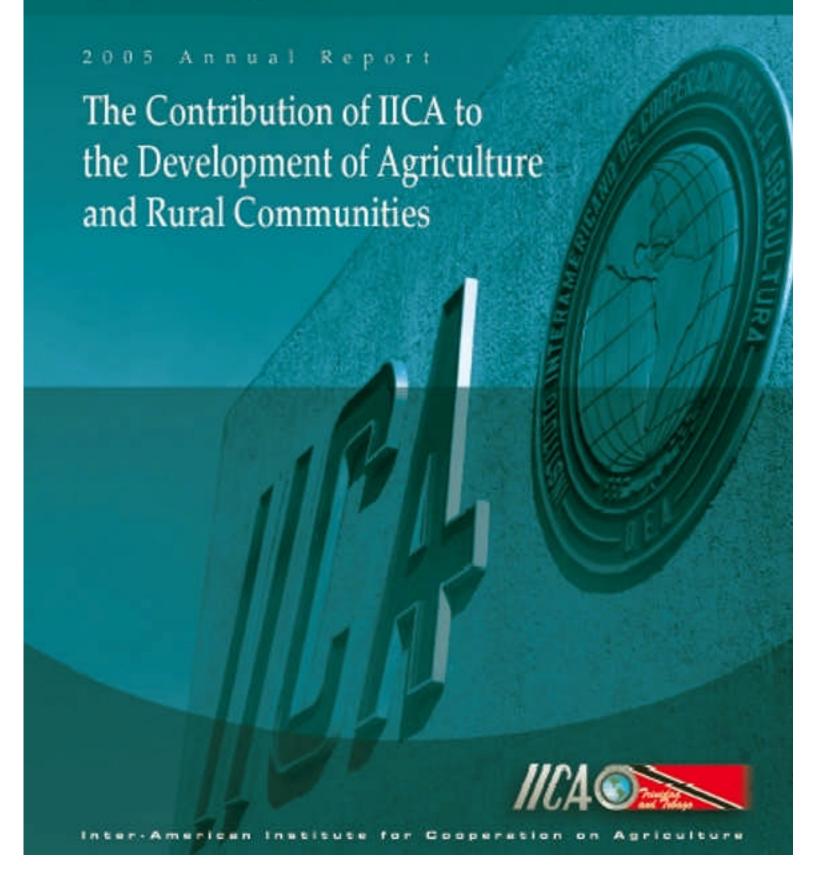
TRINIDAD AND TOBAGO



The Contribution of IICA to the Development of Agriculture and Rural Communities in Trinidad and Tobago

Annual Report 2005

IICA Office in Trinidad & Tobago February 2006

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Message from the Representative

The Inter-American Institute for Cooperation on Agriculture (IICA) Office in Trinidad and Tobago, is pleased to present this 2005 Annual Report to our stakeholders, collaborators and clients in Trinidad and Tobago and beyond. This report is in furtherance of our aim to disseminate information on the results of our initiatives in support of the improvement of agriculture and rural life in Trinidad and Tobago.

The report covers our major interventions and accomplishments in collaboration with the support of our partners.

The work of the Institute continues to be greatly supported by our strategic partners, whose commitment we are pleased to acknowledge and whose collaborative efforts we continue to rely on as we advance the pace of the development of agriculture and the rural sectors.

The cooperation and dedication of staff members in achieving our goals and satisfying our stakeholders and clients is deeply appreciated.

We trust that the report will adequately sensitize all to the true contribution of the Institute to the advancement of agricultural and rural development in Trinidad and Tobago in 2005.

Aaron H. Parke IICA Representative in Trinidad & Tobago and Coordinator, Caribbean Regional Agenda

2.0 Executive Summary

Facilitating Competitiveness and Global Trade

The Office continued to coordinate work towards the development of the regional Agrobiotechnology strategic framework in collaboration with the Directorate of Technology and Innovation and the Caribbean Task Force which was established in 2004. The end product of this work is the Caribbean Programme on Biotechnology and Bio-safety (CPBB) which is itself a component of the Hemispheric Programme on Biotechnology and Biosafety (HPBB) as mandated by the IABA Resolution #386.

Under a short term project to accelerate the completion of the strategic framework the IICA Office in Trinidad and Tobago coordinated the work of a short term consultant to complete the draft programme document and hosted a regional meeting of 25 experts in Biotechnology and Bio-safety in which the regional needs for Biotechnology and Bio-safety were identified and assessed. The workshop also endorsed the strategy document, agreed on the priority projects to be developed among the regional institutions and adopted the Consultative Group on Agro-biotechnology for the Caribbean (CGABC) as the coordinating and networking mechanism for implementation of the strategy. The office also coordinated a project development workshop to develop the priority projects which are to be submitted to donors in early 2006.

Research was conducted on the status of agriculture and rural life as well as the true contribution of agriculture to the economy of Trinidad & Tobago, using the social accounting matrix (SAM). The findings of this research are being documented and indicate a 4-fold increase in the contribution to GDP when contrasted with the conventional measures.

Under the Agribusiness Internship Programme developed between IICA and the Faculty of Science and Agriculture, University of the West Indies, two students were accommodated during the summer with the focus on developing their skills in the preparation of agribusiness investment profiles. Under this arrangement, profiles were developed for six commodities and these are being used by the Agricultural Development Bank and other entities for promoting investments in the selected areas.

Support was provided for the Caribbean Herbal Business Association (CHBA) under which various technical assistance programme are being implemented through the Secretariat. The focus of the CHBA is on strengthening the administrative capacities of national chapters and initiation of a ProInvest-funded project on market and technology research to gather and generate information on key commodities with commercial value for the region. The CHBA also partnered with CARAPA in hosting the 7th Caribbean Herbal Medicine Conference which attracted some 140 delegates from the Caribbean and internationally and which featured displays of commercial herbal products being produced in the region. The conference afforded the opportunity for networking and recommended important strategies

for developing the regional industry. The Office further supported the CHBA in completing a Handbook on selected Herbs with potential for commercialization.

Promoting Food Safety and Agricultural Health

The Agricultural Health and Food Safety (AHFS) programme contributed much to the development of the sector in terms of capacity building, by providing a series of workshops and seminars on issues in plant and animal health. Programmes were directed at farmers and technicians of the Ministry of Agriculture, Lands and Marine resources (MALMR), the Tobago House of Assembly (THA) and other agricultural health technicians and professionals. The Office coordinated and hosted four major regional workshops in this area, in collaboration with the MALMR at the local level and the FAO, USDA, FAVACA at the international level. More than 80 professionals and technicians from across the region were trained in the identification of pests and diseases of economic importance to the Caribbean, as well as in the use of various specialized software for the management of notification dissemination/enquiry points and phytosanitary portals. Under this programme, the Office also collaborated with the MALMR to develop GAP protocols for three commodities; supported the National Biosafety Committee in the development of a National Biosafety Policy for Trinidad & Tobago; collaborated with the School of Veterinary Medicine, UWI in the preparation of two CD-ROMs and a manual on Small Ruminant Herd Health.

Strengthening Rural Communities

The Office collaborated with several agencies to implement programmes to strengthen the contribution of the Rural Population to the growth of the sector and the enhancement of their own daily living. IICA participated in the design and monitoring of three small scale projects, targeted at poverty alleviation and funded by the Caribbean Food and Nutrition Institute (CFNI). Our support to women's groups in rural communities, continued with direct technical assistance to the Network of Rural Women Producers (NRWP), assisting the group in building its administrative capacity and facilitating their participation at a major national agriculture and food exposition to commemorate International Rural Women's Day and World Food Day 2005. The revolving loan project operated by the NRWP was evaluated and recommendations made for its improvement and growth. The Office also played a significant role in the management and implementation of a CTA-funded project that facilitated the development of the website of the Caribbean Network of Rural Women Producers (CANROP) and the production of promotional material for that regional network. Under the Sustainable Rural Development programme, the Office commissioned: a SWOT analysis of the dairy industry in Trinidad & Tobago; a feasibility study for a pepper sauce project; a profile on mini-sett yam production and a greenhouse vegetable production venture for rural communities.

Hemispheric Integration

Support was provided for the participation of Ministerial Delegates to attend meetings of the Alliance for Sustainable Development of Agriculture and the Rural Milieu in Jamaica in January 2005, as well as the meeting of the Inter-American Board of Agriculture (IABA), in

Guayaquil, Ecuador, in August 2005. Support at the office level, for the promotion and implementation of the hemispheric and regional mandates for agriculture, *viz.* the Summit of the Americas and the Jagdeo Initiative, respectively, continued in 2005. Through the regional programme for Trade Policy and Negotiations, and in collaboration with the Organization of American States (OAS) and UNECLAC, the Office hosted a regional workshop on "Benchmark Indicators for Follow-up of the Agro Plan 2003-2015 for Caribbean Countries" in August 2005, to advance the process of examining and validating the indicators for follow-up on the progress of the plan. Nationally, the office hosted a meeting of local agencies in agriculture and rural development, to assist in the completion of matrices/information relating to the ten key binding constraints identified in the Jagdeo Initiative.

The Office also coordinated the attendance of seven representatives from the Caribbean to the IV Reunion Foragro held in Panama April 13-15, 2005 that discussed the hemispheric coordination of Technology and Innovation to sustain the development of agribusinesses.

Developing Human Capital

Various initiatives were executed and supported by the Office in developing human capital within the sector. These included:

- Support to the local participants, to attend meetings of the two WTO/SPS Committee in Geneva;
- Training for professional staff from the THA in surveillance and detection using modern technology (GPS/GIS);
- Delivery of a training programme in the management of websites as it relates to the CANROP and the CaRAPN websites;
- Hosting of a major agribusiness seminar which targeted the youth in agriculture and exposed them to the plethora of opportunities available in the sector;
- Facilitation of members of the NRWP to attend a workshop on pepper mash production designed for cottage industry development.

Environmental Management

The Office provided support to a regional IICA/PROINVEST/ASTT/DFL project, which conducted market surveys that identified commercial opportunities in organics. The project also produced a package of Frequently Asked Questions (FAQs) to be aired on radio, a video documentary on organic agriculture and a handbook on organic practices. Additionally the project undertook the development of policy proposals for the sustainable development of organic agriculture in the Caribbean and copies have been distributed to the national ministries. IICA also assisted the MALMR in an initiative to construct model organic farms at three locations in Trinidad. The models will present ready-made investment opportunities to help kick-start commercially oriented organic farms. The Office, through cross horizontal cooperation efforts also assisted the THA in the evaluation of an organic enterprise being developed in Tobago.

Institutional Modernization

Administrative and technical support was provided to the operation of the following regional associations/institutions:

- The Caribbean Agribusiness Association (CABA)
- The Caribbean Herbal Business Association (CHBA), through the operation of the secretariat and the overall coordination of its projects and programmes, including the management of the website www.caribbeanherbs.net
- The development of a strategic framework plan for CARDI under the IICA/CARDI Agreement and implementation of projects and programmes under the agreement.

IICA also led the process in the re-evaluation of the Agricultural Incentives Programme of the MALMR, making recommendations for a more effective regime.

3.0 Recent Performance of Agriculture and the Rural Milieu

3.1 Gross Domestic Product

The agricultural sector contributed TT\$525.9 million or 0.8% of gross domestic product in 2004, compared to the services sector (53.2%), petroleum sector (42.3%), and manufacturing sector (7.1%).

3.2 Growth Rate of Sectors

The sectors that experienced positive average annual growth rates for the period (2000-2004) were: petroleum (+11.7%), manufacturing (+ 5.1%) and services (+ 2.4%). The agricultural sector declined at an average annual growth rate of -5.5%. The petroleum sector is the fastest growing sector of the economy while the agricultural sector continues to weaken and lose ground when compared to other economic activities. Average annual growth rate of the domestic export sector for the period 2000-2004 was -9.1% compared to -1.5% in the domestic agricultural sector. (IICA, State of and Outlook for Agriculture and Rural Life, Trinidad and Tobago, 2005)

It is therefore becoming increasingly more difficult for the agrifood sector to maintain its productive resources and attract the levels of investments required for creating and maintaining conditions for sustainable agriculture. More and more, resources particularly land and labour, are being diverted from the agrifood sector for use in developing other sectors of the economy.

3.3 Employment

Since 2000, there has been a steady decline in the number of persons employed in the agricultural sector. The number of persons employed in the sector in 2004 was 30% less than those employed in the sector in 2000. In 2000, there were 39,900 persons employed in the agricultural sector compared to 27, 900 in 2004.

The decrease in the percentage of agricultural employment to national employment, for the period 2000 to 2004, was a consequence of increases in the number of persons employed at the national level and decreases in employment in the agricultural sector. In 2004, the agricultural sector accounted for 4.7% of the national work force as compared to 7% in 2000. The Agricultural Census Report, 2004 indicated that approximately 83% of persons involved in agriculture were males and 17% females. Average annual growth rate of the national labour force for the period 2000 to 2004 was 0.9% compared to - 6.9% in the agricultural sector.

Further, since 2003, agricultural GDP per worker (a measure of agricultural productivity) has been falling. Worker productivity in the agricultural sector over the period 2002 to 2004 declined at an average annual growth rate of - 4.2%.

3.4 Land and Land Use and Irrigation

The Agricultural Census conducted in 2004 indicated that there were 18,968 agricultural holdings in Trinidad and Tobago. Of the 18,968 holdings, 18,022 or 95.0% of them were in Trinidad and 946 or 5% were in Tobago. The total number of holdings recorded in 2004 was 37.4% less than the number of holdings recorded in the last Agricultural Census of 1982.

The majority of holdings (96%) were less than 10 hectares: Twenty two percent of the holdings were less than 0.5 hectares, 65.1% were between 0.5 and 4.9 hectares and 8.9% were between 5 and 9.9 hectares. Only 4% of the agricultural holdings in Trinidad were greater than 10 hectares. In Tobago, 98.2% of the holdings were less than 10 hectares. In both Trinidad and Tobago combined, over 95% of all holdings were less than 10 hectares.

The recently concluded Agricultural Census also indicated that 72.4% of all farmers in Trinidad were engaged in crop production and 16.1% of them were involved in mixed farming activities. Ten percent of farmers were involved in livestock activities and the remaining 0.8% was involved in other activities such as apiculture, aquaculture and horticulture. In Tobago, 38.9% of farmers were engaged in crop activity. A further 30.6% had mixed farms and 28.5% of them had livestock.

3.5 Agricultural Production

Over that period 2000 to 2004, production of most commodities had declined. However while there was a downward trend over the 2000-2004 period, the output of a few commodities in 2004 had surpassed production levels in 2003: Increases in production in 2004, when compared to 2003 levels, were observed for cocoa beans, oranges, grapefruit, broilers, pumpkin, watermelons, cassava, dasheen and sweet potato. Heavy rainfall, particularly during the latter part of 2004, resulted in extensive flooding in many low-lying agricultural areas. This situation resulted in shortages of vegetables and food crop in the market.

Production levels of commodities throughout the period (2000 -2004) were highly variable: indicated by high coefficient of variation). Commodities with the highest levels of variability in output included: Coffee beans (CV 53.32 %), grapefruit (CV 66.23%), oranges (CV 76.57%), dasheen (CV 60.85%), and rice (49.38%).

Output of several commodities experienced negative average annual growth rates for the period 2000 and 2004. Commodities that showed largest negative annual average growth rates included: sugar (-12.3 %), coffee beans (-27.7 %), oranges (-11.7 %), grapefruit (-21.2 %), pumpkins (-15.7 %), table eggs (-12.9 %) and rice (-22.8 %). There however were a few commodities that had positive average annual growth rates over the period. Those commodities included: Broilers (+13.7 %), pork (+ 8 %), cabbage (+ 2.2 %), dasheen (+39 %) and sweet potato (+9.8 %).

3.6 Prices of Agricultural Commodities

Over the period 2001 to 2004, there were increases in real prices of tomato, pumpkin, cauliflower and sweet potato. Real prices of cabbage, cassava and dasheen fell during the period. Higher food prices for vegetables and food crops in 2004 were largely a result of shortfalls in production due to flooding.

3.7 Agricultural Trade

Food exported in 2004 was 13.76 % more than the value of food exported in 2003. Food imported in 2004 was 9.16 % more than food import in 2003. Over the period 1999 to 2004, exports of food (as a percentage of total food exports plus imports) have been declining. This trend of lower exports of food relative to food imports suggests that the country is becoming a larger net importer of food.

During the period under review, average annual growth rate of imports of food was + 4.86 %, while food exports showed a negative average annual growth rate for the period. Year to year variability in the value of food commodities exported over the period 1999 to 2004, as measured by its coefficient of variation (CV), was less than the value of food imports: CV of food exports for the period was 8.61 % compared to 11.62 % for food imported.

There were decreases in average annual growth rates in many categories of food exports, when compared to food imports. Negative average annual growth rates in exports were recorded for live animals, meats and meat preparations, dairy products and eggs, fish, sugar and sugar preparations and cocoa and coffee. Positive annual growth rates in exports were realized in the following categories: cereal and cereal product vegetables and fruits and animal feeds.

3.8 Average Annual Growth Rates - Food Imports and Exports

A comparison of the share of imports of the various categories of food imported in 2004 with their average import share for the period 1999 to 2003, indicates that there were increases in the value of imports, as a percentage of total food imports, in the following food categories: live animals, meats and meat preparations, fish and fish preparations, vegetables and fruits, sugar and sugar preparations, as well as in the miscellaneous category.

Comparison of the two periods also indicates that there were reductions in the share of food imports, as a percentage of total food imports, in the following imported categories of food: cereal and cereal preparations, cocoa and coffee and animal feed stuff. The major categories of food imported, in terms of value, over the periods were: cereals and cereal preparations (18.94%); fruits and vegetables (18.84%) and dairy products and eggs (17.3%).

A comparison of the share of exports of the various categories of food exported in 2004 with their average exports over the period 1999 to 2003 indicate that there were increases in the value of exports, as a percentage of total food exports in the following food categories: Fruits

and vegetables, sugar and sugar preparations. In all other categories, there were decreases in the value of exports in 2004 relative to average exports for 1999 to 2003.

The categories of food that accounted for the largest share of food exports in 2004 were: cereal and cereal preparations (24.66 %); sugar and sugar preparations (23.62%); and fruits and vegetables (20.71%).

The major markets, in terms of value, for food exported from Trinidad and Tobago between 2000 and 2004 were: USA (35.13%), Barbados (22.43%) and Canada (16.37%). Six CARICOM countries accounted for 17.87% of food exports. Each of those six CARICOM countries (excluding Barbados) accounted for less than 4% of the foreign exchange earned from food exports in 2004. Barbados is therefore Trinidad and Tobago's major market for food and food products within CARICOM, while the USA is the major market for food products outside CARICOM.

In 2004, the value of food exported to the major markets (US and Canada) declined by 14.2% and 18.42% respectively when compared to the level of exports in 2000. There were also substantial reductions in food exports to the Jamaican market in 2004 when compared to food exports in 2000.

3.9 Agricultural Health and Food Safety

A major development in the food crop sector was the discovery of The Black Sigatoka disease of plantains and bananas. The disease was first discovered in Trinidad in 2003 and is now of great concern for local banana and plantain producers. A survey conducted in 2004 indicated that the disease is spreading rapidly.

The disease was declared a noticeable disease and there is a nationwide farmer and public awareness drive. Management strategies are being put in place to contain its spread. As the disease affect more fields, it is possible that production of banana and plantains will decline significantly. There were no other significant outbreaks of pests and disease infestations reported in both crop and livestock in 2004. Efforts are also continuing to establish a National Health and food Safety Agency in order to harness the resources available for a more efficient and cost -effective health and food safety service.

4.0 Summary of the National Agenda

A summary of the approved National Agenda is presented in accordance with the respective strategic areas. (N.B. The National Agenda is being reviewed).

Trade and Agribusiness Development

Goal: To support the country in its efforts aimed at joining the regional integration process and ensuring that its enterprises can compete in global agrifood markets.

Line of Action: Analysis of Agricultural and Sectoral Policies

- Adapt the Jamaican approach in conducting case studies intended to assess the true contribution of selected agricultural and agroindustrial activities to the economy of Trinidad.
- Support decision making related to policies, through research and the preparation of proposals intended to encourage investment in the agricultural sector.
- Conduct research on different options for improving the agricultural economy, within a framework of open markets and integration processes.
- Hold workshops and implement information programs on the key aspects of the trade environment and the agenda for trade negotiations, for people in both the public and private agricultural sectors

<u>Line of Action</u>: Trade Negotiations and Integration

- Conduct research on the impact of bilateral, regional and international trade policies and agreements on agriculture.

Line of Action: Market Access

- Improving agricultural health and food safety system
- Enhancing information on trade requirements of trading partners

Line of Action: Strengthening of Domestic Markets

- Promoting linkages between agriculture and tourism
- Strengthening relationships between producers and distributors

<u>Line of Action</u>: Strengthening and Modernization of Business Management

- Conduct analyses of specific agricultural production systems, in order to identify opportunities for increasing their competitiveness.
- Support the establishment and expansion of rural agribusinesses, in the areas of agrotourism and ago-processing.
- Provide support to the Agricultural Society of Trinidad and Tobago in developing marketing systems, in collaboration with CARDI.
- Participate, through the CABA, in studies on the competitiveness of specific sectors such as pork, citrus, oils and fats. Support the implementation of the recommendations issued in the studies.
- Support national and regional organizations in their efforts to prepare and implement plans for increasing trade.

Technology and Innovation

Goal: To provide technical support to increase production and incomes, through access to, and adoption of, new agricultural technologies.

Line of Action: Strengthening of National Capacities for Technology Innovation

- Provide support to national research and development institutions and mechanisms (networks) in evaluating their current capabilities and competencies, and the impact of such research.

Line of Action: Design and Implementation of Technology Innovation Policies

- Design and implement technology and innovation policies associated with production of dairy products and certain fruits.
- Provide technical support in improving the production and processing of selected products.
- Provide technical cooperation to national committees dealing with genetically modified organisms, biosafety regulations and organic agriculture, in the development of policy frameworks and legislation.
- Foster links between research and development institutions and agricultural organizations, to improve the setting of priorities and the management of research.

Line of Action: Consolidation of the Regional Technology Innovation System

- Promote the strengthening of the research and technology transfer capabilities of the relevant regional agencies (PROCICARIBE, CLAWRENET, NF).

<u>Line of Action</u>: Development and Management of an Agricultural Science and Technology Information System

- Establishment of the Secretariat for the Caribbean Herbal Business Association (CHBA) and maintenance of the CHBA website and database to facilitate business development

Agricultural Health and Food Safety

Goal: To provide cooperation to the country in its efforts to bring its agricultural health and food safety systems into line with the demands of global trade.

<u>Line of Action</u>: Development of Regulatory Mechanisms, Science-based Technical Capacities, and Sustainable Institutional Infrastructures

- Develop plans to address export requirements (EU/US) for various products
- Develop accreditation system for private plant health professionals

<u>Line of Action</u>: Application of WTO Agreement on Sanitary and Phytosanitary Measures, and of Measures Adopted by the OIE, IPPC and Codex Alimentarius

- Support the strengthening and modernization of the agricultural health and food safety systems so that they can comply with the requirements of the WTO SPS agreement.
- Facilitate exchanges and improve coordination in the area of AHFS with other countries in the Caribbean and the hemisphere.

<u>Line of Action</u>: Development of Standards and Rules, Leadership Capabilities and Technical Competence in the Field of Food Safety

- Promote the adoption of Good Agricultural Practices (GAP) and Good Manufacturing Practices (GMP) and HAACP.
- Promote the adoption of GAP programs aimed at reducing the damage caused by pests, and making agricultural production environmentally sustainable.

Line of Action: Recognition and Management of Emerging Issues

- National capacity to respond to Agricultural Health and Food Safety Emergency Issues increased through training in the use of modern surveillance and detection methods and in the identification of pests of economic importance

Sustainable Rural Development

Goal: To provide cooperation for initiatives aimed at combating poverty and improving the living standards for rural inhabitants.

<u>Line of Action:</u> Strategies, Policies and Investments.

- Support the consolidation of the National Alliance for the Sustainable Development of Agriculture and the Rural Milieu.
- Support the development and implementation of work programs for rural and agricultural organizations, and facilitate linkages between them and regional organizations.
- Conduct analyses that will show the role and importance of agriculture in reducing rural poverty.

Line of Action: Institutional Modernization and Development

- Work with agricultural and rural organizations in developing their institutional capacities to facilitate greater participation in agribusiness

Line of Action: Natural Resource Management in Rural Territories

- Facilitate the organization of workshops to evaluate biodiversity and traditional knowledge regarding natural resources.

Line of Action: Management of Rural Development with Social Actors

- Support the development of rural enterprises through technical assistance in the areas of production and marketing, with emphasis on specific products.
- Conduct research on the factors that have an impact on the success or failure of small-scale processing enterprises.
- Develop and promote specialized revolving credit schemes, aimed at rural women and dairy producers.
- Provide alternative forage for livestock.
- Coordinate research on and adaptation of the St. Stanislaus dairy production model.

Line of Action: Knowledge Management

- Education and Training processes and materials developed to increase the know-how and practical skills needed by marginalized groups to participate fully in agri markets
- Dissemination of information

Education and Training

Goal: To encourage actors in the community of agriculture and rural life to acquire new and update their existing knowledge.

Line of Action: Training in Strategic Topics

- Collaborate with different agencies and institutions in holding training seminars and workshops on relevant topics.

<u>Line of Action</u>: Improvement of Quality and Relevance of Educational and Training Programs

- Support the School of Agriculture and Natural Sciences of the University of the West Indies in reviewing and modernizing its curriculum in agriculture.
- Support student internship programs.

Line of Action: Integration of Agricultural and Rural Education

- Development of programmes with tertiary and vocational institutions in agriculture in order to provide training for farmers and rural groups

Line of Action: Strengthening of Distance Education and Training Programmes

- Implement specific training programs through the Agricultural Distance Learning Center (ADLC).
- Support the establishment and operation of a Virtual Trade Academy, to strengthen the preparation of human resources involved in agricultural trade.

<u>Line of Action:</u> Preparation of Teaching Materials using Digital Means

- Identification of training needs and the development of course material to facilitate production of CD-Rom or other appropriate format

Information and Knowledge Management

Goal: To complement the management of information on specific topics, and promote the image of institutional excellence.

Topic: Knowledge Management

- Promote and disseminate the results of products of projects executed.

Topic: Standardization of Infrastructure and Information Systems

Consolidate and expand the network of agricultural libraries, through the SIDALC project

Topic: Consolidation of INFOAGRO System

- Assist the agricultural sector in reviewing, updating and modernizing the agribusiness information system by facilitating access to market and trade information available in other regional institutions as well as forge linkages where possible.

Topic: Development of IICA website

- Support the maintenance and updating of the website in the Caribbean Region.

Topic: Publication of Printed and Digital Materials

- Disseminate technical information and information on relevant activities, through virtual and printed publications.
- Support the following publications: IICA Caribbean News, Tropical Fruits Newsletter, CARAPHIN News, In a Nutshell, and Agriview.

5.0 Technical Cooperation Results - 2005

5.1 Facilitating competitiveness and global trade

...... Creating the foundation for Policy Interventions

The effectiveness and eventual outcome of future policy decisions within the agriculture and agribusiness sectors depend, to a large extent, on whether systems were put in place for analyzing the effectiveness of previous policies and programmes. The strength and impact of policy directions are also dependent on having a clear understanding of the macroeconomic forces (national, regional and international) that impact on developments within the sector. International standards are also important elements in shaping policy for putting the sector on a competitive footing.

In that context, the Office made significant headway by facilitating the policy formulation process through the completion of three major studies. One study examined the true contribution of the agricultural sector to the economy by construction of a Social Accounting Matrix (SAM). From the SAM, further analyses were undertaken in order to establish the linkages (backward and forward) and consequently the multiplier effects of the sector on the rest of the economy.

The model also provides an understanding of how the sector's gross output and production costs are distributed. The SAM, from a policy perspective, is also useful for allowing simulation studies that can determine the likely outcome of investment decisions in the agricultural sector on a particular segment within the general sector or on the wider economy. The SAM was developed through a collaborative effort between the IICA Office in Trinidad and Tobago and IICA Headquarters, which provided much of the technical support and direction. Inputs for the SAM were made by the Central Statistical Office and the University of the West Indies (UWI), which shared a macro SAM that was being constructed.

The Office also completed a Review of the Agricultural Incentives Programme for the Ministry of Agriculture, Land and Marine Resources (MALMR). The revised package of recommendations contains a wide range of incentives that took on board feed back from farmers and other stakeholders (through a survey); experiences of selected countries that provide incentives and WTO guidelines. A consultant from the UWI provided resources for the project.

The State of and Outlook for Agriculture and Rural Life in Trinidad and Tobago, 2005 will provide a further basis for the development of appropriate policies and programmes within the agricultural sector.

IICA continued to coordinate work towards the development of the regional Agrobiotechnology strategic framework in collaboration with the Directorate of Technology and Innovation and the Caribbean Task Force which was established in 2004. Under a short term

project to accelerate the completion of the strategic framework the IICA Office in Trinidad and Tobago coordinated the work of a short term consultant to complete the draft programme document

In November 2005, the Office also hosted a regional meeting of 25 experts in Biotechnology and Bio-safety in which the regional needs for Biotechnology and Bio-safety were identified and assessed. The workshop also endorsed the strategy document, agreed on the priority projects to be developed among the regional institutions and adopted the Consultative Group on Agrobiotechnology for the Caribbean (CGABC) as the coordinating and networking mechanism for implementation of the strategy. The office also coordinated a project development workshop to develop the priority projects which are to be submitted to Donors in early 2006.



Participants at the Biotech meeting



Members at the CARAPA/CHBA Conference and Display

The Office continued to provide support to the Caribbean Herbal Business Association (CHBA) and the Secretariat implemented various technical assistance programmes in 2005. These included assistance provided the to association strengthening the administrative capacities of national chapters and start-up of the ProInvest-funded project on market and technology research to gather and generate information on key herbal products with commercial value for the region. The Office also provided support to the CHBA which partnered with CARAPA in hosting the 7th Caribbean Herbal

Medicine Conference in St. Lucia in June 2005. The conference attracted 140 delegates from the Caribbean and internationally and featured displays of commercial herbal products produced in the region. The conference afforded the opportunity for networking and recommended important strategies for developing the regional herbal industry.

Bridging the trade information and management gap....

Farmers and other agricultural sector stakeholders rely more and more on information for making decisions that affect their livelihoods. Understanding the complex and dynamic nature of trade and trade matters and their implications for the sector can be daunting for many in the sector. The Office has recognized this challenge and has continued to take several initiatives to ensure that the farming community is apprised of pertinent trade issues. During the past year, several workshops and seminars were organized, in conjunction with our partners, to bring stakeholders up to date on the CSME, WTO, FTAA developments and other agri trade negotiations that are likely to impact on domestic and export agriculture.

Opportunities were also provided for stakeholders to increase their knowledge on improving efficiencies and competitiveness.



At those fora, stakeholders were presented with current issues of regional and international trade and invited to actively participate in the discussions so as to acquire full understanding of the issues and the consequential adjustments that will be required in their production systems. In this regard, the Office collaborated with the Livestock and Livestock Products Board (LLPB) and Pork Producers Association of Trinidad and Tobago (PPATT) in hosting a workshop on *Emerging Issues Affecting the Pork Industry*.

Stakeholders were also kept abreast of major developments and issues pertinent to the sector through the medium of IICA's publications: two editions of *AgriView* were published for the year. Volume 1 of the Issue addressed *inter alia*, *What's Not Happening at the WTO* and Volume 2 provided stakeholders with insights on the Jagdeo Initiative (its constraints and interventions).

.....Creating opportunities for increasing investments.

Another of the Office publications, *The State of and Outlook for Rural Life Report for Trinidad and Tobago, 2005*, points to a sector that is declining and operating below its full potential. Concerns were expressed about decreasing output of many commodities and reduced exports of certain products. There is also reference to increasing trends in imports of food commodities that can be produced locally.

The Status report on the sector however identified several opportunities available for existing and potential investors in the sector. The report alluded to opportunities for making investments in new growth areas in the agrifood chain, in particular for creating value-added products. Opening up of the agricultural sector to regional and hemispheric markets, through bilateral and multilateral agreements that have the potential for creating further market opportunities for producers and entrepreneurs in the sector.

In this context, the Office took several initiatives to ensure that the sector was better prepared to benefit from opportunities that may emerge with the expansion of the liberalization process. Emphasis was also placed on identifying business opportunities in specific enterprises, *viz.* hot pepper sauce and production of yams. Another investment profile was developed for greenhouse production of selected fruits and vegetables.

.....Facilitating participation in the Agrifood System

The IICA is of the view that higher levels of entrepreneurial activity can be stimulated if stakeholders in the sector are provided with appropriate technical support and guidance. In order to contribute to that process, the IICA collaborated in the preparation of a marketing strategy for organic produce in the region. The project was supported by Pro-Invest and Implemented through the Agricultural Society of Trinidad and Tobago (ASTT).

In conjunction with the Centre for Development of Enterprise (CDE), IICA started the development of a business plan for the Caribbean Herbal Business Association (CHBA). A report on the global market for herbal products was also prepared for the CHBA. The report identified opportunities for areas for export and regional markets. Additionally, the CHBA administration throughout the region was strengthened with the formation of CHBA Chapter in Guyana and the establishment of CHBA Steering committees in Trinidad and Tobago, St Lucia and Dominica.

IICA also:

- Co-sponsored and participated in the Fourth Caribbean Beekeepers Congress entitled, Adding Value to Caribbean Bee Keeping. Other sponsors of the event included the Agricultural Development Bank (ADB) and the MALMR. The Congress attracted some 130 participants and addressed value-added hive products and services; marketing of hive products, apiculture development issues and globalization and trade Issues.
- Collaborated with the Livestock and Livestock Products Board (LLPB) in hosting a
 workshop on food safety and emerging issues for the benefit of 50 stakeholders of the
 pork industry.
- Collaborated with the National Agricultural Marketing and Development Company (NAMDEVCO) and the CARDI in hosting a seminar to identify investment opportunities in the hot pepper industry. Two hundred participants attended the seminar.
- Provided support to the Rabbit Industry Development Group of the MALMR in developing strategies for improvement of the industry.

5.2 Promoting Food Safety and Agricultural Health



Participants of the Thrips workshop on a field trip in Macoya

....Building institutional capacity and standards

Greater liberalization of world trade in agricultural products and concerns for human health and wellbeing have put health and food safety issues high on the national agenda. The country for example is on heightened alert to prevent the introduction of Avian Influenza and other invasive species from entering its borders. The Black Sigatoka Disease of bananas and plantains

is another example of an exotic disease that was introduced into the country within recent times.

The new and increasing challenge to human, plant, animal and environmental health, occasioned by the liberalization process, has forced state and other agencies to allocate more resources to alleviate the threats. IICA was among those institutions that made a significant contribution to the national health and food safety effort.

The Office contributed to the national effort through its participation on a Cabinet-appointed National Agricultural Health and Food Safety Committee, which completed its report for establishment of a National Agricultural and Health and Food Safety Authority (NAHFSA). Establishment of that agency will bring all matters pertaining to Health and Food Safety under one umbrella. IICA was also represented on the National Biosafety Committee which has produced a national biosafety policy. The Office also continued to support the participation of national AHFS officials at two meetings of the Committee on Sanitary and Phytosanitary (SPS) Measures of the World Trade Organization (WTO) in Geneva in 2005.

... Developing the human resource capacity in AHFS

During the past year, many farmers and professionals from Ministries of Agriculture (locally and within the region) and other stakeholders within the agriculture sector, were trained in various aspects of Health and Food Safety, largely through a series of workshops and seminars organized by IICA in conjunction with many of its local and international partners. Locally, IICA collaborated with the MALMR in hosting four workshops on good agricultural practices and good management practices for fresh produce. A total of 150 persons benefited from the training.

The Office also successfully organized two workshops in Tobago on the use of Global positioning systems (GPS) and Geographic Information Systems (GIS) for surveillance and detection. Twenty-five plant protection staff of the Tobago House of Assembly benefited from the workshops. IICA also teamed up with the MALMR and Florida Association of Voluntary Agencies for Caribbean Action (FAVACA) in organizing another workshop on the identification of Thrips of economic importance, which benefited 23 plant protection staff of the MALMR, NAMDEVCO, CARINET and the THA.

On a regional level, IICA collaborated with the United States Department of Agriculture (USDA) in hosting the Regional Workshop on WTO Notification Dissemination/Enquiry Point Software, in which 24 persons participated. The Office also teamed with IICA Headquarters and the FAO in hosting the IICA/FAO International Phytosanitary Portal Training Workshop, which benefited 12 technical AHFS professionals from across the region. Participants of both regional workshops have now improved their capacities to access, use and disseminate information from the secure FAO/IPPC website and the WTO and USDA websites respectively.

....Disseminating AHFS information



Participants of the IICA. USDA workshop on WTO Notification Dissemination/Enquiry Point Software

To complement its activities in strengthening institutional capacity and delivery of training in AHFS, the Office participated in a number of activities to produce information for dissemination to a wider population than benefited from the various workshops and seminars.

Under its AHFS programme, the Office facilitated the development and documentation of three Good Agricultural Practice (GAP) protocols for export crops *viz*. Chadon Beni, Egg Plant and Pumpkin.

A Small Ruminant Herd Health CD-ROM and manual was completed with assistance from the School of Veterinary Medicine, Faculty of Medical Sciences, University of the West Indies (UWI) and USDA. Also completed was a CD-ROM on entry point requirements for Food and Beverage products.

5.3 Strengthening Rural Communities

....Creating business opportunities

Development of rural communities through empowerment of persons living in those communities is a major goal articulated in most national developmental plans. Empowerment of communities may take the form of skills development or the provision of financial and other resources for creating opportunities for those communities to undertake business ventures that can be sustained in the long run.

The Office collaborated with several agencies to implement programmes to strengthen the contribution of the rural population to the growth of the sector and the enhancement of their own daily living. IICA participated in the design and monitoring of three small scale projects targeted at poverty alleviation and funded by the Caribbean Food and Nutrition Institute (CFNI).

The Office continued its support to the role of women's groups in rural communities, with direct technical assistance to the Network of Rural Women Producers (NRWP). IICA contributed to further strengthening of the Network's administrative capacities and facilitated the marketing and promotion of its products. The Office supported the Network's participation at the 4th National Agricultural Exhibition hosted by the ASTT to commemorate International Rural Women's Day and World Food Day 2005 in October

In an effort to ensure that the Network would be able to sustain its own finances and correctly administer the revolving loan scheme that it currently operates, the Institute evaluated the project is in the process of making recommendations for its improvement and growth.

The Office also played a significant role in the management and implementation of a CTA-funded project designed to assist with the promotion of the Caribbean Network of Rural Women Producers (CANROP). The Office provided technical and logistical support in the management of the project which produced a website www.canrop.org and promotional material in the form of brochures and posters for the participating national chapters of CANROP.

Support was provided in facilitating the participation of the CANROP's Regional Coordinator at a Latin American and Caribbean Rural Women's Conference in Mexico in September 2005. Additionally, 10 members of the Network were facilitated to attend a workshop on pepper mash production hosted by FAO and UWI and an additional ten members of the Tobago chapter were trained in food preservation and pickling.

Under the Sustainable Rural Development Programme, the Office commissioned a SWOT analysis of the dairy industry in Trinidad & Tobago; a feasibility study for a small scale pepper sauce project; a profile on mini-sett yam production and a greenhouse vegetable production venture for rural community groups.

5.4 Hemispheric Integration

With support to the hemispheric and regional initiatives for the development of agriculture high on IICA's agenda in 2005, the Office supported the participation of Ministerial delegates to attend meetings of the Alliance for Sustainable Development of Agriculture and



Collaborators discussing the Jagdeo Initiative at the IICA Office

the Rural Milieu in January 2005 and the meeting of the Inter-American Board of Agriculture (IABA), in Guayaquil, Ecuador, in August 2005. The Office also played a vital role in providing support to the Ministerial delegate in reporting on the progress made in the identification of national efforts in the implementation of Agro Plan 2003-2015 for Agriculture and Rural Life.

In support of the process of hemispheric integration as it relates to the development of agriculture, the Office hosted a meeting of local agencies in agriculture and rural development to provide information on interventions (existing and proposed) for addressing the 10 binding constraints to agricultural development, as identified in the Jagdeo Initiative.

On a regional level, the Office, in collaboration with the Organization of the American States (OAS) and the sub-regional office of the United National Economic Commission for Latin America and the Caribbean (UNECLAC), hosted a Regional Workshop in August 2005 on *Benchmark Indicators*, as a follow up to the Agro Plan 2003-2015 for Caribbean Countries. A total of 23 persons participated in the meeting which was convened to advance the process of examining and validating the indicators, as a first step in developing an information system for the Follow-up of the Agro Plan 2003-2015.

The Office also coordinated the attendance of seven representatives from the Caribbean to the IV Reunion Foragro held in Panama April 13-15, 2005 that discussed the hemispheric coordination of Technology and Innovation to sustain the development of agribusinesses.

5.5 Developing Human Capital

...... Upgrading the skills of professionals working in health and food safety

IICA's role in contributing to the development of human capital within the agriculture sector, was highlighted by the many workshops and seminars delivered during 2005 across all areas of the work of the Office. The Office played an integral role in training for professionals, farmers, rural women and other stakeholders both locally and regionally.

The Office also played a role in providing information to its stakeholders and beneficiaries, through the use of Information and communication technologies (ICTs), via the management of websites for the CANROP, CaRAPN and CHBA. In addition, the human capital in agriculture generally benefited from the wider dissemination of information through printed newsletters and other publications produced and disseminated by the IICA Office in Trinidad and Tobago, the *AgriView, In a Nutshell* the *Tropical Fruits Newsletter*.

.....Preparing young people for the world of work

The work environment today requires a cadre of professionals who are highly motivated and equipped with the necessary skills for a highly demanding, sophisticated and technologically challenging job market. Young people, in particular need to be properly trained to bring new management styles and approaches in the field of agribusiness. In this regard, the Office continued with its Agribusiness Internship Programme, hosting two final year students pursuing degrees in Agribusiness Management at the UWI. Over the 10 week period the students were guided in the development of investment profiles for producing 6 products and or commodities: dehydrated hot peppers; dasheen leaves; pasteurized milk (using small scale equipment); sweet corn; Chadon Beni; and Red tilapia. These will be promoted for use by

the Agricultural Development Bank and other entities for promoting investments in the selected areas.

The Office further made its contribution to preparing young people for the world of work by collaborating with the Schoolteacher's Association, in hosting a seminar on Agribusiness, aimed at exposing them to the many opportunities available in the sector. In addition, the Office participated in a seminar entitled, Youth their Potential Role in Sustaining Food Security in Trinidad and Tobago. Eighty-five persons attended that seminar.

5.6 Environmental Management



IICA personnel visiting proposed organic farm site at La Reunion Estate, Trinidad

Activities involved in the production of organically cultivated vegetables and food crops have relatively minimal effects on the environment, in terms of soil degradation, pollution of water courses and destruction of insect and other animal life. In a study conducted by the Environmental Agency in 2002, the tonnage of pesticides used per square kilometre of agricultural land was examined and given an Environmental Vulnerability Index of 7, which suggests that the environment is very vulnerable to damage from pesticides.

In order to promote the cultivation of safe foods, under more environmentally acceptable conditions, the Office sought and received approval from the MALMR to develop model farms at 3 sites located on three Government Demonstration Stations: the Rio Claro Demonstration Station (5 acres); El Reposo Demonstration Station (5 acres) and La Reunion Estate (10 acres). Proposals for operating each of those sites were prepared.

Through cross horizontal cooperation efforts, with the IICA Offices in the Dominican Republic and Barbados, the Office in Trinidad & Tobago, assisted the THA in the evaluation of an organic enterprise being developed in Tobago.

The Office also provided support to a regional IICA/PROINVEST/ASTT/DFL project, which conducted market surveys that identified commercial opportunities in organics. The project also produced a package of Frequently Asked Questions (FAQs) to be aired on radio, a video documentary on organic agriculture and a handbook on organic practices. Under the project, draft policy proposals for the sustainable development of organic agriculture in the Caribbean were developed and distributed to the national ministries in the Caribbean.

5.7 Institutional Modernization



Collaborators at work at the workshop on Group
Dynamics and Team Building

Office provided training support for stakeholder technical agencies and committees for improving their levels of efficiency. In this regard, IICA Office organized the conducted a workshop on Group Dynamics and Team Building for the members of benefit of 20 Agricultural Society of Trinidad and Tobago. IICA also led the process in the reevaluation Agricultural of the Incentives Programme of the MALMR. making recommendations for a more effective regime.

The Office collaborated with the Caribbean Agricultural Research and Development Institute (CARDI) in evaluating the R & D Networks under PROCICARIBE. The new recommendations, when implemented, will enable the network to better support research and development efforts, nationally and regionally.

5.8 Other Activities

The Office was involved in many other activities that supported national and regional efforts to promote agricultural development. Those activities, to a large extent, focussed on providing resources and technical support for improving the efficiency in operations of networks and associations as well as providing policy guidelines for development of specific sectors. In this regard, the Office continued to offer secretariat services to the CABA, CHBA and NRWP as well as technical assistance to the National Diary Committee, the Citrus Growers Association and the 4H Clubs. The IICA received an award from the 4H for support in institutional development.

The Office embarked on an initiative to develop an agro-tourism programme in Trinidad and Tobago, through the commencement of its participation in the IICA. OAS project entitled: "Strengthening of the Tourism Sector through the Development of Linkages with the Agricultural Sector in the Caribbean". The 18-month project will be completed in 2006.

6.0 Inter Agency Cooperation

Emphasis was also placed on the development of policy guidelines and programmes to influence the direction and outcome of specific areas of agricultural development.



Ms. Asha Jagatram, President, Women in Focus, receiving a cheque from Mr. Edric Harry, Policy Analysis and Planning Specialist (IICA)

During the past year, the Office hosted a ceremony, on behalf of the CFNI, to hand over cheques, valued at US\$5000, to each of three groups and continued to provide support to that Institute in monitoring the progress of the three recipients of the Small Grants Award. An evaluation report on each recipient was prepared and submitted to The CFNI. IICA Office also facilitated the visit of the programme coordinator to the project sites.

IICA was represented on the National

Training Agency's Committee to develop National Vocational Qualifications (NVQs) for agriculture. The areas for which NVQs were developed included *inter alia*: Pest monitoring and assessment; food safety systems; rabbit production technology; poultry production technology; hydroponics; waste management; environmental enhancement and beautification; environmental enhancement and protection; GMOs; Environmental Impact Assessment; bio pesticides (usage and safety); pest and disease monitoring and assessment and waste management. The Representative has also participated on the FAO Task Force to develop the Regional Food Security Strategy and has provided regular advice on the development of the Government Food Production Strategy and Plan to be implemented shortly. The Representative also represented IICA on the CARDI Board of Directors and the Task Force of the Jagdeo Initiative.

7.0 Support Provided in the Development of National Plans and Strategies (Implementation of Agro- Plan 2003 - 2015).

The Office worked in close collaboration with the Ministerial Delegate in preparing Trinidad and Tobago's progress report on compliance with the 40 agenda items contained in Agro Plan 2015. The Office also assisted the Delegate in completing the Matrix of challenges in the Agro-System pertaining to production and trade; ecological environment; socio-cultural- human and political- institutional dimensions. The two reports were completed and submitted.

8.0 **Future Opportunities for Cooperation**

The Office is committed to working with its stakeholders and other agencies in the interest of improving the livelihood of participants in the agrifood industry. The need for greater levels of collaboration is critical for ensuring that resources are effectively and efficiently utilized for providing support for the sector. The Office has been approached by some public and private sector institutions and international agencies for assistance in supporting their respective policies and programmes. Opportunities therefore exist for the Office to work with:



Women in Focus Group in Charlieville

- The Caribbean Food and Nutrition Institute: The Office will continue to assist the in monitoring Institute progress of the recipients of their Small Grants Programme and further develop project proposals planned expanded for programme.
- The Department of Agriculture, Marine Affairs and Environment Tobago of the House Assembly: The Office submitted

a proposal to the THA for providing technical assistance, at their request, for development of specific segments of agriculture including: root crops, an organic farm, cost of production models for crop and livestock, an ecotourism study, development of a plan for marketing of agricultural produce as well as seminars on Health and Food Safety and CSME.

- The Ministry of Agriculture Land and Marine Resources and Central Statistical Office (Ministry of Planning and Development) and UNECLAC, IDB and The University of the West Indies: These institutions and agencies contributed to the construction of the SAM. The Office will be looking forward to sharing the results of the SAM with those agencies. The SAM will also be useful tool for use by other non -agricultural sectors for further applied research.
- Ministry of Agriculture Land and Marine Resources: The Office proposes, in keeping with its strategic objectives, to continue to support specific programmes identified in the Development Programme 2006 of the MALMR, including expansion and strengthening of the Sanitary and Food Safety programmes of Trinidad and Tobago, cost of production, market information and surveys for food and vegetables, the comprehensive programme for developing some 14,000 areas of Caroni lands, other crops and livestock commodities, improving the knowledge and skills in agribusiness management for the benefit of participants

- of the Youth Apprenticeship Programme In Agriculture. Opportunities also exist to provide training for participants of the organic farming programme.
- The Office is collaborating with NAMDEVCO, CARDI, MALMR, CABA in hosting the first Caribbean Agrifood Trade Convention slated for May 2006.
- Plans are also afoot to host in collaboration with CARIRI, the Caribbean Workshop on R & D Coordination in which institutions involved in R & D along the agrifood chain will be seeking to establish more effective linkages to support the development of the agrifood sector in the Caribbean.

Appendix I - Publications

Francis, D. 2005. In a Nutshell - Good Policy a Prerequisite for Good Agriculture.

IICA Office in Trinidad & Tobago. 2005. The contribution of IICA to the development of agriculture and rural communities in Trinidad and Tobago: Annual report 2004. Trinidad & Tobago: IICA.

Parke, A.; Francis, D. (Eds.) AgriView. Vol. 11, No. 1, 2005

Parke, A.; Francis, D. (Eds.) AgriView. Vol. 11, No. 2, 2005

Parke, A.: Harry, E. (Eds.) Tropical Fruits Newsletter. Number 46/47, 2005

List of Acronyms

ADB Agricultural Development Bank
ADLC Agricultural Distance Learning Centre
AHFS Agricultural Health and Food Safety

ASTT Agricultural Society of Trinidad and Tobago

CABA Caribbean Agribusiness Association

CANROP Caribbean Network of Rural Women Producers

CARAPA Caribbean Association of Researchers and Herbal Practitioners

CARAPN Caribbean Regional Agricultural Policy Network

CARDI Caribbean Agricultural Research and Development Institute

CARICOM Caribbean Community

CARIRI Caribbean Industrial Research Institute
CDE Centre for Development of Enterprise
CFNI Caribbean Food and Nutrition Institute

CGABC Consultative Group on Agrobiotechnology for the Caribbean

CHBA Caribbean Herbal Business Association

CPBB Caribbean Programme on Biotechnology and Biosafety

CSME Caribbean Single Market and Economy

CTA Technical Centre for Agricultural and Rural Cooperation

DFL Development Finance Limited

EU European Union

FAQ Frequently Asked Questions

FAO Food and Agriculture Organization of the United Nations

FAVACA Florida Association of Voluntary Agencies for Caribbean Action

FTAA Free Trade Association of the Americas

GAP Good Agricultural Practices
GDP Gross Domestic Product

GIS Geographic Information Systems
GMP Good Manufacturing Practices
GPS Global Positioning Systems

HACCP Hazard Analysis Critical Control Point

HPBB Hemispheric Programme on Biotechnology and Biosafety

IABA Inter-American Board of Agriculture IDB Inter-American Development Bank

IICA Inter-American Institute for Cooperation on Agriculture

IPPC International Plant Protection Convention LLPB Livestock and Livestock products Board

MALMR Ministry of Agriculture, Lands and Marine Resources NAHFSA National Agricultural Health and Food Safety Agency

NAMDEVCO National Agricultural Marketing and Development Company

NRWP Network of Rural Women Producers
NVQ National Vocational Qualifications
OAS Organization of American States
PAHO Pan American Health Organization

PPATT Pork Producers of Trinidad and Tobago

PROCICARIBE Caribbean Agricultural Science and Technology Network System

SAM Social Accounting Matrix
SPS Sanitary Phytosanitary
THA Tobago House of Assembly

UNECLAC United Nations Economic Commission for Latin America and the

Caribbean

USA United States of America

USDA United States Department of Agriculture
UTT University of Trinidad and Tobago
UWI University of the West Indies
WTO World Trade Organization