ANNUAL REPORT 2009

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

Barbados







Annual Report 2009

IICA's contribution to the development of agriculture and rural communities in Barbados

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1. MESSAGE FROM THE REPRESENTATIVE



IICA Representative, Mr. Joseph Peltier

The Inter-American Institute for Cooperation on Agriculture (IICA) is pleased to present its Annual Report for 2009. The report provides a synopsis of our interventions in the agricultural, tourism, health and other sectors (not only the agricultural sector) in Barbados during the year.

The Office in Barbados has focused on responding to the vision and needs of our principal partners, namely the Ministry of Agriculture, other linked Ministries such as Tourism and Environment and the private agri-business sector. The issues of Food Security and sustainable agriculture have been the major focus of the work of the office in 2009. We have also consolidated initiatives in agro-tourism, particularly in the areas of stimulating entrepreneurship for new sites and attractions. We have

done this through the integration of a vibrant and proactive technical team backed up by an involved and forward looking administrative unit who has delivered quality and excellent service.

Our technical interventions have focused, *inter-alia*, on building the capacity of the Ministry of Agriculture's support for organic agriculture, the young farmers, and an understanding of commodity marketing systems. We have also supported the Barbados Agricultural Society's institutional strengthening initiative and the production of healthy vegetables by urban and peri-urban dwellers in an effort to further promote the government's food security programme.

In the area of agrotourism IICA has promoted and supported several actions in health and wellness and community tourism while at the same time strengthening our Agrotourism Unit.

We hope that this report not only provides our partners and stakeholders with a picture of what we do in Barbados but an opportunity to provide us with feedback so that our work can be increasingly impactful during the years to come

We wish to express our thanks to the Ministry of Agriculture for its continued support, especially through the collaborative work with our liaison, which has provided us with a mechanism for joint planning and feedback throughout the year, and which has enhanced our ability to integrate important aspects of our annual plan with the annual and medium-term plans of the MOA. We also wish to thank all of our partner agencies, in particular the OAS, PAHO, FAO, CDB, UNDP, CARDI and all the other agencies who have contributed so much to the work that we do and who have basically shared our vision for agriculture, not just in Barbados, but in the Caribbean as well.

2. EXECUTIVE SUMMARY



Backyard Gardening Project at St. Patrick's Roman Catholic Church

2.1 The state of agriculture and rural life in Barbados in 2009

The global recession continued to restrict growth in Barbados, as evidenced by a reduction in economic output over the January to September period of 2009. Declining tourist arrivals, in particular, triggered reduced activity in both the traded as well as the non-traded sectors and led to a 4.4% decline in real GDP and a concurrent 2% rise in unemployment. Interestingly, while all of the major sectors in the economy registered a decline in performance, the agricultural sector improved. In this regard, both the sugar industry and the non-sugar agriculture and fishing industries grew by 1.2% and 1.7%, respectively. This growth was attributed to favorable weather conditions as well as an excess of 60% increase in vegetable and root crop production, 10.3% surge in milk production and credible performances by the fish and chicken sub-sectors, and in spite of a significant 60% increase in water rates.

The Office's programme in 2009 was evidenced by the agreed agenda between IICA and the Ministry of Agriculture (MOA), and included a continuation of actions commenced previously. The year was dominated by actions supporting the promotion of "Backyard Gardening" and the promotion of affordable water for irrigation in pursuit of

improving the island's food/nutrition security as well as the promotion of agrotourism initiatives, most notably the launch of a farm/eco-tour and the inauguration of a festive "Agrotourism Day". The Office's activities are categorized under IICA's priority areas.

2.2 IICA's Contribution to the Repositioning of Agriculture and Rural Life

The Office continued to support the MOA in the promotion of small-scale, "Urban/Periurban Gardening" as a part of its national food sovereignty drive, premised on the production of wholesome and nutritious foods, particularly vegetables which would at the same time address issues of nutrition and health. In this regard, the Office made presentations to a number of organisations, based on experiences with a model project, on how this approach could positively impact on food security, while as a parallel, improve quality of life of Barbadians by reducing the prevalence of diet related noncommunicable diseases. It is noteworthy that the MOA now sits on a National Nutrition Committee chaired by the Ministry of Health. We also supported the construction of two model rainwater harvesting ferro-cement tanks that will enable two groups of farmers and others to reduce their water costs considerably.

The Office, in collaboration with the FAO, CDB and Chinese Academy of Agricultural Sciences (CAAS), approved a greenhouse training programme for the benefit of extension personnel, research agronomists, and entrepreneurs interested in protected agriculture. IICA also supported the MOA Officer responsible for Organics with training at the Earth University in Costa Rica.

The Office also facilitated the training of two young agriculturalists at a Leadership Forum, hosted by the Leadership Centre at IICA headquarters in Costa Rica.

2.3 Promotion of Trade and the Competitiveness of Agribusiness

The Office hosted an accountability seminar for the 3-year, OAS sponsored Regional Agro-tourism Project, where presentations were made by all 7 participating countries on the results in their respective territories. The Office, on the invitation of the OAS, also submitted a second project to advance the work already commenced. The Office also: facilitated a workshop entitled "Managing an Agrotourism Business from Seed to Success" for the benefit of existing and potential entrepreneurs; hosted an inter-agency agrotourism symposium; and made several presentations nationally and regionally promoting IICA's vision for agro-tourism.

The Office provided technical support to the Barbados Agricultural Development and Management Corporation (BADMC) for the establishment of a model processing plant and supported the MOA in developing a model insurance scheme to assist in the risk management of the agricultural sector.

IICA, through the support of its Regional Agribusiness Specialist, also supported the BADMC by conducting a national workshop on improving our local supply chain/commodity distribution system. Additionally, a Terms of Reference for the development of a strategy for a modernized commodity distribution system was also prepared and submitted to the BADMC.

2.4 Strengthening Agricultural Health and Food Safety Systems

During the year under review, IICA's support in this area emanated from the work of our resident Regional AHFS specialist who provided technical support to the consultancy team contracted by the MOA to develop the National Agricultural Health and Food Control Authority (NAHFCA); provided training in GAPS for potential entrepreneurs at an agrotourism workshop; and distributed a WTO questionnaire on Private Standards and provided the follow-up support to ensure that the responses were duly submitted.

The Office continued to support the VEP project and the national contact Dr. Vicky Aimey. Following the recent detection of *Salmonella enteriditis* in certain segments of the poultry industry in Barbados, Dr. Aimey developed a protocol for the surveillance of *S. enteriditis* in poultry, and conducted an epidemiologic investigation into the infected poultry farms. IICA also facilitated further training for her in monitoring the highly pathogenic Avian Influenza and its likely impact on Barbados and in basic entomology.

The Office again supported the MOA by providing the relevant documents pertaining to the WTO SPS Committee Meetings. However, as a result of the cessation of SPS Initiative of the Americas programme which sponsored the attendance of IICA member countries, Barbados has been unable to attend these meetings due to lack of funding.

2.5 Promoting the Sustainable Management of Natural Resources and the Environment

In response to the 60% increase in water rates, the Office facilitated the construction of two 14,000 gallon ferro-cement tanks on an animal and a vegetable farm respectively, in an attempt to harvest rain water for use in production of crops and livestock. This technology once adopted has the potential of decreasing the cost of production by up to one third, thereby making the producers more competitive and using our water resources more sustainably.

The Office, in promoting food sovereignty, focused on the urban/peri-urban food production at the household level. We emphasised the use of organic practices for this approach and helped to empower service organisations, NGOs and households around Bridgetown to get involved in producing safe and wholesome vegetables with the use of mini-greenhouses, a grow box system and other methods. The Office also conducted an assessment of the state of the enabling environment for certified organic agriculture

on the island and participated in the National Conservation Commission's Arbour Day exhibit in Queen's Park.

2.6 Strengthening Communities based on the Territorial Approach

The Office in conjunction with the St. Thomas Church, FAO, MOA have made a site visit to Rock Hall and is now in the process of conceptualizing a project for the benefit of this community by using lands owned by the church.

IICA continued to support the Rock Hall community by facilitating the construction of a ferro-cement tank on a large high-tech pig farm in the area. The construction of the tank provided the opportunity for unemployed youth in the area to learn the intricacies of this low cost technology and encouraged them to look at creating businesses for themselves. It also provided opportunities for the owners of the farm to partner with the community in addressing some environmental challenges and the use of rain harvested water in support of a community food production project.

2.7 Introducing Technology and Innovation for the Modernisation of Agriculture and Rural Life

The ferro-cement tanks noted earlier were constructed at a cost of approximately \$0.75/gallon compared to an approximate price of \$3.00/gallon for a concrete, aluminum or fiber glass tanks of the same capacity. The promotion of these tanks among farmers has received the endorsement of the Prime Minister.

3. THE STATE OF AGRICULTURE AND RURAL LIFE IN BARBADOS IN 2009



Vegetable display at Agrofest

3.1 The context of agriculture and rural life

The global economic crisis has affected Barbados to the point where the island's GDP declined by 4.4% over the last year. However, despite this trend and the fact that most of the economic drivers of the Barbados economy – of note Tourism and Financial Services – recorded negative growth, agriculture responded positively with an overall 3% growth. Macro-economic indicators such as an increase in unemployment over the same period as well as inflated food prices have perhaps led to this increase as interest in agriculture as a career was being sought after and householders were pursuing growing food in home gardens to reduce their food bills. The situation was perhaps best summed up by the manager of one of the more popular plant nurseries who stated that "when everyone is suffering, business is best", as seedling sales soared.

This growth also has to be measured in the context of a 60% increase in water rates by the national authorities which would have had an adverse effect on the cost of agricultural production. This expansion of agricultural production coupled with a general reduction of food prices globally and a relatively quiet tourism season resulted in the

value of agricultural imports into the island contracting by 16% (approx. BDS\$100,000,000.00).

3.2 Changes in agrifood production

The island's Sugarcane Industry continues to hold the position of prominence as it relates to local agricultural production both in terms of acreage planted as well as foreign exchange and domestic earnings. For the 2008/09 season, the Barbados sugarcane harvest yielded 356.7 thousand tonnes. This demonstrated an increase over the previous sugarcane crop of approximately 14.8%. In contrast however, the total area harvested registered a 1.1 percent decline being estimated at 5.8 thousand hectares as compared with the 5.9 thousand hectares which were harvested during the 2007/2008 season.

For the period of January to June 2009, the livestock and dairy sub-sectors realised an overall decrease of 5.1% from the estimates recorded for the comparative period in 2008. During this period, there were positive reports from the pork and beef industries which rebounded from moderate production declines during the comparative period for 2008, to register increases of 9.6 percent and 18.7 percent respectively. The veal industry also registered a significant increase in production of 40.4 percent over the previous period. Conversely, the estimated production levels of Mutton, Chicken, Turkey, Eggs, and Milk all registered declines of 0.2%, 0.3%, 29.4%, 29.6 and 13% correspondingly. Of particular concern were the declines recorded for the poultry and milk industries, which have both been earmarked as sectors which can become self-sufficient.

Crop production in Barbados for the first half of 2009 exceeded the production levels of the comparative period for 2008. Vegetable production for the period was estimated at 2.7 million kilograms, and represented a 5.6% increase over the 2.5 million kilograms that was recorded for the same period in 2008. The main performers were lettuce, beets, hot peppers, and squash. Conversely, corn, okra, pumpkin and tomatoes registered significant production declines.

Root crop production in Barbados for the period January to June, 2009 also registered a significant increase in output. Estimates indicate that during the review period, total root crop production increased by 195.5% over the production efforts of the previous year. This increase was significant among all root crops, especially cassava, with the exception of eddoes, which registered a decline in production, when compared to the previous period.

During the period January to June of 2009, it was estimated that a total of 2,386.1 tonnes of fish were landed into Barbados. This total resulted in a 6.7% increase over the 2,237.1 tonnes of total catch reported for the comparative period in 2008. The significant increase was primarily due to increased catches of bonito (157.2%), dolphin (101.8%) and other species of fish (36.9%).

3.3 Changes in policies that affect agriculture and rural life

One of the most significant policy changes undertaken by the MOA during 2009 was the establishment of the National Agricultural Commission to act as an advisory body to the Minister on the agriculture sector. This Commission is made up of a cross section of persons, ranging from the retired sage to the young enthusiast all seeking to reposition Barbados' agriculture to ensure its sustainable growth.

The MOA continues to support the registered farming community by offering many attractive incentives through its Services Unit. Incentives from this unit take the form of either duty free concessions, rebates on agricultural equipment and services or the provision or grants to farmers' organisations. It is noteworthy that in the same period that Barbados reported negative growth in GDP, the unit attracted approximately 15% more applicants and paid out in excess of Bds \$2,000,000 (US\$1M) to support the farming community. Five of those applicants requested rodent control services, offered for the first time in 2009. Of the three classes of support, the most popular is the rebates on incentives for products and other equipment which was the Prime minister noted recently at the launch of an agricultural project that he was considering cabinet a paper proposing the up-front payment to farmers, to improve on the retroactive payments that are currently offered.

The BADMC in conjunction with the MOA, the Ministry of Youth Affairs, the BAS, the Barbados Youth Business Trust (BYBT) and Fund Access, launched a "Young Agripreneurs" project. As a starting point, 18 youth with interest in both vegetable production and animal husbandry were each granted land under the BADMC's Land for the Landless Programme. Additionally, the collaborating agencies have committed their resources to ensure that the youth are provided with the requisite technical, capital and managerial requirements to ensure that the enterprises have the best chances of survival within an increasingly competitive environment.

The spiraling incidence of Chronic Non-Communicable diseases (CNCDs) and obesity (it was recently reported that 4% of Barbados' GDP is directed to the treatment of NCDs) has led to dialogue between the Ministry of Health and the MOA to determine how local agriculture could assist in meeting the nutrition requirements for the nation, taking into consideration those with specific dietary needs and those of our significant transient (tourist) population. The major challenges facing the MOA in this regard remain the generally high food prices and the fact that "junk food" is cheaper and more easily accessible than healthier more appropriate foods. As part of the MOA's food sovereignty plan, greater emphasis has been placed on using nutrition information to plan local production and imports.

In an attempt to protect farmers from losses attributed to the Giant African Snail, the MOA introduced a bounty on the snail since it was felt that its baiting programme was ineffective. Since the bounty, of \$0.50/lb of snails was introduced in April, it has paid out in excess of \$2,000,000. Despite this and other community efforts aimed at eradicating the snail, infestations are now reported in all 11 parishes.

3.4 Changes in the institutional framework for agriculture and rural life

Following increases over the three previous years (BDS \$66,943,266 allocated in 2006-2007, BDS \$71,271,716 in 2007/2008BDS \$81,090,335 in 2008-2009), the government budget for agriculture fell by over 10% to \$72,727,770. A major reason for this decline was due to the government's decision to shift the Rural Development Commission (RDC) from the responsibility of the MOA to the Ministry of Social Care, Urban Development and Rural Development., Despite the loss of Bds \$6,500,000 allocated to RDC in 2008/09 and the decrease in allocations in other areas due to recessionary measures, the MOA still managed to increase its allocation for the support of: marketing facilities development, food crop development and research, livestock research, incentives and other subsidies and agricultural extension services. Additionally, the MOA has recently allocated \$15,000 for HIV/AIDS prevention in the sector.

The Rural Development Commission (RDC), is the principal government agency responsible for development in the rural communities in Barbados (except for the Scotland District where infrastructural development falls under the responsibility of Soil Conservation Unit). The functions of the RDC are confined to the rural areas of Barbados and are as follows:-

- 1) to facilitate road improvements and the lighting of streets in the rural districts of the island;
- 2) to provide housing and ancillary services including the installation of sanitary facilities in the rural areas:
- 3) to provide assistance to small farmers in the areas of: agricultural training and investments; equipment and machinery; and production and marketing of agricultural products
- 4) to allocate land under the control of government to persons desirous of farming and;
- 5) to give assistance in the establishment and development of cottage industries in the rural areas

With regard the last function, the RDC has begun working closely with the Small Business Association with the delivery of courses to boost the business skills in the rural communities as well as in organizing rural development fairs in communities around rural Barbados to give exposure to the rural entrepreneurs.

One major change in the framework for agriculture and rural life has come with the recent introduction of the community councils with the aim of developing constituencies and those who live within them. Of the 30 proposed councils (one for each electoral constituency), 6 have already been established with two being in rural communities. These councils are mandated to:-

- 1) build relevant databases on the constituencies;
- 2) identify the priority needs of the constituencies;

- 3) make recommendations to government for the implementation of programmes and project within the constituencies;
- 4) help local organizations to build capacity;
- 5) refer residents seeking assistance to the relevant government agencies and private sector;
- 6) assist where required in the delivery of designated services and;
- 7) facilitate in the flow of information to and from government

Over the last year the Scotland District Farmers Cooperative was established to bring cohesion among the many diverse farmers operating in that unique geographic space in rural Barbados. A key item on the agenda of this new cooperative is to devise a plan to manage the water resources of the area. The area is known for a predominantly clay soil that is prone to degradation after heavy rainfall. Additionally, there are some farmers who experience severe water shortages so the immediate challenge is to see how water could be diverted from those areas prone to landslides to where the water is needed. IICA has been invited by the GEF/Small Grants Programme to explore avenues for working jointly with other agencies to address these issues in the area.

3.5 Major Developments in the thematic areas that affected the performance of agriculture and rural life

One of the most significant achievements of the OAS sponsored 3 year Agro-tourism Project in Barbados was the advancement of Sandy Hill Eco-tours Project which was conceptualised in 2007. The tour package includes: a banana tour where tourists and locals gain an appreciation of banana production and the uses of its fruit and leaves; a nature hike through the forests of neighbouring Newcastle; and a community tour though the neighbouring fishing village of Martins Bay. It is expected that the tours would have a positive impact on the enterprises in the community as many visitors to the tour would be given the opportunity to interact with members of the community.

The development and promotion of the IICA urban/peri-urban back yard gardening project at the St. Patrick's Roman Catholic Church has led to the Office becoming the partner of choice for NGOs, CBOs and private enterprises interested in setting up small, intensive garden systems for their own or commercial benefits. Since the project was launched there have requests from the Diabetic Association of Barbados to partner with them on a community garden project for the benefit of their members, while an association of young entrepreneurs from Bairds Village in St. George has also sought to partner with IICA in the development of their commercial, small scale aqua-ponic systems. It is worth mentioning that both of these projects have received funding by the UNDP GEF-SGP, which has also noted an increase in agricultural related projects being accepted for funding.

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



Prime Minister David Thompson (r)
officially opening the ATC
Agricultural Project

4.1 IICA's contribution to the repositioning of agriculture and rural life

In 2009 the IICA Office in Barbados focused many of its actions on the transformation toward a "New Agriculture". Realising that this transformation requires targeted actions in several areas including scientific research, policy formulation, legislation and institutional restructuring, all geared toward providing greater competitiveness and equity along the agri-food chain necessary for sustainable rural livelihoods, the Office has made this one of its top priorities.

In response to the challenge of increasing food sovereignty, one of the major actions undertaken was the Office's promotion of "Back Yard Gardening" as a means of reducing the national and individual food bills while also encouraging healthier diets and more responsible lifestyles. The promotion, which took the form of a

Mr. Peltier discussing the BYG
Project with representatives of
a number of local CBOs and

colourful interactive powerpoint presentation and brochure, was based on the observations and economic analysis conducted on a project launched in 2008 at the St. Patrick's Roman Catholic Church. The presentation also made reference to the increasing incidence of chronic non-communicable diseases and the requisite burden on the national budget to tackle the problem.

research project in collaboration with the Belairs research Centre of McGill University, has been made to several NGOs and CBOs in Barbados including the Diabetic Association on Barbados, the Nurses Association of Barbados and the National Council for the Disabled, and it has also been featured in the World Food Day activities of the MOA and at a community Heath Fair hosted by the

Seventh Day Adventists.

To date, the presentation, which emerged out of a



Several varieties of crops were planted for the project

The Office also supported the promotion of commercial greenhouse production as a means of ensuring greater consistency in availability and prices of produce. The Office collaborated with the FAO, CDB and the Chinese Academy of Agricultural Sciences (CAAS) in the preparation of a greenhouse training programme. It is intended that this training will commence in 2010 and will target MOA extension personnel, agronomists and entrepreneurs interested in greenhouse technology.

The MOA in its medium-term plan had identified Organic Agriculture as one of the planks through which further diversification and niche marketing within the sector could be realized. In light of this, the Office continued to support the promotion of Organic Agriculture in Barbados. We facilitated an assessment of the enabling environment for organic production on the island, as part of a regional project conducted by the IICA Regional Project Specialist, as well as the training of the MOA Organic Specialist at a one-week course at the Earth University in Costa Rica.

The Office supported the restructuring of the BAS in an effort to improve the organisation's structures, procedures and governance. The BAS was in existence since the 1800 and though IICA prepared a strategy for its restructuring in the late 1990s, there has been little movement toward transforming the mechanisms of those early days into a system more relevant to today's society and business acumen. At a symposium held this year the commodity associations within the BAS all recognized the need for changing its structure to improve its governance mechanism in order to deal with the numerous challenges brought about by the global financial and food crises. As a result, and based on the findings of a consultant, the Office prepared and submitted a report to the executive of the BAS on the rational, structure and governance of the BAS going forward into the 21st century. A key feature in the report was the recommendation of a new Management Committee as a specific tier within the management structure of the organization.

For the second consecutive year, the Office supported the participation of two young agricultural practitioners, Ms. Keeley Holder and Mr. David Bynoe, during a one week Leadership Forum, hosted by the Leadership Centre at IICA Headquarters in Costa Rica. At this forum, youth were exposed to the diverse challenges and novel solutions within the "New Agriculture" and were provided with an excellent opportunity to network with other youth from the hemisphere, while harnessing those skills necessary to foster agricultural development with more of a competitive edge, greater equity, and higher environmental responsibility. Participation in the forum seems to have already borne fruit, as one of this year's participants has recently successfully launched



Keeley Holder(l) and David Bynoe (c) with another youth participant at the Hemispheric Agriculture Leadership Forum

her own farming enterprise. Over the past year the Leadership Centre would have also hosted the Minister of Agriculture, Sen. the Hon. Haynesley Benn and the Ministry's Deputy Chief Technical Officer, Mr. Charleston Lucas who would have participated in a leadership seminar there.

The Office also facilitated the participation of the Minister and the Chief Agricultural Officer at the 5th Summit of the Americas and the 5th Ministerial meeting on Agriculture and Rural life, by disseminating information pertinent to the meetings as well as making the necessary travel arrangements.

4.2 Promoting trade and competitiveness of agribusiness

IICA continued to support the trade and competitiveness of agribusiness through different actions targeting specific groups. The majority fell under the Office's agrotourism programme while efforts were also made to support the BADMC and the competitiveness of Barbados Blackbelly Sheep production.

The Office concluded its management of the 3-year, seven country, OAS sponsored agrotourism project and submitted, at the request of OAS Washington, a 4-year regional proposal to further advance the initiative. The project's achievements and experiences were evaluated at an accountability seminar at the Golden Grove Plantation House in rural St. Philip. The seminar featured presentations from each of the participating countries, highlighting their major achievements over the past three years and also the official launch Caribbean Agrotourism featured of the www.caribbeanagrotourism.com), which provides information on the policy and institutional framework, studies and projects and sites and attractions, in the Caribbean. The seminar was attended by a cross-section of tourism, agriculture and other development partners who have an interest or influence on agro-tourism development.

The Office hosted an inter-Agency Agro-tourism Symposium for the benefit of our development partners to sensitise them with the actions that IICA had been executing

on the island. Following the symposium, participants including officials from the Ministries of Economic Affairs and Tourism as well as BIDC officials and tour operators visited three projects that have enormous economic potential namely: Sandy Hill Eco Tours and, Foster's View projects in St. John and the Clement Rock project in St. Joseph. To date at least 4 funding sources have pledged assistance to the Sandy Hill Eco Tours Project and it is expected that the others may also receive similar assistance.

The Office, led by Ena Harvey, Hemispheric Specialist for Agrotourism, conducted a diagnostic visit to a potential agrotourism site in Fruitful Hill, St. Joseph. The proprietors involved requested IICA's technical support and they have since been added to the IICA stakeholder list for inclusion in all relevant meetings and workshops.

Training in Micromaps (http://iica.micromaps.com), an interactive mapping software was conducted to support the inventory management of agrotourism in the Caribbean. This training was conducted for the benefit of IICA Barbados staff, which was all granted passwords and instructed on how o populate the maps.

The Office, through the support of the Agrotourism Programme Assistant developed an Agro-Ecotourism distance learning course for the OAS-IICA eVida platform. The course which is in English and designed specifically for the Caribbean, combines video, assignments, quizzes, research and readings for a holistic learning experience, and addresses topics relevant to the agro-ecotourism theme.

The Office also collaborated with the CDB in facilitating a workshop featuring agrotourism best practices themed: "Managing an Agrotourism Business from Seed to Success". This workshop was attended by approximately 10 operating or potential agrotourism entrepreneurs who benefitted from training in GAPS, Tour Packaging and Guiding and Enterprise Management over two intensive days at the Blue Horizon Hotel. The training in GAPS and Tour Packaging and guiding was delivered by the Roxanne Waithe, Ena Harvey and Carol Thomas.

As part of the Office's annual agro-tourism calendar, the Office once again hosted the Healthy Snack Seminar for school children and the popular Plantation Breakfast during Agrofest, in an effort to continue our promotion of healthy Caribbean cuisine. The Healthy Snack Seminar was once again facilitated



Patrons enjoying their breakfast



Home economics Teacher, Sophia Austin instructing school children at the Healthy Snack Seminar

by home economics teacher, Mrs. Sophia Austin and some of her students from the St. Michael's School. In this case, the 4, half hour seminars would have benefitted over 200

children. The plantation breakfast continued to be a very popular feature of AgroFest with approximately 180 patrons getting a taste of the local, Trinidadian, Guyanese and Jamaican dishes on offer. This year's activities also featured a Hula Hoop competition which seemed to be very popular with the children.

As a culmination to the year's agro-tourism actions and festivities, the Office hosted an inaugural "Sweet Life Folk Fair" - a day to promote and celebrate all aspects of our agro-tourism product. The event attracted approximately 200 persons who enjoyed a variety of the local fare including: folk singing and dancing, art and craft, culinary treats, heritage tours, massages Reiki sessions. The event was perhaps most tremendous for the business noted opportunities it provided for small entrepreneurs and it is expected that it will form part of IICA's annual calendar of events.



Promotional flyer for the SweetLife Folk Fair

IICA supported the MOA in the area of agricultural risk management. Here, the topic of agricultural insurance was discussed with two insurance providers namely, Sagicor and The National insurance Scheme. Additionally, the Office's Representative attended a meeting in Guyana to understand some of their risk management strategies, specifically the provision of insurance to protect farmers from losses. A similar activity is being planned for Barbados in 2010.

By way of promoting the development of an integrated and competitive agri-food value chain, IICA supported the BADMC and the CTCS Network of the CDB by providing technical insight into a feasibility study of the establishment of a model multipurpose processing plant. The proposal was made for establishing a model plant within the operation of an existing agro-processor and has been accepted by the BADMC.

The Representative also facilitated a meeting with the CTCS Network of the CDB on behalf of the MOA to initiate the development of a business model for the Barbados Sheep Farmers Inc., one of the commodity associations in the BAS.

On the invitation of the Ministry of Economic Affairs, the Office, through its Representative Joseph Peltier and Agrotourism Programme Assistant, Roxanne Waithe made presentations on the benefits of Backyard gardening and IICA's Agro-tourism Vision respectively to senior officers of the Ministry of Economic Affairs, the Central Bank and the University of the West Indies. The agencies lauded IICA for its work done

in these areas, and recognized the potential that Backyard Gardening and Agrotourism have in increasing Barbados' competitiveness and diversifying the economy.

4.3 Strengthening rural communities based on the territorial approach

The office continued to work with Rock Hall, St. Thomas, the first free village in Barbados, on strategies and actions targeting the marginalized in that community. In this regard, the St. Thomas Parish Church has sought the Office's technical support in determining the best use of land identified by the church in that area for agricultural development. The Office participated in a site visit that also included officials from UNDP GEF/SGP, FAO, MOA, members of the Rock Hall Freedom Village Committee and church members, and subsequently submitted to members of the church, a Community Engagement Strategy that was developed by IICA for Rock Hall in 2008.

The Office also facilitated the construction of a 14,000 gallon ferro-cement tank on the premises of a large-scale pig farmer in Rock Hall. The exercise took the form of a workshop where youth from Rock Hall were trained in constructing water storage tanks using ferro-cement technology. This facility and those to be constructed by the proprietor has the potential of reducing the cost of production of pork by one third and of supplying harvested rain water to the Rock Hall Community Project. Such a business option may also prove quite lucrative with a high demand of reliable water sources from the farmers and the relatively low cost of construction of the tanks.

In an effort to promote the creation of Agrotourism enterprises on the island, the Office hosted a competition for Agrotourism concepts. Here, the Office received

4.4 Strengthening agricultural health and food safety systems

Activities under this priority area were executed by Carol Thomas, the resident Regional Agricultural Health and Food Safety Specialist. One of the major contributions by the AHFS specialist was to provide technical support to the consultancy team contracted by the MOA to develop the National Agricultural Health and Food Control Authority.

The AHFS Specialist also delivered training to potential agrotourism operators on Good Agricultural Practices (GAPs) and highlighted how failure to pay attention to the details of GAPs could have negative implications for their respective businesses.

She also supported the MOA by providing the relevant documents pertaining to the WTO SPS Committee Meetings; distributed a WTO questionnaire on Private Standards and provided follow-up support to ensure that the responses were duly submitted; and conducted an assessment of the status of implementation of the WTO Agreement on the Application of Sanitary and Phytosanitary (SPS) measures in Barbados. This assessment was carried out under the IICA-STDF SPS Project.

Assistance was also provided to the MOA in preparing drafting instructions for the development of regulations for monitoring solid wood packaging materials entering the country. Also, support continued for the various National Codex Committees by way of commenting on draft standards and attending committee meetings.

The Office continued to support the Veterinary Epidemiology/Para-epidemiology (VEP) Project by facilitating the participation of Dr. Vicky Aimey in several training activities aimed at increasing the veterinary epidemiology capacity of the MOA. Dr. Aimey was responsible for working through an online, interactive epidemiology training tool called RANEMA which was

developed by the French foreign agricultural development agency, CIRAD (a partner agency to the VEP Project). In addition, Dr. Aimey attended: (i) a training course in monitoring for highly pathogenic avian influenza, particularly in the live bird marketing system; (ii) a training



Dr. Vicky Aimey presenting her Salmonella project during a training course in Fort Collins, Colorado

course in Trinidad and Tobago which focused on the use of geographic information systems and the incident command system for emergency response, and a field simulation of an outbreak of highly pathogenic avian influenza; and (iii) a basic epidemiology workshop offered jointly by Colorado State University and the USDA-Centers for Epidemiology and Animal Health in Fort Collins, Co. This course focused on the use of epidemiologic studies to inform animal health policy and surveillance.

Following the recent detection of *Salmonella enteriditis* in certain segments of the poultry industry in Barbados, Dr. Aimey developed a protocol for the surveillance of *S. enteriditis* in poultry, and participated in the epidemiologic investigation into the infected poultry farms. She was also involved in the entry of data from a survey of tuberculosis and brucellosis in cattle.

4.5 Promoting the sustainable management of natural resources and the environment

The major action undertaken in relation to the promotion of environmental management came by way of the Office's facilitation of the construction of two 14,000 ferro-cement water tanks for vegetable and animal husbandry enterprises respectively. The construction of these tanks, which were overseen by a Dominican master builder, came shortly after the participation of the Office's Representative, Programme Technical Officer and a representative of the Apostolic Teaching Centre at a regional Rain Water Harvesting Workshop in Antigua. The workshop was facilitated by experts from the CASA and was made possible by the efforts of IICA, CDB, FAO and CASA.

One of the tanks, constructed on lands of the Apostolic Teaching Centre in Balls, Christ Church, was officially commissioned by the Prime Minister, David Thompson and was

lauded for its potential in reversing some of the water woes experienced by several farmers.

The Office also facilitated the participation of a community youth group, the Barid's Village Aquaponic Association, which developed a small-scale aquaponic operation, featuring the simultaneous production of fruits/vegetables and fresh water fish, during the NCC's annual Arbour Day celebrations. The association is currently implementing a UNDP/GEF project with technical guidance from IICA.



Members of the Bairds Village Aquaponic Association demonstrating their aquaponics system at the NCC Arbour Day Exhibition

Additionally, the Office continues to recommend that organic practices be employed in Back Yard Gardening, so as to guarantee their consumption of safe, nutritious food while also eliminating the potential dangers that the spraying of harmful chemicals could have on one's family and neighbours.

4.6 Introducing technology and innovation for the modernization of agriculture and rural life

The 14,000 gallon water tanks constructed using ferrocement technology, were constructed at almost 25% the cost of the competing concrete, aluminum or fiberglass options on the market. One of the key features of the tank is its cylindrical side wall and its domed floor to allow for an even distribution of water pressure in the tank. Additionally, the wall of the tank is only approximately 1 inch thick, thus requiring a relatively small amount of material to construct. The cost of the material for each of the tanks was approximately \$6,000 while labour and professional fees came to \$4,000. Overall, the cost of the tank was approximately 75c/gallon as opposed to \$3.00/gallon for the competing structures.



Ferro-cement tank constructed at Barnwell Farms, Rock hall, St. Thomas

The tanks were constructed on a 3,000 head pig farm where the farmer (Barnwell Farms) faced extremely high water rates and was eager to augment his water supply in an attempt to reduce costs; and on a recently established vegetable farm managed by

the Apostolic Teaching Centre, where 6 greenhouses have been constructed for intensified vegetable production as well as a large area for open field production.

IICA also held discussions with the MOA as well as some other key institutions such as the CDB to determine how ferro-cement technology or some other technology could be incorporated for the development of low cost bio-digesters for the animal farmers.

5. Results of Inter-Agency Cooperation



Pointing the Way! Peter Watson explaining the nature of his tour to tourism, agriculture and other development partners

The Office collaborated with the MOA along all of our strategic lines while significant and successful partnerships were also forged with several other agencies.

With the MOA, the Office: initiated dialogue on the development of a business model for the Barbados Sheep Farmers Inc.; supported the annual World Food Day celebrations by mounting an exhibit and delivering a presentation on the benefits of Back Yard Gardening as a means of improving the island's food/nutrition security; co-facilitated the Apostolic Teaching Centre in the establishment of a 14,000 gallon water tank to store water for greenhouse and open field agricultural production on the Church's agricultural project; supported, in conjunction with the CDB and the Chinese Academy for Agricultural Science (CASA) the development of strategies, including training, for the development of greenhouse technology and water storage and management for the agricultural sector; provided technical support to the development of the National Agricultural Health Food Control Authority (NAHFCA); supported the capacity development of veterinary surveillance in the MOA through the VEP project; assisted

the MOA in the preparation of drafting instructions for the development of regulations for monitoring solid wood packaging materials entering the country; and facilitated the completion of a questionnaire by the MOA on the enabling environment for Organic Production in Barbados.

In 2009 the Office completed its management of a 3 year, OAS sponsored Agrotourism Project. With its conclusion, the project IICA can boast of a successful partnership with the OAS with significant progress made in Agrotourism development. Other key partners in the execution of actions under this project include the MOT, and CDEMA which collaborated on some of the key policy issues and disaster mitigation respectively, as it related to agrotourism enterprise development. Additionally, the Office partnered with the Ministry of Tourism, the BHTA, and the BTA in the execution of events such as AgroFest, the Taste of Barbados Food Festival, and "De Sweet Life Folk Fair" which have become annual events on the Office's agrotourism calendar.



Officials experiencing Sandy Hill's Banana and Gully Tour

The Office continued to partner with several educational institutions to provide internship opportunities for students interested in agricultural development. In 2009 the Office received support by interns from: the McGill University where three (3) final year, undergraduate students provided support to the Office's Peri-Urban Back yard Gardening Project by way of tending to the garden, making agronomic and economic observations, documenting the experience and preparing a brochure on back yard gardening for the home owner or community organizer; the Barbados Community College where a student provided administrative support to the office; and from the University of the West Indies (UWI) where a student completing a Masters degree in International Business supported the Technical Programme, particularly in the areas of Agrotourism and Agricultural Health and Food Safety.

The Office, on the invitation of UNDP, provided technical support and marketing opportunities for two land improvement projects that received funding from the UNDP-GEF program. Both projects, one by the Bairds Village Aquaponic Association and the other by the Diabetic Association have as their objective to produce high quality, organic food at the household or community scale. Both projects are in their embryonic stages with the former promoted at this year's National Conservation Commission (NCC) Arbour Day exhibition.

The Office also continued as a member of an inter-agency working group involving CDB, UNDP, United Nations Fund for Women (UNIFEM), United Nations Children's Fund (UNICEF), OAS, Canadian International Development Agency (CIDA), UWI, PAHO, DFID and the Caribbean Policy Development Network Centre (CPDC).

6. Results of Horizontal Technical Cooperation



Welcome to Brasso Seco's Agrotourism Site

Roxanne Waithe, Programme Assistant for Agrotourism supported the IICA Office in Trinidad & Tobago with the conduct of a diagnostic visit and proposal of a plan of Action for the Brasso Seco community which is interested in developing an Agro-tourism project. She also participated in a contingent that included members of the IICA Trinidad & Tobago and the Braso Seco community, on an exchange visit to the Belmont Estates in Grenada, so that participants could benefit from the experience of witnessing a successful agrotourism tour.



Roxanne interacting with elders From the Brasso Seco community

Roxanne also represented the Office at a regional Food Security meeting in St. Kitts and made a presentation detailing the next steps for IICA's regional agro-tourism program. She also made presentations on IICA's Agrotourism vision for the region, at the OAS sponsored, Agrotourism accountability seminars in Trinidad and Dominica respectively. The Office, led by the hemispheric specialist for agro-tourism also assisted the Office in Jamaica in mounting the agrotourism exhibit as part of a regional trade show at the Fifth Ministerial Summit in October.

The Representative attended an Agricultural Risk Management meeting in Georgetown, Guyana with the view to seeing how some of the recommendations made at that meeting combined with the successes of agricultural insurance schemes in Guyana could be translated to the agricultural sector in Barbados.



Mr. Peltier (2nd left) with other officials on a field trip during the Risk and Insurance Seminar in Guyana

The Earth University, Costa Rica supported the MOA's Organic specialist, Mr. David Bynoe with a one week training course in organic production. Mr. Bynoe reported that the training was beneficial and he incorporated some of what he learned in Costa Rica in his exhibit at the MOAs World Food Day exhibition.

7. New Opportunities for Technical Cooperation



View of Barbados East Coast with Fosters' View in the foreground

As a result of the promotion of "Back Yard Gardening" to contribute to Barbados' food and nutrition security – the Office made presentations to several NGOs, CBOs, and government agencies between September and November 2009. The Office is now poised to provide technical support to the development of projects by these organisations to improve their own food security and by extension the wider community. Such organisations include: the Nurses Association of Barbados, The Diabetic Association of Barbados, The Seventh Day Adventists, and the National Council for the Disabled. Additionally, the project provided the opportunity to work with the Ministry of Economic Affairs which acknowledged the project as one that is worthy of their support. The project has also opened the door for the provision of technical assistance to entrepreneurs interested in providing small scale agricultural systems. In this case the Office has been in discussion with Caribbean Greenhouse, a local greenhouse fabricator, as well as the Bairds Village Aquaponic Association to look at the supply of their respective systems to home owners.

The advent of the Apostolic Teaching Centre's (ATC) agricultural project at Balls Plantation Christ Church provided the Office with the opportunity to work closely with the ATC by providing technical support for that project. Here, IICA has already facilitated the construction of a water storage tank and it is envisioned that additional assistance would be sought when the greenhouse production component of the project gets underway.

The Office also foresees new opportunities for technical cooperation in the areas of agricultural risk management with the possible collaboration with the MOA and insurance companies to determine a model for the provision of agricultural insurance.



Karen Forde Warner, Caribbean Agrotourism Website Consultant, making a presentation during the OAS Project Accountability Seminar

8. Main Activities Organised by IICA & Publications

Official name of the event	Date held	Site of the event	Number of participants	Place and date of publication of the report of proceedings of the event
1 Presentation on: Backyard Gardening: A solution to Food/Nutrition Security in Barbados	Sept Nov/09	Various	Over 100	IICA Barbados, August 2009
2 Regional OAS Agro- Tourism Accountability Seminar	24/03/09	Golden Grove Plantation	25	IICA Barbados, June 2009
3 Rainwater Harvesting for our Future - Ferro-cement Tank Construction Workshop	10-14/08/09	Balls Plantation	15	IICA Barbados, November 2009
4 Managing an Agrotourism Business from Seed to Success	15-16/09/09	Blue Horizon Hotel	15	IICA Barbados, November 2009
5 IICA Barbados Accountability Seminar	7/04/09	DFID conference Room	40	IICA Barbados, May 2009

9. List of Publications

- 1) Sow and Reap the Benefits! Gardening to reduce your food bill and to improve your health
- 2) IICA Annual report 2008

10. List of Acronyms



Natty Ted's Stall at the Sweet Life Folk Fair

AHFS Agricultural Health and Food Safety

ATC Apostolic Teaching Centre

BADMC Barbados Agricultural Development & Marketing Corporation

BAS Barbados Agricultural Society

BHTA Barbados Hotel and Tourism Association

BSFI Barbados Sheep Farmers' Inc.
BTA Barbados Tourism Authority
BYBT Barbados Youth Business Trust

CAAS Chinese Academy for Agricultural Sciences

CBO Community Based Organisation CDB Caribbean Development Bank

CDEMA Caribbean Disaster and Emergency Management Agency
CIEX Council for Investment, Exports & Foreign Exchange
CIRAD French Agricultural Research Centre for International

Development

CTCS Caribbean Technological Consultancy Services

FAO Food and Agriculture Organisation

GAPs Good Agricultural Pracitces

IICA Inter-American Institute for Cooperation on Agriculture

MOA Ministry of Agriculture

NAHFCA National Agricultural Health and Food Control Authority

NCC National Conservation Commission RDC Rural Development Commission

SPS Sanitary and Pytosanitary

STDF Standards and Trade Development Facility

UNDP GEF United Nations Development Programme – Global

Environnmental Facility

USDA United States Department of Agriculture

UWI University of the West Indies VEP Veterinary Epidemiology Project

Annex: IICA MEMORIES 2009



IICA Barbados staff at IICA Day 2009



You can learn a lot form a Dummy! IICA Barbados staff at first Aid Training



One of the many IICA Staff lunches



Mr. Peltier has the attention of Prime Minister, David Thompson at the ATC Project launch



Manure anyone? IICA Representative's Secretary assisting the backyard garden project at the Roman Catholic Church



Little ones enjoying themselves at the Healthy Snack Seminar at AgroFest



The Plantation Breakfast was again in high demand



How low can you go? Mother Sally demonstrating the "wuk-up" at the Sweet Life Folk Fair



Hemispheric Specialist for Agrotourism, Mrs. Ena Harvey, entertaining the crowd at the Sweet life Folk Fair



IICA Barbados staff with the DG at his farewell function



Floats like a butterfly but stings like a bee! IICA's Account Technician, Noor Denner at the Sweet life Folk Fair



Mr. Peltier presenting a copy of IICA's 2008 Annual Report to Minister of Agriculture Sen. Haynesley Benn



Mr. Peltier and Mr. Murray taking time out to enjoy the Sweet Life Folk Fair

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