in Trinidad and Tobago.

The Project continued to maintain close working relations with all institutions involved in agricultural development in Dominica to provide daily technical back-up to the Plant Protection and Quarantine Unit of the Division of Agriculture.

### 3.3 Grenada

Over 20 persons consisting of farmers and field officers were trained in various aspects of plant protection.

Farm visits were made together with personnel from the MOA to diagnose major pest problems affecting production and marketing of crops and advise on immediate control measures in hot pepper, coconut, avocado and papaya. During these visits informal on farm discussions on these problems were held with farmers and field officers.

Participated at a two day workshop on quarantine for plant and animal quarantine officers.

A list of pests species of quarantine and economic importance was developed and distributed for comments.

The structure of plant quarantine and pesticide data bases were distributed for comments.

Assistance was provided to the PCB in hosting the meeting of the Pesticides Control Boards in the ECS which took place.

### 3.4 St Lucia

Over 87 persons consisting of farmers and field officers were trained in various aspects of plant protection.

Farm visits were made together with personnel from the Ministry of Agriculture (MOA) and in some cases CARDI to diagnose major pest problems affecting production and marketing of

crops and advise on immediate control measures in such crops as hot pepper, pineapple, mango, plantain, coconut, avocado, papaya and soursop. During these visits informal on farm discussions on these problems were held with farmers and the field officers.

The project continued to assist the Pesticides Control Board (PCB) in its efforts to create awareness and to educate the public on, and regulate the use of pesticides. A two day retreat was organized by the PCB to discuss pesticides management policy and the PCB's plans for the future. A draft report on the retreat was prepared and was presented by the Pesticide Inspector at the Second Meeting of Pesticides Control Boards of the Eastern Caribbean States which was held in Grenada in collaboration with the Caribbean Environment Health Institute (CEHI). An interview was held in English and Creole on the importance of agro-chemicals and their effective use in bananas for the St Lucia Banana Growers' Association (SLBGA) radio programme "Bon Qualite".

Technical information was obtained for pest problems on crops including plantain, coconut, papaya, avocado, mango. A Draft print out of the local pest situation by crop was distributed for consideration of local officials. A Plant Quarantine Database for managing information obtained in plant quarantine was developed in collaboration with FAO/CPPC and the Ministry of Agriculture. A similar Database for managing information obtained in pesticide management is being developed with the PCB. Instructions for entry of data in and the use of PANACEA was written for novices and given to the MOA.

Five (5) officers from the Plant Protection Unit of the MOA were trained in the use of CPPC/FAO, the Plant Quarantine Databases and general computer use. Six (6) officers from the Veterinary Division were also trained in computer use.

IICA signed an agreement with OICD/USDA and undertook the technical supervision of the Fruit Fly Survey from October 1990. A final report was delivered in February 1991.

Work was initiated on the Amendment of the Pesticides Control Act and to rename the PCB "Pesticides and Toxic Chemicals Control Board".

### 3.5 St Vincent and the Grenadines

The list of pest species of quarantine and economic importance was developed and sent to MOA for comments.

In collaboration with the Ministry of Agriculture a quarantine training exercise in the Grenadines was implemented during which twelve persons consisting of hoteliers, importers and customs personnel were trained.

The quarantine system in the Grenadines was reviewed with the Plant Protection Officer and the Chief Veterinary Officer.

Together with MOA officials the Port Entry observational facilities were visited and discussions held on the structure of the facility.

The Plant Protection Officer presented "Quarantine System in St Vincent and the Grenadines - A Model for a Small State" at the meeting of

Plant Protection Directors of the OECS held jointly with the VIth meeting of the Technical Advisory Committee of Plant Protection Directors of the Caribbean in St Lucia.

### 3.6 Joint Activities

Support was provided to the workshop on the Diagnosis of Pests, Diseases and Weeds organized by the Continuing Education Programme in Agricultural Technology (CEPAT) and assistance given in the session on Pesticide Use and Application Equipment. Participants were from several countries in the Caribbean. Booklets on Small Volume Application Equipment prepared by IICA were distributed.

Quarantine issues on the export of fresh produce were discussed in St Lucia with exporters from the Windward Islands at a two day workshop on Marketing of Fresh Produce organized by CATCO.

At the 23rd Windward Island Agricultural Extension Training Course in Grenada assistance was provided in the session on Pesticide use.

Participated in the workshop on Pesticide Management in St Vincent during which twenty-five farmers from the Windward Islands and five field officers were trained.

Pesticide legislation for St Lucia, Grenada, Dominica, Antigua and Barbuda and Montserrat was sent to the OECS Secretariat with an aim at developing uniformity in regulations.

The Project Specialists provided assistance in Trinidad and Tobago on

the development of the draft document for the PLANLAC project "Strengthening the National Animal and Plant Quarantine Capabilities in the Caribbean". Visits were paid to Member Countries in the OECS to introduce, gain response and acceptance for the concept of the project as well as to collect background data.

4. LIST OF PUBLICATIONS

Nil

5. PROPOSED ACTIONS FOR 1991

- 5.1 Introduction of conceptual framework for integrated crop pest management;
- 5.2 Support to the Ministries of Agriculture in the training of farmers and field personnel to overcome constraints to production of priority crops;

- 5.3 Pesticide Safety - provide support to the Pesticides Control Boards in their effort to manage pesticides;
- 5.4 Establishment and support to the Plant Quarantine Boards;
- 5.5 Introduction of Plant Quarantine and Pesticide data bases and initiate work on the data base for monitoring pest problems in the countries;
- 5.6 Meeting of Pesticides Control Boards;
- 5.7 Follow up meeting on Guidelines for the Transfer of Germ Plasma in the Caribbean.

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**Title of the Project: Design of Strategies for Policy Analysis, Planning and Management in Support of Agricultural Development in the Caribbean**

**1. BACKGROUND AND JUSTIFICATION**

For several years IICA has been engaged in Technical assistance activities to address the basic deficiencies in the area of planning agricultural development in Member Countries of the Caribbean. A number of training activities and studies were undertaken which sensitized Caribbean technicians to the essential nature of sectoral planning as a dynamic process.

Recently the Heads of Government endorsed the Caribbean Community Programme for Agricultural Development (CCPAD) which is a compendium of priority programmes and projects inclusive of policy adjustment and support projects which have been identified as critical elements for stimulating and sustaining agricultural development.

The OECS launched its Agricultural Diversification Programme (ADP) which included certain similar supportive and monitoring and evaluation components.

IICA has been identified to play a major role in strengthening this area of policy analysis and planning and this project, developed under PLANLAC, seeks to address two sets of issues. The first is related to macroeconomic policies and the role of agriculture. The second relates to the planning process and management of agricultural policies, programmes and projects.

**2. OBJECTIVES**

**2.1 General**

1) To improve Policy Analysis, Planning and Management for Agricultural Development in the Caribbean.

**2.2 Specific**

1) To strengthen the institutional framework for agricultural sector planning and investment management.

2) To improve the information base to support agricultural policy analysis, planning and sectoral management.

3) To strengthen the capabilities of national institutions to evaluate policy alternatives and strategies for the development of the agricultural sector.

**3. ACTIVITIES IMPLEMENTED IN THE OECS IN 1990**

**3.1 Antigua and Barbuda**

Following a request for technical assistance, discussions were held with Ministry of Agriculture officials and a short term work programme was developed for their Planning Unit.

**3.2 Dominica**

Technical assistance in collaboration with IICA's Project Unit

was provided for an agricultural sector assessment, a medium term plan for development of the agricultural sector and database to support agricultural sector planning. Terms of reference for the sector assessment and sector plan were developed in collaboration with a technical advisory committee chaired by the Permanent Secretary, Ministry of Agriculture.

A paper on macroeconomic policy issues and the agricultural sector was prepared for the Planning and Policy Review Meeting.

Seven individuals were trained in methods of collection and organization of agricultural sector data. Sections of the sector assessment document prepared under the responsibility of Raymond Austrie were reviewed and edited.

### 3.3 St Lucia

Two individuals from the Planning Unit, Elgitha St Marthe and Joseph Charles, together with Lenita Weekes, IICA underwent training in Barbados on Module I of the Caribbean Agricultural Data Base.

### 3.4 St Vincent and the Grenadines

Macroeconomic and agricultural sector information was updated for the sector assessment review for St Vincent and the Grenadines. A joint planning meeting was held with the Permanent Secretary and technical officers of the Ministry of Agriculture which expressed much interest in the project and the wish to access technical support for the Planning Process.

### 3.5 Activities having a general impact

- 1) Preparation of a document on harmonization of fiscal incentives to agriculture in the CARICOM region
- 2) Review of EEC's Common Agricultural Policy following a two week visit to Belgium and France
- 3) Study on implementation of the single EEC market in 1992 on Caribbean Agriculture
- 4) Compilation of macroeconomic and sectoral data for IICA Member Countries and training module developed
- 5) A training course for two weeks on qualitative methods of agricultural policy analysis held in Costa Rica in January 1990.
- 6) Preparation of a Program I document for the upcoming ICMA conference in Spain during 1990.
- 7) Seminar on GATT negotiations and probable implications for world agriculture.
- 8) Project activities were also conducted in Barbados, Guyana, Suriname, Trinidad and Tobago.

### 4. LIST OF PUBLICATIONS

Nil

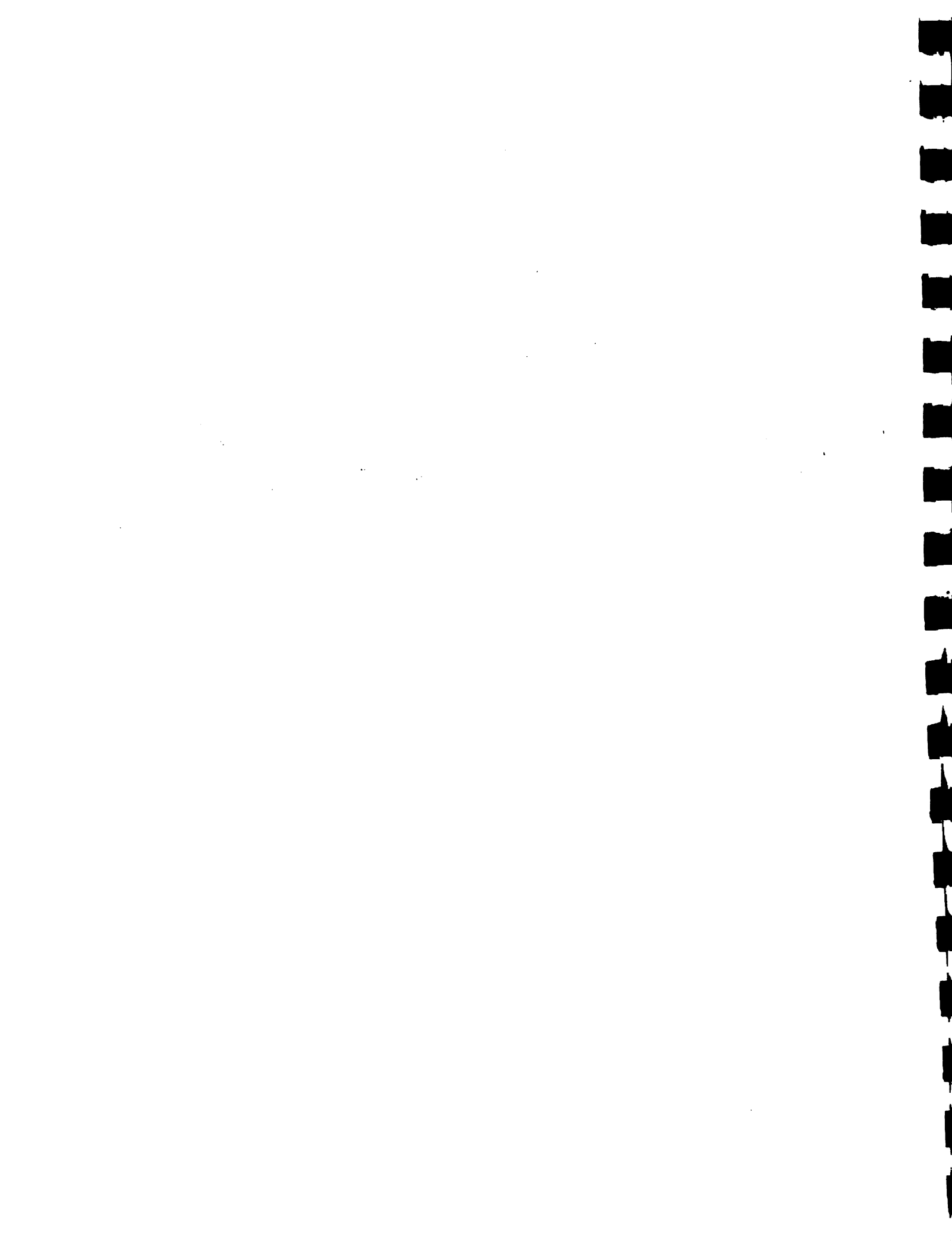
5. SUMMARY OF PROPOSED ACTIVITIES  
FOR 1991

Support to the development of the Caribbean Agricultural Data Base and establishment of national macroeconomic data systems.

The area of data management to support agricultural planning and policy analysis is critical to all countries in the OECS. A Project is required to design relevant data management systems as well as to

provide "hands on" training to technicians in planning units within the Ministries of Agriculture.

It is anticipated that particular technical support will be continued or developed for Antigua and Barbuda, Dominica, Grenada, St Lucia, St Vincent and the Grenadines. The Sector Assessment Study will be undertaken in St Kitts/Nevis by a multi-disciplinary team in collaboration with CARDI and other agencies.



**Title of the project: Supporting the Development of Tropical Fruit Crops in the Caribbean**

**1. BACKGROUND AND JUSTIFICATION**

Increasing market demand has increased interest of growers in the Caribbean to plant fruit crops on a commercial scale. Fruits have been identified as priority crops under "the OECS Agricultural Diversification Programme". In order to offset poor yields and variable quality, fruit producers need to adopt improved management practises. IICA has continued to provide support to the fruit crop subsector through technical assistance to the Ministries of Agriculture and farmers organizations in collaboration with other institutions. The major goal of this PLANLAC project is to upgrade the capability of trainers and producers for the fruit subsector. The Government of France has agreed to provide technical and financial assistance.

**2. OBJECTIVES**

**2.1 General**

To support the agricultural diversification efforts in Barbados, Guyana, and the OECS.

**2.2 Specific**

To upgrade the technical capability of institutions (including farmers organizations) involved in the fruit production system in participating countries.

**3. ACTIVITIES IMPLEMENTED IN THE OECS in 1990**

**3.1 Training Events**

**3.1.1 Workshops**

**Grenada: Two Workshops:**

- 1) Tropical fruit production (As part of the Windward Island Extension Service Training).  
Date: May 1990  
Participants: 40 Extension agents from Windward Islands.
- 2) Production and Marketing of papayas.  
Date: Sept 1990  
Participants: 28 Extension agents and Research staff and 8 farmers.

**3.1.2 In-service training:**

**Grenada:** Over 150 hrs to technical staff, field personnel and farmers. Main topics were seed production, husbandry and post-harvest handling of papayas.

**Dominica:** Over 100 hrs to farmers and technical staff  
Selection of passion fruit clones and lime rehabilitation.

**Antigua:** Over 50 hrs to Technical staff and farmers.  
Papaya seed production and crop management;

reorganization of germplasm bank and identification of cultivars.

### 3.1.3 Overseas training tour:

To: Barbados

Main area covered: Papaya Improvement Programme

Participants:

St Lucia: 1 Tech CARDI

Antigua: 1 Tech CARDI

Grenada: 1 Tech CARDI, 2 Tech MOAG,  
1 Peace Corps Volunteer

St Kitts: 1 Tech CARDI

### 3.2 Surveillance to monitor limiting constraints:

#### 3.2.1 Surveys

Grenada: Demand of Passion Fruit by Hotel and restaurants (MOAG-IICA)

Dominica: Identification of passion fruit plots showing best potentiality for clonal selection.

#### 3.2.2 Farm visits:

Grenada : Over 150  
Dominica : Over 150  
Antigua : 20  
St Lucia : 10  
St Vincent and the Grenadines : 5

Note that during these visits main problems affecting the crops were identified and recommendations provided.

#### 3.2.3 Development of farmer directories:

Grenada: 1: Papaya growers  
Dominica: 1: Passion fruit growers  
Antigua: 1: Papaya growers

### 4.3 Assessment studies of the fruit sub-sector and development of project profiles

#### Assessment studies

Antigua: The Fruit Crop Sub-sector

St Vincent and the Grenadines : The Fruit Crop Sub-sector

#### Project Profiles:

OECS : Improving Infrastructure and Management in the OECS. (Presented to ADCU)

Grenada and St Vincent and the Grenadines: Production and marketing of passion fruit for the fresh market

Dominica: Line rehabilitation programme (Approved by MOAD and CARDI for joint implementation)

#### 3.4 Improving fruit germplasm banks:

Antigua: Assistance provided to reorganize mango and avocado banks at Christian Valley  
Introduction of 4 lines of papayas

Grenada: Assistance to reorganize Mango Bank

M a p p i n g a n d characterization

Introduction of 7 cultivars of carambola

Introduction of 4 lines of papayas

**St Vincent and the Grenadines:**  
Introduction of 3 lines of papayas

**3.5 Promoting the establishment of commercial orchards**

**3.5.1 Establishment of pilot demonstration/commercial plots**

**Antigua:** 5 commercial pilot plots of papayas

**Grenada:** 8 commercial pilot plots of papayas

**3.5.2 Field days**

**Grenada:** 2 field days - Papaya production

**3.5.3 Audio visual**

**Regional:** Handling fresh fruit for export. Video 22 minutes. Distribution to all relevant institutions in the OECS.

**4.5.4 Farm visits**

Same as in 3.2.2

**4. LIST OF PUBLICATIONS**

**Regional:**

Harvey, E., Marte, R., Medlico, A. 1990. Harvesting and Post-Harvest Handling of papayas in the Caribbean. Barbados. IICA Miscellaneous Publication Series A2/BB-90-001. pp.

Campbell, C., Marte, R. 1990. Pre-production, production and Post-Harvest Handling of Carambola. Barbados. IICA Misc. Public. Series A2/BB-90-002. 23 pp.

**5. SUMMARY OF PROPOSED ACTIVITIES FOR 1991**

**5.1 Antigua and Barbuda**

1) Continue support to MOAA and CARDI for development of papaya industry

2) Continue assistance to MOAA for reorganization of Germplasm Bank

3) Assist MOAA in the establishment of a passion fruit pilot demonstration plot

4) In coordination with CARDI and MOAA organize two local training events:

a) Production and marketing of papayas

b) Production and handling of passion fruit

**5.2 Dominica**

1) Co-sponsor and organize the "First (of three) Regional Workshop on Tropical Fruit Crops" covering passion fruit, Citrus and avocados to be held February 1991.

2) In coordination with MOAD organize two national training events:

a) Nursery management and non-traditional plant propagation methods

b) Production of avocados

2) Sponsor one MOAD officer for an overseas training tour to IRFA, Guadeloupe.

- 3) Conduct the study "Assessment of the current status of plant propagation stations in Dominica".
- 4) In coordination with CARDI and MOAD continue the passion fruit selection programme.
- 5) Assist in the identification of sources and in the introduction of the following species and cultivars:

Avocados: Root rot resistant rootstocks:  
Duke 7, 6755, Toro Canyon, Parida

Carambola Atemoya Breadfruit  
Lychee Durian Mangosteen  
Sapodilla Tamarind Longan  
Miracle fruit

#### 5.3 Grenada

- 1) Continue supporting the inter-institutional fruit crop technical team.
- 2) Assist the MOAG in establishing several pilot commercial plots of passion fruits.
- 3) In coordination with MOAG and CARDI organize two courses:
  - a) Passion fruit production and marketing
  - b) Nursery management and non-traditional propagation methods.
- 4) Assist the MOAG in the reorganization of Germplasm Bank and the introduction of species and cultivars relevant to their expansion programme.

- 5) Assist the MOAG in establishing a selection and characterization programme for "golden apple".
- 6) Sponsor one MOAG officer to participate in an overseas training tour to IRFA, Guadeloupe.
- 7) Assist CARDI and MOAG in writing profiles on papaya fruit growers.

#### 5.4 St Lucia

- 1) Assist in the organization and support of the "Fruit Crop Technical Team."
- 2) In coordination with CARDI and MOAL organize two national workshops and one "open day with farmers"

#### Workshops:

- a) Production and marketing of papayas and carambolas: Directed to farmers organizations and extension agents.
- b) Production and marketing of passion fruits. Directed to farmers organization and extension agents.

#### Open day with farmers:

Crops: Papaya and Carambola  
Activities: Video show, conference, Round table and practical demonstration.  
Beneficiary: Sunshine Harvest Farmers Cooperative

- 3) Assist in the establishment of a surveillance system to identify limiting constraints



to fruit crop production and marketing.

- Record of farm visits
- Initiate a farmers directory
- Regional and national surveys

4) Assist in the development of project profiles: At least two have already been preliminarily identified:

- a) Improvement of propagation facilities and training of nursery staff (MOAL).
- b) Commercial production and marketing of carambola (Sunshine Harvest Farmers Coop).

5) Improvement of fruit germplasm banks. This activity to be executed in coordination with CARDI and for the MOAL. Will involve five steps:

- a) Inventory of material available in the country. (On going - CARDI).
- b) Evaluation of the current status of this material.
- c) Recuperation of worthy material.
- d) Introduction of selected material from reliable sources.
- e) Reorganization of the germplasm banks.

6) Assist in the establishment of pilot demonstration plots:

The MOAL selected citrus and mangoes for these plots.

- MOAL will select 3 or 4 locations in each commodity.

. Sunshine Harvest Farmer Coop requested passion fruit, papaya and carambola.

7) Assist in the organization of one field day (Theme to be decided by MOASL).

8) Assistance to CARDI in the development of tech. packs for production and marketing of papayas and passion fruits in St Lucia.

#### 5.5 St Vincent and the Grenadines

Note: Activities in this country continue to await the MOAV's response to the project document submitted. Nevertheless, in the interim, the country is participating in the regional and sub-regional training events organized by the project.

Regional activities with impact in all the participating countries:

Sponsor the participation of one officer from Ministries of Agriculture in Antigua, Dominica, Grenada, St Lucia, St Vincent and the Grenadines to attend the Regional Workshop on tropical fruit crops to be held in Dominica by February, 1991 and Antigua by June 1991.

- Publishing of a quarterly newsletter: Caribbean Tropical Fruit Newsletter. This newsletter to start May-June will bring news about new and past events, publications, actions in the Caribbean, who is doing what, Germplasm resources available, prices of fruit in the export markets,

abstracts of relevant papers, main constraints to the industries, new projects, etc.

- Regional mission to access the status of plant propagation facilities and human resources. The study will include germplasm available and current status (Depend on availability of funds from IICA-Government of France project and ADCU).

- Publication of a manual or audio visual on "Passion fruit production". It is expected to be a joint publication by IICA, CARDI and UWI.

- Publication and distribution of the proceedings of the "Regional Workshop on Tropical Fruit Crops: Passion fruit, citrus and avocados".

**Title of the Project: Survey and Monitoring of Animal and Plant Diseases and Pests to Facilitate Increased Production Efficiency in the Caribbean (CARAPHIN)**

## **1. BACKGROUND AND JUSTIFICATION**

CARAPHIN, the Caribbean Animal and Plant Health Information Network, is being established under a four year project which began in July 1988. This project is sponsored by IICA and CIDA, the Canadian International Development Agency. Fourteen countries participate in the project, including all member countries of the OECS.

CARAPHIN is being developed in response to CARICOM Ministers' concerns about constraints imposed by agricultural pests and diseases; both through a loss of production and through restriction of international trade. This Project forms part of PLANLAC.

The Project's main contribution over the medium and long terms will be the implementation of the Caribbean Animal and Plant Health Information Network (CARAPHIN), that will provide the Animal Health and Plant Protection Services as well as other sectors of the Ministries of Agriculture (i.e. planning, marketing) with relevant information for animal and plant health, protection, production and trade. Information generated at the national level will be available to share within the region.

It complements efforts with other cooperation agencies, such as FAO's regional plant protection project in the use of the Caribbean Plant Protection Commission (CPPC) database. It seeks further complement

with on-going projects, implemented at national or regional levels by sister agencies such as CIRAD, EEC, CARDI, ODA, CAREC/PAHO, CEPAT/UWI.

It promotes institutional strengthening of the Animal Health and Plant Protection Services, through the technical and cost/benefit analysis and investment justification in strengthening their capability in laboratory, quarantine and emergency and the efficiency of their programmes for disease and pest surveillance, prevention, control and/or eradication.

## **2. OBJECTIVES**

### **2.1 General**

To provide all participants in animal and plant health, production and trade, at any level, with information of regional interests and have the information generated at the national level available to share within the region.

### **2.2 Specific**

To organize and implement an animal health and plant protection information and data monitoring system in the Caribbean which will generate reliable data to improve decision making in the design and execution of projects, programmes, policies and guidelines for the defence of and increase in, agricultural production and productivity.

### 3. ACTIVITIES

All activities further described apply to the OECS member countries and should be considered as joint activities among the 14 countries participating in this project:

**Activity 1: Review, evaluation and adaptation of the methodology**

To develop an improved and microcomputer based regional reporting system for a priority list of animal and plant diseases/pests which should be monitored by national agencies (largely for international trade reasons).

At the Vith Meeting of the Technical Advisory Committee of Plant Protection Directors for the Caribbean Area, held in St Lucia, June 11-12, 1990, the Directors commended the FAO/CPPC database, revised and then endorsed the proposal for regional plant protection surveillance procedures.

A second edition of the CPPC database was distributed to the official plant protection agency of each of the eleven countries represented at the meeting for use on their CARAPHIN computers.

Reports on plant and animal diseases and pests from Antigua, Montserrat and St Kitts/Nevis have been received at the project headquarters.

**Activity 2: Training of national personnel**

With the objective to develop a network among responsible

professionals in the region to help improve their investigative skills and pest/disease knowledge through scientific publications, newsletters, courses, consultations and advice, also to train national personnel in a series of three regional courses (2 weeks duration each), that focus on epidemiology and economics, complemented by the use of microcomputers and relevant software programmes.

The second CARAPHIN regional "Course on Monitoring Pests and Diseases of Crops and Livestock in the Caribbean" was held in September 1990, at the St Augustine Campus of the University of the West Indies, Trinidad and Tobago. Veterinarians and plant protection specialists from the 14 CARAPHIN participating countries took part in this two week course, along with representations from research and education institutions of the region. Emphasis was given on epidemiology, quarantine, record keeping, use of microcomputers and of relevant software.

Bianual publication of CARAPHIN News, and distribution to the veterinary and plant protection services of the participating countries of databases, scientific information and publications of interest for the region.

In service training of national personnel during the visits made to the countries by the project staff (see also Activity 3).

**Activity 3: Implementation of the processing units for the project area**

Visits were undertaken in the 14 participating countries to supervise the installation of the computer equipment (national units), along with in service training of national staff in the use of microcomputers and of selected software.

Activities were initiated for the reporting of selected animal and plant pests and diseases, in the framework of the regional surveillance system.

Other activities:

Contacts taken with French research and technical cooperation agencies (INRA, CIRAD, IEMVT), for their participation in CARAPHIN (reports on plant and animal pests and disease from French Guyana, Martinique and Guadeloupe) and for facilitating horizontal technical exchanges with the English speaking Caribbean countries.

Formulation of the PLANLAC project "Strengthening the National Animal and Plant Quarantine Capabilities in the Caribbean."

#### 4. LIST OF PUBLICATIONS

CARAPHIN News No.3 August 1990.

#### 5. PROPOSED ACTIVITIES FOR 1991

##### 5.1 Review, evaluation and adaptation of the methodology

Technology related to animal health and plant protection information systems would have been developed and/or adapted and transferred to the epidemiology units of the agricultural health services of the countries:

- 1) A database on animal diseases and pests would have been developed on the model of FAO's CPPC database
- 2) The project would continue to support FAO's CPPC database access to the countries through CARAPHIN
- 3) Useful information systems developed by IICA and other international or regional cooperation agencies would have been made available to the agricultural health services

##### 5.2 Training of national personnel

Training of the national staff of the Plant Protection and Animal Health Services:

- 1) The third CARAPHIN regional course would have been held, with participants from 14 countries trained in epidemiology, veterinary economics and crop loss assessment, project identification and formulation, use of computers and relevant software programmes
  - 2) On-site visits to countries would be performed by the project staff to evaluate the national units and provide technical assistance (on-site training) where needed.
- ##### 5.3 Implementation of the processing units for the project area.

The information/epidemiology units in each country would have been consolidated and interrelated through CARAPHIN.

1) The Animal Health and Plant Protection services would be applying the technologies and methods transferred through the CARAPHIN training courses in epidemiology and computer use, and would have improved the quality of the information they generate for decision making by political and technical authorities

2) CARAPHIN Newsletter would continue being published biannually and disseminate within the region relevant information generated by the countries

The regional surveillance reporting scheme for animal and plant diseases and pests would have been amended and instituted and the countries would generate regular and alert reports on surveillance of animal and plant diseases and pests. Compilation and dissemination through special regional reports.

The public and private sectors related to animal and plant production, health and trade would receive technical assistance from CARAPHIN headquarters in the design and execution of national projects identified as priorities by the countries.

## STAFF

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Jerry La Gra - Specialist in Organization and Management of Rural Development

Antonio M Pinchinat - Regional Specialist in Technology Generation and Transfer

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Lilleth Ambrose - Liaison Secretary

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**ST VINCENT AND THE GRENADINES**

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**MULTINATIONAL PROJECTS**

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**Program II**

Rafael Marte - Fruit Tree Crop Specialist - Barbados Office

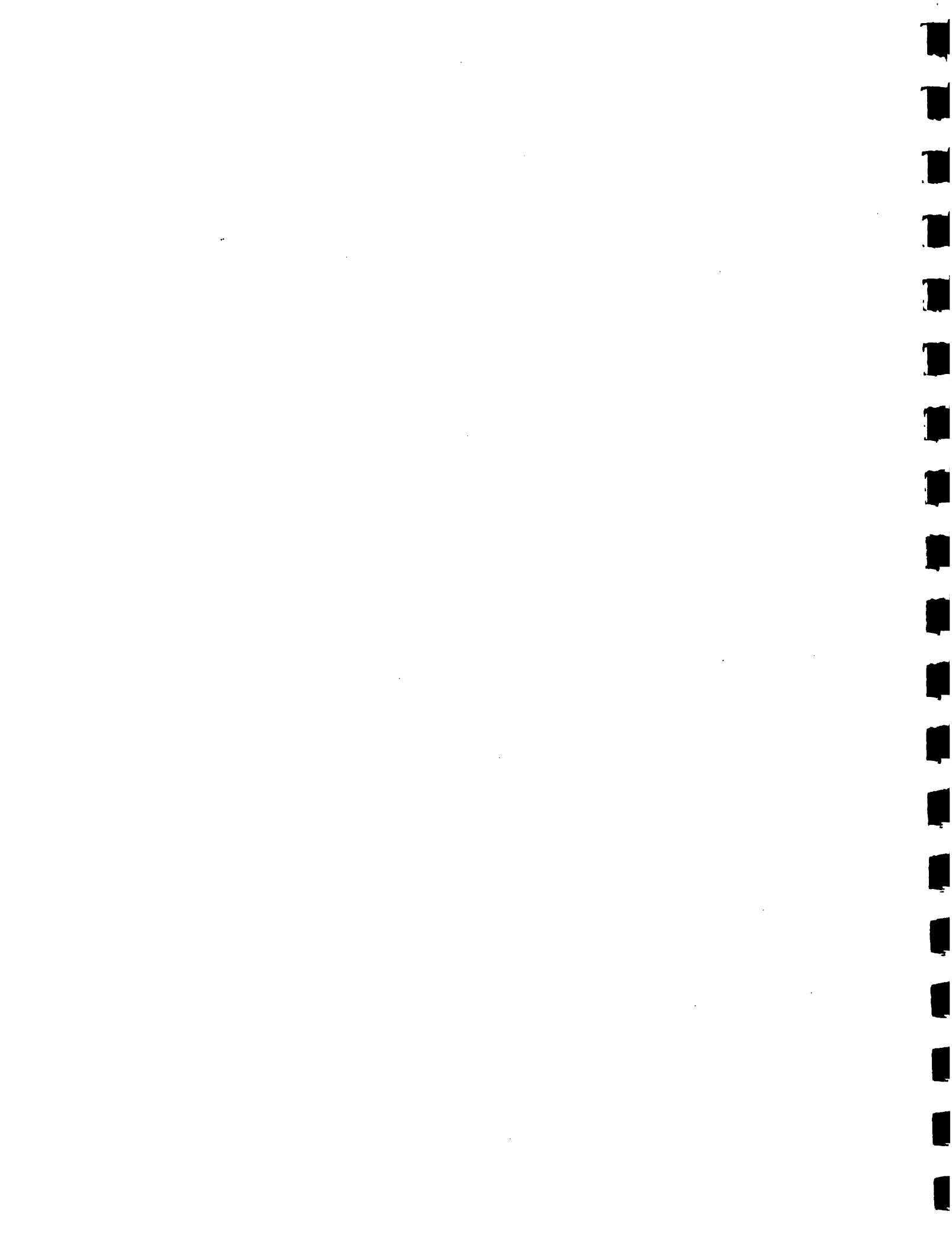
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**Program V**

Raymond Dugas - CARAPHIN Coordinators - Trinidad and Tobago Office

Theresa Bernardo

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## BUDGETARY ALLOCATION

The following sums were allocated for the IICA Offices in the OECS Countries for 1990.

		ALLOCATION (US DOLLARS)	
1.	Technology Generation and Transfer	[Quotas]	\$ 161 400
2.	Strengthening of Farmers Organizations	[Quotas]	167 438
3.	Plant Protection	[Quotas]	97 200
4.	Monitoring Fruit Fly Surveys Dominica and St Lucia (USAID)		15 388
5.	Management Unit	[Quotas]	295 198
6.	Design of Strategies for Policy Analysis, Planning and Management in Support of Agricultural Development in the Caribbean	[Quotas]	17 400
7.	Supporting the Development of Tropical Fruit Crops in the Caribbean	[Quotas]	6 700
8.	Survey and Monitoring of Animal and Plant Diseases and Pests to Facilitate Increased Efficiency in the Caribbean (CARAPHIN)	[Quotas]	9 600
		<b>TOTAL</b>	----- <b>\$ 770 324</b> -----



FECHA DE DEVOLUCION

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Autor

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1990

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Devolución

Nombre del solicitante



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