





**Inter-American Institute for Cooperation on Agriculture  
Office in Grenada**

**IICA's Contribution to the Development of Agriculture  
and Rural Communities in Grenada**

***2009 ANNUAL REPORT***

**St. George's, Grenada**

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## ACRONYMS

APHIS	-	Animal and Plant Health Information Services
APU	-	Agriculture Planning Unit
CABA	-	Caribbean Agri Business Association
CAFY	-	Caribbean Agricultural Forum for Youth
CANROP	-	Caribbean Network of Rural Women Producers
CARDI	-	Caribbean Agricultural Research and Development Institute
CFLI	-	Canadian Fund for Local Initiative
CIRAD	-	French Agricultural Research Centre
CSAM	-	Commodity Systems Assessment Methodology
ECS	-	Eastern Caribbean States
FAVA-CA	-	Florida Association for Volunteer Action in the Caribbean and the Americas
GAB	-	Grenada Association of Beekeepers
GAFY	-	Grenada Agricultural Forum for Youth
GAPs	-	Good Agricultural Practices
GCA	-	Grenada Cocoa Association
GCNA	-	Grenada Cooperative Nutmeg Association
GDP	-	Gross Domestic Product
GRENROP	-	Grenada Network of Rural Women Producers
IICA	-	Inter-American Institute for Cooperation on Agriculture
MoA	-	Ministry of Agriculture
NTCA	-	National Technical Cooperation Agenda
OAS	-	Organization of American States
TV	-	Television
US	-	United States
USA	-	United States of America
USDA	-	United States Department of Agriculture
VEP	-	Veterinary Epidemiology and Para-epidemiology

## 2009 Annual Report: IICA's Contribution to the Development of Agriculture and Rural Communities in Grenada



*Field Tour as part of Forum for Leaders in Agriculture-Costa Rica*

### **1. INTRODUCTION**

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency for agriculture and rural life in the Americas. Its headquarters is located in San Jose (Costa Rica), and it maintains an office in each of its 34 member states as well as in Europe. The USA has an additional office to deal specifically with hemispheric trade promotion. IICA seeks to provide innovative technical cooperation to its Member States, with a view to helping them achieve sustainable agricultural development, food security and rural prosperity.

IICA's activities in Grenada during 2009 were in accordance with National Technical Cooperation Agenda (NTCA) for the country. The NTCA, developed in consultation with key agriculture

sector stakeholders, is geared towards supporting efforts to address the country's agriculture sector priority needs. Those activities were based on guidelines contained in the Institute's 2006-2010 Medium Term Plan. As a result of activities undertaken, IICA contributed to the fulfillment of Grenada's obligations under the agricultural mandates of the Summit of the Americas, which are reflected in the Agro Plan 2003-2015. The Agro Plan represents a vision for agriculture, shared by all IICA Member States. To facilitate effective implementation of its activities, IICA operates through national Annual Work Plans which take into consideration the agriculture sector's priority needs as well as the Institute's resource capabilities.

IICA's technical cooperation is provided through the following six *Strategic Priorities*:

- Repositioning of agriculture and rural life
- Promoting trade and the competitiveness of agribusiness
- Promoting the development of rural communities based on a territorial approach
- Promoting agricultural health and food safety
- Promoting the sustainable development of natural resources and the environment
- Promoting the introduction of technology and innovation for the modernization of agriculture and rural development

Since 2002, IICA's national *Annual Report* has been highlighting the more

significant contributions of the Institute towards the sustainable development of Grenada's agricultural and rural sector. Those contributions have resulted from the execution of a number of activities implemented in collaboration with, and through the support of the Ministry of Agriculture (MoA) and a number of other institutions, agencies, and organizations within the agriculture sector.

This report details the major results achieved through implementation of activities in collaboration with and through the support of the Ministry of Agriculture (MoA) as well as a number of other institutions, agencies, and organizations within the agriculture and rural sector.

## 2. EXECUTIVE SUMMARY

### **Repositioning Agriculture and Rural Life**

❖ Enhanced leadership capabilities at the policy, administrative and technical levels of the Ministry of Agriculture (MoA). This was made possible through participation in a *Forum for Leaders in Agriculture* by a 3-person Grenada delegation comprising the Minister of Agriculture (Honourable Michael D. Lett), MoA's Permanent Secretary (Mrs. Gemma Bain-Thomas), and MoA's Director of Research and Development (Dr. Malachy Dottin). The *Forum* was held in Costa Rica during the period February 9-13, 2009. It was organized and sponsored by IICA through its

*Centre for Leadership in Agriculture.*

❖ **Twenty young leaders in agriculture and rural development have enhanced their leadership skills and team building capabilities, and have also gained a greater appreciation of global strategic issues (e.g. climate change and food security) through their participation in the first ever *National Forum for Young Leaders in Agriculture and Rural Development.***

## **Promotion of Trade and the Competitiveness of Agribusiness**

- ❖ Sixteen agri-entrepreneurs (representing CABA and CANROP) and two Agriculture Science teachers and one student have increased their knowledge of, and skills in cassava production and processing, through participation in an intensive 2-day workshop on *Cassava Production and Processing*.
- ❖ The technical capabilities of twenty-six persons, mainly young agricultural extension officers and members of the national chapters of CABA, CAFY, and CANROP, were enhanced through their participation in a workshop on *Agri tourism & Agribusiness Management*.
- ❖ The capability of twenty-four persons to prepare and manage bankable projects was greatly enhanced, through their participation in a 2-day *Resource Mobilization Workshop*. Participants were drawn from the national chapters of CABA and CANROP as well as the Ministry of Agriculture and the Grenada Association of Beekeepers.
- ❖ One project proposal titled “Developing the Capability of CABA Members to Collect, Re-use, and Recycle Organic Waste” received funding, in the amount of Eighteen Thousand and Sixty-three Canadian Dollars (Can\$18,063.00) from the Canadian Fund for Local Initiative. The project is being implemented by CABA.
- ❖ Improved technological capability of farmers involved in agricultural production under shade houses. These farmers were provided with hands-on training by a highly qualified and experienced shadehouse/greenhouse technologist from Jamaica.
- ❖ Increased understanding, by MoA’s planning staff, of the wider issues of agricultural development, which are likely to impact on the overall competitiveness of Grenada’s agribusiness sector.



## Promotion of Agricultural Health and Food Safety



*Persons attending Regional Workshop for Plant Quarantine Technicians*

- ❖ Three plant quarantine technicians increased their capability to identify and effectively manage specific pests of quarantine significance. They participated in a one week *Regional Workshop (held in Grenada) for the Identification of Coleopteran Pests of Importance to the Region*. The workshop was organized and conducted jointly by IICA, USDA-APHIS, FAVA-CA and the Ministry of Agriculture in Grenada.
- ❖ Grenada's capability to establish and maintain an active surveillance programme has been enhanced through the country's participation in the VEP project which has facilitated the training (in epidemiology principles) of local livestock personnel, and the provision of necessary materials for the conduct of relevant surveillance programmes.
- ❖ The ability of twenty-four farmers (mainly members of CABA, CAFY and CANROP) to produce safer foods was enhanced, through their participation in a workshop on *Organic Agriculture & Good Agricultural Practices*.
- ❖ Increased stakeholder awareness of the potential for increased production and consumption of safer foods, and the need for a comprehensive approach to organic food production.

### 3. THE STATE OF AGRICULTURE AND RURAL LIFE IN GRENADA IN 2009

Grenada's agriculture and rural sector experienced mixed fortunes during 2009. The global economic crisis impacted severely on the local economy: National economic growth declined by an estimated 7.7 per cent, and unemployment levels exceeded 25 % nationally and may have been as high as 40 % in rural areas. Farmers had to contend with significantly increased agricultural input prices, and reduced levels of crop productivity caused by adverse weather conditions. Besides, banana, one of Grenada's food staples, continued to be plagued by the dreaded Black Sigatoka disease which devastated the crop to the extent that Grenada was forced to import bananas for a short period towards year end. Notwithstanding, there was increased production of food crops, cocoa, and nutmeg and mace. However, the domestic market for food crops was very sluggish, due to consumers' low purchasing power; but there was increased export demand for Grenada's cocoa and nutmeg. This translated into very favourable export prices for both commodities. The fish subsector also performed relatively well, and the country's livestock industry benefited from Government's Livestock Development Programme which focused mainly on *Artificial Insemination (AI)* in cattle, and improved breeding stock and management system for goats. There was also some emphasis on poultry and pig production. It is interesting to note that, based on data from the Ministry of Finance, the agriculture sector exhibited the highest level of positive growth (9.3 %) in 2009.

The contribution of Grenada's agriculture sector to Gross Domestic Product (GDP) has been relatively low, averaging less than 6% during the past five years (2005-2009). However, following the passage of hurricane Ivan in 2004, the sector has been experiencing steady and significant growth. Main contributors to this growth pattern are the country's cocoa and fisheries industries.

Government's reliance on the agriculture sector as a major pillar for national economic growth may be deduced from the following statement contained in the Governor General's 2009 Throne Speech: "*Given the role that agriculture plays in economic development, particularly in the rural communities, my Government is fully committed to providing the enabling environment to facilitate the rehabilitation and modernization of the sector.*"

Government's stated intention to give priority attention to the agriculture sector was made clear during 2009. Accordingly, emphasis was placed on all aspects of production: Neglected farm access roads were rehabilitated; farmers were assisted with land clearing activities; plant propagation infrastructure was enhanced; planting materials and fertilizers were made available at subsidized prices; agro-processing investment opportunities were created in various rural communities; a draft *Food and Nutrition Policy and Plan of Action for Grenada* was developed; an agricultural *research desk* was established; plant quarantine capabilities were enhanced; the Produce

Chemist Laboratory was refurbished and upgraded; and the Planning Unit of the Ministry of Agriculture was strengthened in support of efforts to ensure that Government's agricultural policies were translated into relevant programmes and projects with the necessary built-in mechanisms to facilitate effective implementation and monitoring.

The current state of Grenada's two main crop sub-sectors (cocoa and nutmeg) is very encouraging. Since the passage of hurricane Ivan in September 2004, both sub-sectors have been recovering steadily and, in the case of cocoa, the recovery has been remarkable. Cocoa

production for the last financial year (October 2008-September 2009) was 463,038.5 kilograms, which was approximately 56 per cent of production for the year (October 2003 – September 2004) just prior to the hurricane. As shown in Table 1 (below), cocoa production and export have increased steadily from 2006 to 2009; and, based on the fact that production during the period October – December, 2009 was 74,023 kilograms (compared to 10,951 kilograms for the same period the previous year), it is reasonable to predict that the pre-hurricane production level could be surpassed by the end of the 2009/2010 financial year.

**Table 1: Cocoa Production and Export (2006-2009)**

PERIOD	PRODUCTION (KG)	% INCREASE	EXPORT (KG)	% INCREASE	EXPORT VALUE (US\$)	% INCREASE
Oct. 2005 to Sept. 2006	76,972.3		85,178.7		286,269.25	
Oct. 2006 to Sept. 2007	219,764.6	185.5	217,291.6	155.1	993,032.96	246.9
Oct. 2007 to Sept. 2008	355,550.6	61.8	342,533.8	57.6	1,364,195.55	37.4
Oct. 2008 to Sept. 2009	463,038.5	30.2	411,759.6	20.2	1,530,430.64	12.2
Oct. to Dec. 2008	10,951.5					
Oct. to Dec. 2009	74,023.1	575.9				

Source: Adapted from Grenada Cocoa Association's *ANNUAL REPORT* (2006, 2007, 2008, 2009); and files of Grenada Cocoa Association.

The continued success of the Grenada Cocoa Association (GCA) is being partly attributed to, in the words of GCA's Chairman, "...the close and growing bond between the GCA and the Government of Grenada." It is important to note that in 2009 the GCA, with support from Government, was able to finalize arrangements towards a joint venture enterprise with a US manufacturing company to undertake the

manufacturing of chocolate in Grenada. When in operation, this enterprise would become the second private sector entity in Grenada to be involved in commercial chocolate production; the first such entity was the Grenada Chocolate Company which is currently using local organically produced cocoa to manufacture a high quality instant cocoa powder (*SMILO*) as well as chocolate bars, with much of the latter being exported.

Like the cocoa industry, the nutmeg industry has been progressing steadily since 2006. However, as shown in table 2 (below), while nutmeg production increased from year to year, the quantity and value of export was skewed due to the export of nutmeg which was in storage prior to the hurricane in 2004. It is also observed (from the table) that, although export quantities declined by 60.5 % and 6.3 % in 2008 and 2009, respectively, export values fell by only 33.5 % in 2008, and increased by 5.3 %

in 2009. This apparent anomaly was due to price increase for nutmeg on the international market in 2007/2008, and continuing into 2009. Available data indicate that nutmeg production in the period July to December 2009 was 40.6 per cent higher than in the same period in 2008. This, together with the increased price, is a good sign for Grenada's nutmeg industry which is still recovering from the devastation caused by hurricane Ivan in 2004.

**Table 2: Nutmeg Production and Export (2006 – 2009)**

PERIOD	PRODUCTION (KG)	% CHANGE	EXPORT (KG)	% CHANGE	VALUE (US\$)	% CHANGE
July 2005 - June 2006	227,249.9		668,739.7		3,920,999.1	
July 2006 – June 2007	272,712.0	20.0	812,702.9	21.5	4,456,084.8	13.6
July 2007 – June 2008	316,453.5	16.0	320,648.1	-60.5	2,960,732.0	-33.6
July 2008 – June 2009	358,065.8	13.1	300,410.4	-6.3	3,118,818.1	5.3
July – Dec. 2008	136,176.6					
July – Dec. 2009	191,448.6	40.6				

Source: Adapted from Grenada Cooperative Nutmeg Association's *Financial Statements and Trading Summary* (2006, 2007, 2008, 2009); and files of the Grenada Cooperative Nutmeg Association.

Nutmeg oil, produced mainly from low grade nutmeg, is also manufactured and exported by the Grenada Cooperative Nutmeg Association (GCNA). It is interesting to note that average export prices received by GCNA for its nutmeg oil fluctuated significantly during the 3-year period 2007-2009. According to information obtained from GCNA's Annual Reports, average prices received per kilogram of nutmeg oil in 2007, 2008, and 2009 were US\$45.23, US\$167.53, and US\$85.19, respectively.

During 2009, there was great export demand for Grenada's nutmeg and nutmeg oil. However, because the 2009 nutmeg production (358,065.8 kg) was only approximately twelve per cent of the pre-hurricane (2003-2004) production of 2,923,784.6 kg, the demand was far from being satisfied. The GCNA was also unable to satisfy local demand for nutmeg oil. This resulted in a local nutmeg oil based agro-industry having to import its nutmeg oil requirements from India at US\$56.00 per kilogram.

#### 4. RESULTS OF THE IMPLEMENTATION OF THE NATIONAL TECHNICAL COOPERATION AGENDA IN GRENADA DURING 2009

In 2009, results of the implementation of the National Technical Cooperation Agenda in Grenada were achieved under the following three Strategic Priority Areas of IICA:

- Repositioning Agriculture and Rural Life
- Promotion of Trade and the Competitiveness of Agribusiness
- Promotion of Agricultural Health and Food Safety



*Grenada's Delegation to Forum for Leaders in Agriculture*

#### 4.1 Repositioning Agriculture and Rural Life

**4.1.1** Grenada's acceptance of IICA's invitation for a three member delegation to participate in a *Forum for Leaders in Agriculture*, held in Costa Rica in February, 2009, was in recognition of the pivotal role of agriculture in ensuring food security and rural prosperity in Grenada. The delegation was headed by Grenada's Minister of Agriculture (Honourable Michael D. Lett), and

included both the Permanent Secretary (Mrs. Gemma Bain-Thomas) and the Director of Research and Development (Dr. Malachy Dottin) in the Ministry of Agriculture (MoA). Accompanying the delegation was Mrs. Una May Gordon, IICA's Representative for the Eastern Caribbean. During the *Forum*, the Minister and his delegation were exposed to leadership strategies needed

to guide Grenada's agriculture and rural sector through the current challenges facing the agriculture and rural sector. Specifically, the Forum dealt with the following:

- The dimensions of Leadership in the 21<sup>st</sup> Century;
- The role of agriculture and agribusiness in economic development;
- The challenges and opportunities with respect to agriculture in the 21<sup>st</sup> Century;
- IICA and its role in agriculture and rural development in the hemisphere;
- The role of the Minister of Agriculture as a participant in the ministerial process within the framework of the Summit of the Americas; and
- The bases for the establishment of a new agenda for cooperation between IICA and its Member States.

In particular, the Forum emphasized the potential stumbling blocks which would confront any country which may attempt to develop and implement national policies without giving due consideration to the global context.

The Grenada delegation visited Earth University as well as a number of high tech agricultural enterprises. The Minister of Agriculture also made a presentation at the Forum, highlighting his Ministry's proposal for developing Grenada's agri-food sector. He placed special emphasis on areas such as *Human Resource Development, Institutional Strengthening, Food Security, and Research and Development Priorities*. Many other areas (agro-processing, fisheries, livestock, etc.) impacting the sector's overall

development were also addressed by the Minister.

While in Costa Rica, Minister Lett and his delegation held fruitful discussions with a team of senior IICA officials, including IICA's Director General (Dr. Chelston Brathwaite). On return to Grenada, the delegation, through MoA's Permanent Secretary, requested IICA's assistance in areas related to *Institution building, Greenhouse Technology, Organic Agriculture, and Biogas Production*. The Institute responded positively, and this led to the implementation of focused activities with financial resources provided for that specific purpose by the Director General. These activities included a leadership training forum for youth interested in agriculture; a training course in "Planning" and "Project Development"; training in "Greenhouse Technology"; an Organic Agriculture Feasibility Study for Grenada; and training in "Biogas Production".

**4.1.2** Training in *Leadership* was one of the requests made by the Ministry of Agriculture (MoA) and assented to by IICA. Thus, a 3-day residential *National Forum for Young Leaders in Agriculture* was jointly organized and sponsored by both institutions. It was held at the Flamboyant Hotel during the period September 16<sup>th</sup> to 18<sup>th</sup>, and provided twenty young persons (including one each from Carriacou and Petit Martinique) with leadership skills and team building capabilities. Among the participants were farmers as well as employees of three different Government Ministries: Agriculture, Education, and Youth Empowerment; thirteen of the twenty participants were from the Ministry of Agriculture.



*Forum Facilitators*

The Forum was conducted by two international facilitators (Ms. Jan Hurwitch and Dr. Amy Boren from IICA’s headquarters) and three national facilitators (Misses. Kimberly Thomas, Allison Haynes, and Simone Lewis). Some support was also provided by Mrs. Una May Gordon, the IICA Representative for the Eastern Caribbean States (ECS); and most of the logistics were undertaken by the local IICA Office, in collaboration with the Permanent Secretary in the Ministry of Agriculture. The Forum included two days of indoor/outdoor activities, and a 1-day visit to an agro-tourism facility. There was an *Official Opening Ceremony* which was held on the evening of September 16<sup>th</sup>. It included, inter alia, very appropriate cultural presentations by members of the 4-H Club of a primary school.

Forum participants benefited from a number of stimulating presentations by the international facilitators. (Most of the presentations were followed by Work Group Sessions.) Some of the very interesting topics dealt with were

*Leadership and You; Leadership in the 21<sup>st</sup> Century; and Leadership Tools for the New Millennium.* There were also two very motivating presentations on “The Role of Youth in Agro-tourism” and “Promoting Youth Leadership in Agribusiness Development”; these were given, respectively, by Ms. Shadel Nyack Compton (Owner/Managing Director of Belmont Estate) and Mr. Denis Noel (Owner/Managing Director of a successful agribusiness enterprise – Noelville Limited). The presentations were complemented by a series of



*Participants in a Team Building Exercise*

practical team building exercises and a number of mock *Youth Parliament Sessions*. During the parliament sessions, participants debated a wide range of relevant and topical issues relative to *Food Security, Climate Change, Sustainable Agricultural and Rural Development, Regional Integration, and Inter-Sectoral Linkages for Sustainable Development.* The team building exercises were very focused and entertaining.



*Youth Forum Participants and Facilitators*

Towards the end of the Forum, commitments were made by IICA, through the IICA Representative for the ECS, as well as members of each of four Work Groups. IICA was committed “to provide support and any necessary resources within its capacity to the follow-up actions proposed by all youth present at this Forum”. Members of Work Groups 1, 2, 3, and 4, respectively, committed themselves to:

1) “...educate and inform our youthful population of Grenada about our culture, heritage and tradition in agriculture through a *Food Festival* in each Agricultural Extension District. In so doing, we aim to promote *Food Security* and enhance knowledge of the importance of agriculture in the State of Grenada.”

2) “...foster new relationships between the agro-sector and all stakeholders; educate; modify and re-introduce

innovative ways to get old, new and potential farmers and youth actively involved in the agriculture sector.”

3) “...be agents that transfer agricultural information to our young people using mediums such as workshops, seminars, TV programs, newsletters, and *Career Days* for educating them in the career opportunities that exist within the agricultural sector.”

4) “...the formation of a group consisting of volunteers of the youth participants of this Forum, to facilitate, support and build strong agricultural based groups and to develop their leadership skills, abilities, *group dynamics* capabilities; and support these groups/clubs in the execution of these activities.

Prior to conducting the 3-day national forum for young leaders in agriculture, IICA, in February, hosted at its



Headquarters two MoA technicians (Ms. Allison Haynes-Agronomist, and Ms. Kimberly Thomas-Planning Officer) who participated in the Institute's annual Forum for Young Leaders in Agriculture of the Americas. This hemispheric

activity attracted participation from each of IICA's 34 member countries in the hemisphere. It sought to ensure that a cadre of young agricultural professionals are adequately equipped to take up leadership roles in the sector.

## 4.2 Promotion of Trade and the Competitiveness of Agribusiness

Results achieved, through implementation of activities under this *Priority Area*, were due mainly to support received from two of IICA's Regional Specialists as well as senior technicians of the Planning Unit and Agronomy and Extension Divisions of the Ministry of Agriculture (MoA).

workshop aimed at improving the cassava production and processing capabilities of nineteen persons. Workshop participants included members of the national chapters of the Caribbean Network of Rural Women Producers (CANROP) and the Caribbean Agribusiness Association (CABA). Additionally, two Agricultural Science school teachers and one student also participated in the workshop.

**4.2.1** In support of the national *Food Security Program*, IICA collaborated with the MoA and organized a 2-day



*Cassava Production Demonstrated*



*Cassava Processing Demonstrated*

With support from two Agronomists (Mr. Gabriel Clarke and Ms. Allison Haynes) from the MoA, IICA held a training seminar, which included two practical sessions on *Cassava Production and Processing*. One of the practical sessions was held on a cassava plot at the Mirabeau Agricultural Station while the other took place at a privately

owned cassava processing facility located in the rural village of Munich. The seminar covered all aspects of cassava production: from pre-production to post-harvest handling. It also included the theoretical aspects of cassava processing, highlighting twenty-one different recipes which included cassava as the main ingredient. The field practical session included aspects of site

selection, land preparation, variety selection, planting, and pest identification and control. At the cassava processing facility, workshop participants closely observed and noted the component parts of the locally made cassava processing equipment; they also witnessed demonstrations of the processes involved in manufacturing farine, cassava bread and starch from cassava.

Major topics highlighted at the seminar were:

- Ecological requirements of cassava
- Land preparation and planting
- Basic agronomic practices, including fertilizer application, weed control, irrigation, and pest and disease control
- Harvesting methods and procedures
- Post-harvest handling, with emphasis on treatment and storage of tubers

- Processing equipment and methods
- Constraints to the widespread utilization of cassava products.

**4.2.2** By participating in an IICA-organized and sponsored workshop, twenty-six entrepreneurs were able to enhance their technical capabilities in *Agri-Tourism Linkages* and *Agribusiness Management*. The participants were drawn from the membership of the national chapters of three of the components of The Alliance: Caribbean Agri-Business Association (CABA), Caribbean Agricultural Forum for Youth (CAFY), and Caribbean Network of Rural Women Producers (CANROP). The workshop was facilitated by Ms. Kimberly Thomas and Mr. Michael Church from the Planning Unit of the Ministry of Agriculture (MoA).



*Entrepreneurs in Training*

The agro tourism component of the workshop dealt mainly with the dimensions and benefits of, and the trends in agri-tourism linkage. There was also a graphic presentation of Grenada's

agri-tourism product life cycle. This was followed by two relevant video presentations which focused mainly on the development of agri-tourism in the Caribbean.

In addressing the dimensions of agri-tourism linkages, the facilitator dealt exhaustively with the following:

- Direct sale of agri products to the hospitality industry
- Tourism services offered by farmers
- Health and wellness activities
- Agro heritage
- Agro cultural events

Employment, wealth distribution, and accelerated development of rural areas were three of the major benefits outlined.

The various aspects of the recently (2005-2009) implemented IICA-OAS Agro Tourism Linkages Project in selected Caribbean countries were highlighted as being indicative of the current trend in agro-tourism development. Mention was also made of the establishment/enhancement of the tourism product in a number of rural communities which were brought into focus as a result of the new thrust towards agri-tourism.

*“Planning, starting and managing an Agri Tourism Business”* was the theme of the Agri business presentation. With respect to planning, the need to decide on an appropriate and innovative business idea was considered to be of paramount importance. Such business idea should facilitate creation of a business with a competitive edge and the potential of satisfying customer expectations. More importantly, in developing the business idea, one must take into account the experiences of other similar or related enterprises. Starting the business necessitates giving consideration to the area of focus, with reference to the *dimensions of agri-*

*tourism linkages*. It also requires preparation of a good Business Plan, and an awareness of the type of customers targeted, and their needs. Sustainability of the business is of great importance, and all necessary actions should be taken to ensure such. In terms of managing the agri-tourism business, it is necessary to ensure that, among other things, good leadership and a sound decision making process along with prudent financial management are given due consideration.

**4.2.3** Twenty persons participated in a 2-day Resource Mobilization Workshop, and thereby significantly increased their capability to prepare and manage bankable projects. They included four, three, two, and eleven members, respectively, from and the Ministry of Agriculture (MoA), the Grenada Association of Beekeepers (GAB), the Marketing and National Importing Board (MNIB), and the national chapter of Caribbean Agri Business Association (CABA). The workshop was facilitated by Mr. Kervin Stephenson, IICA’s Regional Specialist for the Caribbean Area.

In his very interactive presentation, Mr. Stephenson highlighted (among other things) the need, and demonstrated the procedure, for preparing good and convincing project proposals, using the Logical Framework approach for structuring the project. He also emphasized the importance of adopting a multi-disciplinary/participatory approach to project formulation.

Workshop participants were provided with a detail description of each of the six stages of the *Project Cycle*. They were taught how to identify relevant and

important problems (and projects), using the Commodity Systems Assessment Methodology (CSAM). Also, participants were introduced to the *Problem Tree Diagram* as a means of “visualizing the cause and effect relationships regarding a particular problem situation”; and were shown how to convert “problems” into “objectives”.

“Results based budgeting” was particularly emphasized since it was considered an indispensable decision making tool with respect to the effective allocation of project resources.

Through participation in Work Group sessions, participants enhanced their individual and collective capabilities to prepare project proposals, using the Logical Framework. With guidance from the facilitator, each of four Work Groups developed a draft project proposal which was presented during a plenary session. Each presentation was commented on, and members of each work group undertook to meet, on set days following the workshop to finalize the respective proposals. They also promised to periodically review the following documents (handouts) they received at the workshop:

- Introduction to Resource Mobilization, Project Development and Management
- Project Identification/Problem Analysis
- Problem Tree Analysis
- Objective Analysis
- Results Based Budgeting
- Pre-production, Production and Harvest/Post-harvest Checklist of Potential Problems in a Commodity System
- Activity Profiling Format, with Explanations

- The Logical Framework Matrix – An Explanation of the Concept
- Developing a Concept Note
- Identifying Investors
- Tips on Improving Your Chances of Success – Giving your proposal the competitive edge.

**4.2.4** To help increase the competitiveness of agriculture, members of CABA took the initiative and decided to become involved in the production of compost manure. IICA assisted the group to prepare and successfully submitted a project proposal “*Developing the capability of CABA members to collect, re-use, and recycle organic waste*” for funding to the Canadian Fund for Local Initiatives (CFLI). The project has two major components: (1) Training, and (2) Establishment of two demonstration compost bins and two composting packaging/distribution facilities. For project implementation, the sum of Eighteen Thousand and Sixty-three Canadian Dollars (Can\$18,063.00) was received by CABA from CFLI, in October, 2009. The total project cost is Twenty-nine Thousand, Nine Hundred and Eighty-eight Canadian Dollars (Can.\$29,988.00) which includes in-kind contributions from CABA (Can.\$7,694.00), and IICA/MoA (Can.\$4,231.00).

By the end of 2009, CABA members had made arrangements for the training activity, and identified the compost sites and the source of needed equipment and materials.

**4.2.5** *Greenhouse Technology* was effectively transferred to eighteen agriculture technicians and six farmers who participated in a 1-day workshop

which complemented a series of hands-on training visits to greenhouse farmers by a qualified and experienced greenhouse technologist from Jamaica. Seven greenhouses were visited over a 3-day period. This was followed by a 1-

week training visit to Jamaica by a greenhouse farmer and an Agronomist from the MoA for the purpose of observing first-hand the effective and efficient operation of greenhouses.



*Greenhouse Technology Workshop*

During the workshop presentations, emphasis was placed on the following aspects of production under greenhouse:

- Efficient use of water and fertilizer
- Fertilizer/fertigation programs for various crops under greenhouse
- Growing vegetables in soilless culture substrates and containers
- Use of antiviral netting and plastic to reduce incidence of pests and diseases
- Maximizing pollination and fruit set for increased yields and profitability.

Electronic copies of the following documents were made available through the workshop organizers: (1) Understanding Greenhouse; (2) Low Cost Greenhouse; (3) Greenhouse Advantages; (4) Water Analyses; (5) Nutrition Media pH and Nutrient Levels; (6) Nutrition Fertilizer Calculation; (7)

Fertigation; (8) Fertilizer Programs for Leafy Vegetables, tomato, and Sweet Pepper.

During the field visits, the greenhouse technologist from Jamaica interacted with the individual greenhouse farmers and was able to learn of their problems, and offer solutions to those problems. The visits also provided him with first-hand knowledge of the local situation and, as a result, he was able to orient the contents of the workshop to address the specific needs of the greenhouse farmers.

**4.2.6** Twelve persons, including staff of the Agricultural Planning Unit (APU), gained significant insight into the various issues pertaining to the effective planning of the agricultural sector's development. They were exposed to relevant policy, planning and programming issues, and their competence in the area of project development and proposal writing was

enhanced. This was made possible through a 4-day local training course conducted by two of IICA's Regional Specialists in *Projects* and *Policy*, respectively. The Projects Specialist, among other things, emphasized and promoted the use of the *Logical Framework* approach in project

formulation. The Policy Specialist, supported by MoA's Senior Planning Officer, highlighted the need to understand the process involved in moving from a policy document to programs and projects on the ground, and how to ensure internal consistency between and among objectives.



*Participants and Facilitator in Project Development Workshop*

During presentations by IICA's Policy Specialist and MoA's Senior Planning Officer, special and frequent reference was made to the *Agro Matrix* as an extremely useful planning tool which could assist in focusing the Ministry's developmental activities. Participants' attention was also drawn to the *Millennium Development Goals* each of which could be adopted as an overall project goal to which the objectives of individual MoA projects should contribute.

The importance of stakeholder engagement in decision-making and policy implementation was given great prominence: Stakeholders representing the Agriculture Extension Division, the local Chamber of Industry and Commerce, a prominent farmers association, an agro-processors association, and greenhouse operators were allowed to express their concerns over the policy and programming process of the MoA. This resulted in

lively and fruitful discussions which focused on issues related to transparency in policy implementation; private/public sector investment partnerships; inter-

agency collaboration; land use policy; agricultural inputs supply; and marketing of agricultural produce.

### **4.3 Promotion of Agricultural Health and Food Safety**

**4.3.1** Given the current significance of agriculture to Grenada's economic and social development, the Ministry of Agriculture eagerly supported a request for Grenada to host a *Regional Workshop on the Identification of Coleopteran Pests of Quarantine Significance*. Although the 5-day workshop allowed for one participant from each Caribbean country, as host country, Grenada was allowed three participants who made good use of the opportunity to improve their technical capability in the area of Pest Identification. The workshop was organized and conducted jointly by IICA, USDA-APHIS, FAVACA, and the Ministry of Agriculture (MoA). It received great support from the St. George's University which provided the workshop venue as well as a range of logistical support.

The workshop, according to its objective, provided training and experience to participants in the identification of beetles that occur in the Caribbean and that are of quarantine concern for potential invasion in the Caribbean Basin. During the training, participants were tutored on the diagnostic characters for identifying adults and larvae of the major Coleopteran superfamilies, families and subfamilies, as well as some important genera of beetles. They also received training and information pertaining to the following topics: Survey Methods and Detection Trapping; Techniques for

Preparation and Preservation of Specimens; and Sources of Authoritative Taxonomic Identifications. Each participant was awarded a *Certificate of Participation* at the end of the workshop.

**4.3.2** Grenada's livestock sub-sector has benefited from the country's participation in the second phase of the implementation of the Veterinary Epidemiology and Para Epidemiology (VEP) Project which is being coordinated by IICA, in collaboration with the USDA and the French Agricultural Research Centre (CIRAD). Through the project, one of MoA's livestock Specialists (Mr. Derek Thomas) has developed the capability to establish and maintain a livestock disease surveillance program to mitigate specific disease risks related to the import and export of animals and animal products. Besides providing training, the project has also made available the necessary equipment and materials for the surveillance program.

The training activity facilitated Grenada's participation in a series of meetings and training events held in the Caribbean and the USA. A laptop computer and a blackberry cell phone were among the equipment provided under the project.

**4.3.3** By participating in a workshop on *Organic Agriculture and Good Agriculture Practices*, twenty-four persons were able to improve their

capabilities to produce safer foods. Fifty per cent of participants came from the MoA. The other participants represented the national chapter of Caribbean Agri Business Association (CABA); Grenada Agricultural Forum for Youth (GAFY);

Grenada Network of Rural Women Producers (GRENROP); St. Andrew's Methodist School; and Ministry of Youth Empowerment and Sports. There was one individual farmer who participated in the workshop.



*Cross-section of Participants during the Presentation on Organic Agriculture*

The workshop was organized and conducted jointly by IICA and the MoA, with the two institutions assuming responsibility for dealing with “Good Agricultural Practices (GAPs)” and “Organic Agriculture”, respectively. The main topics covered by the presentation on GAPs were:

- Definition and purpose of GAPs
- Sources of potential hazards
- Concerns pertaining to hazards associated with (1) ground history, (2) use of organic fertilizer, (3) use of inorganic fertilizers, (4) use of water, (5)

worker hygiene, and (6) sanitation practices.

The presentation on *Organic Agriculture* was introduced with a comparison between various aspects of conventional and organic agriculture. However, much emphasis was placed on the principles and practices of organic agriculture, highlighting the ecological considerations as well as the use of organic and natural fertilizers and the significance of adopting organic pest control strategies.



At the end of the presentation, participants were divided into three “Working Groups” which discussed and reported on the pros and cons of organic agriculture, relative to farm productivity, human health, and the environment.

**4.3.4** The Ministry of Agriculture (MoA) was provided with a sound technical and economic basis for promoting and supporting the widespread local production of safer foods for consumption by locals and visitors. This was facilitated through the conduct of a feasibility study into the production of organically grown foods in Grenada. The study was commissioned by IICA, at the request of the MoA, and was conducted by a consultant from Guyana. Its objective was “to determine the

technical and economic feasibility of producing fruit, vegetable, and root crops organically in Grenada”.

In conducting the study, the consultant interviewed a number of persons including hoteliers, supermarket operators, operators of agricultural produce packhouse, farm input suppliers, crop nursery operators, and farmers. He also toured and inspected a number of farms, including an organically certified farm. A workshop for a wide cross section of stakeholders was also conducted by the consultant who, at the end of his field activities, submitted his report which included a number of useful recommendations for the way forward towards organic agricultural production in Grenada.

## 5. RESULTS OF INTER-AGENCY COOPERATION



*Participants at the Launch of IICA/CARDI/MoA Goat Rearing Project*

During 2009, IICA, under the ongoing IICA/CARDI Agreement, continued to

collaborate with CARDI and MoA to implement the project titled *Improving*

*Goat Rearing Capabilities in Grenada.* The project's specific objective is "to improve the production system for small ruminants, and raise the managerial capability of producers in order to increase the level of livestock farm profitability". Achievements during 2009 include the construction and stocking of two state-of-the-art goat rearing facilities (pens) at Dover in Carriacou and Telescope in St. Andrew, respectively. Additionally, training activities were held for a number of livestock farmers, including the two

project farmers; and arrangements were made to assist both farmers with procurement of necessary drugs and feed supplements as well as equipment for the pasteurization and packaging of goat milk for sale to interested schools and a local goat cheese manufacturing enterprise. Commissioning of both facilities was officially undertaken by the Minister of Carriacou Affairs and the Minister of Agriculture, respectively, during two formal ceremonies held at the respective sites.



*Insight into the Goat Rearing Project*

## 6. RESULTS OF HORIZONTAL TECHNICAL COOPERATION

Through arrangements made by the IICA Office in St. Lucia/the IICA Representative for the Eastern Caribbean States, in collaboration with the IICA Center for Leadership in Agriculture, two farmers and two technicians got the opportunity to improve their capability in the areas of *Organic Farming* and

*Biogas Production.* The four Grenadians, in batches of two, spent one week on an integrated organic farm in Costa Rica. They were taught, in a practical way, the principles and application of organic farming and biogas production.

## 7. NEW OPPORTUNITIES FOR TECHNICAL COOPERATION

The Grenada Government is still in the process of re-energizing the agriculture sector. Its Agricultural Planning Unit

(APU) has been strengthened, both in terms of the number and the quality of staff members. However, most staff

members, although adequately certificated and highly committed, are lacking in experience. There is therefore an opportunity for IICA to provide technical support to the APU not only in terms of short-term in-country training but also through short term overseas attachments with reputable agricultural planning institutions in selected IICA Member States. This approach would not only contribute to a rapid transfer of expertise and experience to the youthful agriculture planning professionals, but it could also serve as a motivating experience.

With the average age of Grenadian farmers being close to 55 years, the sustainability of the country's agriculture sector could be at risk. The number of committed and capable youths getting involved in the sector therefore needs to be significantly increased. This could possibly be achieved through a systematic approach aimed at motivating young minds towards appreciating agriculture as a dignified way of earning a decent income. IICA should therefore

continue and expand its support to the constituent members of *The Alliance* (CABA, CAFY and CANROP). Additionally, through its technical cooperation, it can develop partnerships with the Grenada Ministry of Youth Empowerment as well as the 4-H Unit of the MoA, and the Agriculture and Food Science Department of the T.A. Marryshow Community College.

Value addition in the agriculture sector is a major thrust of Government. This is therefore an area in which IICA can direct some more technical support in terms of its *horizontal technical cooperation* activities.

The recent establishment of diplomatic ties between the Governments of Grenada and Brazil probably presents an opportunity for IICA to play a proactive role in helping to identify, and facilitate transfer of appropriate agricultural technologies which were developed in Brazil but are appropriate to Grenada's conditions.

## APPENDIX

### FIVE MOST IMPORTANT EVENTS ORGANIZED BY THE IICA OFFICE IN GRENADA IN 2009

<b>Official name of the event</b>	<b>Date held</b>	<b>Site of the event</b>	<b>Number of participants</b>	<b>Place and date of publication of the report of proceedings of the event</b>
IICA's Accountability Seminar	April 23, 2009	Ministerial Complex. Botanical Gardens, St. George	24	IICA Office in Grenada; May, 2009
Introduction to Resource Mobilization, Project Development and Management	May 4 & 5, 2009	IICA Office, The Villa, St. George	24	IICA Office in Grenada; January, 2010
Training in Cassava Production and Processing	June 16 & 17, 2009	Mirabeau Agricultural Station, St. Andrew	16	IICA Office in Grenada; January, 2010
National Forum for Young Leaders in Agriculture and Rural Development	September 16, 17, and 18, 2009	Flamboyant Hotel, St. George	20	IICA Office in Grenada; February, 2010
Workshop on <i>Organic Agriculture and Good Agricultural Practices</i>	November 11, 2009	Ministerial Complex, Botanical Gardens, St. George	26	IICA Office in Grenada; February, 2010

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