Fortieth Regular Meeting of the Executive Committee

2019 IICA Annual Report

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Message from the Director General

One of the priorities of the Inter-American Institute for Cooperation on Agriculture (IICA) in 2019 was the deepening of the process of transforming its technical cooperation model, which also entailed major adjustments in institutional management. Emphasis was placed on the effective implementation of the Institute's roadmap, the Medium-term Plan (MTP) for the period 2018-2022, and a set of strategic guidelines aimed at constructing an agricultural and rural sector with more opportunities, value added, resilience and sustainability.

The Institute based the execution of its activities and programs on an operating strategy comprised of four elements: the delivery of technical cooperation of excellence, knowledge management, strategic partnerships and institutional efficiency. This made it possible for senior officials and technical personnel of the public and private institutional framework of the Americas to benefit from IICA's programs, and thousands of producers to enhance their expertise, with the consequent positive effect on agrifood systems and rural territories.

Significant improvements were made to the Institute's technical cooperation agenda at both the national and regional levels, after reaching agreement with the counterparts. IICA successfully implemented more than 85% of the scheduled activities of at least 148 of the expected results established for the five hemispheric action programs (Bioeconomy and Production Development; Territorial Development and Family Farming; International Trade and Regional Integration; Climate Change, Natural Resources and Production Risk Management; and Agricultural Health and Food Safety and Quality) and the two cross-cutting themes (Gender and Youth, and Innovation and Technology).

As well as generating strategies and policies designed to boost the bioeconomy and strengthen family farming, cooperatives and associative enterprises, our programs provided tools for capacity building in areas such as the analysis of trade barriers and the identification of opportunities in foreign trade. Furthermore, we provided training in soil and water management, climate change and risk mitigation, sanitary and phytosanitary measures, and pest and disease prevention, working with governments and the private sector. We also undertook important efforts to rehabilitate degraded areas and increase soil fertility.

In 2019, we implemented 189 externally funded activities or projects calling for an investment of nearly USD 114 million. We worked closely with the governments of the United States and Mexico, programs in Brazil and Argentina, the European Union, the multilateral banking system and the cooperation agencies of Japan, Korea, Spain, New Zealand and Australia, and many other organizations that were the main sources of resources for those activities and projects.

We worked in tandem with the governments of the 34 Member States, multilateral banks and a large number of international organizations (CATIE, FAO, IDB, World Bank, CAF, IFPRI and CIAT and many more). We also made groundbreaking progress in the establishment of relations with the private sector, carrying out significant actions with Microsoft, Bayer and Corteva Agriscience, to mention just a few of the firms with which we advocated digital agriculture 4.0, tackled agricultural diseases and promoted the role of women in rural development.

IICA continued to provide its member countries with innovative solutions tailored to their particular contexts, thanks to which they are better equipped to tackle major agricultural and rural challenges. To carry out this work, the Institute forged solid partnerships with the public and private sectors and civil society. Thus, IICA once again played an important role as a bridge between the efforts of all those actors.

We also developed the Goodwill Ambassadors and IICA Chairs programs, through which we recognize as partners eminent experts working to achieve the same objectives as the Institute.

At the Thirty-ninth Regular Meeting of the Executive Committee, one of IICA's governing bodies, the representatives of 12 countries gave a resounding endorsement to the ongoing process of organizational renewal, characterized by the delivery of better technical cooperation results within a framework of greater institutional austerity. At that meeting, the Institute was again recognized as a key agency for the efforts to improve the institutional fabric of the agriculture sector in the Americas, and to help develop sound public policies and build the capacity for more productive, efficient agriculture that is integrated into local and global markets.

That acknowledgement by the countries was reaffirmed during the successful Twentieth Regular Meeting of the Inter-American Board of Agriculture (IABA), the Institute's highest governing body, held in Costa Rica in conjunction with the Conference of Ministers of Agriculture of the Americas 2019, in which ministers, secretaries and senior officials discussed digital inclusion in rural territories, ways of striking a balance between productivity and sustainability, and the role of health standards in trade in agricultural products.

The meeting of the IABA provided a great opportunity to inaugurate, in the presence of the most senior agricultural authorities of the countries of the Americas, the Interpretative Center for Tomorrow's Agriculture (CIMAG), created jointly with Microsoft. This interactive learning space, where visitors can engage in virtual experimentation based on the use of artificial intelligence, is an example of the institutional commitment to democratizing technology in order to boost agricultural and rural development. The CIMAG is a key part of IICA's institutional renewal, which

includes other initiatives such as an agricultural innovation laboratory at our Headquarters, which has already been completed in partnership with Costa Rica's Ministry of Science, Technology and Telecommunications (MICITT).

In 2019, we harvested important achievements as a result of the technical cooperation that we provide to all our member countries. We hope that this report, which contains details of those results, will be discussed with the Member States, their partners and other actors, so that, with the benefit of their contributions, we can successfully continue to follow the course we have laid out.

Manuel Otero
Director General

Executive Summary

Through its five hemispheric programs focused on bioeconomy, territorial development, international trade, climate change and agricultural health, underpinned by two cross-cutting themes (gender and youth; and innovation and technology), the Inter-American Institute for Cooperation on Agriculture (IICA) continued to provide its member countries with innovative, contextualized solutions to meet the main challenges posed by agricultural and rural development in the Americas.

In 2019, the work program consisted of 123 direct technical cooperation initiatives carried out with the Institute's own resources, complemented with a further 189 externally funded activities or projects with a total investment of nearly USD 114 million. The principal sources were the agricultural agencies of the United States and Mexico, various programs in Brazil and Argentina, the European Union, the multilateral banking system and the cooperation agencies of Australia, Korea, Japan, New Zealand and Spain, among other donor organizations.

IICA's work strategy was based on four key elements: the delivery of technical cooperation of excellence, knowledge management, strategic partnerships and institutional efficiency. The Institute's cooperation efforts focused on providing support to the institutional frameworks of the agricultural and rural sectors, specifically on capacity building, the coordination of spaces for dialogue, the sharing of experiences, and the preparation of policy proposals and studies of national interest. IICA also worked closely with a range of actors in the productive sector, such as associations and organizations of producers, to promote the development of an agriculture sector with more business opportunities, value added, resilience and sustainability. These efforts were complemented with the scaling up of work with the private sector, and with a wide range of public sector partners, academia, nongovernmental organizations (NGOs) and international development agencies.

The following were some of the principal achievements of our **technical cooperation**:

- More than 4000 senior officials and technical officers of public and private institutions in the member countries were made aware of the potential of the bioeconomy, leading to the drafting of concrete proposals related to bioeconomy-based agriculture, such as roadmaps, strategies and policies. Some of the production chains in which that potential is already being explored, and the value of disruptive technologies related to bioinputs, bioenergy and biocosmetics assessed, include the coffee, cacao, avocado, honey, peanut and hot pepper chains.
- Thousands of family farmers in Argentina, El Salvador, Haiti, Honduras, Nicaragua, Saint Lucia, Uruguay and Venezuela acquired the new skills they require to galvanize their agrifood and territorial systems. As a result, they were able to establish stronger market linkages for a number of products, including meat, sweet potato puree, banana chips, honey, vegetables, beans, coffee and aquaponic crops.

- Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico and Uruguay developed conceptual frameworks, methodologies and new expertise for innovation and extension activities for family farming. The capacity building efforts in the rural sectors of our Member States also focused on cooperatives, associative enterprises and leadership.
- The agrifood sectors of Argentina, Brazil, Costa Rica, Guatemala and Ecuador improved their capacity to analyze trade barriers, identify opportunities and promote their exports. Other achievements included the updating of the export platforms methodology, assistance that enabled 10 countries in Latin America and the Caribbean (LAC) to maintain their status as producers of "fine or flavor" cocoa granted by the International Cocoa Organization, and the inclusion of family farming organizations in the Argentina Exporta program and others of a similar nature.
- More than 2000 technical officers, extension workers, farmers and students were trained in soil and water management, climate change and risk mitigation. In response to the damage caused by Hurricane Dorian in The Bahamas, IICA assisted producers in that country with inputs and materials that enabled them to restart their production cycles.
- In Nicaragua, Panama, Suriname, Trinidad and Tobago, Venezuela and Chile, the Institute improved resilient production capabilities by means of demonstration plots and plots to validate the System of Rice Intensification (SRI). Other results included the rehabilitation of degraded areas with Brazil's Ministry of Environment; increased soil fertility on the farms of members of Belize's Banana Growers Association, with support from the European Union; the installation, in Bolivia, with funding from the Endev (GIZ) program, of 800 efficient renewable energy technologies; and assistance for people affected by forest fires in Paraguay, in collaboration with the Inter-American Development Bank (IDB).
- Through inter-ministerial dialogues prior to PRE COP 25, and the participation of some of the countries in the COP meeting itself, the Institute's support resulted in proposals for joint action for agricultural production that is both sustainable and resilient to climate change.
- With the support of the United States Department of Agriculture (USDA), technical personnel from LAC received training in the application of good agricultural practices, leadership and sanitary and phytosanitary standards. This work was complemented with participation in *Codex Alimentarius* meetings, the development of surveillance systems for detecting antimicrobial resistance, and the delivery of cooperation to improve electronic pest certification.
- In the area of pest and disease prevention, IICA worked with public and private sector officials to deal with threats such as Fusarium Tropical Race 4, *huanglongbing,* fruit flies, foot-and-mouth disease and brucellosis. The Institute also collaborated with the countries on studies and the sharing of experiences related to giant snails, caterpillars, lethal yellowing of coconut and cacao diseases. Yet again, the joint efforts with Mexico's National Agrifood Health, Safety and Quality Service

(SENASICA) safeguarded that country's plant health status and prevented the entry of pests that impact Mexico's production and, therefore, its economy.

IICA implemented strategies to improve **knowledge management** in its 34 member countries. By promoting the sharing of knowledge and identifying the best solutions for dealing with critical issues, it was able to establish closer ties with international centers and academia. At the national level, the agricultural innovation programs and Peru's MAGNET mobilized high-level international scientific experts; at the regional level, the Institute coordinated the efforts of different cooperative mechanisms (PROCISUR, PROMECAFE, PROCINORTE, Red Innovagro, etc.); and, at the hemispheric level, studies of interest to the agrifood sector were conducted with multilateral banks and other international agencies (FAO, IDB, World Bank, IFPRI and CIAT, among others).

In terms of **partnerships and joint results**, links between agriculture and tourism were strengthened with the signing of an agreement with the World Tourism Organization (UNWTO) and the Technical Centre for Agricultural and Rural Cooperation (CTA), under which pre-investment resources were obtained to draft profiles for agro-tourism projects for submission to the European Union.

In the area of trade policy and promotion, the Institute and the Latin American Integration Association (ALADI) undertook capacity building efforts for SMEs. A series of online training activities had an average of 150 participants in 15 countries, while 40 entrepreneurs took part in an on-site event. Furthermore, more rural development projects were implemented, with support from the International Fund for Agricultural Development (IFAD), the Caribbean Agricultural Research and Development Institute (CARDI) and the Confederation of Family Farmer Organizations of MERCOSUR (COPROFAM), among other organizations.

An important achievement, following a recent change in IICA's approach, was the strengthening of **relations with the private sector.** For example, the Institute worked with Microsoft, Bayer and Corteva to disseminate information about digital agriculture 4.0, tackle agricultural diseases and promote the role of women in rural development in the Americas, respectively.

To mobilize further resources for the delivery of technical cooperation of excellence, the Institute prepared at least 20 project proposals and conceptual notes, which led to negotiations to secure nearly USD 100 million in funding.

In 2019, under its Goodwill Ambassadors Program, IICA honored five citizens of the Americas who, in their capacity as outstanding professionals, entrepreneurs or philanthropists, are advocates of the type of agriculture that we promote.

The Institute is making every effort to maximize its **institutional efficiency,** to ensure its sustainability and increase its capacity to add value to the Member States. The actions in this regard included the definition of strategies and integrated plans for the

period 2020-2022, the adoption of a culture of processes, optimization of the use of USD 4 million of the Institute's budgetary resources, and the promotion of leadership in its human talent. The year 2019 also saw the creation of a set of spaces designed to highlight aspects of rural life and digital agriculture, as part of the "Open Door IICA" initiative.

About IICA

With nearly eight decades of uninterrupted work on behalf of the entire American continent, the mission of the Inter-American Institute for Cooperation on Agriculture (IICA) is to *"stimulate, promote and support the efforts of its Member States to achieve agricultural development and rural well-being through technical cooperation of excellence."*[1]

We are guided by a vision approved by our Member States in the 2018-2022 Medium-term Plan (MTP), designed to equip us to:

> *"Be a **modern and efficient institution** supported by **a platform of human resources and processes that are capable of mobilizing the knowledge** available in the region and around the world, with the aim of achieving competitive, inclusive and sustainable agriculture that takes advantage of opportunities to contribute to economic growth and development as well as to foster greater rural well-being and sustainable management of the region's natural capital."*[2]

More specifically, IICA seeks to achieve four strategic objectives:

1. Increase the contribution of the agriculture sector to economic growth and sustainable development;
2. Foster the well-being of all the inhabitants of rural territories;
3. Improve international and regional trade in countries in the region; and,
4. Increase the resilience of rural territories and agrifood systems to extreme events.

To that end, the Institute's technical cooperation includes a set of actions aimed at contributing innovative, contextualized solutions to meet the principal challenges posed by agricultural and rural development in the Americas. In addition to providing cooperation of excellence that promotes value-added, IICA aims to bring about significant transformations by sharing work and responsibilities with strategic partners, the Institute acting as a catalyst and focal point.

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[1] IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2018. 2018-2022 Medium-term Plan. San Jose, Costa Rica, p. 15. This mission was formulated pursuant to Article 3 of the Convention on IICA.

[2] *Ibid.*

With a robust, consolidated framework of action, the Institute's set of actions includes the delivery of products and services; the sharing of knowledge, skills and experiences; technical and institutional capacity building; advisory assistance for the implementation of strategic processes and the design of public policies; coordination of the work of multi-institutional entities and/or the exercise of their technical secretariat; the development, facilitation and implementation of tools and methodologies; and the management of projects linked to the agriculture sector, among other cooperation actions.

The Institute's actions are grouped under five hemispheric programs: a) Bioeconomy and Production Development; b) Territorial Development and Family Farming; c) International Trade and Regional Integration; d) Climate Change, Natural Resources and Production Risk Management; and e) Agricultural Health and Food Safety and Quality. The work of each of these programs also incorporates two cross-cutting themes: a) Gender and youth and b) Innovation and technology.

IICA's technical cooperation network is made up of offices located in the capital city of each of the 34 Member States, plus an office for Europe, located in Spain. The Institute's team of technical staff, comprised of nearly 300 professionals specializing in the social, economic and productive sciences, is spearheaded by Dr. Manuel Otero, a citizen of Argentina, working from Headquarters in San Jose, Costa Rica.

Principal results in 2019

IICA renewed its technical cooperation agenda by consolidating its cooperation model and adapting the regional integration mechanisms to the different national and regional contexts of its Member States.

Working with the public and private institutional frameworks of our member countries, our cooperation focused on the delivery of innovative, contextualized solutions to help the countries meet the main challenges they face. The work dynamic was geared toward institution building and capacity development in the areas of policies, production, agricultural health, research and extension, marketing, value-added and safe food consumption.

The Institute achieved more than 85% of the technical goals set as part of at least 148 of the expected results established for our five hemispheric action programs (Bioeconomy and Production Development; Territorial Development and Family Farming; International Trade and Regional Integration; Climate Change, Natural Resources and Production Risk Management; and Agricultural Health and Food Safety and Quality) and the two cross-cutting themes (Gender and Youth, and Innovation and Technology).

Knowledge management is the main tool that IICA and its partners used to achieve better coordination at the international level and to provide their services through at least 314 cooperation initiatives. Around USD 114 million in external resources were secured to finance 189 of those initiatives, which, together with institutional resources, represent an annual investment of USD 145 million.

The following are the principal results achieved in 2019 under the Institute's hemispheric programs and the cross-cutting themes:

Bioeconomy and production development

One of the main thrusts of IICA's work is the search for new forms of production development, for which it applied an innovative, bioeconomy-based approach. By means of seminars, courses, workshops, field trips, technical documents, analyses of successful cases and promotional materials, the Institute enabled more than 4000 senior officials and technical personnel of governmental agricultural institutions, private organizations, academic institutions and research centers to enhance their expertise with regard to the bioeconomy, raising their awareness of its potential in

Latin America and the Caribbean (LAC) and familiarizing them with what is required to take advantage of it.[3]

IICA also set up the Latin American Bioeconomy Network, thanks to which countries engaged in developing bioeconomy policies, strategies and projects are now sharing the tools, knowledge and resources they require.

Through the joint organization of high-level international seminars, such as the Latin American Symposium on Bioeconomy (Argentina), the Allbiotech Forum (Costa Rica), the Technical Forum of the Conference of Ministers of Agriculture of the Americas (Costa Rica) and the Ninth Meeting of the Innovagro Network (Spain), among others, the Institute helped ministers and other senior officials, entrepreneurs and academics gain a better understanding of the potential of the bioeconomy for agriculture and rural territories, impacting its inclusion in public policies and the institutional framework.

Greater awareness of the bioeconomy's potential led to the construction of strategies and policies designed to promote the application of the bioeconomy in agriculture and rural development in Argentina, Belize, Bolivia,[4] Costa Rica,[5] Ecuador,[6] Honduras[7] and Uruguay,[8] with IICA assisting the countries in their efforts to position the bioeconomy at the political level, draw up roadmaps and draft proposed guidelines.

In addition, cooperation provided by the Institute for technical studies on the potential of biomass, markets and disruptive technologies helped inform public and private actors in the coffee, cacao, avocado, cupuassu, açaí palm, peanut, hot pepper and honey value chains in LAC about the opportunities offered by the bioeconomy for building more competitive, sustainable and inclusive business models.

In Jamaica, the Institute, working in tandem with 4-H clubs and academic institutions, promoted the bioeconomy among groups of young people who learned about composting, paper production using local plants and bamboo, hydroponic systems and fungal substrate.

In Ecuador, bioinput producers and 40 members of the technical staff of institutions that support agriculture (MAG, INIAP and AGROCALIDAD) received training in quality

[3] In El Salvador, the activities included a field trip, training for 30 people and the sharing of experiences on the use of waste. In Peru, a course for 320 participants was held entitled "Bioeconomy: potential and challenges for its use in LAC," and several virtual forums on stock farming and biodiversity topics took place.

[4] IICA, ILO, UNIDO, Central Obrera Boliviana: Guidelines for the development of a plurinational industrial policy for Bolivia.

[5] Agriculture and Agrobiodiversity Chapter of the National Bioeconomy Strategy.

[6] Consolidation of a network on the bioeconomy made up of 15 institutions tasked with formulating the guidelines for a public policy to advance the bioeconomy.

[7] Following the National Forum on the Potential of the Bioeconomy, work got under way to set up a group for further work on the bioeconomy in Honduras.

[8] Pilot initiative supported by Germany's Federal Ministry for Food and Agriculture, for the development of a roadmap for preparing a national bioeconomy strategy.

control for fungi that are good for the soil and the roots of plants. Similar actions were carried out with AgResearch (New Zealand) to standardize quality control methodologies.

In Bolivia, the project "Prefeasibility study for the creation of a technological park in Sucre" was presented as a starting point for creating and speeding up the development of companies involved in bioenergy, biopharmaceuticals and biocosmetics, in response to the Industrial Development Policy and under the leadership of the Ministry for Production Development and the Plural Economy, the Sucre Chamber of Technologies and Industry, the Universidad Andina Simón Bolívar and the Universidad Mayor, Real y Pontificia de San Francisco Xavier.

Technical cooperation in biotechnology

The Institute provided permanent advisory assistance on biotechnology and biosafety regulations to a number of public institutions, including the biosafety commissions and ministries of agriculture and environment of Argentina, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Nicaragua, Peru, Panama, Paraguay and the United States. It also assisted the public and private sectors of various countries in the Americas in the areas of communication and precision biotechnology, and facilitated their participation in the Asia-Pacific Economic Cooperation (APEC) forum and meetings of the Cartagena Protocol on Biosafety, among other events.

Resources from the Australian High Commission's aid program were used to improve the livelihoods of the inhabitants of various towns in southern Belize. With the support of the Poultry Farmers' Association and the Ministry of Agriculture, Forestry, Fisheries, Environment, Sustainable Development and Immigration, the biosecurity conditions of backyard flocks were improved.

IICA signed a new agreement with the Inter-American Commission on Organic Agriculture (ICOA) covering the period 2019-2021, under which the latter's governance was restructured and its powers to guide its own development increased. Relations were strengthened with Spanish institutions that promote organic production, leading to recognition of ICOA as a partner of honor of the Ecovalia association, its incorporation into the Organic Food Iberia fair, and confirmation that the First International Congress on the Development of Organic Agriculture was to be held in Spain.

Territorial development and family farming

Some 800 family farmers and technical officers in Haiti, El Salvador, Honduras, Argentina, Venezuela, Uruguay, Nicaragua and Saint Lucia are now better equipped to help spur the economic development of their agrifood systems and rural territories. Capacity building activities took the form of on-site and online courses on innovation in agricultural production, product health and safety, climate variability and adaptation, agribusiness, extension activities, commercial management and cooperative enterprises.

The following are some examples of the Institute's actions to promote the integration of family farming into productive and commercial processes:

- In Antigua and Barbuda, working with the Caribbean Agricultural Research and Development Institute (CARDI), IICA enhanced the skills of 60 producers in the use of sweet potato and cassava puree for bakery products, increasing the country's food security.
- Under the Mais BIO project, the Institute promoted the positioning of Brazil's native and traditional products in promising markets. This made it possible to link more than 1500 actors to initiatives that preserve and attach value to Brazil's biodiversity.
- Assisted by Garden Pool, in a rural community of Trinidad and Tobago IICA promoted the use of aquaponic systems to produce lettuce and other leafy vegetables.
- The Caribbean apiculture sector (Bahamas, Barbados, Dominica, Guyana, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines and Suriname) received strong support from the Institute with training in good practices and the preparation of business plans. Some of the achievements in this area were the result of horizontal cooperation actions with the Government of Argentina.
- Thanks to a market study of coffee, cacao and plantain chips with fair trade certification, seven Costa Rican smallholder organizations were able to improve the marketing of these products.
- Two seminars were held during the Expo Chile Agrícola: "Challenges for the marketing of the products of peasant family farming (PFF) within the framework of the Pacific Basin" and "IICA at the heart of Araucanía: A Territorial Agenda based on Associative Enterprises." The Institute also supported the Ministry of Agriculture of Chile in Araucanía, concluding an assessment of 28 family farming cooperatives.
- In Ecuador, a provincial technical assistance program enabled 660 territorial entrepreneurs in the provinces of Manabí and Esmeraldas to improve their products and services.
- Nineteen producers and butchers in Saint Kitts and Nevis received training in the cutting and processing of meat, while other farmers were assisted with storage for more than 3000 pounds of mango pulp for their agribusiness.
- The Secretariat of Agriculture and Livestock (SAG) of Honduras implemented the National Family Farming Program, which assisted more than 850 farmers in the Dry

Corridor with the planting of grains and permanent crops. Furthermore, the Food for Progress Program, financed by the United States Department of Agriculture (USDA), allocated USD 4 million for efforts to improve coffee processing, the production of cacao seedlings and extension strategies.

- Working in tandem with Iowa State University (USA), IICA implemented capacity building activities for 15 agro-processing enterprises that produce cold meats in Mahaicony/Perth Village, Guyana.
- In Barbados, the cooperation focused on the reproduction of blackbelly sheep, improving the conditions and capabilities of the artificial insemination laboratories of the Ministry of Agriculture and Food Security, with assistance from New Zealand's High Commission.
- In Suriname, Saint Vincent and the Grenadines, Saint Lucia, Grenada and Jamaica, the ties between agriculture and tourism were strengthened through a series of national workshops held to craft public policies and identify regional priorities. Project profiles were also prepared that will be financed by the Technical Centre for Agricultural and Rural Cooperation (CTA), and submitted to the European Union (EU) for consideration.
- In Costa Rica, the Institute supported the Ministry of National Planning and Economic Policy (MIDEPLAN) with the implementation of the Strategic Agrotourism Plan for the Southern/Southwest Region.
- IICA and the Ministry of Rural Development and Land (MDRT) created a catalogue of the export products of family farmers in Bolivia.

In the Southern Region, IICA promoted public policies to strengthen family farming, for which closer relations were established with MERCOSUR's Specialized Meeting on Family Farming (REAF). Progress was made with the creation of the Management Committee on the Safety and Quality of Family Farming Products, and the updating of the Regional Program for the Sharing of Experience and Capacity Building on Health and Safety in Family Farming (Constructing Healthy Territories).

The Institute also undertook capacity building efforts with the Confederation of Family Farmer Organizations of the Expanded MERCOSUR (COPROFAM) in the areas of managerial leadership and the management of cooperatives. This work was targeted at the Federation's nine affiliates. Under its agreement with the nongovernmental organization "Cooperatives of the Americas," IICA supported the cooperative movement by means of capacity building in the areas of coordination and exchanges among cooperatives, marketing and digital services.

Furthermore, the countries have a permanent supply of virtual courses for capacity building in the areas of rural development and family farming, and last year the Institute added new courses on leadership and associative and cooperative enterprises, prepared under its agreement with COPROFAM. Other courses were updated, including those on support services for family farming and marketing arrangements that help link producers with the market.

The Institute assisted the Ministry of Agriculture of Paraguay, the Ministry of Rural Development of Bolivia and family farming organizations such as Suriname's Network of Rural Women with the design of market access strategies and the implementation of training activities, productive partnerships and trade fairs. IICA also helped producers in Saint Lucia to make progress in the same areas. They have begun to use digital technologies to plan the growing of fresh produce and establish links with the domestic market through a digital platform.

Thanks to the Institute's efforts, Ecuador is benefitting from the approval by the Italo-Ecuadorian Sustainable Development Fund (FIEDS) of the "Peasant Family Farming (PFF) Seal" project: associative and inclusive marketing along Ecuador's northern border," which has a budget of USD 1.2 million. This initiative, which is also being supported by the Mancomunidad del Norte del Ecuador, will contribute to management capacity building for organizations with the PFF Seal in the provinces of Esmeraldas, Carchi and Sucumbíos, so they are better equipped to access markets.

Colombia and Honduras have boosted their institutional capabilities for consolidating territorial innovation and rural extension systems thanks to the Institute's assistance with the participatory drafting of strategic plans. IICA also helped the Colombian authorities prepare six departmental agricultural extension plans, while in Honduras strategic plans were drafted for two experimental agricultural research stations.

The Institute produced a series of technical documents that provide conceptual and methodological guidelines for use by counterpart institutions, the most important of which were the following:

- Technical cooperation strategy: definition of cooperation strategies and technical instruments needed to establish an action plan for territorial development and family farming;
- Conceptual and operational guidelines for the introduction of a territorial perspective in sectoral development initiatives;
- Rural development with a territorial approach in Central America: regional perspective and national experiences;
- Concept, work dynamic and technical contributions of the Standing Forum on Sustainable Rural Development (SRD Forum) for public rural development policies in Brazil;
- The bioeconomy as a proposed means of transitioning towards a new development model: outlook and challenges; and,
- Digital transformation for Agriculture 4.0: from the perspective of rural territorial development and family farming.

The Institute's partnership with the International Fund for Agricultural Development (IFAD), which focuses on rural development, was consolidated through the implementation of a number of projects, including the following: a) "Knowledge management for the adaptation of family farming to climate change (INNOVA-AF)," implemented in Bolivia, Brazil, Colombia, Dominican Republic, Ecuador, Guatemala,

Honduras and Mexico, whose competitive fund issued a call for projects and received 46 proposals, nine of which were approved, costing nearly USD 800,000; b) "The capitalization of experiences for greater impact in rural development," carried out by IICA, the CTA and the United Nations Food and Agriculture Organization (FAO) with resources from IFAD, which, based on an innovative methodology for scaling up experiences and capturing lessons learned, enhanced the expertise of public and private sector technical staff in Colombia, Peru, Paraguay, Chile, Guatemala and Costa Rica in the use of rural development tools; and, c) "Delivering Extension Services to the Last-Mile: Improving smallholder access to innovation and pluralistic, demand-driven extension services," overseen from Chile and implemented jointly with the Latin American Network of Rural Extension Services (RELASER).

Another well-known partnership is one that involves governments of several states in Brazil, IICA and IFAD, devoted to training thousands of family farmers in that country in subjects such as rural youth, gender, agroecology, learning paths and tourism, among other subjects.

The Institute promoted a series of mechanisms for linking institutions and sectors, such as national and territorial platforms for dialogue aimed at coordinating policies on production, innovation and gender, through which the following results were achieved:

- In Uruguay, ten government institutions and fifteen family farming organizations participated in two discussion forums on the importance of technical assistance and rural extension, and the incorporation of the gender perspective into trade integration.
- Guatemala has a national agricultural innovation platform involving twenty governmental institutions; a multi-stakeholder platform for the promotion of family farming, made up of civil society networks, research centers and cooperation agencies; and a rural women's consortium comprised of federations and networks, whose objective is to market the women's products and impact support entities.
- In Colombia, IICA promoted links among government institutions (MADR, MinTIC, UPRA, AGROSAVIA, COCIENCIAS, FINAGRO, SENA and CONSA), universities (Universidad Nacional de Colombia, Universidad La Salle, UniMinuto and Spain's Universidad de Córdoba), private enterprises that provide rural digitalization services (HISPASAT and INCLAM) and producers' organizations (FEDEGAN and ECOMUN) to encourage these stakeholders to create the Digital Innovation Center for Agriculture and Rural Territories, with the decision to do so being taken at the Seminar-Workshop "Agriculture 4.0: Tool for Productivity and Rural Development," held in Bogotá with the participation of around 60 people.

Technical specialists engaged in innovation and extension activities in Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Honduras, Mexico and Uruguay created a network for sharing and dialogue, through which they helped to prepare a proposal for a conceptual and methodological framework to guide IICA's technical cooperation actions in those areas.

International trade and regional integration

To **improve the management of trade policies** and take advantage of international trade agreements, in Bolivia the Institute promoted capacity building for public institutions such as the Ministry of Production Development and the Plural Economy and the Ministry for the Economy and Public Finance, and various agro-export businesses.

IICA also complemented the capacity building efforts of the Latin American Integration Association (ALADI) with associations and cooperatives of SMEs, focused on trade policy and promotion and designed to enable them to take advantage of the regional economic integration processes. Furthermore, the ministries of agriculture of LAC countries and other related entities (ministries of trade, the economy and production; public and private universities; and agribusiness chambers) received up-to-date information about agricultural trade policy through webinars, technical notes, specialized advisory services, talks and workshops. A series of six virtual conferences was held, with an average of 150 people in 15 countries (Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru, Uruguay and Venezuela) involved in each webinar, and 40 participants in the on-site workshop.

In Paraguay, working with Taiwan's technical mission, the Institute conducted a market study of the ten main varieties of flowers sold in that country.

Central American dairy sector

Central American dairy exports are currently running at USD 430 million per year, with 245,908 producers, 274 formal dairy processing firms and 3548 small semi- and non-industrial enterprises involved. Total exports of dairy products rose 20.14% in the period 2012-2017, with exports to countries within the region growing even faster (by 26.17%) during the same period.

With IICA's assistance and the participation of 143 stakeholders from the six Central American countries, a plan was implemented to standardize and harmonize regulations for the dairy sector, which will further boost intraregional trade.

Assisted by the Institute, 25 companies, 28 organizations and 25 producers in the agrifood sectors of Argentina, Brazil, Costa Rica, Guatemala and Ecuador[9] enhanced their capacity to **take advantage of the trade agreements and integration processes.** They were provided with analyses of trade and non-trade barriers and

[9] Global Export Program, working with the Association of Food and Beverage Manufacturers and Ecuador's Under-secretariat for Agribusiness.

helped to identify opportunities and promote their export products (materials, training activities and missions).

Furthermore, the Institute helped ten LAC countries to maintain their status as producers of fine or flavor cocoa and thus secure better prices in the premium market. This work involved assisting the countries to document and present their positions on the subject to the International Cocoa Organization (ICCO). Producers of fine cacao in Haiti, in particular, obtained better prices.

The foregoing was complemented with dialogue processes involving 34 stakeholders in the cacao chain in Guatemala, aimed at improving their capacity to analyze the regulatory and trade framework, identify the comparative and competitive advantages of their products and implement trade promotion actions with a view to tapping the commercial opportunities of differentiated cacao.

In Panama, IICA promoted the use of innovative tools such as blockchain, which is very useful for linking producers' organizations with export markets; in Argentina, it conducted export assessments in tandem with the Foreign Trade Secretariat of the Ministry of Production and Labor and the Family Farming and Territorial Development Secretariat; and in the Caribbean, it equipped 17 micro- and small-scale entrepreneurs with the skills required to export to regional markets. The latter work involved five training sessions on business plans, quality and safety, marketing, finances, and procurement and distribution, and support to enable the group to take part in at least three trade fairs, including the Caribbean Premier Trade Exhibition.

The Institute assisted Argentina's Foreign Trade Secretariat and Secretariat for Family Farming, Coordination and Territorial Development with the implementation of the project "International integration of Argentine family farmers' organizations." This led to the organizations being included in the Argentina Exporta Program, and pilot initiatives to enable three cooperatives in the provinces of Jujuy, Mendoza and Misiones to export their products for the first time. IICA also updated the export platforms methodology and held a virtual course on the process of preparing to export agrifood products.

The work of the WTO-IICA Reference Center, which provides advisory services, disseminates information and holds talks and workshops, enhanced the knowledge and expertise of 72 people in the areas of trade policy, regional integration and trade promotion. The beneficiaries included the staff of companies and government agencies, as well as students and professors of 12 public and private entities, mainly in Costa Rica, Peru, Mexico, Guatemala, Dominican Republic, Haiti, Bolivia, and Argentina.

Climate change, natural resources and production risk management

The Institute enhanced the expertise and knowledge of more than 863 technical officers, extension workers, farmers and students with regard to soil and water management, climate change and production risk mitigation, the sustainable intensification of rice growing, gender and climate change, climate-smart farms and community resilience. More than 1825 people from ten countries took part in six virtual courses and exchanges on water resource management, the sustainable intensification of rice growing, carbon in the soil, and the water footprint.

The rehabilitation of agriculture in The Bahamas

In the wake of the disaster caused by Hurricane Dorian, primarily on the islands of Grand Bahama and Abaco, IICA assisted in the delivery of inputs and materials that producers needed to restart the production cycle. Based on the lessons learned from the response to that disaster, agricultural health, climate-smart agriculture and resilience are considered to be the areas in which robust efforts are required to build and strengthen prevention capabilities, given the likelihood of similar situations in the future. Working with CARDI, the Institute distributed hot pepper seeds.

The countries have methodologies and manuals on the reuse of water in low-cost family vegetable production systems, and good practices for the integrated management of soil fertility in banana growing.

The important partnerships established include those with the Agricultural Model Intercomparison and Improvement Project (AgMIP), the Working Group on Agriculture Monitoring in the Americas (AMA-WG), GMV Innovating Solutions, the U.S. National Aeronautics and Space Administration (NASA) and the Brazilian Agricultural Research Corporation (EMBRAPA).

In Suriname, with cooperation from Australia, conditions were improved in six rural Maroon communities. Rainwater collectors were installed to improve access to water, and the risk of disease was reduced by installing 22 sanitary units. Furthermore, in a number of countries, including Chile, Nicaragua, Panama, Suriname, Trinidad and Tobago and Venezuela,[10] the Institute established resilient production models and demonstration plots to validate the system of rice intensification, which helped improve the capacity to use that system.

In Brazil, five units were established for the rehabilitation of degraded areas that benefited 150 families in Maranhão, Piauí, and Bahia; and, working with the Ministry

[10] Eight plots were established in the state of Guarico and two in the state of Portuguesa, where the production yield was 9.3 t/ha and 70% fewer seeds were used.

for Environment, three courses were implemented under the Water Producer Program, in which 90 extension workers took part.

In Belize, the project "Productivity enhancement of banana farms through integrated soil fertility management in the banana belt area of Belize" (with a budget of €2,023,197) was implemented in tandem with the European Union. Banana production levels rose as members of the Banana Growers Association (BGA) acquired new expertise for integrated soil management and made greater use of soil fertility improvement techniques, while the University of Belize enhanced its capacity to produce plantlets in its micropropagation laboratories.

Working with Catholic Relief Services (CRS) and Nicaragua's Research and Rural Development Foundation (FIDER), IICA carried out training activities on basic grain conservation technologies for producers in Yalagüina, a territory situated in the Central American Dry Corridor.

The Sustainable Access to Renewable Energy and Efficient Technology Fund (FASERTE), financed by the EnDev Bolivia program through the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and executed by IICA, supported a group of implementing entities that installed more than 800 efficient technologies for productive and domestic uses in eight departments of Bolivia. The technologies in question included solar pumping systems for irrigation, solar electric fences, solar dryers and eco-efficient ovens and stoves, which are more environmentally friendly. Another innovation generated in Bolivia was the use of nano computers and sensors that integrate climate, insect and crop models to facilitate the decision-making of 200 farmers.[11]

A similar number of Chilean farmers in the Valparaiso region took part in a training program on the evaluation of irrigation systems, financed by the government of the region and run by the Pontificia Universidad Católica de Valparaiso and IICA.

The Government of Ecuador, through its Secretariat for Water and with cooperation from IICA, carried out a project financed by the Inter-American Development Bank (IDB) with a budget of USD 400,000 aimed at implementing the National Irrigation and Drainage Plan. In Paraguay, working with the IDB and the Secretariat for National Emergencies, disaster and humanitarian assistance were provided to people affected by the forest fires in Alto Paraguay, Boquerón and Chaco.

The Institute facilitated more active and informed participation by the member countries in the global climate change conferences by holding the Fourth Inter-ministerial Dialogue on Agriculture and Environment of the countries of the Central American Integration System (SICA) during the PRE COP 25 meeting, to enable them to

[11] The Predicting Insect Pest Phenology project, implemented with France's Development Research Institute (IRD), the PROINPA Foundation, the Universidad Mayor de San Andrés, the Universidad Pública de El Alto, the Universidad Tecnológica Boliviana and the Escuela Militar de Ingeniería.

reach agreement on a proposal for joint action designed to guarantee agricultural production that is both more sustainable and more resilient to climate change.

At PRE COP 25 and the Conference of the Parties (COP 25), IICA supported the participation of the ministries of agriculture of The Bahamas and the SICA member countries, including Nicaragua, Honduras, the Dominican Republic and Belize. Areas of technical cooperation and potential partners were also identified, to promote the actions carried out to date.

Finally, four externally funded projects calling for an investment of more than USD 3 million were approved or implemented in 14 countries of the region, focusing on: appropriate mitigation actions in Central American agriculture, financial protection for drought management in the Central American Dry Corridor, ecosystem-based adaptation in the Caribbean and the system of rice intensification.

European Union-IICA-Panama-El Salvador Euroclima+ Program

Forty field schools were held for 2000 rice farmers (Panama) and 100 livestock producers (El Salvador), who learned how to apply good agronomic practices and reduce greenhouse gas emissions.

Agricultural health and food safety

Strengthening national agricultural health and food safety services across the American continent continues to be a key focus of the Institute's work. For example, funding from the USDA was used to implement the "Leadership Course on Sanitary and Phytosanitary Measures" for the second time. The 16 participants from 12 countries expect to conclude their training successfully in 2020. In addition, in Ecuador, at the request of the Plant and Animal Health Regulation and Control Agency (AGROCALIDAD), IICA applied the Performance, Vision and Strategy (PVS) tool in the areas of plant and animal health and food safety. In El Salvador, 50 safety inspectors from the Ministry of Health received training, while in the Caribbean seven cooperation initiatives enhanced the expertise of specialists in electronic certification systems and the monitoring and management of major pests.

For 25 years, IICA has supported the efforts of the National Agrifood Health, Safety and Quality Service (SENASICA) to safeguard Mexico's plant health status, preventing the entry of more than 1000 pests and 56 exotic diseases of economic importance.

A large number of officials in the member countries enhanced their knowledge and expertise in matters related to the *Codex Alimentarius* thanks to the support they received from the Institute, which enabled them to take part in meetings on hygiene, special regimes, antimicrobial resistance and general principles. This work was accompanied by other efforts, such as on-site seminars carried out in Costa Rica and

Brazil, six virtual seminars with participants from 20 countries and two seminars targeted exclusively at the private sector.

With a view to adopting best international practices for the registration of agrochemicals and the setting of maximum residue levels (MRL) favorable to trade, the Central American countries and the Dominican Republic enhanced their capacity to establish MRL for pesticides and promote regulatory procedures on the subject. The Institute began to provide technical and regulatory assistance on MRL to the countries of the Central and Andean regions under an external project funded by the USDA. Through this three-year project, IICA will achieve what the Inter-American Board of Agriculture (IABA) requested in its Resolution 520.

IICA also cooperated with Jamaica and Colombia in the development of their surveillance systems for detecting antimicrobial resistance (AMR) in their agrifood chains; and with the Central American countries and the Dominican Republic to complete an assessment for the development of integrated AMR surveillance plans.

Some of the important events held in 2019 were as follows:

- Two regional meetings on food safety with the participation of 12 government delegates, which focused on the following subjects: MRL, the U.S. Food Safety Modernization Act (FSMA) and the harmonization of sanitary and phytosanitary standards (SPS) related to AMR.
- A round table on international SPS negotiations, held in Washington with the participation of at least 40 representatives from the embassies of member countries and agencies such as the USDA, the Office of the United States Trade Representative (USTR) and the Pan American Health Organization (PAHO).
- A technical workshop on the importance of scientific justification for SPS, in which representatives of 15 countries participated.
- Four sessions were held to study draft international plant and animal health standards, which representatives of 27 countries attended.
- The 19th Regional Workshop for the Caribbean of the International Plant Protection Convention (IPPC), held in Antigua and Barbuda.

Under the agreement signed with the U.S. Food and Drug Administration (FDA), the Institute collaborated in the training of government officials and producers in the **application of good agricultural practices (GAP)** that meet national standards for the protection of human health. Some of the specific results achieved were as follows:

- At the regional level, after being granted the status of lead trainers by Produce Alliance (United States), 45 professionals from 12 countries went on to train 2820 producers in the FSMA guidelines on safety in the fresh produce supply chain.
- In Mexico, 28 officials received training in the standard on preventive controls for human food, and 65 public sector delegates in the standard on safety in the fresh produce supply chain.

Working in tandem with the Universidad Autónoma de México (UNAM), IICA facilitated training activities on GAP and global milk production standards for producers from the state of Jalisco, Mexico, including representatives of 20 dairy farms that supply Nestlé.

With regard to **pest and disease prevention**, IICA and Bayer CropScience organized, planned and financed national workshops in Costa Rica, Ecuador and Colombia to raise awareness and increase preparedness in light of the threat of **Fusarium Tropical Race 4** (Foc-TR4) in bananas. In Brazil, the Institute and the Ministry of Agriculture, Livestock and Supply (MAPA) designed a regional strategy for combating Foc-TR4; in Venezuela, IICA partnered with the Musaceae Network and the Universidad Central to identify prevention measures to combat that disease; and in Nicaragua, a national simulation exercise was carried out for prevention purposes, with support from FAO, the International Regional Organization for Plant and Animal Health (OIRSA) and the Institute of Agricultural Protection and Health (IPSA).

Moreover, as part of the efforts to combat **foot-and-mouth disease and brucellosis,** IICA assisted the national animal health services with the design of brucellosis programs in Bolivia and Costa Rica; activated cooperation with the Pan American Foot-and-Mouth Disease Center (PANAFTOSA); collaborated in an economic assessment of the withdrawal of the foot-and-mouth vaccine in Uruguay; and contributed to the strategic evaluation of the animal health area of Peru's National Agricultural Health Service (SENASA).

The Institute also collaborated with its member countries to prevent and control other pests and diseases, such as the following:

- **Giant African snail** *(Achatina fulica):* In Antigua and Barbuda, the cooperation involved conducting impact assessments, monitoring and training in methods for combating the pest.
- ***Huanglongbing*** **(HLB) or citrus greening disease:** This disease poses a threat in the Caribbean, Colombia and Venezuela. IICA contributed to the search for clean genetic material, promoted improved crop management and, in partnership with academic institutions such as the Universidad Central de Venezuela, conducted studies on the use of entomopathogens as vector control agents.
- **Lethal yellowing of coconut:** Since 2016, the Institute has been assisting Grenada in tackling this disease under a coconut rehabilitation program.
- **Carambola fruit fly** *(Bactrocera carambolae):* The control of this pest is a high priority along Guyana's borders with Suriname and Brazil, so IICA and Guyanese counterparts carry out permanent monitoring and control efforts in regions 6, 8 and 9.
- **Caterpillars:** They represent a problem for corn growing in Haiti, so the Institute worked with the country's Ministry of Agriculture, Natural Resources and Rural Development (MARNDR) to provide training and sanitary materials and products. Aflatoxins in corn and peanuts also contribute to food contamination; IICA has therefore offered the Haitian authorities training materials on the subject.

- **The cacao disease trilogy** *(witches' broom, black pod rot and frosty pod rot):* The Institute is working with Jamaica, a country affected by these diseases, by promoting the sharing of experiences with Peru and Colombia, which have control strategies in place.

Given the countries' interest in rationalizing decision-making for the implementation of regulations and the use of resources, IICA contributed to the formulation of a methodology for evaluating the socioeconomic impact of plant health measures, which the authorities will be able to apply in 2020.

The Institute works actively with two of the most important regional entities specializing in sanitary issues in the Americas:

The Standing Veterinary Committee (CVP)

With technical support from professionals from the CVP, IICA and the World Animal Health Organization (OIE), and with the participation of representatives of the countries' governmental veterinary services and private organizations, the groundwork was laid for structuring national and regional risk communication strategies during periods when infectious diseases are in abeyance.

The CVP worked on the identification of critical points and the detection of gaps, paving the way for the design of sanitary strategies for managing salmonella in poultry meat in the member countries that include the latest EU requirements on the subject, to enable them to improve their access to that market.

The Plant Health Committee (COSAVE)

COSAVE and IICA completed the project "Regional Strengthening of the Implementation of Plant Health Measures and Access to Markets," which enhanced the capabilities of the government services of the Committee's seven member countries in key areas, with a view to improving the plant health situation and market access. More than 200 officials acquired new knowledge and expertise regarding general and specific phytosanitary surveillance, pest risk analysis, phytosanitary inspection and certification, the management of learning processes and the evaluation of the impact of the application of international plant health standards. In every case, the capacity to implement international agricultural trade standards improved. Several outputs were produced for the capacity building actions, including software for recording and sharing information, six guides for the implementation of procedures, and an innovative impact assessment methodology.

IICA also helped decision-makers gain a better grasp of the concept of "prospective phytosanitary intelligence", and consensus was reached on the way forward in crafting and implementing programs to address the emerging challenges in relation to climate

change, regulations and food security, taking into account sustainable development in all its dimensions. Furthermore, as part of the actions to respond to the emergency caused by the introduction of *Drosophila suzukii* into the region, international technical assistance was obtained on management and prevention, and capacity building activities were carried out for the public and private sectors. COSAVE signed a work plan with the American Seed Association.

The broad remit of the Institute's collaborative work includes the generation of networks of experts of the region's national agricultural research institutes (NARI), COSAVE, IICA and the Cooperative Program for Agrifood and Agroindustrial Technology Development in the Southern Cone (PROCISUR). This made it possible to draft a proposal for a regional public good for submission to the IDB, called "Toward the collective construction of a comprehensive regional platform for decision-making in prevention and management for plant health protection in adaptation to climate change: the case of HLB and its vectors." Progress was also made with the consolidation of a strategy and a methodology for evaluating risks at the regional level, on behalf of the countries represented on COSAVE.

Finally, the efficiency of the Committee's was enhanced by holding virtual meetings, reengineering the website and implementing a methodology for evaluating and monitoring implementation of COSAVE's Strategic Plan for 2018-2028 that included a dashboard, indicators and other tools.

Gender and youth

In addition to the efforts carried out under its five hemispheric programs, IICA has implemented actions aimed at incorporating women and young people into agriculture and guaranteeing their full participation in the agricultural and rural development processes of their respective communities. The following are some of those actions:

- Provision of technical support to Costa Rica's Ministry of Agriculture and Livestock (MAG) and Sectoral Gender and Youth Network, under the 2020-2030 Plan of Action of the Gender Equality for Inclusive Development Policy; and, working with the National Women's Institute (INAMU) and the Ministry of Labor and Social Security (MTSS), advisory assistance to help 35 women living in poverty to develop their businesses.
- Implementation of the Consortium of Rural Women, made up of federations of associations and cooperatives that market their products together and engage in political advocacy on behalf of rural woman in Guatemala; and support for 35 women family farmers in Chimaltenango, under the School Food Program.
- Formalization of the Network of Rural Women Producers of Suriname, with the Institute providing support to enable it to take part in several fairs in the Caribbean and thereby increase its export opportunities.

- In Uruguay, IICA supported the organization of courses, competitions and meetings for women rural leaders, children's art exhibitions in rural schools and events to promote gender equity.
- In El Salvador, the Institute collaborated with the Cuidad Mujer agricultural training schools promoted by the Ministry of Local Development, thanks to which hundreds of women have acquired new skills for vegetable production and urban farming.
- The project "Improvement of public policies for productive inclusion and sustainable rural development of rural women to guarantee nutrition and food security" got under way in Brazil, implemented by the Latin American Faculty of Social Sciences (FLACSO) and financed by the country's Ministry for Citizenship.
- As part of the events held to commemorate International Rural Women's Day, the second edition of the book "Warriors" was launched. The participants in the activity included the book's authors, political and rural leaders, and nearly 100 representatives of national institutions, international agencies and firms from Brazil, Spain, Germany, the United States, Mexico, Colombia, Argentina, Canada, Uruguay, Ecuador and El Salvador.
- Training and certification of (in some cases, vulnerable) young people in hydroponic animal and plant production, and in entrepreneurship and leadership, in Antigua and Barbuda, Barbados, Argentina,[12] Brazil and Chile.[13] These activities were carried out jointly with ministries of education, private institutions, research centers and nongovernmental organizations (NGOs).
- Support for the firms Funky Fungi Mushrooms and Guru Inc., headed by young people in Saint Lucia, which improved their market linkages and capacity for innovation, with the aim of developing digital marketing solutions.

With IICA keen to position itself as an actor committed to the issues of gender and youth, a virtual forum on rural women was opened on the Web page created for the "Warriors" book, with visitors invited to contribute information about the situation of this sector in the LAC countries. To help raise the profile of rural women, news items from various sources were posted on the same page, highlighting their progress, struggles and achievements.

Furthermore, IICA's technical specialists acquired new expertise on gender issues and conducted a survey on the gender approach within the organization. The results were used to devise a capacity building strategy aimed at incorporating gender into every area of the Institute's work. Implementation of the strategy began with training actions and technical support for the hemispheric programs in the use of inclusive language, the application of the gender approach, and ways of improving the self-esteem of Latin American women.

[12] First Training Course for Young Leaders of Cooperatives in the Province of Córdoba, implemented with the Ministry of Agriculture and Livestock and the Humberto Volando Foundation.
[13] Rural Youth Program, implemented by the Agricultural Development Institute (INDAP) to improve business skills.

Other very important actions included the formulation of a gender frame of reference, based on the information provided in the second edition of the "Warriors" book; the design of the IICA Strategy on Gender and Rural Women, which was presented at the Twentieth Regular Meeting of the IABA; and the construction of a frame of reference on youth, for which the Institute garnered the opinions of young experts from its five regions.

Our gender and youth office at Headquarters studied more than 80 national and 14 regional proposals on these topics in order to prioritize its actions in 2020, and promoted the incorporation of gender issues into climate change projects in the Caribbean.

Innovation and technology

Guatemala's Regional Agricultural Research Consortia (CRIA) Program

Under this program, and with support from its U.S. counterpart, the Ministry of Agriculture, Livestock and Food (MAGA) trained 27 new researchers; validated 46 agricultural technologies with more than 500 producers of potatoes, avocados, tomatoes, *cahabonero* pepper, cardamom, honey, corn, beans, *loroco* and sheep; promoted the application of 19 practices and technologies by 100 agricultural promoters and producers, enabling them to increase their income; finalized and documented 100 research projects in the corn, bean, potato, tomato, cacao, cardamom, honey, sheep, *loroco*, peach and avocado chains, which were carried out by the institutional research consortia; and lengthened the time earmarked for research of 90 educators of various universities (CUSAM, CUNOROC, CUNOC, CUNORI, ITMES, CUNZAC and CUNOR), among other achievements.

IICA prepared its frame of reference for innovation and technology and, in collaboration with France's Agricultural Research Centre for International Development (CIRAD), developed a virtual course on innovation that will be made available on IICA's virtual training platform in 2020. These and other efforts, designed to improve the Institute's positioning on innovation and technology, raised the awareness of technical personnel of the importance of incorporating these topics into agricultural initiatives, including the actions that IICA carries out under its five hemispheric programs. Other important achievements were as follows:

- Adding of value to the design of "Guidelines for the identification and analysis of bioeconomy business possibilities."
- Design of a dynamic catalogue of bioeconomy technologies.
- Capacity building in innovation for members of Ecuador's exporters' platform.
- Generation of extension concepts and methods for territorial innovation in family farming.

- Development of an innovation platform in Guatemala.
- Systematization of initiatives to tackle climate change.
- Strengthening of institutional innovation in plant health intelligence in Chile and Argentina.

Under the National Agricultural Innovation Program (PNIA), and making use of the MAGNET instrument, Peru's National Agricultural Innovation Institute (INIA) and National Fund for Scientific and Technological Development (FONDECYT) mobilized high-level international scientific experts, facilitated internships for Peruvian officials, and attracted highly qualified researchers from France, India, Israel, Colombia, Cuba, Mexico and Venezuela.

Furthermore, more than 5200 institutional and productive actors of the agricultural sectors of countries in the Americas received and shared knowledge on agricultural technological innovation, thanks to the dissemination of over 400 news items, documents, links and events through the INFOTEC system (http://infotec.ws/) and the dissemination of 18 periodic bulletins.

One of the biggest challenges faced in modernizing the sector in the Americas is the need to transition to digital agriculture (4.0), i.e., farming based on the use of the Internet of Things, big data and artificial intelligence, among other tools. To that end, IICA defined concepts and processes for providing support to the different digital agriculture initiatives and organized a panel discussion on the subject as part of the Latinity 2019 event held at Headquarters. This activity was extremely important for positioning IICA and digital agriculture, attended as it was by more than 500 Latin American women whose work involves different areas of technology, and a number of agencies and firms that have applications, technologies and processes that the women and their communities could use.

A similar effort was the joint organization, with the Universidad CENFOTEC, the MAG, the National Animal Health Service (SENASA), Microsoft and World Animal Protection, of the first hackathon for Costa Rica's agriculture sector, aimed at creating a system for estimating the impact of disasters on the livestock sector, in which young people from all over the country took part.

Cooperative Program for Agrifood and Agroindustrial Technology Development in the Southern Cone (PROCISUR)

PROCISUR identified the principal constraints to, and opportunities for, technology development among young family farmers in the Southern Cone, with the aim of facilitating generational succession and technological innovation. An online survey was conducted of more than 150 young people in the region, and a regional seminar held entitled "Youth and innovation: challenges for family farming," in which 15 young representatives of producers' organizations took part. With support from the REAF,

representatives of the six institutions that make up PROCISUR prepared the survey and organized the workshop.

HLB was a subject identified as a priority by the PROCISUR Management Committee, COSAVE executives and the AHFS Program for the Southern Region. This led to the formulation and approval of the project "Development and promotion of innovative tools for the prevention and mitigation of the impact of HLB in the PROCISUR member countries."

Furthermore, consensus was reached on the text of the PROCISUR cooperation agreement for 2019-2022, which the members of the Management Committee subsequently approved, and two addendums were signed extending the current agreement. Administrative processes were also improved, thanks to the formulation and approval of an operating manual for PROCISUR-funded collaborative projects, with which IICA provided assistance.

The Institute also coordinated efforts with COSAVE on strategic plant health topics, specifically the management and prevention of spotted-wing Drosophila (*Drosophila suzukii*). A regional technical and scientific meeting held in Mendoza, Argentina, involving the national agricultural research institutes, the AHFS Program and the national plant protection organizations (NPPO), identified potential lines of research and management. In addition, PROCISUR worked with PROCINORTE and the CVP on African swine fever, with IICA supporting the participation of specialists in international events held to discuss lines of action and research.

PROCISUR published the document "Síntesis del Estudio Prospectivo: el Cono Sur ante una instancia crucial del desarrollo tecnológico global," which identifies and prioritizes the main megatrends and critical uncertainties, and poses the key questions regarding the future of Southern Cone agricultural and agrifood systems.

Cooperative Program for Agricultural Research, Development and Innovation in the Tropics (PROCITROPICOS)

Within the framework of the Latin American Network for the Implementation of the International Treaty on Plant Genetic Resources for Food and Agriculture, a proposal was submitted for other LAC countries to take part in EMBRAPA's ALELO platform, and researchers from Brazil, Colombia, Ecuador, Peru, Paraguay and Uruguay were trained in descriptors of digital object identifiers (DOI) for plant genetic resources.

A number of South-South horizontal cooperation actions were implemented. For example, researchers from the Colombian Agricultural Research Corporation (AGROSAVIA) visited the EMBRAPA Cerrados research unit, in Brazil, enabling researchers from the two institutions to work together on the preparation of projects related to agro-silvopastoral systems, especially techniques for determining soil health. In addition, research experiences were shared with EMBRAPA Forestas, and

partnerships forged for cooperation under the aegis of PROCITROPICOS. Furthermore, technical personnel from AGROSAVIA, Peru's National Agricultural Innovation Institute (INIA) and Ecuador's National Agricultural Research Institute (INIAP) were trained in soli health in Tibaitatá, Colombia.

The Program facilitated discussion of strategies for controlling Tropical Race 4 (TR4) of *Fusarium oxysporum* f. sp. *cubense,* after the fungus was detected on banana plantations in Colombia. Researchers and representatives of banana sector businesses and associations from Brazil, Colombia, Ecuador, Peru and Guatemala met in Brasilia, where consensus was reached on ways to delay the entry of the disease, adopting biosafety measures proposed in research on the management of TR4 and varieties resistant to it. Finally, IICA helped draft two research and surveillance proposals for tackling the threat.

Cooperative Program in Research and Technology for the Northern Region (PROCINORTE)

The Institute afforded agricultural researchers in the Americas access to information provided by PROCINORTE for the management of Zebra chip disease, caused by *Candidatus Liberibacter solanacearum* and transmitted by the potato psyllid. This disease is responsible for losses totaling USD 22 million in the state of Texas (United States) alone, and has been detected throughout Central America, where the cost of the damage has yet to be quantified.

IICA, Mexico's National Institute for Forestry, Agricultural and Livestock Research (INIFAP) and the firm of Felix Instruments signed an agreement under which the technology for ripening Hass avocadoes developed by PROCINORTE was transferred to that company, which co-financed the research. The technology makes it possible to gauge more precisely when avocados are ready to be picked and, in that way, ensure better quality and prevent losses. The Institute also supported INIFAP by hiring the firm CamBioTec to carry out a study on the appropriateness of using the new standard developed by PROCINORTE to gauge the maturity of Hass avocados instead of the standard currently used in Mexico.

PROCINORTE produced a virtual training module for the new generation of germplasm curators in the United States and Canada, to reduce the gaps in knowledge for managing the wild relatives of economically important crops. IICA oversaw and financed production of the module, which was developed by Colorado State University and is to be implemented by the U.S. Agricultural Research Service and Agriculture and Agri-food Canada.

IICA and the Technological Corporation of Andalusia (CTA) identified 56 bioeconomy-based technologies for generating family farming businesses that make use of agricultural waste, complementing similar actions carried out under the aegis of FONTAGRO.

Regional Cooperative Program for the Technological Development and Modernization of Coffee Production (PROMECAFE)

This regional mechanism updated its objectives, mission and vision, following a prospective assessment to establish the future direction of its work and the priority issues to be addressed. A new agreement was also signed establishing the framework for PROMECAFE's operations during the period 2020-2023, with a view to giving continuity to the efforts to modernize the region's coffee production through technology development, reciprocal cooperation and economic, social and environmental innovation. Ten countries have signed off on the agreement, which is supported by agricultural research and cooperation institutions such as IICA, CIRAD, the Tropical Agriculture Research and Higher Education Center (CATIE) and World Coffee Research (WCR), among other cooperation organizations keen to tackle the challenges faced by the region's coffee sector.

Coffee, IICA and the EU

Under the Central American Program for Integrated Coffee Rust Management (PROCAGICA), the EU and IICA pooled efforts to improve the living conditions of the population of Central America and the Dominican Republic, which resulted in the following achievements:

a) Capacity building on technological issues to improve productivity on 2635 hectares of coffee plantations in Guatemala, El Salvador, Honduras and Nicaragua.

b) Transfer of production diversification models through the planting of 15 different crops combined with coffee. This increased the income of small-scale producers on 667 hectares of farmland, and equipped them (69% men, 31% women and 16% young people) to adopt productive practices aimed at improving the viability of coffee production and the application of climate change adaptation and mitigation measures.

c) Capacity building for coffee processing, value added and improved profitability among 33 coffee farmer organizations.

d) Establishment of a regional network of 29 local bioinput production units that generate 58,000 liters of biofertilizers per month, used as a cheap alternative for increasing soil fertility on coffee plantations with less environmental impact.

IICA strengthened the institutional framework that underpins coffee production with the approval of the Regional Strategic Plan for Coffee Production in Central America and the Caribbean (MESOCAFE) by the Central American Agricultural Council (CAC); the participation in training events of 1466 extension workers who work for the agencies responsible for the coffee sector; 4276 direct visits to small producers by PROCAGICA's teams of technical officers; and support for the evaluation and monitoring of coffee rust.

In addition, the Latin American Symposium on Coffee Production and other specialized events made it possible to transfer research findings and promote innovation among the teams of coffee industry institutions, taking advantage of PROMECAFE's strengths in knowledge management, reciprocal cooperation and close links with partners and institutions that provide cooperation, such as the Universidade Federal de Viçosa (Brazil), the Universidad de la Frontera Sur de México, WCR, the UTZ certification program, OIRSA, FAO, the Neumann Foundation, the Famine Early Warning Systems Network (FEWS NET) and the Economic Commission for Latin America and the Caribbean (ECLAC), among others.

The oversight, support and monitoring of networks of specialists in the countries not only meant that experts were available to advise and orient the region's coffee industry on different priority issues, but also to coordinate the implementation of research and the sharing of results and successful experiences. This enabled the Institute to make the process of reciprocal cooperation among countries in the region more efficient and address the most important technical priorities in greater depth. The networks in question included the Coffee Genetic Improvement Network, the Climate and Coffee Network, the Environmental Footprint Network, the Network for the Promotion of Domestic Consumption, the Rust Races Network and the Network of the Early Warning System for Coffee.

PROMECAFE set out regional positions at events held to discuss and formulate coffee policies, which was very important to promote the economic sustainability of production and disseminate the views, priorities and future plans of producers in the region in dealings with global and regional agencies such as the International Coffee Organization (ICO) and the World Coffee Producers Forum, and in meetings of ministers of agriculture.

The project "Laying the Groundwork for an Early Warning System (EWS) for Coffee Rust," financed by FONTAGRO and implemented in coordination with CIRAD, CATIE and PROCAGICA, enhanced the technical expertise of coffee institutions and helped promote the sector's competitiveness by strengthening Coffee EWS at the national level, facilitate the setting up of a regional early warning network to monitor climate conditions and the advance of pests and diseases, and carry out actions designed to reduce the negative impact of climate change on the living conditions of families that grow coffee.

Forum for the Americas on Agricultural Research and Technology Development (FORAGRO)

IICA, through the Executive Secretariat of FORAGRO, organized an online consultation entitled "Digital agriculture and inclusion - Priorities for the agricultural research, development and innovation (RDI) agenda in Latin America and the Caribbean, which established the main constraints and priorities for the region with respect to RDI. The results of the consultation are available on FORAGRO's website. The FORAGRO

stakeholders who took part included public and private actors and academics involved in agricultural RDI systems (research organizations, producers, civil society and extension and cooperation agencies).

Regional Fund for Agricultural Technology (FONTAGRO)

IICA's cooperation with FONTAGRO included an analysis of opportunities for taking advantage of waste through innovative bioeconomy-based processes that could benefit family farming in LAC. This resulted in the identification of 56 specific technologies for that purpose.

Knowledge management

IICA, working in tandem with its public and private sector partners, such as ministries of agriculture and environment, international and regional cooperation agencies, private sector organizations, firms, universities and generators of knowledge, among others, strengthened knowledge management in agriculture by creating networks of experts to share knowledge and experiences on a given subject or product, and support processes in an advisory capacity. The first stage entailed establishing networks on coffee, cacao, water, good practices and seeds, to provide timely support for cooperation processes.

In Canada, the Institute established relations for the first time with the deans of 14 schools of agronomy, veterinary medicine and forestry to explore the opportunities for exchanging knowledge with the LAC countries. Furthermore, five students from Colombia, Argentina, Paraguay and Canada benefited from the IICA-Canada program of research grants, carried out in partnership with Fertilizer Canada, specialized centers in Alberta and universities (Montreal, Guelph, Manitoba).

The Institute signed memorandums of understanding with the following institutions, with a view to strengthening knowledge management and delivering technical cooperation to its member countries:

- Agrifood Campus of International Excellence (ceiA3)
- CATIE
- CIRAD
- International Food Policy Research Institute (IFPRI)
- New Mexico State University (NMSU)
- Universidad Politécnica de Madrid (UPM).

IICA also participated in a number of studies with its strategic partners. The following were some of the most important:

- The report "Future Foodscapes: Re-imagining Agriculture in Latin America and the Caribbean," an initiative led by the World Bank and supported by IFPRI, IDB, IICA and McKinsey & Company, among other organizations.
- Development and implementation of the nutrition smart agriculture concept and approach, as support for the World Bank and with the participation of FAO, IFPRI, IFAD, the International Center for Tropical Agriculture (CIAT)/Biodiversity, the Global Agricultural Information Network (GAIN) and the Japanese International Cooperation Agency (JICA). The results of this work will be used for decision making in the agriculture sector, to tap the potential for the development of safer and more varied, affordable and nutrient-dense foods, with a view to achieving simultaneously the objectives of agricultural profitability and nutrition security. Pilot projects were carried out in Guatemala and Haiti.
- Future publication in the *Journal of Nature Research* of an article entitled "A scoping review on incentives for sustainable agricultural practices: from adoption to outcomes," prepared with support from IFPRI, CIAT, FAO, IDB, IICA, the Center for Development Research (ZEF) and Ohio State University (OSU) under the Ceres2030 project on sustainable solutions to end hunger, designed to assist international donors as they determine how best ways to invest their resources to help put an end to hunger and guide development toward more sustainable food systems.
- Summary of the Forum on Financing and Financial Inclusion for the Development of Agriculture, Rural Areas and Food Systems in Latin America and the Caribbean, held at IICA Headquarters, which makes recommendations for concrete actions and policies to be implemented by individuals, firms, agricultural chains and rural territories, and at the macro level (IFPRI, IFAD/SAFIN partnership).

In addition, the Institute published the "Atlas of Agriculture in the Americas," based on which it implemented a system of indicators on the agricultural context of LAC, the principal crops by subregion, and the general context of the meat and dairy sectors in LAC, intended for use as a resource by agricultural decision-makers in IICA's member countries.

This publication complemented the effort that IICA has made for a number of years, working with the FAO and ECLAC to publish the report "The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean." This highlights key actions for achieving rural and agricultural transformation in LAC, and advancing toward the region's sustainable and inclusive development. In a special chapter on bioeconomy, specific proposals are made for the efficient, sustainable utilization of the extraordinary abundance of biological resources available in LAC.

Institutional relations and project management

In 2019, IICA laid the groundwork for increasing the opportunities for establishing external and institutional relations in a more strategic, structured and collaborative way, so that those relations help to realize the vision and achieve the objectives set out in the MTP. By broadening cooperation and partnerships with the private sector, public institutions (academia, research and government), international organizations, NGOs and community groups, the Institute was able to increase the mobilization of technical, financial and knowledge resources across the hemisphere, and the implementation of regional and multi-country projects and programs.

IICA's Open Door Initiative

The Institute opened its doors to afford people access to the different communities that operate within it. At Headquarters, the Traditional Rural House and the Fab Lab were inaugurated - cultural and technological spaces designed to demonstrate the history and potential of agriculture and rural life. Similarly, to raise awareness about the future of agriculture, IICA also began the pilot phase of the Interpretative Center for Tomorrow's Agriculture, which highlights the different biological, computer, physical and mechanical technologies that are transforming the agriculture sector across the Americas. There are also plans to construct the Plaza of Agriculture, a space for interaction and the demonstration of biodiversity for the community of Coronado and our visitors, which the Government of Costa Rica has declared to be of national interest.

Other actions that reflect our desire to reach out to the community were implemented in the countries. The open-air photographic exhibition "The natural countryside and its ecosystem services" was held at the Fotogalería del Parque Rodó in Montevideo, Uruguay[14]; the rural painting competition "Agricultura in Intibucá"[15] was carried out in Honduras; and "technological shop windows" were organized in Bolivia.

The efforts of staff across the organization to mobilize resources resulted in the negotiation and formulation of projects involving a total cost of USD 100 million, based on the identification of international calls for proposals, and the interest of donors in involving IICA in their proposals. At least 20 project proposals and conceptual notes were prepared in response to expressions of interest from the member countries, including the presentation of six technical proposals to the International Climate Initiative (IKI) on behalf of Argentina, Brazil, Colombia, Costa Rica, Peru, Mexico, Guatemala and Dominican Republic. The counterparts with which the Institute worked on these proposals included the Development Bank of Latin America (CAF), CATIE, the

[14] Carried out with the Photography Center of Montevideo, the Ministry of Livestock, Agriculture and Fisheries (MGAP), the Forum on Livestock Farming on Natural Grazing Land (MGCN) and the Agricultural Plan Institute.

[15] Held in collaboration with the Secretariat of Agriculture and Livestock (SAG), the Chamber of Commerce and Industries of Intibucá and the Municipality of Intibucá.

Foundation for the Development of the Central Volcanic Mountain Range of Costa Rica (FUNDECOR) and the Brazilian Development and Sustainability Institute, among others.

The Institute created the Goodwill Ambassadors Program, whose mission is to promote IICA's key role in agriculture and rural development in the Americas. This program reinforces the institutional efforts to establish new partnerships, build bridges, attract new stakeholders and raise awareness of the fundamental importance of our agriculture and rural development here in the Americas. Thus far, five certificates have been granted for individuals to serve as ambassadors. All the people concerned have had outstanding careers, and their efforts and achievements have been recognized both nationally and internationally. All recipients must also have a desire to contribute and share their talent, be it from the world of the arts, literature, business, sport or other areas of public life. The first five individuals are:

- Alysson Paulinelli, a Brazilian politician and entrepreneur who was awarded the World Food Prize in 2006.
- Susana Balbo, a businesswoman and entrepreneur from the world of Argentine viniculture.
- Dennis McClung, founder and CEO of the NGO Garden Pool, devoted to research and education on sustainable agriculture.
- Jens Mesa Dishington, an economist and representative of producers' associations in Colombia.
- Hugo Sigman, an Argentine physician and precursor of a business conglomerate in the pharmaceutical, agro-forestry, cultural, nature and design industries.

IICA worked tirelessly to establish and strengthen ties with strategic partners that contribute to the development of its member countries, such as the following:

- Multilateral banking institutions: World Bank, IDB and CAF
- EU
- Ministries of agriculture of all the Member States
- International agencies: FAO, IFAD, UNDP, CTA, etc.
- National cooperation agencies: AECID (Spain), AICS (Italy), KOICA (Korea), COSUDE (Switzerland), CIDA (Canada), etc.
- High Commissions of Australia and New Zealand
- Autonomous Community of Valencia and Regional Governments of Extremadura, Andalusia, Castile and León (Spain)
- KfW (German bank)
- Microsoft
- FUNDECOR
- Pan American Development Foundation (FUPAD)
- BAYER
- International centers: IFPRI, CIP, CATIE, CIRAD, etc.
- UN World Tourism Organization (UNWTO)

- 4H International
- CORTEVA
- CODESPA Foundation
- Universidad Cenfotec, Costa Rica
- BBVA Microfinance Foundation
- Universities: Costa Rica, O'Higgins, Iowa State, Ohio State, Texas Tech, Texas A&M, Complutense de Madrid, and many others
- Carolina Foundation
- Winrock International
- AgriCord
- CONGENIA
- Ibero-American Social Security Organization (OISS)
- Cooperatives of the Americas
- Caribbean Development Fund (CDF), to improve safety systems in slaughterhouses in Grenada
- FIEDS, with which the "Peasant Family Farming Seal" was implemented on the northern border of Ecuador
- Brazilian Development and Sustainability Institute

In addition, IICA made progress with its work programs with CIAT, Universidad Zamorano and Solar Head of State (SHOS), as well as the preparation of a strategic document and the establishment of a database on strategic partners.

Executive Committee (EC)[16]

The Thirty-ninth Regular Meeting of the EC took place from 16-17 July 2019 in San Jose, Costa Rica. The meeting was chaired by Mr. Michael Pintard, Minister of Agriculture and Marine Resources of The Bahamas. The Committee adopted a series of resolutions dealing with the following matters:

- *Institutional policy and technical cooperation services*

The EC approved the 2018 Annual Report of IICA, which contains information about the cooperation activities carried out during that year, and programming, budgetary and financial matters related to the Institute's work.

In compliance with Resolution No. 506 of the Inter-American Board of Agriculture (IABA), the results of the strategic analysis of IICA were presented to the EC. The analysis highlighted the efforts designed to improve the institutional modernization processes in order to provide technical cooperation of excellence and achieve greater administrative efficiency through the implementation of a culture of processes.

- *Budgetary and financial matters*

The EC recommended that the IABA approve the 2020-2021 Program-Budget. The Committee also received the Institute's financial statements for 2018, the report of the external auditors and the Director General's report on the auditors' qualified opinion with regard to the 2018 financial year.

- *Partnerships with international organizations*

The EC received the reports of the Tropical Agriculture Research and Higher Education Center (CATIE), for the period 2017-2018, and the Caribbean Agricultural Research and Development Institute (CARDI), covering the 2018-2019 biennium. It also discussed and welcomed the "Strategy for the future of CATIE", prepared by an *ad hoc* working group, and asked the Director General of IICA to inform the Twentieth Regular Meeting of the IABA of what the Committee had decided, in compliance with IABA Resolution No. 507.

[16] The EC was comprised of representatives of the following Member States: Bahamas, Brazil, Canada, Chile, Costa Rica, Honduras, Panama, Peru, St. Kitts and Nevis, St. Vincent and the Grenadines, Uruguay, and Venezuela.

- *Matters related to IICA's governing bodies*

The EC approved the Report of the 2019 Regular Meeting of the Special Advisory Commission on Management Issues (SACMI), as well as the report on the status of the resolutions adopted at the Nineteenth Regular Meeting of the IABA and the Thirty-seventh Regular Meeting of the EC.

It also endorsed the formalization of IICA's agreements with various strategic partners, which will further strengthen the Institute's technical cooperation; and acknowledged the importance of strengthening links among the public and private sectors and civil society for areas of agricultural development in the Americas for which international cooperation is available.

Conference of Ministers of Agriculture of the Americas - Twentieth Regular Meeting of the Inter-American Board of Agriculture (IABA)

This event took place in San Jose, Costa Rica, from 29-31 October 2019.

During the Conference of Ministers of Agriculture of the Americas, whose theme was "Cultivating Tomorrow's Agriculture Today," three technical forums were held in which representatives of the private sector and IICA Member States discussed the opportunities for rural inclusion in the digital era, new balances between productivity and sustainability, and health, safety and quality for the future of trade.

The discussions led to the adoption of seven agreements designed to guide the Institute's actions at the national, regional, and hemispheric levels. These agreements will enable IICA to strike the greatest possible balance between productivity and the environmental, economic and social sustainability of agricultural production; promote the development of connectivity infrastructures to permit stakeholders to access and use the new technologies; strengthen partnerships among the public and private sectors and civil society; meet the needs of modern, connected, competitive, market-integrated and environmentally, economically and socially sustainable agriculture; strengthen the health, safety and quality mechanisms that contribute to countries' preparedness to tackle emerging pests and diseases; promote adaptation and mitigation actions to reduce the effects of climate change on vulnerable rural areas; and foster the construction of development strategies and plans for the bioeconomy in agriculture.

At its Twentieth Regular Meeting, the IABA, chaired by Mr. Osmar C. Benítez, Minister of Agriculture of the Dominican Republic, adopted a number of resolutions dealing with the following matters:

- *Institutional policy and technical cooperation services*

The IABA received the Report "The **Outlook** for **Agriculture** and Rural Development in the Americas: A Perspective on **Latin America** and the Caribbean," produced jointly by the Economic Commission for Latin America and the Caribbean (ECLAC), the United Nations Food and Agriculture Organization (FAO), and IICA.

It also studied the strategic proposal on the future of CATIE, which it had requested in its Resolution No. 507. After discussing the proposal, the IABA set up a special committee, comprised of representatives of Mexico, Honduras, Costa Rica, Ecuador, Jamaica and the United States, and tasked it with analyzing the desirability of making the Center part of IICA, as a department specializing in technical and scientific research and post-graduate education in the agricultural sciences.

- *Budgetary and financial matters*

The IABA approved the 2020-2021 Program-Budget and welcomed the report on the collection of Member State quota contributions, the report on IICA's financial statements for 2017 and 2018, and the reports of the Audit Review Committee (ARC).

- *Matters related to IICA's governing bodies*

The IABA approved the Director General's report on the most important activities carried out during his first two years in office. It also welcomed the report on the status of the resolutions of the Nineteenth Regular Meeting of the IABA and the Thirty-eighth and Thirty-ninth regular meetings of the EC.

- *Partnerships with international organizations*

The IABA endorsed the formalization of IICA's cooperation agreements and memorandums of understanding with new strategic partners, such as the 4-H organization, the World Tourism Organization (WTO), the University of Costa Rica (UCR), CENFOTEC University, the CODESPA Foundation and the firm Corteva Agriscience, which will strengthen the technical cooperation that the Institute provides to the countries.

Official meetings held in 2019

Official name	Date	Venue	Place and date of publication of the report or proceedings of the event
2019 Regular Meeting of the Special Advisory Commission on Management Issues (SACMI)	8 May	Virtual meeting held from IICA Headquarters in San Jose, Costa Rica	San Jose, Costa Rica, 29 May 2019
Thirty-ninth Regular Meeting of the Executive Committee	16-17 July	San Jose, Costa Rica	San Jose, Costa Rica, 30 September 2019
2019 Conference of Ministers of Agriculture of the Americas - Inter-American Board of Agriculture (IABA)	29-31 October	San Jose, Costa Rica	San Jose, Costa Rica, February 2020

Principal corporate management results

Strategic management

Seven principles were applied to make further progress with the commitment to achieving a **modern, efficient IICA**: a) transparency and accountability, b) decentralization and operational flexibility, c) budgetary administration, d) efficient and effective support for technical cooperation, e) a results-based approach, f) a culture of processes, and g) timely information and communication.

The transformation of the Institute gained further momentum with the issuing of clear guidelines that facilitated the implementation of a series of efforts underpinned by the principles of transparency, collaborative and multidisciplinary work, decentralization and effective communication.

One of the most important developments was the **implementation of 12 macroprocesses** tailored specifically to IICA and co-created by the units spearheading the work in the areas of strategic management, project management, auditing, international relations, communication, and knowledge management, all of which were documented and represented in graphic form.

Six workshops were held to train 35 members of the Institute's staff to serve as managers of change. This enabled staff to internalize the key concepts for the implementation of the processes and gain a better understanding of the objectives, goals and steps to be followed in a culture of processes, and the importance of having a previously agreed roadmap to ensure the success of the efforts to bring about change.

The **culture of processes** that was adopted led to the creation of multidisciplinary teams that cut across institutional structures and challenge the organization's *status quo*. Thanks to these teams, implementation of the processes reached 76%.

With regard to oversight of the Institute, ten strategic declarations were prepared and disseminated, charting a common course towards the achievement of the objectives established by IICA and its member countries in the Medium-term Plan (MTP) for the period 2018-2022. These guidelines, coupled with 45 indicators designed to achieve the goals approved by the General Directorate, will enable the Institute to better align its annual plans with the three-year tactical planning exercises, thus ensuring that it advances in the right direction.

IICA implemented an **integrated planning** exercise that improved the links among the various spheres of work (technical/administrative, regional/national and short/medium term). More than 400 cooperation and administration instruments were reviewed for annual programming and budgeting purposes. The work of monitoring the goals set revealed that nearly 85% the results expected in 2019 were achieved.

Our commitment to **results-based management** was reflected not only in the use of new tools that have enabled us to be more assertive in preparing and implementing our work plans, but also with regard to the transparency and objectivity with which we apply the institutional yardsticks used to evaluate projects and the performance of units. Evaluations were carried out in line with the Institute's policies and the best practices of development agencies keen to improve the achievement of their results, specifically in the case of the Project to Increase Banana Productivity in Belize, the Central American Program for Integrated Coffee Rust Management, the Internship and Research Scholarship Program (Canada), the Regional Cooperative Program for the Technological Development and Modernization of Coffee Production (PROMECAFE), IICA's agreement with the Central American Agricultural Council (CAC) and our work in Barbados and Uruguay.

In tandem with the above, progress was made with the **automation of processes** to facilitate decision-making. In addition, the Institute integrated the systems used for its operations (SAP, SUGI and SAPIENS), making it possible to view key data on our units in real time. Likewise, the use of business intelligence tools, such as 49 dynamic dashboards, allows our offices and project coordinators to keep track of the progress being made toward the achievement of the technical goals and the status of the financial execution of projects.

Furthermore, the creation of multidisciplinary teams, comprised of members of staff based at Headquarters and in the delegations in the countries, enabled IICA to promote more effectively the **decentralization** of administrative actions, and to facilitate the respective processes, such as the procurement of goods and consultants' services. A new manual was produced on the management of external resources that is expediting the formalization of agreements and the securing of resources through our delegations. The names of supervisory positions were also standardized, the Procurement Center was implemented, and a network of administrators was established to facilitate the sharing of experiences and resolve issues that arise during the Institute's day-to-day work.

To **increase the levels of communication** between Headquarters and the Institute's 34 offices in its member countries, a network of administrators was created to enable the officials who administer the offices and support the cooperation services to share experiences and raise issues related to the management of IICA.

Budget and Finance

In 2019, the aim in applying the principles of austerity, rationalization, equity and transparency was to ensure the economic viability and sustainability of the technical cooperation actions of excellence carried out in all the Member States. We have optimized the use of our resources to ensure that all our operations flow correctly and comply with the established rules and procedures, to identify opportunities for improving financial planning and efficiency, and to facilitate operations in the delegations.

Our units also received support and training in financial-accounting matters and in the use of the SAP system, to guarantee the reliability of financial information and the administrative management of external resources.

An important milestone in the management of our resources was reached when the auditors presented a clean report (unqualified opinion) on the financial statements for the years 2018 and 2017. This was achieved thanks to the actions undertaken by the Administration to conduct actuarial studies and an analysis of the quota contributions receivable from the Member States, based on the latter's payment histories. Furthermore, the IABA approved the 2020-2021 Program-Budget without observations, endowing the Institute with the basic resources required for its operations during that period.

Thanks to the Institute's efforts, USD 32.5 million in Member State quota resources were collected, making it possible to execute the annual budget and reducing the amount owed in arrearages from previous years by USD 3 million. The total amount executed rose to USD 40.3 million, made up from quota payments, miscellaneous income, and the recovery of indirect costs (ICR). In addition, the amount executed under externally funded projects was USD 113.9 million.

To continue the process of developing a modern, responsive and effective IICA, and to **strengthen the organization's financial capabilities**, the Institutional Pre-investment Fund for the Management of External Funding Opportunities (FONPRI) was created and endowed with USD 900,000 in seed capital. This led to the mobilization of USD 28 million that will be allocated to new projects for agricultural and rural development in the Americas.

Human talent

Mindful that our biggest asset is our **human capital**, IICA analyzed the organizational culture and climate in depth. A survey conducted among our staff made it possible to establish a baseline, recognize points for improvement, boost our strengths as a team, and define roadmaps for improving the performance of the different teams.

Based on the survey, a toolbox was created to support leaders and their team members with the development of soft skills. The most important of the tools in question were as follows: a) an individual performance map, setting in motion a continuous dialogue between leaders and their team members for better planning and monitoring of the work carried out; and b) a conscious leadership hub, under the aegis of which two workshops were held: one for staff at Headquarters and another for the Spanish-speaking personnel of the Institute's offices in the countries.

Fourteen restructuring exercises were carried out in our offices to help boost their technical and administrative capabilities. In some cases, this entailed the redesign of

the way in which they operated, or adjustments in their personnel structures, to make better use of resources.

In addition, the short-term insurance (travel and consultants) policy was tweaked to make it more effective and reduce the number of claims.

Information technologies and services

IICA has a new Web portal (www.iica.int), whose simple graphic interface provides access to the different institutional content, including the catalogue of technical cooperation initiatives, where users can find summaries of the Institute's efforts by country and region.

Other examples of actions related to IICA's corporate services, aimed at optimizing operations and rationalizing the use of resources, are as follows:

- Simplification of the process of formalizing international travel (two steps instead of eight) and the processing of contracts (now takes two days instead of ten), concentrating the work in specialized units.
- The renegotiation of contracts with providers of systems, insurance and services, achieving savings of at least USD 26,000.
- Awareness-raising campaigns for the staff at Headquarters to reduce the use of paper, resulting in savings of USD 14,000.

The improvements in infrastructure included the implementation of various demonstration projects for agricultural development and initiatives designed to strengthen IICA's ties with neighboring communities, such as:

- The FAB-LAB technology laboratory, which will promote innovation through the development of solutions based on the Internet of Things, including prototypes of water oxygenation and sensor-based irrigation, and digital literacy for rural women entrepreneurs in Costa Rica.

- The Interpretive Center for Tomorrow's Agriculture, which will permit visitors to IICA to experiment with Agriculture 4.0 digital technologies.

- The traditional rural home and the mural depicting agriculture in the Americas, which exemplify our commitment to raising awareness of the importance of agriculture and rural life.

Finally, the Institute's facilities have been maintained in good condition and efforts made to improve staff well-being through a number of initiatives, including breast-feeding and recreation rooms, and an ecumenical space.

Annexes

Annex 1

30 rapid response actions carried out in 2019

Year	Name	Country	Amount allocated (USD)
2018	Participatory drafting of departmental agricultural and rural development projects with a territorial approach and an emphasis on the strengthening of family farming and productive partnerships, with the Ministry of Agriculture and Livestock and the local governments of selected departments	Paraguay	25,000.00
2019	CIP recovery cost for importation of 34 varieties of potato (*Solanum tuberosum*) by MICAF and CASE under the South-South Cooperation Initiative	Jamaica	2,115.00
2019	Strengthening of technical cooperation actions in Venezuela's agricultural and agrifood sector	Venezuela	25,000.00
2019	Technical assistance provided to the MOAFF towards the formulation of their 2019-2020 work plan, through the strengthening of the capacities of senior technicians in the development of work plans, including the aligning of the budget to the plan; and strengthening capacities of the technicians on evaluation and monitoring of programs	Dominica	2,360.00
2019	Support for the technical strengthening of the Ministry of Agriculture in the marketing of dairy products and quarantine programs in the Dominican Republic	Dominican Republic	12,000.00
2019	Support for the Government Elect of El Salvador with the design of the underpinnings of an agricultural modernization program in El Salvador 2019-2024	El Salvador	27,117.00
2019	IICA-MTSS capacity building program for young people and rural women	Costa Rica	7,000.00
2019	Organization of the International Seminar "Climate Change and Global Food Security: Challenges and Opportunities for Regional Agriculture"	Argentina	30,000.00
2019	Strengthening of technical capabilities of the secretariats of agriculture, for the design of the departmental agricultural extension programs (PDEA) in 15 departments of Colombia	Colombia	25,000.00
2019	Drafting of the technical proposal for the Bioeconomy-based Technological Park in Sucre	Bolivia	9,458.00
2019	Support for execution of work and responsibilities of the special advisers, as well as work related to the Management Committee in the Caribbean (MCC)	Trinidad & Tobago	30,000.00
2019	Establishment of a laboratory specializing in technological management and innovation for Costa Rica's agricultural sector	Costa Rica	30,000.00
2019	Support for the National Council of Secretaries of Agriculture, to strengthen the teams of the agriculture	Colombia	24,000.00

	secretariats with a view to the departmental elections in 2019		
2019	Decision-makers' fact-finding mission to Colombia and Peru for growing a national cocoa sector under frosty pod rot - 8-15 July 2019	Jamaica	2,888.00
2019	Building the emergency response capacity in the COSAVE Region: prevention and management of *Drosophila suzukii*	Headquarters	13,311.00
2019	Transfer of skills and knowledge in apiculture through triangular cooperation among Argentina, IICA and Caribbean countries	Barbados	13,914.00
2019	Technical assistance for the planning and implementation of the drafting of the Five-year Development Plan for 2019-2024	El Salvador	15,000.00
2019	Funding of IICA Agrotourism Award at Caribbean Tourism Organisation Sustainable Tourism Conference	Barbados	2,676.00
2019	Building capacity for effective risk and disaster response in Trinidad and Tobago	Trinidad & Tobago	15,000.00
2019	Support to the MoA for the control of pests in corn (*Zea mays*)	Haiti	15 000.00
2019	Enhancing the utilization and profitability of livestock products through value-added for meat	St. Kitts & Nevis	5,000.00
2019	Community participation for eradication of the giant African snail in Antigua and Barbuda	Antigua & Barbuda	10,000.00
2019	Supporting the development of a food certification system for St. Vincent and the Grenadines	St. Vincent & the Grenadines	9,600.00
2019	Building capacity for the rapid response and long-term management of citrus greening (*Huanglongbing*) in Saint Lucia	St. Lucia	9,995.00
2019	Restoration of rural livelihoods through agricultural sector rehabilitation in the Bahamas in the aftermath of Hurricane Dorian	Bahamas	49,167.00
2019	Twelfth Regional Planners Forum on Agriculture	Guyana	30 000.00
2019	Technical training and research mission for the transfer of knowledge and technologies in agroforestry systems, sustainable agriculture and payments for environmental services	Headquarters	14,400.00
2019	Support for technical actions related to aspects of SPS in Nicaragua, to improve the response capacity of the country's government animal health systems, the maintenance of its animal health status, and national pork production, given the risk of the entry of the African swine fever (ASF) virus	Nicaragua	5,500.00
2019	Workshop on Biosecurity *Fusarium oxysporum f.sp. cubense* - tropical race 4	Headquarters	9,000.00
2019	Sustainable stock-raising for grazing cattle in Tabasco State	Mexico	980.00
			Total IICA resources invested: USD 470,481.00

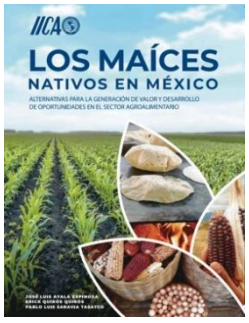
Source: Directorate of Corporate Services.

Annex 2
Principal IICA knowledge products

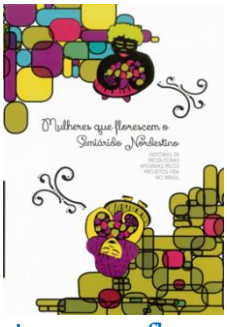
IICA virtual campus https://elearning.iica.int/	33 courses went online that benefited 25,700 people in 81 countries. The basic costs were USD 30,000 per course and USD 30 per person. The value of the contribution is put at USD 1,800,000.
Alliance of Agricultural Information Services - SIDALC www.sidalc.net	This alliance, made up of 178 institutions, has been providing services for 20 years. It operates a total of 349 databases, which were consulted by 2,980,919 users, who viewed 16 million pages. Some 39,940 articles were distributed among partners, which represented savings of USD 1,997,000 in knowledge resources mobilized.
AgriPerfiles http://agriperfiles.agri-d.net/	This platform was updated and new institutions added. It hosts 13,422 professional profiles.
Integrated library management system http://opac.biblioteca.iica.int/	The platform was completely overhauled. A further 169 documents were included and 400 full-text links added, making a total of 115,195 resources available across all the Institute's libraries and documentation centers: the Orton Memorial Library, Headquarters, Argentina, Brazil, Jamaica and Colombia.
Institutional repository https://repositorio.iica.int/	The platform was updated. It contains 8279 institutional digital resources.
IICA PLAY https://iica.play.livearena.com/	Under this joint initiative with Microsoft, 555 digital videos were made available and viewed 3000 times.
Technical cooperation initiatives http://apps.iica.int/dashboardproyectos/	Information about 334 technical cooperation actions was digitized and is available on the Institute's website.

Examples of recent publications:

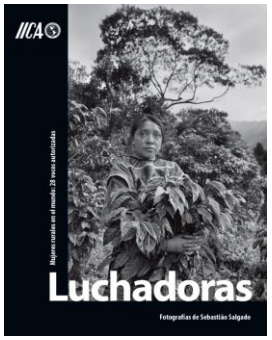
Atlas for agriculture in the Americas



Los maíces nativos en México



Mujeres que florecen en el semiárido nordestino



Warriors

Source: Center for Knowledge Management and Horizontal Cooperation Services.

Annex 3
Number of scholarship recipients under the different programs

More than 300 applications for scholarships were forwarded to the Fundación Universitaria Ibero-Americana (FUNIBER), eleven of which were successful. IICA Headquarters granted 43 internships (to 35 Costa Rican citizens, 5 Spaniards, 1 Mexican, 1 Colombian and 1 Dominican). Our delegations in Paraguay, Brazil, and Mexico also granted one internship each.

Country	FUNIBER Scholarships	IICA Internships	Total
	Master's degrees		
Argentina	1		1
Brazil		1	1
Costa Rica	4	43	47
Ecuador	2		2
El Salvador	1		1
Honduras	1		1
Mexico	2	1	3
Paraguay		1	1
Total	11	46	57

Acronyms

AGROCALIDAD	Plant and Animal Health Regulation and Control Agency (Ecuador)
AGROSAVIA	Colombian Agricultural Research Corporation
AHFS	Agricultural health and food safety
AICS	Italian Agency for Development Cooperation
AMR	Antimicrobial resistance
CAF	Development Bank of Latin America
CARDI	Caribbean Agricultural Research and Development Institute
CATIE	Tropical Agriculture Research and Higher Education Center
CIAT	International Center for Tropical Agriculture
CIDA	Canadian International Development Agency
CIP	International Potato Center
CIRAD	Agricultural Research Centre for International Development (France)
COLCIENCIAS	Administrative Department for Science, Technology and Innovation (Colombia)
CONSA	National Council of Secretaries of Agriculture (Colombia)
COPROFAM	Confederation of Family Farmer Organizations of the Expanded MERCOSUR
COSAVE	Plant Health Committee
COSUDE	Swiss Agency for Development and Cooperation
CTA	Technical Centre for Agricultural and Rural Cooperation
CUNOR	Centro Universitario del Norte (Guatemala)
CUNORI	Centro Universitario de Oriente (Guatemala)
CUNOROC	Centro Universitario de Nor Occidente (Guatemala)
CUNZAC	Centro Universitario de Zacapa (Guatemala)
CUSAM	Centro Universitario de San Marcos (Guatemala)
CVP	Standing Veterinary Committee
EC	Executive Committee (IICA)
ECLAC	Economic Commission for Latin America and the Caribbean
ECOMUN	Economías Sociales del Común (Colombia)
EMBRAPA	Brazilian Agricultural Research Corporation
EU	European Union
FAO	United Nations Food and Agriculture Organization
FEDEGAN	Colombian Federation of Stockbreeders
FIEDS	Italo-Ecuadorian Fund for Sustainable Development
FINAGRO	Fund for the Financing of the Agriculture Sector (Colombia)
FOC-TR4	*Fusarium* Tropical Race 4
FONTAGRO	Regional Fund for Agricultural Technology
FORAGRO	Forum for the Americas on Agricultural Research and Technology Development
FSMA	Food Safety Modernization Act (United States)
FUNDECOR	Foundation for the Development of the Central Volcanic Mountain Range (Costa Rica)
FUNIBER	Ibero-American University Foundation
GAP	Good agricultural practices

HLB	*Huanglongbing* (citrus greening disease)
IABA	Inter-American Board of Agriculture
ICOA	Inter-American Commission of Organic Agriculture
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IICA	Inter-American Institute for Cooperation on Agriculture
IILA	Italo-Latin American Institute
ILO	International Labor Organization
INIAP	National Agricultural Research Institute (Ecuador)
ITMES	Maya Technological Institute of Higher Education (Guatemala)
KOICA	Korea International Cooperation Agency
LAC	Latin America and the Caribbean
MADR	Ministry of Agriculture and Rural Development (Colombia)
MAG	Ministry of Agriculture and Livestock (Costa Rica, Ecuador)
MinTIC	Ministry of Information and Communication Technologies (Colombia)
MRL	Maximum residue level
MTP	Medium-term plan (IICA)
NGO	Nongovernmental organization
OIRSA	International Regional Organization for Plant Protection and Animal Health
PFF	Peasant family farming
PROCAGICA	Central American Program for Integrated Coffee Rust Management
PROCINORTE	Cooperative Program in Research and Technology for the Northern Region
PROCISUR	Cooperative Program for Agrifood and Agroindustrial Technology Development in the Southern Cone
PROCITROPICOS	Cooperative Program for Agricultural Research, Development and Innovation in the Tropics
PROMECAFE	Regional Cooperative Program for the Technological Development and Modernization of Coffee Production
RDI	Research, development and innovation
REAF	Specialized Meeting on Family Farming (MERCOSUR)
SAFIN	Smallholder and Agri-SME Finance and Investment Network
SENA	National Learning Service (Colombia)
SICA	Central American Integration System
SPS	Sanitary and Phytosanitary Measure
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
UNIMINUTO	Corporación Universitaria Minuto de Dios (Colombia)
UNWTO	World Tourism Organization
UPRA	Agricultural Rural Planning Unit (Colombia)
USDA	United States Department of Agriculture
WCR	World Coffee Research
WTO	World Trade Organization