

CARIBBEAN AGRICULTURAL RESEARCH AND DEVELOPMENT INSTITUTE (CARDI)

CARDI's REPORT

**IICA CARDI Technical Cooperation
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Presented by

**Norman Gibson
Manager - Science, Technology & Innovation - CARDI**

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IICA-CARDI COOPERATION AGREEMENT

INTRODUCTION

The IICA-CARDI institutional collaboration started in 1989 when both institutions signed a five-year Cooperation Agreement to “promote agricultural research and development in the Caribbean.” Both organizations realized that a collaborative effort could provide a more effective contribution to agricultural research and development in their common Member States than could otherwise be achieved by the separate and independent action of each party. To date, six Cooperation Agreements have been signed by the two Institutes IICA and CARDI; the most recent being in November 2015.

The 2015 Agreement continues to support the framework for collaborative technical assistance by the organizations to the development of a sustainable agriculture sector in the Region. The continued technical assistance is informed and aligned to a number of approved regional plans and policies including: Jagdeo Initiative and the Liliendaal Declaration for agriculture as mandated in July 2009 by the Conference of Heads of Government of CARICOM, the Regional Food and Nutrition Security Policy (RFNSP, 2010) and Action Plan (2011), the CARICOM Community Agricultural Policy (CAP, 2011), the CARICOM Regional Framework for Achieving Development Resilience to Climate Change (2012) and the Strategic Plan for the Caribbean Community 2015-2019.

Both IICA and CARDI recognize the enormous challenges the Caribbean faces, particularly with regard to increasing the agricultural sector’s productivity and competitiveness, enhancing food and nutrition security, improving the management of natural resources, production capacity and understanding the implications of climate change and consequential increased natural disasters. A major threat faced by the Region is its growing dependence on imported food and the limited capacity of small farmers to supply and compete in both the domestic and external markets.

Agriculture is therefore, recognized as a major economic driver in the regional development agenda, particularly with respect to ameliorating food and nutrition security constraints, poverty and hunger and increasing the sector’s competitiveness. In order to address some of the priority issues IICA and CARDI acknowledged the need to work jointly in the Region’s agricultural sector. This have been and continues to be facilitated through agreed Areas of Cooperation under the General Technical Cooperation Agreement (GTCA).

This report provides an update on the status of implementation of the IICA-CARDI Cooperation Agreement. Updates on activities of the components of IICA-CARDI collaboration for the periods: 2011-2014 and 2015 -2017 respectively are presented below.

IICA-CARDI COLLABORATION PROGRAMME 2011-2014

Under the 2011-2014 IICA-CARDI Agreement, six components were developed in accordance with Resolution 464 of the IABA of October 2010. Refer to Table below.

Table: Components of the IICA/CARDI Programme 2011-2014

	Programme	Status
1	Facilitate CARDI –Latin Institutional Linkages	Ongoing
2	Establish Network System for Science, Technology and Innovation	Ongoing
3	Develop Synergies with ongoing Projects	Ongoing
4	DG’s Competitive Fund for Technical Cooperation (Fon TC)	Ongoing
5	IICA-CARDI Agreement	Ongoing
6	Access External Resources for Joint Projects	Ongoing

Under the Agreement IICA allocates US \$200,000 annually to CARDI to execute joint projects. The allocation is managed by a Steering Committee comprising representatives from both organizations. For the period 2011 -2014, CARDI received US \$800,000 as per Agreement. These funds were used to support six areas of priority. The distribution of the amount of funds for the period 2011-2014 plus the balance of funds from the previous period is shown below:

Table: Allocation of Funds from IICA to CARDI for the period 2011- 2014

	Thematic Areas	No of Projects	Amount (US \$)	Country/ies Implemented
1	Herbs, condiments and beverages	4	103,603	Trinidad & Tobago, Jamaica, St. Lucia, Grenada, St. Lucia
2	Protected Agriculture	3	117,129	Dominica, Guyana, St. Kitts & Nevis
3	Roots Crops (Starches)	8	173,208	Antigua & Barbuda, St. Kitts & Nevis, Grenada, Bahamas, Regional
4	Livestock	5	177,124	Grenada, Barbados, Surinam, Trinidad & Tobago, Regional
5	Knowledge sharing, Coordination and Management	3	309,171	Trinidad and Tobago, Regional
6	Cereal and Grain Legumes	3	24,550	Grenada, Guyana, Trinidad & Tobago
	Total	26	904,785	

An overview of the components and projects in the priority area undertaken during the period 2011 -2014 revealed that projects in all six components were completed. Twenty-six projects were undertaken in Member States. Some projects were undertaken in individual countries while others were simultaneously implemented in more than one country (regional). A total of US \$904,785.00 was expended on the projects. Refer to table above.

COMPONENTS OF THE IICA-CARDI COLLABORATION PROGRAMME 2015-2017

For 2016, CARDI received US \$200,000.00 and as per Agreement representing year one of the present GTCA and approved by the Inter-American Board of Agriculture (IABA), Resolution No 485 at its Seventeenth Regular Meeting VII. The distribution of the funds for the 2016 period is presented below.

Areas of Cooperation covered by the present GTCA are: Direct Technical Cooperation, Internal Institutional Capacity and Mobilization of Resources. Projects were developed under all the areas. Reference to the IICA-CARDI's Work-Plan 2016, a total of eight projects were developed and implemented through the Region. Four projects have been completed and three are on-going. To date, an estimated US \$129,169 has been expended. Details on the project activities are presented below.

Table: IICA CARDI Projects for the period 2015-2106

	PROJECTS	BUDGET ALLOCATION (US\$)	COUNTRY/IES IMPLEMENTED
1	Production of first generation seed of yellow hot pepper land races	17,700	Trinidad
2	Development of elite seed lines of Pimento (Trinidad Seasoning Peppers) land races for commencement of stabilization	10,000	Tobago
3	Development of an App for buyer/seller exchanges and training modules for small ruminant production	15,000	Antigua & Barbuda, Barbados, Trinidad & Tobago
4	Development and conduct of a Climate Change communal training programme	15,000	St. Kitts, Montserrat
5	Institutional Review and of CARDI	101,380	Regional
6	Strengthening the capacity of CARDI Staff in Public Relations and Communication	1,025	Trinidad
7	Training of CARDI Staff in Project Management	32,895	Regional
8	Work Plan Management Actions	7,000	Regional
	TOTAL	200,000	

OTHER IICA – CARDI PROJECTS

CARDI - INSTITUTIONAL LINKAGES

CARDI continued its institutional relationships with the International Potato Centre (CIP) in Peru, where a tripartite Letter of Intent was signed among CARDI, IICA and CIP in May 2017. Through this letter of intent, the agencies will seek to establish lines of communication for further negotiations, consultations and cooperative processes towards the greater technical and scientific collaboration among the agencies. Specifically, the organisations, subject to their operational capabilities, technical knowledge and resource availability, will collaborate in the development of future initiatives to improve the integration of actions related to the management of germplasm, genetic improvement, production technologies and strengthening of value chains for roots and tubers, as well as the contribution of these concerted actions to food security in the Caribbean region.

Agriculture Policy Programme (APP)

The project activities have been completed and a full report is available. Under Component II, CARDI had responsibility to:

1. Strengthen capacities of small producers/entrepreneurs including women and youth) to utilize appropriate sustainable innovative production systems and technological packages for selected commodities
2. Develop, multiply and distribute quality plant and animal genetic material (imported and indigenous)
3. Improve, disseminate and facilitate the adoption of agricultural production strategies to mitigate the impact of risks and climate change.

CARDI worked with national, regional and international partners to implement component II and as the full report demonstrates, has had considerable success in delivering new knowledge, building innovative capacity and promoting sustainable agricultural development across CARIFORUM. This was principally achieved in collaboration with IICA, CARICOM Secretariat and the various Ministries of Agriculture within the national agricultural research systems.

IICA – CARDI National Project Coordination Mechanism

Under the GTCA, a National Project Coordination Mechanism (NPCM) is to be established in countries where projects and/or activities are to be executed. The NPCM will comprise personnel from both organisations, as well as a representative of the Ministry responsible for Agriculture and a member of the agricultural community. This has been the mechanism used to manage the implementation of the APP and has allowed for the identification and harnessing of synergies among the three components of the programme. This has worked particularly well in Trinidad, where the process was led by The IICA Country Representative in that country.

Details of the current IICA-CARDI projects are presented:

COMPLETED PROJECTS		
Thematic Area/ Country	Results and Contributions	Beneficiaries
<i>Improving the innovation performance of the regional small ruminants' industry through the application of ICTs</i>		
SA 1: Trinidad and Tobago Antigua and Barbuda Barbados	The project involved regional training in ICTs for stakeholders in the small ruminant sector. Forty-six participants were trained including farmers, extension officers and veterinarians. The emphasis of the training was to introduce and promote CARDI ICT resources developed under the Caribbean Regional Small Ruminants Building Activity. These include the Moodle based E-Learning Platform as well as two Mobile Applications: CARDI SR Learn and CARDI SR Market. The E-Learning Platform allows access to course materials that focus on new technologies in the production and management of small ruminant livestock. Uploaded training materials provide interactivity in the form of text, photos and videos, which will be developed into accredited courses using a blended learning approach. CARDI SR -Learn delivers this E-Learning capability on a mobile platform, whereas CARDI SR-Market connects buyers and sellers of small ruminant industry products and services. This project facilitated the purchase and installation of one computer server to provide the ICT infrastructure for this activity. It also facilitated the training of stakeholders in Antigua, Barbados and Trinidad and Tobago. The project has no doubt strengthened CARDI's ICT infrastructure and has helped to address the issue of poor knowledge management which is prevalent in the sector.	Farmers Veterinarians Ministry of Agriculture Livestock Scientists, Technicians, Extension Officers
COMPLETED PROJECTS		
Technical Area/ Country	Results and Contributions	Beneficiaries
<i>AS 3:Institutional Review and Strengthening of CARDI</i>		

<p>AS 3: Regional Grenada, Trinidad and Tobago (Trinidad), Barbados, Belize, Jamaica and Antigua and Barbuda (Antigua).</p>	<p>An Institutional Assessment of CARDI was conducted which informed the development of the 2017-2019 Medium-Term Plan. This is against a background of the emergence of a new agriculture in the Region. The sector has broadened its scope in spite of increasing challenges which requires increased attention to the various elements of the agriculture innovation system and food value chains including research, inputs, production, investment, trade/marketing and information. Thus, there is need for a strong, robust and appropriate research agenda. As such, CARDI recognizes that it must strengthen its position as the lead CARICOM agency with responsibility for agricultural research and development. Hence the Institute conducted a comprehensive review of its existing focus and capabilities to determine if it possesses the requisite resources and direction required to deliver on the new research agenda. Further it will identify the areas where there is need to strengthen its capacity to deliver on its strategic mandate.</p> <p>Stakeholder and focus group meetings were held in six countries across the region: Grenada, Trinidad and Tobago (Trinidad), Barbados, Belize, Jamaica and Antigua and Barbuda (Antigua) where interviews were conducted with select CARDI staff members, beneficiaries (individuals or groups benefitting from CARDI interventions) and collaborators/partners of CARDI. Field visits to local experimental stations and a tour of CARDI offices were also conducted.</p> <p>A representative from IICA participated in the final country visit to Antigua. The representative accompanied the consultants as they conducted the stakeholder meetings, met with CARDI staff and visited experimental stations.</p> <p>All Reports including Monitoring, Progress and Final Report have been completed and submitted to CARDI. Even though the review process did not yield all the anticipated benefits originally envisioned by the exercise, it has served to accelerate the process towards genuine institutional reform.</p>	<p>CARDI Personnel Farmers Industry Stakeholders Processors Policy Makers Partners</p>
<i>Strengthening the Capacity of CARDO Staff in Public Relations and Communications</i>		
<p>Trinidad</p>	<p>CARDI personnel completed a six-month online training course in Social Media Marketing. This training has provided CARDI with the requisite skills and expertise in-house to improve promotion and the communication of its activities and interventions in the sector. It is anticipated that the entire CARDI programming and operational infrastructure will undergo intense reorganization by the constant exposure, afforded by the deployment of social media tools. This will no doubt help in the repositioning of the organization towards the forefront of the regional agricultural knowledge management paradigm.</p>	<p>CARDI Partner Institutions Decision makers Consumers Processors</p>

AS 3 Training of CARDI Staff in Project Management		
AS 3: Regional Antigua, Bahamas Barbados, Belize, Cayman Island, Dominica, Grenada Guyana, Jamaica, St. Kitts and Nevis, St. Lucia, Trinidad and Tobago	A 5-day training programme for CARDI's Staff in Project Management was planned and executed. As CARDI increases the number of externally funded projects, there is need to strengthen staff capacity to plan, develop, implement and manage these externally funded projects through the internationally recognized discipline of modern project management. This institutional strengthening activity has provided CARDI with additional means to deploy more staff members to the all-important activity of mobilizing project resources. Critically it will also improve our capacity to provide sound technical, financial and human resource management to projects so that they can be executed on-time and within budget. This is a vital step towards CARDI's accreditation to managing project funds from major international investor organisations.	CARDI Representatives, Staff Funding Agencies and Partners Collaborators
ON-GOING PROJECTS		
AS1: Production of First Generation seed of Yellow hot pepper land races		
Trinidad	The project aims to evaluate and characterize desirable yellow hot pepper landraces and produce first generation seed. Three hundred seeds of five yellow landraces were germinated and grown out. These seeds will be transplanted into a prepared field in South Trinidad where irrigation facilities have already been installed. The field will be managed using an integrated crop management approach. The project is about 25% completed and expected to be fully completed by January 2018. The project experienced major delays with securing a site for the planting. However, these issues were addressed by securing an alternative site and activities are now progressing well.	Farmers Seedling Nurseries Agro Processors Fresh Fruit Exporters
AS 1: Development of Elite Seed lines of Pimento (Trinidad Seasoning Peppers) land races for commencement of stabilization		
Tobago	Trinidad Seasoning is characterized by much variability in fruit morphology. Seedling operators and farmers have been requesting pure seeds of Pimento for cultivation. As such this projects aims to produce elite lines of Pimento Trinidad Seasoning Peppers for commencement of stabilization of the land race. This project also experienced significant delays as an alternative location had to be found when the programmed location suddenly became unavailable. The CARDI Field station in Tobago has been identified as the new location and land preparation there has been completed. Field visits	Farmers Seedling Nurseries Agro Processors Fresh Fruit Exporters

	to farms in Trinidad to collect samples of berries have been completed. The Field will be managed using an integrated crop management approach. The project is about 15% completed and project activities are expected to be fully completed by December 2017.	
<i>AS1: Development and conduct of a Climate Change communal training programme</i>		
St. Kitts/Nevis	Climate change is producing water-scarce conditions in the Leeward Islands and consequently the search is one to identify climate-resilient crop production systems. Hydroponic systems have been proven to use 90% less water than conventional agriculture accordingly, this method was chosen for the project. The project involved the design and set up of appropriate hydroponic systems in St. Kitts/Nevis. The project also involved the training of householders at the community level to set up and run simple hydroponic systems for household use and to test and validate hydroponic systems for household use and ultimately for commercial production. Systems were designed and built in St. Kitts where 10 persons were trained in the management of hydroponic vegetable production. Additional trainings are planned to build capacity in more members of the community and to provide a platform for sustainable vegetable production under water-scarce conditions.	

FUTURE IICA-CARDI Collaboration PROJECTS 2017 and beyond

Under the Areas of Cooperation it is proposed that CARDI will continue to work closely with IICA to develop projects to address the current and emerging challenges faced by the region's agriculture sector. In this regard, a number of concepts have been identified for further project development. These include:

- Climate change adaptation by the introduction of Aquaponics Systems in the drier parts of the Caribbean
- ICT-Led innovation in agriculture by the continued development and deployment of appropriate mobile applications and blended learning opportunities through Moodle and other co-learning systems
- Continuous institutional strengthening by utilizing various methodologies including the facility of Study Visits to key regional organisations that have international accreditation for funds management, including access to climate funds, e.g. the Caribbean Community Climate Change Centre
- Accelerated development of the regional small ruminants' industry through Capacity building initiatives for regional stakeholders at the Greenland Agricultural Station in Barbados
- The development of breed recognition software that will assist in the identification and scoring of breed types for sale around the region
- Upgrade of the current small ruminants' marketing mobile application to reflect the animal health import requirements of participating countries.