

**Caribbean Agricultural Research and Development
Institute (CARDI) and Inter-American Institute for
Cooperation on Agriculture (IICA) -Work Plans 2019 and
2020 under the IICA-CARDI General Technical
Cooperation Agreement**

DRAFT REPORT



Document Prepared by CARDI

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Table of Contents

LIST OF PLATES	3
ACRONYMS	4
Executive Summary	5
1.0 Introduction	6
1.1 CARDI in the Caribbean Region	7
2.0 General Technical Cooperation Agreement, 2019-2021 IICA-CARDI	9
2.1 General Objective	10
2.1.1 Specific Objectives	11
3.0 Projects Implemented under the IICA-CARDI GTCA: 2019-2021	11
3.1 Concept Notes Development and Submission	12
3.2 IICA – CARDI Joint Initiatives In-Country	14
4.0 Future IICA-CARDI Collaboration	16
5.0 Strategic Partnerships	16
5.1 International Potato Centre (CIP)	16
5.2 Other Strategic Alliances	17
5.3 Regional Coconut Commodity Innovation Platform	17

LIST OF PLATES

- Plate 1:** After Hurricane Dorian
- Plate 2:** Planning Meeting Post Hurricane Dorian Relief with major Stakeholders
- Plate 3:** Participants of the “Climate Finance and Support Mechanisms for a Climate Resilient Agriculture in the Caribbean Workshop, Barbados October 2019”
- Plate 4:** Planting material received, February 2020 and stored in cool conditions
- Plate 5:** Land ready to plant, March 2020
- Plate 6:** Red Beans diversity send with the lines for the yield trial

ACRONYMS

AACARI	Agriculture Alliance of the Caribbean
AFNC	Agriculture Food and Nutrition Cluster
CAP	CARICOM Community Agricultural Policy
CARDI	Caribbean Agricultural Research and Development Institute
CHOG	CARICOM Heads of Government
CIP	International Potato Centre
CCL	Caribbean Congress of Labour
CCS	Caribbean Community Secretariat
CDEMA	Caribbean Disaster Emergency Management Agency
CN	Concept Note
CNCDs.	Chronic Non-Communicable Diseases
COTED	Council for Trade and Economic Development
COVID-19	Coronavirus Disease 2019
CPA	Caribbean Poultry Association
CPSO	CARICOM Private Sector Organization
FAO	Food and Agriculture Organization
IICA	Inter-American Institute for Cooperation on Agriculture
IMF	International Monetary Fund
GTCA	General Technical Cooperation Agreement
OECS	Organization of the Eastern Caribbean States
PAHO	Pan American Health Organization
PPRC	Pilot Programme for Climate Resilience
RCCIP	Regional Coconut Commodity Innovation Platform (RCCIP)
RFNSP	Regional Food and Nutrition Security Policy
UWI	University of the West Indies
WHO	World Health Organization

Executive Summary

The administration and management of the 2019-2021 General Technical Cooperation Agreement (GTCA) adopted a more collaborative approach to the implementation of project activities. Both, IICA and CARDI recognized the need to achieve greater impact through a more robust governance mechanism and heightened visibility. During this period, the region experienced significant challenges: including: the devastation of the Bahamas by Hurricane Dorian and more recently the emergence of the new corona virus (COVID-19) pandemic.

With respect to the implementation of activities under the agreement, two projects to advance priority commodities in the regions were developed. An industry development plan for the small ruminants' sector as well as a project to advance the germplasm management of sweet potatoes varieties have been approved and awaits funds to be executed. These projects will significantly improve the development of the commodities in the region.

In the aftermath of Hurricane Dorian, IICA and CARDI were able to respond immediately to the needs of the agriculture sector, given the experience of jointly responding in a similar circumstance in the region two years before. IICA and CARDI were in a position to jointly play a critical and lead role in the Bahamas response to the agriculture sector. Under this agreement technical assistance was provided and inputs including seeds and building materials were procured and distributed to assist with the return of farmers to their lands in the shortest possible time. The strategic alliance of our institutions continue to contribute the development of the priority commodities in the region as well as the overall development of the sector.

1.0 Introduction

The Caribbean region comprise small, open, fragile economies, reliant on international trade and vulnerable to exogenous shocks. A net food importer, the region battles a high and rising food import bill, estimated at US\$ 4 billion annually, an increase of 50 percent since 2000. (FAO, 2015). The region also battles a chronic non-communicable diseases epidemic with common root causes of unhealthy diets, physical inactivity, tobacco use and harmful use of alcohol.¹ The region is also susceptible to the vagaries of climate change and variability with the average disaster causing damages of US\$352 million (in constant 2010 US\$), and more intense storms causing greater damages (Acevedo, 2016)². In March 2020, the Caribbean Community and Common Market CARICOM region recorded its first case of the coronavirus disease 2019 (COVID-19). This emergence of the disease in the region warranted the implementation of several control measures which in turn resulted in unprecedented disruptions to economic systems with major negative macroeconomic impacts.

The Agriculture Sector is susceptible to external shocks which have impacted on the region's food and nutrition security. Investments in research and development remains the only catalyst for improving agricultural productivity, stimulating economic growth, and responding to the recent disruptions of the system. A productive and well informed regional agricultural sector will improve the food and nutrition status and social well-being of citizenry, reduce the food import bill, promote good environmental stewardship, and reverse the worrying trends of Chronic Non-Communicable Diseases (CNCDs).

The Inter-American Institute for Cooperation on Agriculture (IICA) and the Caribbean Agricultural Research and Development Institute (CARDI), share a long-standing institutional relationship, started some 20 years ago. Both institutions signed their first collaborative agreement in 1989, a five-year Cooperation Agreement to “promote agricultural research and development in the Caribbean.” It was then agreed that a collaborative effort could provide a more effective

¹ CCS, PAHO and WHO, 2011. Strategic Plan of Action for the prevention and control of Chronic Non-Communicable Diseases (NCDs) for countries of the Caribbean Community (CARICOM) 2011 - 2015

² Sabastian Acevedo, 2016. Gone with the Wind: Estimating Hurricane Climate Change Costs in the Caribbean. IMF Working Paper.

contribution to agricultural research and development in the region than could otherwise be achieved by the separate and independent action of each party.

This Report presents the results of the implementation of the IICA-CARDI Technical Cooperation Agreement 2019-2021, the wider work of IICA- CARDI collaborations as well as provides recommendations for future collaboration.

Through the technical cooperation agreements, IICA provided CARDI with the resources to conduct research and implement projects in agreed areas. The significance of the interventions is seen through the impact on selected areas including protected agriculture, herb and spices, small ruminants, roots and tubers and information and communication. technology. Within the last 5 years, IICA-CARDI collaborative interventions have become more strategic and broader in scope than the stated mandate of research and development, being tailored to the provision of services, fast tracks the regional agricultural for development mandate.

IICA and CARDI share a long-standing institutional relationship, working toward the development of the regional agriculture sector. Much of the work of the organizations is facilitated through formal agreements under the General Technical Cooperation Agreement (GTCA). However, the institutions collaborate outside of the formal agreements. Both institutions are committed to the promotion and development of agriculture research in the region and it was envisioned that through collective efforts, the institutions could provide a more effective contribution to agricultural research for development.

1.1 CARDI in the Caribbean Region

CARDI with its technical expertise, wealth of knowledge, experience, track record and presence in 14 CARICOM Member States is well positioned to coordinate the Region's agri-food research and development agenda and in so doing deliver on the diverse research and development needs of the Member States. Increasing investment in agricultural research and development, as well as strengthening strategic partnerships with key organizations like IICA, will drive the modernization of the sector and result in the development of agriculture solutions and innovations; including: new

varieties, technologies and practices which will stimulate productivity and competitiveness, which in turn will spur wealth creation, stem the migration of persons out of the sector and address food and nutrition insecurity. It is within this context, that CARDI has been pursuing work in several strategic areas, targeted at the application and adoption of improved technologies, based on sound scientific principles, and grounded in innovation.

1.2 CARDI and the Regional Response to COVID-19

On March 11th, 2020, the World Health Organization (WHO) declared the novel coronavirus (COVID-19) outbreak a global pandemic. Prior to this declaration, on March 09th 2020, CARDI took the initiative to convene a virtual meeting of the Agriculture Food and Nutrition Cluster (AFNC) of which IICA is a member to discuss the impact of COVID-19 on the Region, and define the strategies and measures which would be implemented, as responses to an undoubtedly burgeoning crisis. The meeting was the catalyst for further coordination at the CARICOM Secretariat (CCS) level, where a series of discussions were held amongst select Regional Institutions, Hemispheric and International Development partners; leading to the development of a “COVID-19 Agri-Food Response and Mitigation Framework” document. This further culminated in a special meeting of the Council for Trade and Economic Development (COTED) – Agriculture, where a range / number of recommended strategies was tabled. Included in the discussions were the framework document and the “Regional Protocol for the Management of COVID 19”, led by the Caribbean Disaster Emergency Management Agency (CDEMA) with agricultural inputs by CARDI.

The COTED – Agriculture mandated - that a special Plan be developed, to treat with the short, medium- and long-term strategies in managing the existing and potential impacts of COVID-19. A working group was constituted, bringing to bear the knowledge, experience, and expertise of the CCS and CARDI, who coordinated the preparation of the Agri-Food Action Plan. Upon realization of a draft document, CARDI specially convened its third AFNC meeting to review the “CARICOM COVID-19 Agri-Food Action Plan”. At that meeting, other collaborators: , the Agriculture Alliance of the Caribbean (AACARI), the Caribbean Congress of Labour (CCL), the CARICOM Private Sector Organization (CPSO), Tropical Shipping and the Caribbean Poultry

Association (CPA); were invited, for the benefit of receiving their contributions. This level of stakeholder involvement was necessary for providing due diligence to the Action Plan.

CARDI has continued in its supportive role as a CARICOM Regional Institution, through its participation at the 85th Special Meeting of the COTED – Agriculture, where the “CARICOM COVID-19 Agri-Food Action Plan” was submitted for review by the Ministers of Agriculture. The “CARICOM COVID-19 Agri-Food Action Plan” was tabled before the CARICOM Heads of Government (CHOG) in April 2020. CARDI also prepared, for the CCS consideration, an operational budget and work programme specific to a COVID-19 response, which will focus CARDI’s action in the short-term, that is, during the period May – December 2020.

Work has also begun at the national level, where CARDI has re-directed some of its resources towards the production drive in Antigua and Barbuda, Bahamas, Barbados, Grenada and St. Kitts and Nevis, ramped up its production of planting material in various Member States, so as to allow farmers to increase their production and are liaising with Ministries of Agriculture in terms of further technical assistance. In light of these new and emerging circumstances, CARDI is committed to providing leadership in coordinating the Region’s agricultural response to the COVID-19 global pandemic, as well as advancing regional synergy and harmonization in its continued effort towards achieving food and nutrition security in the Region.

2.0 General Technical Cooperation Agreement, 2019-2021 IICA-CARDI

The 2019-2021 Agreement continues to support the framework for collaborative technical assistance by the organizations to develop a sustainable agriculture sector in the region. This 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, 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 Resilient to Climate Change (2012) and the Strategic Plan for the Caribbean Community 2015-2019.

Both organizations recognize the enormous challenges the region 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. Major threats faced by the region include: the growing dependence on imported food and the limited capacity of small farmers to supply and compete in both the domestic and external markets and the increasing occurrence of natural disasters.

The emergence of COVID-19, the global pandemic further exposed the vulnerability of the region and the threats of food insecurity. In order to address existing and emerging priority areas, IICA and CARDI must continue to collaborate. This has been and continues to be facilitated through agreed Areas of Cooperation under the General Technical Cooperation Agreement (GTCA). Through this agreement IICA provides technical and financial resources to CARDI which facilitates the implementation of several agreed projects to address critical agricultural areas in the Region.

2.1 General Objective

- (i) To provide a framework and legal basis for both institutions to address, in a collaborative manner, the specific priorities and challenges of the agricultural sector related to agricultural research for development and innovation in the Caribbean, including Member States of either IICA or CARDI or both
- (ii) To expand the institutional collaboration between IICA and CARDI, consistent with their strategic objectives and the mandates of the Heads of Government in a manner that minimises duplication and builds synergies between current work programmes, including activities under the Agriculture Food and Nutrition Cluster (AFNC), IICA's Differentiated Strategies for the OECS and the Caribbean, as well as future initiatives derived from common interests;
- (iii) To contribute to both institutions achieving financial sustainability in the medium term.

2.1.1 Specific Objectives

Specifically, IICA and CARDI will support Member States to achieve sustainable development of the agriculture sector and the enhancement of rural prosperity in general, and the economic viability of selected agricultural sub-sectors and enterprises, and agree to jointly:

- (i) Identify, plan and coordinate the implementation of projects and actions (within previously agreed upon programmes) that aim to (a) support the improvements in resilience and productivity of agricultural production systems for sustainable livelihoods, communities and food and nutrition security in the Caribbean region and (b) foster sustainable development of agriculture in the Caribbean through research, applied technology and innovation;
- (ii) Prioritise and implement collaborative actions that strengthen the technical and institutional response capacities of Member States for addressing emerging issues in sustainable agriculture and rural economies.
- (iii) Develop in a phased manner approaches and actions (strategies) that will allow the institution to achieve specific funding targets.
- (iv) Identify, plan, and coordinate joint resource mobilisation actions to facilitate further interventions in the agriculture sector, not limited to previously agreed to work and programmes.

3.0 Projects Implemented under the IICA-CARDI GTCA: 2019-2021

Under the GTCA: 2019-2021, IICA and CARDI have adopted a more collaborative approach to the administration, and management of proposed project activities. The GTCA which came into effect January 1st 2019 with an effective closing date of March 2021 and mindful that both organizations are operating in an environment of limited resources, there was a greater emphasis towards the achievement of impact through a more robust governance mechanism and efforts towards heightened visibility.

In 2019, as per Clauses Four and Five of the GTCA, the following activities were established:

- The formation of an IICA-CARDI Steering Committee comprising six persons, three from each institution with oversight for the implementation of the GCTA.³
- The formation of a Project Coordination Mechanism for each project with oversight by Head, Resource Mobilization and Planning, CARDI and International Specialist in Agricultural Innovation, IICA.

The Steering Committee convened at least on several occasions in 2019 and discussed pertinent administrative and management issues, including the development of joint project management templates, the identification of the Project Coordinating Mechanism for each project and finalization of CNs with work plan and budget.

The Project Coordination Mechanism was also initiated and deliberated on the technical content of three CNs presented by CARDI.

3.1 Concept Notes Development and Submission

Initially 2 CNs were presented to the SC. However, in September 2019 Hurricane Dorian devastated the Bahamas and immediate consideration was given to a joint response (similar to the response to Hurricane Irma and Maria in 2017) by IICA and CARDI to the Bahamas. In that regard, a CN was developed for the Bahamas and presented to the SC for consideration. Based on the recommendations of the SC, the initial CNs were revised, adjusted both in terms of technical content and budgets.

In October 2019, three (3) CNs inclusive of revised work plans and budgets were approved by the SC. The CN included:

1. Enhancing the CARICOM Regional Sweet Potato Germplasm Management Programme
2. Coordination of the Small Ruminant Industry towards Regional Competitiveness and Sustainability.

• ³ The Steering Committee comprises: B. Clarke, G. Robins, and T. Alvarez from CARDI and Mr. M. Messina, Ms. Diana Francis, Ms. Viviana Palmieri.

3. Restoring Productive Capacity through Provision of seeds/seedlings, nursery infrastructure and other support mechanisms in the islands of Grand Bahama and Abaco

On October 25th, CARDI requested the initial disbursement to cover the first quarter activities for the three approved projects. IICA, then requested additional adjustments to the proposals. The revised proposals were re-submitted. With the exception of the post hurricane relief funds CARDI awaits the release of funds for the implementation of the projects.

3.1.1 Restoring Productive Capacity through Provision of seeds/seedlings, nursery infrastructure and other support mechanisms in the islands of Grand Bahama and Abaco

During the month of September 2019, the Bahamas was hit by a category 5 hurricane (Dorian) which caused major destruction to the Northern Bahamas: Grand Bahama and Abaco. CARDI, IICA and other major stakeholders participated in the initial assessment of damages to the island. Subsequently, a survey was conducted with farmers and it was ascertained that the sector incurred losses greater than US \$30 M. CARDI immediately mobilize sweet potato slips, hot pepper, sweet pepper, and tomato seeds to the affected farmers.

In December 2019, IICA headquarters transferred funds to IICA in the Bahamas for execution of activities under the joint project initiatives. CARDI through its Office in the Bahamas procured inputs (seeds and building material) which were distributed between January and April 2020.



Plate 1: Destruction after Hurricane Dorian



Plate 2: Planning Meeting Post Hurricane Dorian Relief with major Stakeholders

3.2 IICA – CARDI Joint Initiatives In-Country

IICA and CARDI maintain a close working relationship and has jointed participated in several initiatives inclusive of the development of proposals to be implemented regionally. In December 2019, in Trinidad and Tobago both IICA and CARDI with other developmental partners, namely UWI and CARICOM Secretariat worked on developing a proposal for regional extensions services. Upon securing the requisite resources this project will be jointly implemented by the aforementioned institutions.

In **Barbados**, October 2019, both institutions together with other international development partners were involved in the coordination and hosting of regional workshops, “Climate Finance and support mechanisms for a resilient Agriculture sector in the Caribbean”. CARDI participated as a resource person in this workshop as the Climate Change Expert presented the participants.



Plate 3: Participants of the “Climate Finance and Support Mechanisms for a Climate Resilient Agriculture in the Caribbean Workshop, Barbados October 2019”

In **St. Lucia**, CARDI offered institutional support to an IICA Workshop on composting which was held at CARDI’s field station.

In **Grenada**, CARDI is growing on its Field Station (for observation) 14 Mexican coconut germplasm plants grown from tissue culture which were supplied through an IICA/ Ministry of Agriculture Program. This is towards the development of the industry sector in Grenada.

In **Antigua and Barbuda**, there have been several collaborative efforts between IICA and CARDI including support to the development of the livestock industry, production of high-quality vegetables under protected agriculture systems, capacity building of students and engagement of youths in agriculture. The both institutions have also been involved in value chain development in root crops value chain (sweet potato and cassava).

In **Belize**, CARDI and IICA has been collaborating on a project entitle the Biofortification of Beans for CARICOM. The project will evaluate commercial varieties of beans to determine the baseline iron and zinc content and thereafter select promising lines for fast tracking variety release.

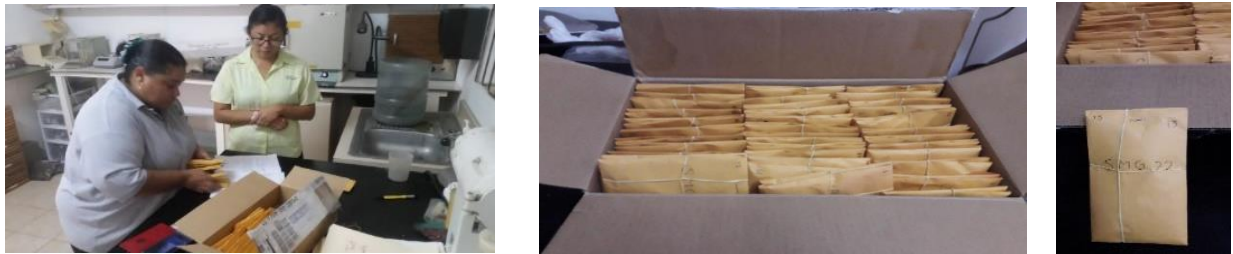


Plate 4: Planting material received, February 2020 and stored in cool conditions



Plate 5: Land ready to plant, March 2020



Plate 6: Red Beans diversity send
with the lines for the yield trial

Throughout the period institutional support was provided by both institutions in activities implemented in country. Representatives of the both institutions participated in seminars, workshops and other activities hosted by the individual institutions for instance IICA participate in CARDI's Open Day in Grenada. There is IICA representation of committees, and stakeholder platforms including the Regional Coconuts Commodity Innovation Platform.

4.0 Future IICA-CARDI Collaboration

Under the Areas of Cooperation, it is proposed that CARDI will continue to work closely with IICA to develop projects to address challenges in particular the current and future challenges which are emerging in a COVID-19 environment. The region has developed its recovery Road Map post COVID-19 where immediate, short, medium- and long-term priority actions have been identified for action. In this regard, there will be opportunities for both institutions to participate in the joint response.

5.0 Strategic Partnerships

CARDI has engaged and collaborated with many development partners in pursuing the Institute's mandate over the years and the collaboration with IICA represents one such partnership that has yielded positive results and has supported CARDI in delivering its technical actions. Jointly the organizations agreed to the re-establish and pursue relations with the following mechanisms and agencies.

5.1 International Potato Centre (CIP)

CARDI and IICA continue to advance the relationship with CIP. During the period of this Agreement and in support of the CN, titled "Enhancing the CARICOM Regional Sweet Potato Germplasm Management Programme" initial discussions were held with CIP to conduct a study tour in selected countries in the region. The continued engagement of CIP is a result of the prior visit by CARDI /IICA scientists to CIP, Peru in 2017. The development and implementation of this CN with the involvement of CIP also presents an opportunity to advance the Inter-American Development Bank funded Pilot Programme for Climate Resilience (PPCR) Project in which CARDI is responsible for implementing Component 4- Agriculture in Jamaica, Dominica, St. Lucia, St. Vincent and the Grenadines, Haiti and Grenada . The project will allow CARDI and IICA to repeat the PPCR project activities in the remaining CARICOM countries which were not in the original project.

5.2 Other Strategic Alliances

CARDI and IICA collaborate closely within the context of several CARICOM institutional arrangements including the AFNC and its satellites, the Thematic Groups and Commodity Working Groups. The organizations also work closely together under the rubric of the Caribbean Week of Agriculture and in this regard, has collaborated on several projects that promote regional food and nutrition security, particularly in the context of climate change. Given the present COVID-19 circumstances it is anticipated that both institutions will have to collaborate even closer in the attempt to assist the region's efforts at recovery of the agriculture sector. IICA is also an observer on the Board of Directors of CARDI and in this position, has provided valuable insights into improving the governance mechanisms of the organization. The IICA/CARDI linkages are inextricably woven together as both organizations share a rich history of collaboration, shared concerns and comparative advantages that allow for the delivery of a wide range of technology products and services to the agri-food sector.

5.3 Regional Coconut Commodity Innovation Platform

IICA continues to participate and serve as a key partner of the Regional Coconut Commodity Innovation Platform (RCCIP).