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Inter-American Institute for Cooperation on Agriculture (IICA), 2022















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Message from the Director General

Over the past two years, the world has been facing a crisis that has revealed the vulnerability of society and many areas of the economic, health and environmental sectors. The specter of war and the humanitarian crisis that arose in Eastern Europe in early 2022 have only exacerbated this situation.

Eighty years ago, the Inter-American Institute for Cooperation on Agriculture (IICA) emerged as a beacon of light that has guided the path towards peace, agricultural development and rural well-being. Through its work in the Americas, the Institute has demonstrated that rural areas can be key pillars for food security in the world, through agriculture, a sector that provides a livelihood for millions of farmers and protagonists enjoying a vibrant rural life.

Since the outbreak of the COVID-19 pandemic, the agriculture sector and its stakeholders have proven their resilience. Food production remained in full force and producers have continued to supply markets without pause, despite the increase in poverty and destitution, which has affected the food security of millions of people.

Amidst this crisis, the agriculture sector, agrifood systems and rural territories of the Americas were able to position themselves as strategic assets and launch pads to reactivate economies and increase value added in production chains at the global level.

Within this context, IICA has worked alongside the countries to foster a knowledge-intensive agriculture sector with a human face, that works in harmony with the environment. Given the Institute's need to remain up to date, it has adapted and strengthened its capacity for anticipation, as well as its relevance, productivity and financial soundness.

Rather than distancing us from our member countries and partner institutions, the pandemic has brought us closer together, with the organization serving as a bridge between the public and private sectors. Through the extensive use of virtual tools and networking, we have strengthened our digital capabilities, which, in turn, has boosted work productivity.

There is compelling evidence of the results and impact of IICA's technical cooperation at all levels: national, regional and hemispheric. One of these results was the consensus reached by countries of the Americas on 16 key messages that the Institute prepared regarding the strategic role played by agriculture. At the Twenty-first Regular Meeting of the Inter-American Board of Agriculture (IABA), the Member States of IICA resolved to request that the head of the Board, the Institute's highest governing body, and myself, as the Director General of IICA, send those messages to the United Nations Food Systems Summit 2021, on behalf of countries of the Americas.

The countries also requested that the Medium-term Plan (MTP) for the period 2022-2026, IICA's roadmap, include a strategic and proactive approach to agrifood system transformation in the Americas that enhances the contribution of the hemisphere's agriculture sector to global food and nutrition security, while recognizing the important role of agricultural producers in this process, generating solutions to respond to the priorities of the countries, and establishing partnerships and coalitions with all production sectors.

With respect to support at the multiregional level, the Institute coordinated efforts to address pests and diseases that affect agriculture and the economy in general, such as African swine fever and the Fusarium Tropical Race 4, as well as to internationalize environmental conservation, through better soil use, and to respond to various natural phenomena that occurred in several of our member countries.

At the national level, together with our member countries, we achieved relevant results in the areas of digital inclusion, agricultural health, research, trade, climate change, cooperative undertakings, family farming, the bioeconomy, and gender and youth, among other areas.

IICA's management has adhered to the principles of transparency, good administrative practices and accountability, with a focus on achieving results and implementing processes in all of the organization's actions. This approach is strengthened on a daily basis to address challenges more efficiently, together with the countries and more than 200 partners worldwide.

Another noteworthy milestone was the Institute's accreditation by the Green Climate Fund (GCF), which opens up more opportunities for cooperation.

I have been granted the privilege of continuing to serve the Americas as Director General of the Institute for the period 2022-2026. In this capacity, I have renewed my commitment to consolidating the provision of innovative technical cooperation of excellence and strengthening the close ties between IICA and the governments of each of its Member States, the private sector, organized civil society and academia.

I am committed to building an open, up-to-date, flexible and efficient Institute, which I hope will soon become the first international carbon-neutral agency headquartered in Costa Rica. As part of the "IICA of Open Doors" initiative, which has already offered concrete solutions through the Interpretive Center for Tomorrow's Agriculture (CIMAG), the AGRO-ART virtual museum, the Fab-Lab innovation laboratory and the Plaza of Agriculture of the Americas that is currently under construction, we will open up new opportunities to continue gathering ideas, integrating issues and developing solutions to strengthen agrifood systems and design new generation public policies for agricultural and rural development, as key strategic pillars to continue generating conditions that are conducive to production, employment, well-being and peace.

I reiterate my commitment to our mission of offering technical cooperation services of excellence, working hand in hand with the protagonists of a new era who long to bequeath a better future to their children. At IICA, we are working to consolidate our standing as a great institution that provides technical cooperation for the agrifood systems of the Americas and looks outward to the world.

Today, more than ever, the world is crying out for unity. The pandemic has brought out the best in science, while also demonstrating the resilience of our agrifood systems, as well as the importance of public health, of the creativity and innovation of thousands of entrepreneurs, of the capacity for transformation of human beings and of the value of solidarity. It has also highlighted the need to reassess our lifestyles and give nature a break.

Jean Monnet said it best: "Nothing is possible without men, but nothing lasts without institutions".

Manuel Otero
Director General

Executive Summary

The Inter-American Institute for Cooperation on Agriculture (IICA) consolidated its “listen, propose and act” approach, which, despite the restrictions in movement imposed by the COVID-19 pandemic and the need to resort to an accelerated use of virtual tools, brought it even closer to the countries, with which it established an agenda of 293 pragmatic and innovative cooperation initiatives in the areas of bioeconomy, health, family farming, climate change, trade, innovation, gender and youth. Additionally, under the portfolio of externally funded projects implemented with 237 national and international partners, the Institute executed USD 151 million for the benefit of its 34 Member States.

The Institute maintained a close relationship with its member countries and partner institutions through numerous virtual events, during which ministers of agriculture, as well as representatives of civil society and public and private sector institutions, discussed priority issues and matters of interest to the main food systems stakeholders. Under the leadership of the Advisory Council for Food Security, established by IICA in response to the crisis triggered by the COVID-19 pandemic, more than 30 meetings, forums and independent dialogues were held with the participation of government representatives, farmers, academics and agricultural entrepreneurs in the Americas.

These activities for dialogue and exchange contributed to the Institute being included in the Multi-Actor Food Systems Champions Network, giving it the legitimacy to convene a series of hemispheric, regional and national technical dialogues, through which the countries of the Americas reached consensus on 16 messages regarding the strategic importance of agriculture. At the Twenty-first Regular Meeting of the Inter-American Board of Agriculture (IABA), the Member States of IICA expressed full support for the messages and requested that the Institute include a strategic approach to agrifood system transformation in the Medium-term Plan (MTP) for the period 2022-2026. The United Nations Climate Change Conference (COP26) and the global meetings on biodiversity further demonstrated the importance of the Institute’s member countries jointly voicing their common interests and priorities.

IICA’s efforts to harmonize these interests and priorities, as well as place agriculture at the top of the global agenda, were complemented by the production of eleven technical-propositional documents and the report prepared together with the Economic Commission for Latin America and the Caribbean (ECLAC) and the Food and Agriculture Organization of the United Nations (FAO) on the outlook for agriculture and rural development in the Americas. The Institute also created a knowledge management platform to scale up cooperation activities, as well as a virtual campus that offers 140 courses, which has provided training for more than 100,000 persons and certifications for 40% of them. Furthermore, through the Institute’s professional visits and internship program, 150 young participants made significant contributions to the Institute’s cooperation efforts.

At the regional level, IICA renewed its cooperation agreements with the Southern Agricultural Council (CAS) and the Central American Agricultural Council (CAC), as well as its cooperation plans with the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS), which provided a general framework for the organization of more than 40 intra- and extra-regional meetings and the execution of new cooperation activities for the benefit of the countries of those regions.

The following is a summary of the main results of the broad agenda carried out by the units at Headquarters and the 34 offices in the member countries, under the Institute's five technical cooperation programs:

- Capacity-building processes were carried out for the benefit of close to 5,000 persons, who recognized the potential of the bioeconomy as a development strategy. Additionally, the Institute participated in international meetings on this topic, aimed at promoting public policies and preparing concrete plans for various countries and production chains, as well as guides and catalogs aimed at strengthening the technological, organizational and entrepreneurial capacities of bioenterprises.
- In the interest of rural well-being in the Americas, priority was given to the provision of cooperation to better understand the status of family farming, as well as to improve institutional frameworks, support services and stakeholder capabilities within this production sector. The Institute also contributed to positioning cooperativism as an associative strategy, fostering the digitization of family farming as a way to boost its competitiveness, and raising awareness of the potential of territorial development to boost agricultural and rural well-being. In response to the crisis triggered by the COVID-19 pandemic, cooperation actions in support of public institutions were carried out to improve the performance of family farming and increase well-being in rural areas.
- IICA channeled efforts towards improving the access of agrifood products to international markets, as a means of reactivating economies in the aftermath of the COVID-19 pandemic; generating political and technical evidence on the value of rules-based trade and the importance of intraregional trade; organizing business roundtables; and strengthening the trade capacities of agricultural SMEs and chains¹. IICA continued to work extensively with the World Trade Organization (WTO) on matters related to the various committees of that organization and on knowledge sharing, as well as with the Market Information Organization of the Americas (MIOA) on price analysis and agricultural market information systems.
- By strengthening the capacities and knowledge of political leaders and authorities on the status of the world's climate and the relationship between climate and agriculture, the Institute contributed to bringing agriculture of the Americas to the forefront at major global climate-related events. IICA's accreditation by the Green Climate Fund (GCF) and other efforts resulted in the accelerated development of proposals for consideration by the countries and potential donors in the areas of resilient agriculture, sustainable soil management, water resource management and

¹ Olive oil, tobacco, sugar cane, cocoa, coffee, honey, dairy products, rice, livestock and vegetables.

climate-smart food production. Other relevant achievements were the implementation of the Living Soils of the Americas initiative, which will serve as a bridge between science and public management to restore and protect the region's soils, and the rapid response actions coordinated with various Member States to support countries affected by natural phenomena, with emphasis on the implementation of reconstruction or production rehabilitation programs.

- In the area of agricultural health, more than 5,000 persons received training in the following topics: Food Safety Modernization Act (FSMA) of the United States, transboundary diseases, African swine fever, Fusarium, huanglongbing, leaf rust, pesticides, use of dairy terms, food labeling and leadership, among others. This was complemented by efforts to modernize plant health, animal health and food safety services. In response to the health emergency caused by COVID-19, training events on preventive measures for the agriculture sector were carried out. Initiatives were developed with a view to improving coordination with the WTO's Committee on Sanitary and Phytosanitary Measures (SPS); the World Organization for Animal Health (OIE), particularly with respect to the Terrestrial Animal Health Code chapters; and Codex Alimentarius. The Institute delved into the innovative topic of prospective phytosanitary intelligence (PPI), for the benefit of seven countries; contributed to the establishment of a food safety information platform for the Caribbean; and made progress in implementing the One Health approach, emphasizing the need to develop apps that would facilitate its application based on the priorities of the countries and regions.
- Across all of these programs, IICA actively addressed matters related to agricultural innovation, which are of great relevance to digitization, competitiveness, equity and sustainability. The various regional mechanisms in which the Institute participates, such as the cooperative programs for agricultural research and technological development (PROCIAs), the commissions, forums and agricultural technology funds, continued to interact and serve as ideal means for delivering technical cooperation.
- Lastly, in the area of gender and youth, the First Forum of Female Ministers and Deputy Ministers of Agriculture of the Americas was established, as were women's platforms and networks, which will contribute to knowledge sharing, public policymaking and the implementation of solutions to shine the spotlight on women's leading role in food systems. Additionally, as part of the IICA of Open Doors initiative, the Institute organized hackathons and other events to continue to encourage the younger generations to become involved in "Agriculture 4.0".
- The IICA of Open Doors initiative enabled the Institute to project the image of a modern organization that fosters innovation, through the expanded Interpretive Center for Tomorrow's Agriculture (CIMAG), which was inaugurated during the Twenty-first Regular Meeting of the IABA; the Digital Fabrication Laboratory (Fab-lab) and the start of construction on the new Plaza of Agriculture of the Americas, which will enable the international organization to draw closer to communities in the vicinity of San José, once the plaza is inaugurated as part of the upcoming celebrations for IICA's 80th anniversary.

- The Institute established the Advisory Committee on Public Communication, which supported and bolstered the Institute’s intensive efforts to communicate the results of its work, which were disseminated in the press and on social media, such as Facebook, Twitter, LinkedIn, Instagram and YouTube. The number of times IICA was mentioned in the media tripled and the number of readers of IICA content rose from 1 million to 11 million. More than 300 technical publications are available at <https://www.iica.int/en> and in the institutional repository, which has reached 2.5 million users per year.
- The network of strategic partnerships has grown steadily to 237 partners. IICA has agreements with 124 public institutions in 34 countries, 15 agreements with financial institutions, and work plans with 16 private-sector organizations and 16 knowledge centers. Particularly noteworthy is the joint work with the Tropical Agricultural Research and Higher Education Center (CATIE), the Regional Fund for Agricultural Technology (FONTAGRO), the Inter-American Development Bank (IDB), the United Nations, the GCF, the Global Environment Facility (GEF), the International Regional Organization for Plant and Animal Health (OIRSA), the Alliance for a Green Revolution in Africa (AGRA), PepsiCo, Bayer, Microsoft, Lego Co., World Vision and Itaipú, among other international research centers, academic institutions, multilateral banking agencies, non-governmental organizations, public agencies and private sector companies.
- The Institute has also benefited from contributions from many countries, including Australia, Germany, France, Spain, New Zealand and Korea, as well as the European Union, which have contributed to the efforts of IICA’s 34 Member States to build an innovative, digital, resilient and humanitarian agriculture sector.
- Finally, the process approach applied in the administrative area has improved efficiency, institutional alignment, coordination and collaborative work. Furthermore, a robust new business model with clear guidelines on the value added by the Institute was formulated and implemented, 16 offices were restructured, the budget was updated based on the demands of the countries, the use of resources was optimized (from USD 41 million to USD 34 million) and the amount of time required to approve externally funded projects was reduced by 80%. IICA also automated its operations, updated its regulations, implemented an effective work-from-home program, accelerated the mobilization and execution of external resources, conducted a self-evaluation among staff, implemented a risk management program, took action to recognize staff performance and strengthened key capacities to offer better services. IICA was also able to maintain “clean” financial statements and increase its cash flow by 30% to begin the new year.

About IICA

With close to eight decades of experience, the Inter-American Institute for Cooperation on Agriculture (IICA) defines technical cooperation as a series of actions aimed at providing innovative solutions to the main challenges posed by agricultural and rural development in the Americas.

Our vision

*“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*

These actions are carried out through a broad network of offices – one in each Member State – and coordinated by Headquarters in Costa Rica. Throughout the Americas, the Institute’s more than 300 professionals contribute their technical capacities to deliver technical cooperation of excellence and collaborate with strategic partners at the global level. This team is spearheaded by Dr. Manuel Otero, a citizen of Argentina, who was reelected as Director General of IICA for the period 2022-2026.

Our services focus on the following areas:

- Bioeconomy and production development.
- Territorial development and family farming.
- Trade and regional integration.
- Climate change and natural resources.
- Agricultural health, safety and food quality.
- Gender and youth.
- Innovation.

Institutional mission

“Our mission is to encourage, promote and support our Member States in their efforts to achieve agricultural development and rural well-being through international technical cooperation of excellence”.

The impact of our work is reflected in the strengthening of institutional capacities, greater knowledge sharing among all key stakeholders in agriculture, the creation of modern public policies and their respective instruments, the effective management of technical projects and the coordination of a robust international agenda of interest to

the Member States that addresses the Sustainable Development Goals and the challenges associated with sustainable and resilient agrifood systems.

With the support of more than 200 national and international partners, present-day IICA is an innovative and results-driven organization that fosters constant listening, constructive dialogue and collaborative action to unleash the potential of American agriculture and the rural well-being of its inhabitants.

Main results in 2021

Based on the provisions of the Medium-term Plan (MTP) for the period 2018-2022, the Inter-American Institute for Cooperation on Agriculture (IICA) implemented an active agenda within the framework of its five hemispheric action programs² and two cross-cutting issues, achieving more than 90% of the programmed technical cooperation results.

An important milestone was the [consensus reached by the Americas, summarized in 16 messages](#) describing the perspective of agriculture in the hemisphere, which were presented at the first global Food Systems Summit. This hemispheric effort, led by IICA in its capacity as a member of the champions network of the Summit organized by the United Nations, was fully endorsed by the Inter-American Board of Agriculture (IABA), which also resolved to request that the Institute further its efforts to develop the food systems of the Americas.

As was the case in 2020, the expanded cooperation agenda of 2021 was implemented against the backdrop of the 2019 coronavirus pandemic (COVID-19). This prompted IICA to undertake efforts to mitigate the effects of the crisis triggered by the disease and to drive recovery. To this end, the Institute strengthened its capacity to utilize digital technologies in the delivery of products and services to the Member States, as well as in production and trade processes within the agriculture sector.

Together with its Member States and partners, the Institute implemented 293 technical cooperation actions at the national, regional and hemispheric levels, which included an investment of more than USD 151 million in agricultural development and rural well-being in the Americas.

The most relevant results achieved by IICA in each of its programs, cross-cutting issues and other units are described below:

Bioeconomy and production development

The Institute fostered the implementation of strategies aimed at promoting the bioeconomy and highlighting its relationship to food systems, which contributed to solidifying the standing of Latin America and the Caribbean (LAC) as a leading region in the provision of quality food and with ample capacity to harness the potential of the bioeconomy.

² Under the leadership of the technical program managers, 118 products were generated and a technical and financial execution rate of over 91% was achieved. This enabled IICA to respond to the needs of its 34 member countries and the five regions into which they are grouped.

More than 4,700 individuals in the Americas recognized the potential of the bioeconomy as a strategy for driving the development of the region and the countries, thanks to their participation in 27 events (seminars, workshops, panel discussions, virtual fairs and competitions) organized by IICA or timely access to information included in 18 articles published in magazines, blogs, papers and press releases.

Moreover, agricultural decision-makers in the Americas have gained a better understanding of the potential of the bioeconomy as a development strategy, as a result of IICA's efforts to bring the bioeconomy to the forefront at the region's most important policy forums, including the Meeting of Ministers of Agriculture of the Americas, the Food Systems Summit, the International Conference on Applied Bioeconomy Research (ICABR), the "Del Sur al Mundo" symposium and the UNESCO Chairs Program, among others.

Greater capacity for compost production in the Caribbean

In Barbados, Dominica, Grenada, Suriname and Saint Vincent and the Grenadines, IICA fostered capacity building for trainers and the sharing of experiences related to composting. IICA worked together with the Composting Council of Canada and the Caribbean Community (CARICOM) to establish quality standards, conduct training sessions and develop business plans for composting in the Caribbean region.

El Salvador, Guatemala, Ecuador and Paraguay made progress in developing strategies, policies and regulations to promote and regulate various sub-sectors of the bioeconomy (particularly biotechnology and bioenergy), thanks to the support provided by the Institute in the development of methodologies, roadmaps and proposed guidelines.

The Institute provided Uruguay with technical cooperation in support of its National Strategy for a Circular Bioeconomy based on the Satellite Account (SA)³ recommended by the United Nations for incorporation into national accounts.

Promoting the bioeconomy as a development strategy at the public and private levels was also prioritized in Argentina, where work focused on bioinputs and biofuels, in particular.

In Grenada, bioeconomic models for waste management were promoted, which allowed for expanding the commercialization of agricultural products, facilitating private sector investment and increasing the generation of resources.

More than 1,138 authorities and technical specialists from public agricultural institutions, producers, processors, academics, students and other stakeholders from the 34 countries of the Americas enhanced their capabilities in the areas of bioeconomy, biotechnology, biosafety, bioenergy and bioenterprises, through their participation in

³ The application of the Satellite Account allows for giving visibility to the economic impact of the bioeconomy on the country's production activities, encouraging the transition towards bio-based products that can capitalize on industrial, agricultural and livestock waste and make processes more efficient.

undergraduate programs, diploma courses, classes, seminars and workshops organized by the Institute in coordination with partners. IICA has 12 training programs available on its e-learning platform and those of other partners, such as the University of Buenos Aires, the Instituto de Estudios Superiores de la Ciudad de México Rosario Castellanos, the Central American Program for Integrated Coffee Rust Management (PROCAGICA) and the “Knowledge Management for the Adaptation of Family Farming to Climate Change” project (INNOVA-AF), among others.

With resources provided by the Government of New Zealand, a community bioinputs plant was established in the municipality of Culpina, Bolivia, benefiting 60 family apple farmers. In Peru, public and private stakeholders were able to increase their knowledge of this topic through training sessions on the circular economy⁴, the preparation of plans for the cocoa chain⁵ and the organization of dialogues on the challenges associated with innovation in the citrus, avocado and cocoa chains, together with the company PROJECT-A MAS S.A.C.

The Fund for Sustainable Access to Renewable Energy and Efficient Technologies (FASERTe), financed by ENDEV Global and executed by GIZ, allowed for providing individuals in 98 Bolivian municipalities with training in the use of nearly 800 energy-efficient technologies for production purposes, including irrigation pumps, electric fences and solar lights.

Biotechnology and biosafety

IICA implemented regulatory frameworks for biotechnology and biosafety in Guatemala and Honduras, based on which technical decisions are being taken regarding the introduction of modern biotechnology products and the use of precision biotechnology in selected territories.

The Institute provided support in gene editing through training events and the organization and co-organization of virtual and face-to-face activities, which fostered greater openness to the use of biotechnology in several member countries, as was the case in Ecuador, where the Ministry of Agriculture and Livestock promoted the use of modern biotechnologies for agricultural development.

On the other hand, IICA also collaborated in the design of virtual bioentrepreneurship platforms, guides, methodologies and catalogs of technologies, which provided more than 2,080 stakeholders from eight agricultural chains in LAC (coffee, vegetables, fruits, tubers, etc.) with better information regarding opportunities to capitalize on the

⁴ Within the framework of the project “Sustainable Economic Development and Promotion of SMEs at the Sub-national Level”, implemented by the Decentralization Secretariat of the Presidency of the Council of Ministers (SD-PCM), with support from the European Union, the German Agency for International Cooperation (GIZ) and the Spanish Agency for International Development Cooperation (AECID).

⁵ In coordination with the Ministry of Agricultural Development and Irrigation (MIDAGRI) and the project “Sustainable Production Landscapes in the Peruvian Amazon”, led by the Ministry of the Environment (MINAN) and implemented by the United Nations Development Program (UNDP).

bioeconomy and greater technological, organizational and entrepreneurial capabilities to build competitive, sustainable and inclusive bioenterprises. All of the material is available at <https://bio-emprender.iica.int/>.

Agricultural and rural stakeholders now have access to [53 new public goods](#) (documents, platforms, guides, methodologies, tools, catalogs, etc.) that provide them with updated information on good practices and lessons learned from other territories, countries and regions, with respect to capacity building, the strengthening of policies on the bioeconomy and the promotion of bioenterprises. Furthermore, producers, extension workers and agricultural researchers in LAC have access to a [dynamic, bilingual catalog of 254 bioeconomy technologies](#), which provides information on technologies that drive innovation in various production chains based on the bioeconomy.

Finally, IICA's efforts to raise awareness, build capacities, promote policies, and foster investments and projects related to the bioeconomy have enabled the Institute to position itself as the technical cooperation agency that has shown the greatest leadership in promoting the bioeconomy in LAC. As a result, IICA was invited to participate as a partner in more than 22 high-level international events on this topic and in two new regional coalitions: the Circular Economy Coalition of Latin America and the Caribbean and the American SIAL Network. The Institute remains a partner in the Global Bioeconomy Summit and an active member of the International Bioeconomy Forum.

Territorial development and family farming

In addition to the preparation of the abovementioned 16 messages ahead of the United Nations Food Systems Summit 2021, a series of dialogues were held to foster reflection among stakeholders from all sectors, as well as their participation in identifying actions to transform and strengthen the world's food systems.

In this context, IICA, together with Cooperatives of the Americas (COOP), organized the hemispheric dialogue "Cooperative Enterprises and their Contribution to the Food Systems of the Americas". The event, held virtually and by invitation, was attended by 85 members of cooperatives, governments, non-governmental organizations and other sectors. Participants reflected on the role that cooperative enterprises can play in transforming global and national food systems, providing input for the preparation of a document that presents the context of the cooperative enterprise system and proposes guidelines for its role in food systems at the global level, and particularly in LAC. Additionally, members of the cooperative system were made aware of their potential and strategic role in bringing about changes in food systems, particularly by capitalizing on the "principle of intercooperation", one of the pillars of the cooperative system. They also developed guidelines for policies and strategies to involve cooperatives in the transformation of food systems.

Giving continuity to the actions carried out in 2020 to understand the status of family farming (FF) in the Americas and its performance during the COVID-19 pandemic, a new hemispheric virtual survey was carried out to compare the current status of FF to that at the onset of the pandemic. The survey was distributed among decision-makers and representatives of the public, business, trade and academic sectors in each country. Approximately 100

The pandemic and agriculture

As part of the project entitled “Institutional Support for the Enhancement of Service Delivery to the Agricultural Sector Post-Covid 19 in the Caribbean Region”, IICA developed the strategic plan for Barbados’ Center for Innovation in Agriculture. In Saint Vincent and the Grenadines, protected agriculture and seed breeding structures were built to improve the services that the Ministry of Agriculture provides to the agriculture sector. IICA also worked with the authorities of the Government of Dominica to develop the country’s new agricultural policy.

participants provided input to guide decision-making on support strategies to overcome the obstacles imposed by the pandemic.

The Institute collaborated in technical coordination efforts to prepare the Andean Agricultural Agenda, an instrument to guide actions and projects aimed at driving the economic and social reactivation of agriculture amidst the crisis triggered by the pandemic. Various authorities of Caribbean countries, including ministers of agriculture, participated in several high-level virtual seminars that made it possible to devise strategies to overcome the challenges posed by the COVID-19 pandemic. In Argentina, actions were spearheaded to strengthen food security and nutritional quality, while in Barbados, agricultural innovation was promoted.

Together with the Cooperative Program for the Development of Agrifood and Agroindustrial Technology in the Southern Cone (PROCISUR), and at the request of the Pro Tempore President of the MERCOSUR Specialized Meeting on Family Farming (REAF), a position held by Argentina, IICA assessed the production, use, protection and trade of native or creole seeds, by reviewing policies, institutional frameworks and existing research in Argentina, Brazil, Chile, Paraguay and Uruguay. The results of the analysis were shared at a seminar entitled “Seeds and Biocultural Heritage: The Strategic Role of Peasant and Indigenous Family Farming”, an activity organized by the REAF, under the leadership of the Secretariat for Family, Peasant and Indigenous Farming of the Ministry of Agriculture, Livestock and Fisheries of Argentina, in its capacity as Pro Tempore President of the REAF, and with support from the Institute. Approximately 150 participants from national governments and civil society organizations attended the event.

A new section on cooperatives as an instrument to facilitate economic and social recovery in LAC was included in the document “The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2021-2022”, prepared jointly by the Economic Commission for Latin America and the

Caribbean (ECLAC), the Food and Agriculture Organization of the United Nations (FAO) and IICA. This section, which highlights the importance of cooperativism as a tool for the inclusion and formalization of family farming in production chains, contributes to positioning cooperative enterprises as instruments that facilitate progress towards sustainable, competitive and inclusive food systems.

With respect to the strengthening of institutional frameworks and support services for FF and rural territories, the Institute organized three discussion panels to assist the Ministry of Agriculture and Rural Development of Colombia in implementing the Public Policy for Family Peasant and Community Farming (PAFCC). These events enabled government and civil society representatives involved in FF in Colombia to engage in virtual dialogue with representatives of the REAF, the Confederation of Family Farmer Organizations of the Expanded MERCOSUR Region (COPROFAM) and the Family Farming Network of Costa Rica on experiences that could contribute

Strategic planning in the Dominican Republic and Costa Rica

The sectoral planning systems of the Dominican Republic, led by its Ministry of Agriculture, have been strengthened, as has its strategy for the development of coffee farming in support of the Dominican Coffee Institute (INDOCAFÉ). In Costa Rica, the 2020-2030 Strategic Plan of the National Production Council (CNP) was prepared in a participatory manner; furthermore, the operational planning process for results-based management of the Ministry of Agriculture and Livestock (MAG) was completed.

guidelines and lessons learned that would allow for improving the participation of civil society in the implementation of public policies on FF. The discussions, which had approximately 30 participants, focused on the institutional framework for public policies on FF and mechanisms for driving the participation of FF in these policies.

With a view to strengthening the capacities of authorities and technical specialists of public institutions and FF organizations in MERCOSUR member countries on issues related to food safety, production quality and health, the Institute updated the Regional Program for Capacity Building and Exchanges on Food Safety and Quality in Family Farming - Healthy Territories, and engaged in coordination meetings with the Inter-American Development Bank (IDB) to discuss the possibility of obtaining funding from the Bank.

Together with COPROFAM, and with the aim of improving FF capabilities, two virtual courses were carried out: one on associative and cooperative undertakings, which provided training for 140 leaders of organizations, and another on leadership, in which 160 leaders from Argentina, Bolivia, Chile, Paraguay, Peru and Uruguay participated.

On the other hand, IICA contributed to implementing the strategy of the MERCOSUR Rural Women's Platform. The Institute collaborated with REAF to organize and host two forums for dialogue and exchanges among organized rural women: one on policies, practices and experiences in MERCOSUR countries, and another on rural women

entrepreneurs and climate change. Additionally, the project entitled “Platform for Rural Women Entrepreneurs of the Expanded MERCOSUR Region” was prepared, to be presented to funding agencies. IICA also prepared the project “Business Schemes and Mechanisms for Consolidating Rural and Indigenous Women’s Community and Social Economy Enterprises”, to be implemented in Guatemala, Mexico and Paraguay.

In coordination with the Latin American Network of Rural Extension Services (RELASER) and with the participation of FAO, ECLAC, the International Fund for Agricultural Development (IFAD) and the Ministry of Agriculture, Livestock and Food Supply of Brazil (MAPA), IICA organized the “Series of Seminars on the Use of Digital Technologies to Deliver TARE and Market Family Farming Products: Experiences in LAC and Other Regions of the World”. Viewed more than 2,800 times, the event included four virtual sessions, in which 26 specialists of various nationalities discussed challenges, opportunities, institutional models and successful experiences with technical assistance and rural extension services (TARE) on farms and in production chains, as well as digital channels as tools for promoting and marketing FF products and services. The activity provided an opportunity to share knowledge, engage in discussions and provide input to strengthen joint work among the institutions involved.

Paraguayan investment in family farming

Two new projects were implemented: a) “Capacity Building for Extension Workers and Committee Leaders Involved in the Saemaul Undong Sustainable Agriculture and Rural Development Project of the Ministry of Agriculture and Livestock (MAG)”; and b) “Establishment of the Regional Agricultural Marketing Center for Small and Medium-Sized Producer Organizations”, with funding from MAG, which invested USD 400,000 for the benefit of FF producers and extension workers.

During the “Hemispheric Forum on Bridging the Digital Divide in Rural Areas of Latin America and the Caribbean: The Future of Rural Development through Digital Technologies”, participants shared information, cases and lessons learned with respect to the opportunities and challenges of digitalization, with the aim of fostering greater inclusivity in the agriculture sector and rural areas. This virtual activity, organized in coordination with the Innovation and Technology Cross-Cutting Issue and IICA’s ICT Division, was broadcast on social media, and the four sessions as a whole were viewed more than 8,000 times. A total of 25 specialists who contribute to bridging the digital divide in rural areas of the Americas participated. Among the topics discussed at the forum were the status of the digital divide in LAC, institutional frameworks and public policies to promote digital technologies, as well as experiences with the use of ICT tools in rural areas, with special emphasis on their impact on rural dwellers, particularly family farmers, indigenous peoples, young people and rural women. The event also allowed for identifying elements to guide projects and initiatives that can contribute to bridging the digital divide, through awareness-raising, dissemination, appropriation, training, use and consolidation of digital tools in rural areas of LAC countries.

Together with COOP, the Institute organized the virtual forum “Application of Digital Technologies in Agricultural Cooperative Services: Comparative Analysis of Five European and Latin American Experiences”, with the aim of improving the capacity of cooperative enterprises to apply digital technologies in agricultural production and marketing. Among the participants of the event, which was viewed 1,300 times, were cooperatives from Spain, South America and Central America, as well as specialists in digital technologies from the universities of Málaga and Córdoba in Spain, who shared their experiences with the use of digital technologies in production and commercial processes and illustrated the relevance of these technologies to improve the productivity and competitiveness of their members. The event allowed for broadening participants’ knowledge of the use of digital technologies, as well as encouraging the identification of opportunities for cooperation between cooperative enterprises in Spain and Latin America.

Furthermore, COOP and IICA continued the development of the Program for the Digitization of Family Farming Cooperatives, which seeks to contribute to the digitization of family farming, by strengthening the capabilities of the cooperative enterprises of which they are members. In this regard, with support from the University of Málaga, Spain, the design process for the Capacity-building Center for the Digital Transformation of Cooperatives was completed. A key component of the initiative, the Center will seek to facilitate the promotion and transfer of knowledge on and experiences with the application of digital technologies among the participating cooperatives. These efforts are complemented by six projects geared towards the sharing of experiences among cooperatives in the Southern Region (Uruguay, Brazil, Paraguay, Argentina and Chile) and the Central Region (Guatemala, Honduras and Costa Rica) on various topics related to strengthening the management, organizational, production and commercial processes of the participating cooperatives.

The “Fortalece Pyme” digital assistance network, a project implemented by Chile’s Production Development Corporation (CORFO), received assistance from IICA to develop a knowledge management model that would allow for strengthening the skills of its implementers. This facilitated the collaborative development of methodological tools to improve technical assistance and rural extension processes, thereby increasing the use and adoption of digital technologies in the business processes of beneficiary SMEs.

The XIII Territorial Management Forum and the VI Conference of Territorial Management Networks on “Public Policies and Styles for Development in Latin America” were carried out to support the territorial management networks of Mexico, Colombia and Brazil. Both activities, which were held virtually over the course of two weeks, accumulated more than 4,500 views on social media. The events fostered dialogue on food sovereignty, agroecology and FF; rural-urban relations and intermediary cities; the digital revolution and knowledge management in rural areas; and the management of strategic ecosystems. These activities are part of a series of periodic meetings involving academics, public officials, rural leaders and international volunteers, such as promoters of development in rural areas, with whom the Institute

has engaged in joint work over the past few years to disseminate and implement this work approach.

The Institute published the twentieth issue of a series of documents entitled “Workbooks on Inclusion”. The new workbook, entitled “Lessons Learned from Latin American Experiences in the Social Management of Territorial Development: Reflections and Conceptual, Methodological and Political-Institutional Implications” (available in Spanish only), which presents a critical and constructive analysis of the cases of Brazil, Colombia and Central America, while also addressing other relevant processes in Argentina, Chile, Uruguay, Ecuador, Bolivia and Mexico. The document, which focuses on the operational aspects of these experiences, makes a valuable contribution by fostering a greater understanding of the achievements and limitations of the actions promoted by our countries over the past 15 years.

With respect to strategic partnerships in support of FF, the Framework Cooperation Agreement between MERCOSUR and IICA was renewed, with a view to establishing the general principles for technical cooperation to foster the sustainable development of FF and increase its contribution to food and nutritional security and the rural economy in the MERCOSUR countries.

The Network of Agricultural Cooperatives of the Americas (REDACOOOP) took part in the actions promoted together with COOP, contributing to fostering linkages among leaders of agricultural cooperatives in the hemisphere.

IICA continued its partnerships with the universities of Córdoba and Málaga, Spain, which play a fundamental role in guiding actions related to digital technologies, as well as in the design and organization of events to reflect on and raise awareness of these technologies.

Partnership with IFAD: INNOVA AF and AGRODIGITALIZACIÓN projects

The “Knowledge Management for the Adaptation of Family Farming to Climate Change” project (INNOVA AF), executed by IICA with funding from IFAD, invested approximately USD 770,000 in 11 subprojects to contribute to the adaptation of FF to climate change. A total of 2,500 farmers from eight countries participated in the subprojects, which enabled them to apply 40 practices related to the production of organic inputs, irrigation systems, efficient use and governance of water resources, climate vulnerability analyses, technologies for greywater reuse, aquaponics, marketing platforms, revolving funds, establishment of community forest nurseries and soil conservation. A self-paced virtual course on territorial development, FF and its adaptation to climate change was also developed. More than 30 groups of family farmers in the Los Cintis region of Chuquisaca, Bolivia, are utilizing nanocomputers to download climate information for their plots, which enables them to apply more efficient agronomic adaptation measures. Additionally, 500 officers and technical specialists from 42 organizations and institutions that form part of 11 public-private partnerships in 11 territories in the 8 countries involved in the project strengthened their capacities in territorial development, FF, climate change adaptation practices, bioenterprises and organization, among other topics.

Through the “Agrodigitalización” project executed by AGRITERRA and IICA with IFAD funding, more than 300 producers received training in the use of ICTs in the farming of apples, potatoes, carnations and peaches, as well as in livestock farming.

The partnership with COPROFAM continued to play a relevant role in capacity building for FF. As a follow-up to actions carried out in previous years, the Institute continued to offer the virtual courses developed jointly to strengthen the managerial base of FF. The Institute also contributed to the achievement of the objectives of the Production for Well-Being Program implemented by the Secretariat of Agriculture and Rural Development (SADER) of Mexico, which benefits more than 2.1 million small-scale producers.

IICA provided the International Organization for Migration (IOM) with support to conduct the study “Management of the Migrant Working Population in the Coffee Sector of Mexico and Central America”, which highlighted the importance of the migrant population to the Mesoamerican coffee sector and identified good practices to adequately manage that population, by promoting competitiveness, equity and inclusion in rural coffee-growing territories.

International trade and regional integration

The Institute continued to support its Member States in improving their participation in international agrifood markets, as a way to contribute to socioeconomic recovery in

the aftermath of the COVID-19 pandemic. It also undertook efforts to highlight the strategic role of agrifood trade of the Americas for food and nutritional security at the global level.

To this end, as part of the aforementioned consensus-building process summarized in the document “[On the Road to the United Nations Food Systems Summit: Key Messages from the Perspective of Agriculture in the Americas](#)”, the following message was included to underscore the importance of fostering rules-based trade: “Open, transparent and predictable international trade is essential for an efficient global food system and should be governed by multilateral rules and standards, with a view to promoting agricultural trade liberalization and a reduction in tariff and non-tariff restrictions. The multilateral system should play an increasingly active role in limiting and reducing measures which distort trade and production and ensure the adoption and application of science-based sanitary and phytosanitary measures”.

IICA also published the document “[International Trade of Agrifood Products from Latin America and the Caribbean and the Transformation of Food Systems: IICA Contribution to the UNFSS 2021](#)”, which disseminated information on the importance of LAC’s international agrifood trade and provided recommendations on ways to strengthen multilateralism and take better advantage of the opportunities afforded by trade agreements and regional integration processes to transform food systems.

The Institute participated as an observer in the Committee on Agriculture of the World Trade Organization (WTO), which enabled it to take part in discussions related to the implementation of measures that hinder or facilitate agricultural trade in the countries of the Americas and other partner nations. IICA assisted El Salvador in strengthening the notification capacities of national authorities and in drawing up a roadmap to update pending notifications. Additionally, a study was carried out to identify difficulties faced in complying with agricultural notification requirements and recommend actions that would enable countries to improve their performance.

Through the WTO Reference Center at IICA, the Institute disseminated trade-related news on social media and fielded technical queries from the academic, private and government sectors on specific trade policy issues.

Ahead of the Twelfth Ministerial Conference (MC12), the WTO’s main decision-making body, the International Food Policy Research Institute (IFPRI) and IICA jointly prepared the publication “[The Road to the WTO Twelfth Ministerial Conference: A Latin American and Caribbean Perspective](#)”, which analyzes and shares ideas aimed at strengthening the participation of the region’s countries in the WTO’s multilateral negotiations. With a view to disseminating the content of the publication, three technical-political virtual events were held, which were attended by more than 1,000 participants from different countries.

In light of the fact that only 14% of LAC’s agrifood exports are destined for the region itself, the Institute has been undertaking efforts to improve intraregional trade. Particularly noteworthy are its efforts to address the challenges faced by exporters

due to regulatory heterogeneity, which incurs additional costs associated with the need to gather information, learn about applicable regulations, make adjustments to products or production processes, as well as assess compliance with the relevant standards in order to meet testing, inspection and certification requirements for export markets.

Cognizant of the fact that regulatory cooperation can help to diminish barriers to economic integration and trade resulting from incompatibilities among national regulations, IICA and the Latin American Integration Association (ALADI) undertook joint work related to harmonizing regulations for agrifood products. At an event attended by more than 130 authorities and technical specialists from the member countries of ALADI and private sector representatives, participants discussed the importance of regulatory convergence for trade and food safety at the regional level and provided input for the preparation of a roadmap to facilitate the effective implementation of actions.

Together with the Central American Dairy Federation (FECALAC), IICA analyzed the status of trade agreements in the dairy sector of the Central American region and issued recommendations for capitalizing on trade agreements currently in force. IICA collaborated with the Latin American Association of Poultry Farming (ALA) to prepare a guide for obtaining, systematizing and disseminating technical information that ALA member countries may require on international trade in the poultry sector. In the Andean Region, IICA worked with FAO and the General Secretariat of the Andean Community (CAN) on the trade and agribusiness strategic line of action of the [Andean Agricultural Agenda](#), aimed at fostering intra- and extra-regional trade to contribute to the competitiveness, productivity and sustainability of the agriculture sector. More than 200 technical specialists from eight ministries of the four CAN member countries participated in this initiative.

Together with key partners, the Institute implemented processes aimed at strengthening the agricultural trade policy capabilities of ministries of agriculture and trade. A total of 23 participants from ten countries benefited from the “Regional Online Course on Trade Policy for WTO Member Countries in Latin America”. Together with ALADI and the WTO, IICA also offered a “Brief Online Course on Trade Policy for ALADI Member Countries”, which had 26 participants from 13 countries. Furthermore, together with FAO, the Secretariat for Central American Economic Integration (SIECA) and the Secretariat of the Central American Agricultural Council (SECAC), IICA delivered the course “Trade Policy for the Agriculture Sector in SICA countries”, in which 46 specialists participated, as well as two self-paced virtual courses in which 186 persons from the region participated.

As coordinator of the Business Development Thematic Group of the Caribbean Community (CARICOM), IICA strengthened relations with the Port Management Association of the Caribbean, to address matters related to the regional transportation of agricultural products, and coordinated a meeting of maritime transport providers and users to explore ways to improve intraregional trade. It also prepared a document

to advocate for greater investment in port infrastructure and equipment, as well as for the reduction of port tariffs, as a means of improving transportation and trade.

Furthermore, the Institute coordinated actions with the Market Information Organization of the Americas (MIOA) to strengthen the capacities of agricultural market information systems in the region; and, under the leadership of Caribbean Export/ Caribbean Association of Investment Promotion Agencies, a conference was held on investment in agricultural technology.

In its capacity as Technical Secretariat of the MIOA, IICA contributed to implementing key actions of the organization, which facilitated the exchange of reliable information and the transparency of the agricultural markets of the Americas. Moreover, with financial support from the Agricultural Marketing Service (AMS) and the Foreign Agricultural Service (FAS) of the United States Department of Agriculture (USDA), the Institute strengthened the capacities of 77 persons involved with agricultural market information systems (AMIS) in Peru, Dominican Republic and the Caribbean Region. On the other hand, it conducted a series of monthly technical presentations to foster experience sharing, the use of best practices and collaboration among member countries on market information-related issues. Four hundred and forty-eight (448) persons attended. Another significant achievement was the development of two virtual courses for the IICA Campus platform: “Introduction to Agricultural Price Analysis” and “Techniques for Agricultural Price Analysis”, with 172 persons receiving certificates of completion. The Institute also assisted in the development of region-specific price catalogues and reports, which provide an interactive experience, allowing users to identify and characterize the main agricultural products of the Americas.

Moreover, as a way of assisting producers, producer organizations and SMEs in the agriculture sector to capitalize on trade opportunities in export markets and to thereby accelerate economic recovery, IICA developed processes and events to build export capacity, in which more than 1,000 people participated. Two noteworthy examples are the third edition of the seminar series, [“Training for the Internationalization of Agricultural SMEs”](#), which was undertaken in collaboration with ALADI and the virtual courses, “Preparing to Export Agrifood Products”, which was delivered in English and Spanish and implemented under an agreement with Canada’s Forum for International Trade Training (FITT).

Within the framework of a European Union-funded project, IICA collaborated with the International Potato Center (CIP) to promote the cultivation of climate-smart varieties of potato in Ecuador, Peru and Bolivia. The project assisted potato producing organizations in the municipalities of Patacamaya and Sica Sica in the department of La Paz, Bolivia to obtain a seal of quality and to develop the respective business plans to sell in specialized markets. In Peru, efforts focused on biodiversity and good agricultural practices in potato cultivation.

IICA’s projects with Ecuadorian partners, such as the Integrated Amazon Program for Forest Conservation and Sustainable Production (PROAmazonia); the Italo-

Ecuadorian Fund for Sustainable Development (FIEDS); and the Technical Secretariat for the Special Amazon Territory (STEAM), facilitated capacity building for more than 3,000 coffee and cocoa producers and increased the access of the Amazon production supply to specialized markets. On the other hand, The Bahamas launched a national campaign “Buy Fresh, Buy Local, Buy Bahamas”, aimed at increasing the visibility of local agriculture.

In several countries, IICA engaged in cooperation efforts to strengthen various production chains, including in:

- Chile: olive oil produced by the Mapuche indigenous group and goat’s milk.
- Argentina: tobacco.
- The Bahamas: rum trail.
- Central America: cocoa and coffee.
- Antigua and Barbuda, Barbados, Saint Lucia and Suriname: apiculture.
- Guyana: dairy products.
- Belize, Guyana and Jamaica: biofortification of rice.
- Panama: agrosilvopastoral systems, with the support of the European Union.
- Paraguay: fruits and vegetables, in collaboration with the Regional Center for Agricultural Trade, and flowers, with the support of the Taiwan Technical Mission; and
- Uruguay: sustainable carbon neutral livestock systems.

In partnership with the Secretariat for Central American Economic Integration (SIECA), the FAO and SECAC, IICA staged the third and fourth Virtual Business Roundtables of the Agrifood Chain, which were designed to assist agrifood companies and organizations to consolidate and diversify their presence in regional markets, thereby contributing to greater food and nutritional security and accelerating economic recovery from the crisis resulting from the COVID-19 pandemic. The events attracted 1,145 participating companies and resulted in USD 53,000,000 of expected business. Among the subsectors attracting the greatest number of participating companies were fruits and vegetables, coffee and cocoa, basic grains and seeds, prepared foods and healthy snacks, packaging and distribution services, as well as transportation and logistics.

In Ecuador, two editions of the “Global Bioexporter Program: Ecuador to the World” were held, targeting the Swiss market and the Southern Cone. The events were organized by the National Association of Food and Beverage Manufacturers (ANFAB), undertaken with the support of the Ecuadorian Federation of Exporters (FEDEXPOR), the Ministry of Production, Foreign Trade, Investment and Fisheries (through PROECUADOR), the Phyto and Zoosanitary Regulation and Control Agency (AGROCALIDAD), the Ministry of Agriculture and Livestock and the Inter-American Commission for Organic Agriculture (ICOA). Participating companies enhanced their capacities in organic consumption trends, labelling specifications and requirements, required certification for trading in Ecuadorian products, export routes and market access, negotiation skills and assertive communication with potential clients, to name

just a few. Moreover, the companies participated in business roundtables that resulted in more than USD 2,000,000 of expected business.

In the Caribbean, the Institute spearheaded the “Facilitating the Trade Capacity of Caribbean Producers of Fresh and Value-Added Products to Capture Regional Markets” initiative, with a view to promoting intraregional trade and reducing the region’s dependency on the extraregional food and beverage supply. The participating companies enhanced their capacity to identify opportunities in the regional market, develop export strategies, formulate logistics plans for the shipment of their products and to identify and comply with trade rules and standards to access export markets, among other areas. Additionally, they were given the opportunity to market test their products in selected markets and to include them in virtual e-commerce platforms. The process culminated with the first Virtual Agrifood Roundtable, which attracted 120 companies and resulted in expected business of more than USD 1.1. million.

With resources from the CAF- Development Bank of Latin America, IICA devised a series of pilot plans to introduce blockchain as a tool to facilitate traceability of select agroexport products: mutton from Uruguay, table grapes from Peru, coffee from Panama and plantain from Mexico. In the process, IICA facilitated sensitization and capacity building for more than 200 key public and private sector stakeholders in the respective chains in the use of blockchain and the food chain ecosystem. The Institute also systematized and evaluated the pilot projects that had been implemented, to serve as the basis for scaling up these types of services to other chains and countries. The compiled information will be incorporated into a nine-module massive open online course (MOOC), which will be available at the start of 2022.

Climate change, natural resources and management of production risks

IICA was able to strategically position the organization at the main hemispheric events of the United Nations Framework Convention on Climate Change (UNFCCC). For the first time, the Institute participated in the inaugural event of Latin America and the Caribbean Climate Week (LACCW), prior to taking part in the technical event on livestock systems in the corresponding virtual thematic session, which registered 5,000 participants.

Through various technical cooperation activities, IICA helped to sensitize leaders and political authorities about the latest findings on the status of the global climate and the implications for the agriculture sector. The conclusions of the Sixth Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC) were disseminated via two virtual conversations that attracted 145 participants and via a high-level virtual event, involving the Director General of the Institute, the United States Secretary of Agriculture, and the Ministers of Agriculture of Ecuador, Panama, Saint Lucia and Mexico, among others.

On the other hand, the Institute promoted the involvement of the Latin American agriculture sector in global climate change negotiations. To this end, it supported the participation of countries such as Colombia, Mexico and Panama in follow-up processes to the Koronivia Joint Work on Agriculture, within the context of the 26th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 26). It also developed a submission on Koronivia, organized five webinars, designed an online course and held five dialogues, in coordination with key partners.

IICA strengthened its environmental and social management programs, by applying a methodology approved by the Green Climate Fund (GCF), to undertake new climate action projects incorporating environmental and social safeguards, in keeping with the Fund's requirements and procedures. The first regional readiness project for agriculture began in 2021, establishing the bases to ensure increased involvement of sector stakeholders in climate processes, to consolidate evidence-based decision-making on climate action and to strengthen capacities in nine CARICOM countries. The Institute also devised conceptual frameworks for projects that will facilitate scaling up of climate resilient agriculture in the region, as well as a course on integrated modeling (climatic, biophysical and socioeconomic).

Significant headway was made in ongoing cooperation initiatives, for example:

- The Institute engaged in the project “Strengthening Coastal and Marine Climate Resilience through Upland and Coastal Ecosystem Based Adaptation and Community Engagement”, funded by the Caribbean Biodiversity Fund. The project offered a course on climate, biophysical and economic modeling; spurred the exportation of vetiver grass⁶; designed topography maps using drone technology; promoted the development of byproducts; and collaborated in the area of soil erosion control, among other efforts.
- Two projects— “Sustainable Land Management in the Commonwealth of Dominica” and “Strengthening Disaster Management Capacity of Women in the Cooperative Republic of Guyana and the Commonwealth of Dominica”—enabled leaders and technical staff to enhance their skills and expertise in climate smart agriculture, sustainable soil management and the establishment of demonstration plots.
- The conceptual brief “Enhancing Climate Resilience of the Agriculture Sector by Improving Water Management Strategies of Smallholder Farmers against Climate Risk” was prepared for the benefit of small farmers in Saint Kitts and Nevis. The brief included a proposal for a project valuing close to USD 7 million, which will be submitted for the consideration of the GCF.
- Under the initiative “Soil-centric Actions for Strengthening Food System Resilience and Promoting Regenerative Agriculture as a Climate Solution in the Caribbean”, a comic book on climate change and soils was developed, targeting young people. The Institute also began to measure and map the hurricane resilience capacity of

⁶ 6,500 vetiver plantlets were exported from Dominica to Antigua, where two propagation nurseries were established.

farmers and collaborated with partners in 13 Caribbean countries to promote joint knowledge management actions.

- The Living Soils of the Americas initiative was strengthened, in collaboration with the private sector, and under this program three webinars and seven meetings were held with hemispheric companies and organizations, whose involvement will enable the formulation of a regional project.
- Progress was made in developing a proposal to facilitate the scaling up of the system of rice intensification (SRI) in six countries (Brazil, Colombia, Chile, Ecuador, Panama and Peru). Likewise, a project proposal on “Integrated Land Management to Facilitate Soil Degradation Neutrality in Three Argentinian Watersheds” was prepared and presented to the Global Environmental Facility (GEF).
- The projects “Financial Protection for Drought Management and Adaptation to Water Stress in the Agriculture Sector of the Central American Dry Corridor”—implemented in El Salvador, Guatemala and Honduras—and “Support for the Formulation of Appropriate Mitigation Actions for Agriculture in Panama’s Rice Sector and El Salvador’s Livestock Sector” conducted a joint workshop, which attracted 83 participants from 16 countries (Panama, El Salvador, Chile, Guatemala, Honduras, Belize, Costa Rica, Nicaragua, Dominican Republic, Uruguay, Peru, Brazil, Mexico, Paraguay, Spain and Venezuela). Moreover, members of SECAC’s Technical Group on Climate Change and Integrated Risk Management held a meeting in Guatemala.

The Institute also developed proposals for the following projects: a) “Guardians of the Forest”, which was spearheaded by Belize, for submission to the GCF; b) “Support for the Formulation of Appropriate Mitigation Actions in Central American Agriculture”, to be funded by the European Union; c) “Support for the Honorary Wood Commission”, to be funded by FONPLATA-Development Bank resources; and d) “Mitigating Land Degradation and Fostering the Resilience of Food Production Systems in The Bahamas”, a project valuing more than USD 5 million, which will be presented to the Global Environment Facility (GEF).

In addition to all of the above, the Institute was able to build a consensus on how to respond to the needs and capitalize on opportunities for climate action in IICA target countries. Monitoring and coordination of a Community of Practice on Resilient and Low-Emission Agriculture was essential to this process, with 14 virtual meetings being held in this regard. Furthermore, manuals, technical briefs and radio programs on climate-related issues were also developed.

On the other hand, the Institute conducted qualitative analysis on agricultural elements included in the nationally determined contributions (NDCs) of various member countries, while exploring how the bioeconomy and innovation in family farming could be integrated into processes to formulate the NDCs and examining the potential of both areas to ensure compliance with national climate commitments. The aim was to equip decision-makers and technical officers involved in designing and implementing NDCs

with elements to incorporate innovation and the bioeconomy into family farming, thereby strengthening intersectoral and multidisciplinary work at all levels (local, national and regional).

In the area of training, 37 public and private institutions in 14 LAC countries benefitted from several workshops that provided skills training in decision-making for agricultural climate risk management. Sixty-one representatives from the production, financial, government and academic sectors participated. Moreover, more than 2,680 people underwent training in the Caribbean, through the Caribbean Climate Resistance Agricultural Forum (CCRAF), the Living Soils of the Americas (LiSAM) initiative and several other external projects. Likewise, farms were established to demonstrate sustainable land management practices (Dominica), biofertilizer production (Saint Lucia) and backyard farming (Grenada).

In Panama, more than 300 rice producing families improved their per hectare production output (by between 15% and 25%) and their income, which increased to nearly 30 Panamanian centavos for every balboa invested. An exercise to measure greenhouse gases was also undertaken and nationally appropriate mitigation actions (NAMAs) for the rice sector were defined.

With respect to water resources, IICA played a key role in installing low-cost rainwater harvesting systems in Suriname, with the support of Australian development cooperation. This enabled two rural schools to supply drinking water to their 230 students and 22 teachers. Moreover, in partnership with the Ministry of Agriculture (MINAGRI) of Chile, five regions in the country implemented a clay pot irrigation system, an innovation that uses ancestral technology and consumes 70% less water than traditional irrigation systems. On the other hand, in Ecuador, within the framework of the partnership with the Decentralized Autonomous Government of Guayas (GAD Guayas), the Guayas Provincial Irrigation and Drainage Plan was updated and the potential of irrigation as a climate change adaptation measure was demonstrated in the field.

In collaboration with the Brazilian private sector, more than 11,000 packages of vegetable seeds were donated to Guyana, in the aftermath of the severe flooding that decimated part of that country's agriculture sector. Following Tropical Storms Grace and Ida, IICA assisted in the recovery of the agriculture sector of Jamaica, through donations of fruit and vegetable seeds. Similarly, the Institute launched a rapid response action following the eruption of La Soufrière Volcano, providing support to re-establish the agrifood systems of Saint Vincent and the Grenadines, through damage assessment, the donation of inputs and seeds⁷, the preparation of a new land management framework and the formulation of production projects.

The technical cooperation of the Institute was instrumental in the implementation of the Production Solidarity Bonus, the Coffee Bonus, the Safe Harvest Bonus and the

⁷ With the support of the company PLANTEC Chile, the #Stronger Together campaign contributed to the donation of 450,000 fruit and vegetable seeds.

Agricultural Task Force Bonus in Honduras, aimed at rebuilding production units after the impact of Hurricanes Eta and Iota and funded with resources from the Government of that country. Finally, IICA Nicaragua contributed to production rehabilitation of territories in the Jinotega municipality that had been affected by the hurricanes.

Agricultural health and food safety

The Institute promoted prospective phytosanitary intelligence (PPI) efforts to assist in strengthening phytosanitary surveillance in the Southern Region. Specifically, it executed a pilot project to improve the capacity of countries in the region to evaluate situations, take decisions, and to anticipate and manage phytosanitary emergencies, through the incorporation and use of digital tools. Moreover, common elements were introduced to increase and improve countries' ability to assess risks associated with the movement of products, people and modes of transportation, as well as risks related to climate change and the new production modalities and technologies, in terms of detecting and identifying pests and information about phytosanitary events, among other issues.

Based on the above, a regional strategy was developed for the adoption of PPI, in addition to a methodological guide for its implementation in the region, a technical brief analyzing the challenges of PPI, and a project profile. Moreover, two pilot projects focusing on multi-criteria analysis and the Regional Locust Alert System were prioritized. All these efforts were undertaken in collaboration with National Plant Protection Organizations (NPPOs), ministries of Agriculture and various agriculture sector stakeholders in seven countries in the region, the Southern Cone Plant Health Committee (COSAVE), PROCISUR, the University of Chile and North Carolina State University.

In Barbados, Dominica, Guyana, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia and Trinidad and Tobago, the food safety capacities of SMEs were strengthened, through the use of information and communication technologies (ICTs). For example, two platforms were developed. The first serves as an electronic database. The other involves capacity building, enabling SMEs to access up-to-date information and to learn about the Food Safety Management System, in order to comply with food safety standards required by local and regional markets. It also facilitates knowledge exchange, network creation, collaboration and the forging of linkages among SMEs.

To support the implementation of international standards, a strategy was developed to encourage active participation in meetings of international organizations, particularly in coordination sessions for issues under the purview of the WTO Sanitary and Phytosanitary Committee (SPS). As such, two online sessions were held on matters related to that committee to promote hemispheric coordination on key issues affecting IICA member countries, with 126 delegates from 32 countries participating.

Several initiatives focused on modernization of plant health, animal health and food safety services. For instance, a draft bill was prepared to update the legal and regulatory framework of El Salvador's agricultural health system; health inspection training was provided to 40 Paraguayan professionals from the National Service for Plant and Seed Quality and Health (SENAVE); best practices were implemented, through the strengthening of voluntary certification programs, promoted by Costa Rican plant and animal health services; and a study was conducted on the status of plant health in Venezuela.

The Institute, under a long-term cooperation agreement with the USDA (the United States Codex Alimentarius office), implemented joint actions to support the member countries of the FAO/WHO Coordinating Committee for Latin America and the Caribbean (CCLAC), aiming to foster greater understanding, use of and active participation in Codex Alimentarius. These actions focused on facilitating regional and interregional communication and coordination (CCLAC-CCAFRICA-CCNASWP), analyzing technical issues and negotiating positions, as well as developing strategic training products and consultation processes in the region, to define a baseline in preparation for a training program in 2022. To this end, more than 13 regional and interregional colloquia were held, securing the participation of 34 member countries, and IICA also took part in 15 meetings of the CCLAC. Moreover, a virtual workshop on the main topics of discussion of the Codex Committee on Food Labelling was held, with 96 professionals from 19 countries in attendance.

Seeking to improve coordination and to encourage the countries of the Americas to develop a harmonized response with respect to proposals on standards outlined in the Terrestrial Animal Health Code of the World Organization for Animal Health (OIE), IICA spearheaded three strategic sessions, in partnership with the USDA. The sessions, which attracted more than 200 representatives from veterinary services in 22 countries, included an International Plant Protection Convention (IPPC) workshop for LAC, which promoted discussions and exchange among countries regarding the process to develop and implement International Standards for Phytosanitary Measures (ISPMs), as well as two workshops involving 130 specialists from NPPOs in Latin America and five from regional plant protection organizations (RPPOs), who assessed the draft IPPC standards under review. Information was shared and topics of interest for the region were discussed, such as electronic certification, *Fusarium oxysporum* f. sp. Cubense Tropical Race 4 (Foc TR4) and phytosanitary intelligence.

In so far as the effective implementation of international standards is concerned, the Institute contributed to devising a strategy to build institutional, regulatory and technical capacities, in the area of pesticides in member countries in the Central and Andean regions. Along with the USDA and the Minor Use Foundation (MUF), the Institute spearheaded three capacity building initiatives in Member States to generate information to facilitate the establishment of maximum residue limits (MRLs) for minor crops in Codex Alimentarius and to formulate harmonized regulations governing the registration of chemical pesticides for agricultural use (CPAU) and of biopesticides, as well as the establishment of MRLs. In 2021, as part of a regulatory harmonization

project, 28 training events were held, focusing on risk evaluation, registration, MRLs and biopesticides, with a view to creating a standardized baseline. In the Central Region, progress was made in implementing a roadmap in three working groups (registration of CPAUs, MRLs and biopesticides); a study on harmonizing the establishment of MRLs in the region was undertaken; and the biopesticide committee made considerable headway in analyzing Central American technical regulations (CATRs) and developing a new CATR proposal that is more in line with the latest research developments in that field. This project fostered the creation of communication linkages with the Central American Agricultural Council (CAC) and the Andean Community (CAN).

In a drive to sensitize producers, specialists, instructors, government officials and interested persons about the regulations of the United States Food Safety Modernization Act (FSMA), IICA, along with the Food and Drug Administration (FDA), organized eleven webinars on the Produce Safety Rule (its regulation, experiences in implementing it in the industry, recommendation on agricultural best practices to facilitate compliance with the rule and other existing regulations). The webinars attracted 4,288 participants from 43 countries, an average of 390 individuals for each activity. All the resources generated by the events were published on the Institute's website. Moreover, in Argentina, Chile, Colombia, Costa Rica, Ecuador, Guatemala, Nicaragua, Peru and the Dominican Republic, instructors and public and private institutions benefitted from more than 50 official courses on that rule.

A total of 150 professionals completed four updated courses on the FSMA that were offered in Central America, Colombia, Ecuador and Peru, in partnership with the USDA's FAS. Likewise, six courses on preventive controls were offered in three Andean countries, benefitting more than 250 qualified individuals.

One of the components of the 11th SPS Measures Project of the European Development Fund, which IICA is implementing with European Union resources, seeks to bolster the regulatory environment of the Caribbean Region. To this end, a policy framework was developed to guide harmonization processes

Mexico free of 1,000 pests and 56 diseases

For nearly three decades, the Institute's collaboration with various national programs of SADER's National Service for Agrifood Health, Safety and Quality has assisted in safeguarding the country's phytosanitary status and ensuring its 227 million tons of national agricultural production.

and plans for agricultural health and food safety (AHFS) systems throughout the region. Through a series of consensus building activities, a policy, regional plan of action and a national AHFS policy framework were established and validated, for approval by the Economic Council for Trade and Development. A summary was also prepared to sensitize policy formulators about the importance of AHFS policies, as a means of fostering compliance with sanitary and phytosanitary standards.

IICA contributed to emergency response and to efforts to address emerging issues, in relation to:

- African swine fever (ASF). The Institute participated in the Group of Experts on ASF and in various meetings, in collaboration with the International Regional Organization for Plant and Animal Health (OIRSA), the Caribbean Agricultural Health and Food Safety Agency, the Permanent Veterinary Committee of the Southern Cone (PVC) and the General Secretariat of CAN, among others. It also led efforts to strengthen the capacities of the Inter-agency Preparatory Working Group for Prevention and Response to African Swine Fever (ASF) in Latin America and the Caribbean, based on the needs of LAC countries. To date, five webinars have been held with almost 800 participants from more than 25 countries. In compliance with IABA Resolution 535, actions were undertaken to strengthen the official veterinary services, specifically in matters related to technical capacity development, management and communication of risks and the updating and improvement of emergency plans. Of particular note was a virtual course on transboundary diseases and ASF, organized with the support of the USDA Animal and Plant Health Inspection Service and the Iowa State University, as well as four virtual courses targeting professionals from countries in the Central, Andean, Southern and Caribbean regions, benefitting more than 500 persons.
- Foc TR4. Representatives of official services were offered assistance, in addition to training resources and activities to prevent the entry of the fungus and to control its spread. Small farmers in Colombia, Peru and Ecuador were given biosecurity packages and an internal musaceae network was established to facilitate experience sharing. Moreover, through the Global Alliance for Cooperation in the Fight against Fusarium TR4, efforts are being made to establish a donation fund to respond to the emergency. The Universidad Central of Venezuela and the Musaceae Network enabled 300 technical officers and producers to update their knowledge on the importance and impact of Foc TR4.
- *Huanglongbing*. Under the project “Development and Promotion of Innovative Tools for the Prevention and Mitigation of the Impact of HLB in the PROCISUR Member Countries”, 259 people participated in refresher seminars on molecular techniques for the detection and control of HLB in citrus, organized into three one-day sessions: 1) “Use of the CRISPR Method for Rapid and Specific Detection of HLB in Citrus”; 2) “Use of RNA Interference for Insect Pest Control”; and 3) “Metabolomics and the Use of Biomarkers for Early Detection of Disease in Plants”. Furthermore, two training activities were organized in collaboration with COSAVE, along with specialists from the University of Chile and Chile’s Agricultural and Livestock Service: 1) “Management and Generation of Spatial and R (raster) Databases”; and 2) “Introduction to the Multi-model Framework”. The sessions were attended by thirteen experts from PROCISUR, twenty-eight from COSAVE and eight from CAN. Saint Kitts and Nevis also established an HLB working group, as part of a South-South collaboration effort.

- Coffee leaf rust. The European Union-funded PROCAGICA program will not only enable hundreds of cooperatives and producer families to improve cultivation practices, post-harvest management and bioinput production, and to gain access to microcredit, but will also equip 99% of these farmers to effectively control coffee leaf rust.

In Belize, purchasing of vaccines, safety gear and sampling equipment contributed to the prevention, control and eradication of Newcastle disease, while facilitating compliance with requirements to declare the country free of the disease. In El Salvador, the USDA-funded Poultry Admissibility Project strengthened surveillance capacities, provided equipment and facilitated the updating of regulations governing the disease.

Product of a European Union-IICA partnership in the field of coffee

Under PROCAGICA, more than 6,300 coffee farmers boosted their income by at least 24% and increased production by between 28 and 42%, after 10,402 production units implemented the technological models promoted by this program. They also benefited from 1,500 easy access loans. Furthermore, a revolving fund was established, providing financial assistance to 120 Central American organizations.

Within the framework of the technical cooperation activity “Defense against Future Outbreaks of Zoonotic Diseases in the Americas: Evaluation and Reduction of Zoonotic Risks in Wet Markets”, two zoonotic risk evaluation exercises were conducted in Mexico and Brazil, and draft guidelines on regulations and training were developed for Brazil.

The Institute supported the inclusion of the One Health concept in Food Systems Summit activities, by preparing a conceptual document and organizing an independent dialogue – “The One Health Approach and International Trade: Basic Elements for the Transformation of Food Systems”. The dialogue sought to illustrate how that concept, in conjunction with soil health and international trade, can contribute to transitioning towards more sustainable food systems. The event, which drew 86 participants, stimulated discussion and critical thought regarding the integration of these approaches (One Health, soil health) and international trade. Moreover, technical cooperation action on the One Health approach in the Andean Region was coordinated, by way of 21 conferences and 12 workshops, attended by 1,000 persons. Out of this, national and regional priorities were defined, potential areas of work for 2022 were determined, regional project proposals were identified and developed, and the main results were summarized in a document on strengthening AHFS services in the Andean Region.

IICA-PVC partnership

In conjunction with the member countries, the Institute improved the management of salmonellosis in poultry exports and prepared a proposal for the Standards and Trade Development Facility regarding the creation of a regional public-private node. It also strengthened capacities in the management of screwworm in cattle and laid the foundation for joint action to tackle this pest. Under an agreement with the USDA and the Ohio State University, the second virtual course on ASF was held, with 250 selected participants in attendance.

The Institute prepared a “Dairy Terminology Guide” (available in Spanish only) to facilitate compliance with Central American Technical Regulation RTCA 67.04.65.12 Use of Dairy Terms, one of the most important regulatory documents of the dairy sector. This regulation, which establishes the correct use of dairy terms with respect to the food traded in the Central American Region, provides the basis for specific regulations governing dairy products, with a view to ensuring that food is properly described or presented and to prevent any misconception regarding its make-up. To this end, the following training activities were held:

- A training course in Guatemala, organized in conjunction with the Dairy and Dairy Byproducts Association, drew 125 participants from the nutrition, health, and food science academic sectors; the public and private sectors; and the Guatemalan Dairy and Dairy Products Forum.
- In Honduras, nineteen public and private sector representatives attended an in-person training event to educate themselves on RCA 67.04.65.12 Use of Dairy Terms, which was organized in conjunction with the Honduran Chamber of Milk Producers, the Executive Secretariat of CAC and FECALAC.

In the Central Region, FECALAC stakeholders, with the participation of SECAC, devised and agreed on a communication strategy and a guide on best practices for cow’s milk production at the regional level.

Thirty-three individuals from eleven countries completed a course on leadership and AHFS management, with a view to improving intersectoral coordination in this area and the monitoring of the status of production development programs (PDPs). All of the participants described the course as good or excellent and indicated that it had fulfilled their expectations.

IICA was also instrumental in organizing an international series of panel discussions on Phytosanitary Intelligence and Biosecurity: Opportunities and Implications in Latin America. The series, which sought to share concepts and tools and to provide training on its application and use, gathered participants from Argentina, Bolivia, Brazil, Chile, Paraguay, Peru and Uruguay.

IICA Paraguay conducted a training course on phytosanitary inspection for 35 professionals of SENAIVE, in a bid to strengthen their technical capacity, with a focus on national and international regulations and concepts related to plant health and food quality and safety.

In the Southern Region, 50 NPPO professionals completed nine courses from the school’s international module, provided in collaboration with the Virtual Regional Phytosanitary Inspection School.

Training activities were undertaken in the wider Caribbean, focusing on safeguarding the United States' and Caribbean borders against the entry of pests (Phase II). Topics included pest detection, analysis of pathways for the entry of pests and emergency response to key pests. As a result, two Caribbean emergency response plans were drawn up for canker and leprosis in citrus. Tabletop simulation guidelines were also formulated to assess countries' level of preparedness to respond to the entry of pests.

Finally, with a view to providing training opportunities in specialized agriculture sector issues and mindful of the global context, two self-paced courses were offered on IICA's virtual training platform: a) "Anti-COVID-19 Prevention Measures in the Agriculture Sector" and b) "Good Agricultural Practices for Resilient Agriculture", both of them available in English and Spanish.

Innovation and technology

Along with its partners, the Institute conducted more than ten seminars, courses and dialogues, to sensitize participants and provide them with a greater understanding of the importance of innovation for equitable and sustainable agriculture.

Latin American innovation system stakeholders enhanced their knowledge about agricultural innovation systems, through the project “Developing Capacities in Agricultural Innovation Systems of Latin America” (TAP/FAO DeSIRA), implemented by IICA, in partnership with the Latin American Network of Rural Extension Services (RELASER). Under the project, a train the trainer course on innovation capacities was held, with 35 professionals from ten Latin American countries in attendance. A “Guide for Functional Capacity Building in Agricultural Innovation” was also developed and the seminar “How to Strengthen Agricultural Innovation in Latin America” was organized as a side event to the Assembly of the Tropical Agriculture Platform (TAP), registering more than 100 participants.

Similarly, 105 experts from the science and technology sectors participated in the independent dialogue, “Science, Technology and Innovation in Transforming Latin America’s Food Systems”, which was convened by the Institute, in partnership with the Food and Land Use Coalition (FOLU), the World Wide Fund for Nature (WWF) and Alliance Bioversity-CIAT, within the framework of the United Nations Food Systems Summit 2021. Out of the discussions, participants achieved a consensus on key issues for the research and development (R+D) agenda in the agriculture sector.

In Panama, the National Science and Technology Secretariat (SENACYT) and IICA signed a technical cooperation agreement to facilitate the creation of a Research Center for Controlled Environment Agriculture (CIPAC), which will be a global center of excellence, comprising a network of controlled environment agriculture and livestock researchers in the Netherlands, China, Japan, and the United States, among other countries.

The innovation cooperation mechanisms in which IICA is participating (including PROCISUR, PROCINORTE, ICOA, FONTAGRO and FORAGRO) will continue to promote joint work and to provide support to strengthen IICA’s technical cooperation.

PROCINORTE

The Cooperative Program in Agricultural Research and Technology for the Northern Region (PROCINORTE)—a network of national agricultural research organizations in Canada, the United States and Mexico, whose Executive Secretariat is administered by the IICA Canada delegation—conducted research on cryopreservation of creole cattle egg cells, in collaboration with Mexico’s National Forestry, Agricultural and Fisheries Research Institute (INIFAP), and on African swine fever, with the USDA. IICA and

PROCINORTE also organized an event on climate change, soils and water and another on herbicide resistance and invasive insect species in North America, both of which were well attended.

PROCISUR

The Institute and the Cooperative Program for the Development of Agrifood and Agroindustrial Technology in the Southern Cone (PROCISUR) developed a technical agenda in areas of interest to national agricultural research institutes (NARIs), namely: cooperativism and digital agriculture, creole and native seeds for family farming and living soils. This facilitated the undertaking of joint actions with partner institutions, such as the International Cooperative Alliance (ICA) and the Specialized Meeting on Family Farming of Mercosur (REAF), while also disseminating value-added technical knowledge among these partners.

The Program facilitated the development of a research and agrifood development agenda by 77 leaders from the science and technology, government, production, and entrepreneurial sectors and from international organizations in the Southern Cone, within the framework of an independent dialogue convened by IICA and PROCISUR ahead of the United Nations Food Systems Summit 2021. The topics included livestock system sustainability; sustainable agricultural intensification; bioeconomy and the circular economy; climate change adaptation; soil and water management; food access and affordability; nutritional quality and the One Health approach; and youth, gender and indigenous peoples. Innovative opportunities identified and presented in a report will represent PROCISUR's contribution to a global discussion that transcends the region.

Among the major projects implemented under PROCISUR were:

- “Physiological and Genetic Basis for Wheat and Soybean Responses to Biotic and Abiotic Limitations: Genetic Studies Geared Toward Genetic Improvement and Crop Management in the Southern Cone”, which achieved the following results: a) characterization of wheat lines and cultivars in the region for resistance to leaf rust, yellow rust, septoria tritici blotch and fusarium ear blight and for adaptation to water stress, photoperiod and vernalization; b) characterization of soybean lines and cultivars for resistance to root rot and response to photoperiod and vernalization; and c) development of thermo-photoperiod simulation models for a wide variety of commercial wheat and soybean cultivars, which were made available online to assist producers in Argentina, Paraguay and Uruguay to define management strategies.
- “Gene editing for plant and animal species improvement”, which is funded by FONTAGRO, PROCISUR and two private companies (Asociación de Cooperativas Argentinas and Asociados Don Mario S. A.). Launched in September, it seeks to

strengthen capacities in the region, improve the health and nutritional and industrial quality of new potato varieties, increase the differentiated quality of soybean for consumption by monogastrics and to produce animals (cattle and sheep) with new characteristics that are of interest in livestock production.

In recognition of PROCISUR's 40th anniversary, a document and institutional video were prepared, compiling information on the project's history, strategies and main achievements. The individuals responsible for each phase of the program and for its current direction provided testimonials, highlighting the important role of PROCISUR in delivering technical cooperation, the position it has achieved at a regional level, the current strategies that it is implementing and the challenges it faces, which have been exacerbated by the health emergency stemming from the COVID-19 pandemic.

ICOA

The Institute assisted in strengthening the work of the Inter-American Commission for Organic Agriculture (ICOA), through its position on the Commission's Board of Directors; its signing of a new collaboration agreement and its support in advocating that the IABA approve ICOA's new bylaws.

The ICOA improved its positioning through training and participation in various international events, earning more than 170,000 social media views in 37 countries and establishing working groups on various issues, for example on laws to promote organic agriculture, anti-fraud policies, waste in organic production and the environmental footprint, among others.

The Commission succeeded in mobilizing resources from the Pérez-Guerrero Trust Fund (PGTF) to fund a consultancy for preparation of the document "Recommendations for the Harmonized Evaluation of Organic Agriculture Inputs". It also served as a bridge, facilitating the participation of its member countries in the Organic Food Iberia (OFI) fair and helped to organize the second staging of that event.

FORAGRO

The Secretariat of the Forum of the Americas for Agricultural Research and Technology Development (FORAGRO) represented the forum on the Steering Committee of the Global Forum on Agricultural Research and Innovation (GFAR) and coordinated the preparation of a technical brief entitled "Co-innovation as a Methodological Tool to Assist in Bridging the Technological Divide in Family Farming".

Through “[Collective Action on Inclusive Digital Transformation of Agriculture](#)”, implemented by FORAGRO, in partnership with the Confederation of Family Farmer Organizations of Greater Mercosur (CORPROFAM), GFAR, Global Open Data for Agriculture and Nutrition (GODAN) and AgGateway, digital agriculture stakeholders and family farmers were provided with information to expand their capacities. The initiative also defined five priority areas for the compilation of best practices and development of business models for inclusive digital agriculture. A trilingual survey was conducted to determine the needs of LAC family farmers, with respect to the use of digital tools, to which 365 family farmers and heads of producer organizations responded.

Moreover, a group was established with representatives from IICA’s Directorate of Technical Cooperation (DTC) and from mechanisms working on other issues, such as the MIOA, COSAVE, PVC and the Inter-American Coordinating Group in Plant Protection (GICSV). Among other achievements, the joint efforts of this group resulted in: a) the organization of various independent dialogues in preparation for the United Nations Food Systems Summit 2021; b) a project on prospective phytosanitary intelligence, in conjunction with COSAVE and PROCISUR; and c) the formulation of a proposal to strengthen Guatemala’s Institute of Agricultural Science and Technology (ICTA), by way of the Regional Agricultural Research Consortia Program (CRIA), with support from PROCISUR.

The Institute undertook initiatives at the hemispheric level to promote digital agriculture in the Americas. To this end, it supported technical cooperation actions involving digital agriculture, such as a hemispheric forum on the digital divide; an event on sustainable digital livestock production, held in Uruguay, in coordination with New Mexico State University (NMSU); and the preparation of a chapter on digital agriculture for inclusion in the report “The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2021 – 2022”, prepared by ECLAC, the FAO and IICA.

In partnership with the Development Bank of Latin America (CAF) and the company FoodChain, more than 400 technical officers, producers, entrepreneurs and public sector officials from Panama, Argentina, Peru, Uruguay and Mexico were trained in agricultural digitalization, specifically, in the use of blockchain, as a means of strengthening capacities in designing digital traceability mechanisms for meat and table grapes.

The following example of actions at the national level are particularly noteworthy:

- Bolivia: Implementation of a knowledge co-management platform ([agrinapsis.com](#)), with the aim of sharing experiences, methodologies and technical support on agricultural issues.

- Brazil: Successful negotiation of a project to support technological innovation centers for family farming (virtual hubs), funded by the IDB.
- Canada: Signing of agreements with companies in Calgary and Quebec to explore remote training solutions and digital solutions of interest to LAC and to train the private sector in areas such as blockchain, artificial intelligence, the Internet of Things and data sciences.
- Costa Rica: Through a partnership with various national institutions, development of the strategy “Reto Joven: Revolución Agricultura 4.0”, as well as a course on generating maps and photogrammetry models for agricultural use, using drones.
- Guatemala: The USDA-funded CRIA program introduced 14 technologies to thousands of farmers in the avocado, potato, tomato, corn, bean, honey, sheep and chili pepper chains. Moreover, Guatemalan university centers improved infrastructure and equipment in their soil and plant protection laboratories.
- Dominican Republic: In partnership with the Ministry of Agriculture, training of 60 technicians from agricultural institutions in drone piloting, data processing and the use of modern technological tools.
- Trinidad and Tobago: With resources from the “Making Agriculture Profitable and Sustainable (MAPS)” project, implemented by The Cropper Foundation (TCF) and the IDB, in collaboration with the National Agricultural Marketing and Development Corporation (NAMDEVCO), development of the FarmVue app for record keeping and traceability. The app is available on Google Play and in the Apple Apps Store. A digital seed and ecommerce catalogue was also developed, on the sites www.arccaribbean.com and www.chocolaterebellion.com.
- Along with the agrifood network, Red Agroalimentaria de Venezuela, IICA developed an information system, georeferenced by regions, subregions and agricultural areas.

Gender and youth

Within the framework of the United Nations Food Systems Pre-Summit, the Institute organized the First Forum of Female Ministers and Deputy Ministers of Agriculture of the Americas, with a view to fine-tuning public policies targeting women; highlighting their leading role in rural development; and ensuring full recognition of their rights. The launch of the Forum, which was attended by female ministers, secretaries and deputy ministers of agriculture from twelve countries of the Americas, was a key step in institutionalizing a space to propose policies to foster the sustainable development of agrifood systems, by recognizing the essential contribution of the hemisphere’s rural women to the eradication of extreme poverty and hunger.

In the area of gender, IICA and the NARIs shared their strategies and institutional policies with science and technology institutions. The Institute also released the findings of the study “Gender Gaps in Agricultural Science and Technology Institutions in LAC” (available in Spanish only) – a joint publication with the National Agricultural Technology Institute (INTA) of Argentina and the Inter-American Development Bank (IDB). Likewise, it defined an agenda for 2022, including training and the creation of a network of experts and a virtual platform to share documents, among other actions.

Moreover, the Institute launched the Hemispheric Platform of Rural Women, enrolling more than 120 subscribers and providing an initial offer of 66 publications. It also organized a Rural Youth Hackathon with more than 50 participants, which was part of the process to design a Hemispheric Community of Rural Youth.

In this same vein, PROCISUR created the Youth Network and organized a virtual conversation on “How Rural Youth in Family Farming Can Add Value to their Products”, which saw rural youth sharing their experiences and knowledge with NARI specialists. The program launched the initiative “Virtual Knowledge Community” – a forum for exchange and knowledge sharing, based on experiences and techniques that foster innovation in activities undertaken by youth in family farming and by technical staff from IICA and the NARI members of PROCISUR. During the first event of the Community, from 12 October to 30 November, 190 participants gained an in-depth understanding of skills and strategies applied by young people to add value.

The Institute worked with various institutions to increase the inclusion of the gender focus and the participation of youth. For example, the office in Argentina collaborated with the Platform of Rural Female Entrepreneurs of the Wider MERCOSUR in conducting a study on public policies and in training youth in the design of rural projects. On the other hand, in Saint Lucia, technical cooperation was provided to three civil society organizations, including the Network of Rural Women Producers, thereby enabling them to strengthen their market linkages and to secure new sources of funding.

Knowledge management

With respect to agricultural forecasting, IICA successfully presented the report, “The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean”, the “Agriculture Atlas of the Americas” and the IICABlog, among other studies and publications.

IICA offered 64 virtual courses, registering 20,015 participants from 58 countries and issuing 6,588 certificates. Brazil was the greatest beneficiary, with more than 8,000 participants. Since 2018, approximately 113,012 students have taken part in the virtual courses and 43,419 certificates have been issued. In 2021, 13 countries received

support in the development of e-learning courses and partnerships were strengthened with the Mercosur Confederation of Family Farming Organisations (COPROFAM), the Caribbean Community (CARICOM) Climate Change Center, Oikocredit and Bayer.

The Visiting Professionals and Internship Program was further strengthened. Established in 2018, the program has enrolled more than 200 interns to date. Two professional visits were undertaken (ASA-Germany) within the framework of the Climate Change, Natural Resources and Management of Production Risks Program. Moreover, the internship registration platform was launched on the Institute's website.

Among the significant achievements in the area of horizontal cooperation were the approval of two South-South cooperation proposals for projects with the Pérez-Guerrero Trust Fund of the Group of 77 (G77); the joint work undertaken with the Ibero-American General Secretariat (SEGIB) in South-South and triangular cooperation on agriculture and food safety in the context of the COVID-19 pandemic; and the launch of the IICA Best Practices Bank, which systematized 28 experiences that have been shared with strategic partners via the United Nations South-South Galaxy platform.

Finally, in the context of the agreement governing the modernization of the Orton Memorial Library (IICA/CATIE), two noteworthy initiatives were the preparation of a proposal to design a learning commons and the implementation of a new CATIE repository.

Institutional relations and project management

Having undergone a demanding international accreditation process, the Institute's accreditation to the Green Climate Fund (GCF) was approved and formalized in September, after it had compiled, reviewed and amended all the official documentation required for signing of the Accreditation Agreement.

The agreement will allow IICA to collaborate with its Member States in presenting proposals to fund new projects and programs aimed at strengthening cooperation actions and results, with a focus on agricultural climate resilience for countries with an interest in accessing GCF resources, via the Institute. The Institute also received GCF approval for two readiness proposals, valuing USD 3.2 million, which were developed to promote IICA collaborative actions in the Northern, Central, Caribbean, Andean and Southern Regions.

Furthermore, a portfolio of eleven projects (conceptual notes) was developed, valuing 144 million euros in total, which was then submitted for the regional delegations of the European Union to consider when determining strategic priorities for the 2021-2027 period. The projects seek to foster the transition to a green, circular, and resilient economy, based on climate-smart adaptation practices.

The Institute implemented actions to benefit the agriculture sector in member countries in the context of more than 60 agreements with strategic partners, such as:

- Regional organizations: Organization of Eastern Caribbean States (OECS), International Regional Organization for Plant and Animal Health (OIRSA), Central American Agricultural Council (CAC), inter alia.
- Organizations on the African continent: Alliance for a Green Revolution (AGRA), Climate Smart Agriculture Youth Network (CSAYN Global), inter alia.
- Global private sector organizations: PepsiCo, 14AL, Producers' Trust, inter alia.
- International non-governmental organizations: World Vision, Solidaridad, inter alia.
- Research centers in the academic sector: Institute for Studies in Global Prosperity (ISGP), Crecermas Advanced Technological Institute (ISTEC), Ohio State University College of Veterinary Medicine (OSU-CVM), Barcelona Institute for International Studies (IBEI), National University of Lomas de Zamora (UNLZ), Carchi Polytechnic State University (UPEC), the Society of Technological Development at the University of Santiago de Chile (SDT-USACH), the Complutense University of Madrid (UCM), Equinox Technological University (UTE), inter alia.

The Institute joined several consortia, through which it submitted various technical proposals to international and regional open calls. Partners in these initiatives included the National University of Seoul, Euro-Funding, the Ecuadorian Development Bank, AgriCord, the International Potato Center (CIP), IAK Agrar Consulting and Willis Towers Watson (formerly Acclimatise), among others.

On the other hand, agreements with IBEI—one of Europe's major training centers for political science—and with the Society of Technological Development at the University of Santiago de Chile enabled young people from Spanish universities to undertake internships at various IICA offices. Extensive support was given to the University of Cordoba (UCO), in disseminating and promoting its Master's in Digital Agriculture program, which will train professionals in Latin America and the Caribbean.

The Permanent Office in Europe (POE) devised strategies for engagement with high-level teams at the Ministry of Foreign Affairs, European Union and Cooperation, as well as with various European cooperation agencies, including the German Agency for International Cooperation (GIZ) and the French Development Agency (AFD). Moreover, 14 conceptual notes were submitted to the European Union for financing under its 2021-2027 programming.

IICA engaged in high-level dialogue with members of Costa Rica's Diplomatic Corps and with members of the Group of Latin American and Caribbean Countries (GRULAC) to discuss the Institute's activities in matters related to its governing bodies and other areas of interest, in view of the United Nations Food Systems Summit.

IICA strengthened its relations with multilateral banking institutions, thanks to meetings with hemispheric program representatives and heads from the World Bank,

the Inter-American Development Bank (IDB) and the Development Bank of Latin America, among others, with whom it identified potential joint work agendas in IICA member countries, with a particular emphasis on driving recovery in the post-COVID-19 pandemic era.

As part of the process to implement the new business model, the Institute established the Directorate of Projects, a new unit tasked with assisting, advising and strengthening the national technical capacities of the 34 IICA delegations in the member countries. The unit will also be responsible for pulling together and coordinating with the Institute's teams to prepare and negotiate projects to mobilize external funding, through the implementation of the technical cooperation model established in the 2022-2026 Medium-term Plan (MTP).

In keeping with the institutional modernization process and in view of new project management challenges, a core team of specialists in project negotiation and formulation at the hemispheric level was established, which contributed significantly to ensuring the financial sustainability of IICA within the context of the new business model. Moreover, the organization also updated its platforms and external systems to manage bid applications, the digital tools and institutional apps to mobilize external resources, along with the open calls portal.

Governance and official meetings

Inter-American Board of Agriculture

The Conference of Ministers of Agriculture 2021 – Twenty-first Regular Meeting of the Inter-American Board of Agriculture (IABA) was held on 1 and 2 September 2021, in a virtual format, from IICA Headquarters in San Jose, Costa Rica. Mrs. Tereza Cristina Corrêa da Costa Dias, Minister of Agriculture, Livestock and Food Supply of Brazil chaired the meeting.

The main agreements adopted were as follows:

- *Institutional policy and technical cooperation services*

The IABA wholeheartedly endorsed the general messages that the Institute had prepared for the Food Systems Summit 2021, given their strategic and proactive vision of agrifood system transformation in the Americas to strengthen the contribution of the region's agriculture sector to global food and nutritional security, based on the following principles: a) recognition of the importance of farmers in the transformation, b) the development of solutions for this change, in keeping with the countries' priorities; and c) the promotion of alliances and coalitions among all productions sectors.

The IABA also approved the report, "Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean", a joint publication of IICA, the Food and Agriculture Organization of the United Nations (FAO) and the Economic Commission for Latin America and the Caribbean (ECLAC). The report highlights the pivotal role of agrifood systems in rural and agricultural transformation in Latin America and the Caribbean, as well as the actions required to drive this transformation in the post-COVID-19 pandemic recovery period.

Moreover, the IABA recognized the contribution of women in the Americas to agricultural and rural development and endorsed the conclusions of the First Forum of Female Ministers and Deputy Ministers of Agriculture of the Americas. It also tasked the Director General with formalizing a discussion forum for female ministers, deputy ministers and other high-level public officials, as well as representatives of rural women of all ethnicities in the Member States of the Institute, in a bid to highlight the role of rural women and to propose gender-based policies to reduce gender gaps and inequalities, as well as to facilitate participation and inclusion of this sector in rural development, under equal conditions.

The Ministers also addressed the problem of the emergence of African swine fever (ASF) in some member countries, recognizing the importance of implementing national, regional and hemispheric actions and initiatives to prevent and combat ASF in

a coordinated and complementary manner. They asked the IICA Director General to support the development and execution of projects and actions to stem the outbreaks and to prevent and curb the dissemination of the virus.

With respect to the earthquake of 14 August 2021 in the Southern Peninsula of Haiti, the IABA urged the Institute's member countries to commit technical and financial support to assist that country, in any way possible, in particular, resources to help ensure food security. It instructed the Director General to collaborate with strategic partners to provide technical cooperation and to coordinate the necessary assistance to mitigate the impact on the Haitian agriculture and rural sector, most importantly, by assisting family farmers with seeds and inputs prior to the upcoming corn and bean planting season.

- *Budget and finances*

The IABA approved the overall allocation of resources from the Institute's Regular Fund for the 2022-2023 Program Budget. It also thanked the Member States for their efforts to pay their annual quotas in a timely fashion, even amidst the COVID-19 pandemic, and approved IICA's 2019 and 2020 financial statements, along with the reports of the external auditors, attesting to the Institute's effective administration.

- *Rules, procedures and other related matters*

The IABA approved the amended Bylaws of the Inter-American Commission on Organic Agriculture (ICOA), which will enable it to strengthen this strategic activity for the sector.

- *Matters related to IICA's governing bodies*

The IABA re-elected Dr. Manuel Otero, to serve as the IICA Director General for the 2022-2026 period and applauded the progress made in implementing the resolutions of the Twentieth Regular Meeting of the IABA and the Fortieth and Forty-first Regular Meetings of the Executive Committee. On the other hand, it instructed the Director General to prepare the 2022-2026 MTP, in consultation with the Member States, and authorized the Executive Committee to approve it.

Executive Committee⁸

The Forty-first Regular Meeting of the Executive Committee adopted a virtual format, and was held on 28 and 29 June 2021, from IICA Headquarters in San Jose, Costa Rica.

⁸The Committee was made up of the following Member States: Argentina, Bolivia, Ecuador, United States of America, Guatemala, Guyana, Haiti, Honduras, Mexico, Nicaragua, Paraguay and Suriname.

Mr. Moisés Santiago Bertoni, the Minister of Agriculture and Livestock of Paraguay, chaired the meeting.

The following agreements were adopted:

- *Institutional policy and technical cooperation services*

The management report for the 2018-2021 period was presented to the Executive Committee. The Committee expressed its support for strengthening the Institute's technical, administrative and financial structure, to equip it with the necessary resources to fulfill its mandates and continuing the institutional transformation process spearheaded by the Director General, to benefit agriculture in the Hemisphere.

The Executive Committee also gave wholehearted approval of IICA's work to facilitate the participation of the countries of the Americas in the preparatory process for the United Nations Food Systems Summit 2021. It endorsed the joint position regarding the importance of the Hemisphere's agriculture sector, in particular its farmers, in agrifood system transformation.

- *Budgetary and financial matters*

The Executive Committee also recommended that the IABA approve the overall resource allocation from the Regular Fund for the 2022-2023 biennium. It reviewed the 2020 financial statements of the Institute and the Report of the External Auditors, which attested to the effective management of the Institute's financial resources, particularly given the difficulties experienced by IICA and its member countries due to the COVID-19 pandemic.

- *Partnerships with international organizations*

The 2019-2020 reports of both the Tropical Agricultural Research and Higher Education Center (CATIE) and the Caribbean Agricultural Research and Development Institute (CARDI) were presented to the Executive Committee.

- *Matters related to IICA's governing bodies*

The Executive Committee approved the ICOA report for 2020-2021 and instructed the Director General of the Institute to submit the proposed amendments to the ICOA Bylaws to the IABA for its approval.

Official meetings held in 2021

Official name	Date	Venue	Place and date of publication of the report or proceedings of the event
First Extraordinary Meeting of the 2021 Special Advisory Commission on Management Issues (SACMI)	15 March 2021	Virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San Jose, Costa Rica, 17 May 2021
2021 Regular Meeting of the Special Advisory Commission on Management Issues (SACMI)	22 April 2021	Virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San Jose, Costa Rica, 31 May 2021
Forty-first Regular Meeting of the Executive Committee	28-29 June 2021	Virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San José, Costa Rica, 22 October 2021
Conference of Ministers of Agriculture of the Americas 2021 - Twenty-first Regular Meeting of the Inter-American Board of Agriculture (IABA)	1-2 September 2021	Virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San Jose, Costa Rica, 15 February 2022

Main corporate management results

Strategic management and organizational design

The Institute made headway in implementing its business model, in view of future institutional planning processes for 2022-2026 and succeeded in achieving more than 80% compliance with the proposed objectives.

Among its most significant initiatives were:



- The design of a new public policy observatory, based on benchmarking against similar initiatives.
- A pilot exercise conducted in various IICA offices, such as Mexico, Bolivia, Brazil and Argentina, to identify demands, supply and high-impact technical cooperation projects.
- Assessment of internal institutional capacities in development cooperation projects.
- Staff performance incentive programs, based on the defining of strategic indicators.
- Training of more than 300 staff members, in coordination with Microsoft, regarding the use of the Teams platform for collaborative work.
- The technical training and certification program for key staff members on issues related to effective negotiation, innovation and leadership.
- Two technical networks: Musaceae-Fusarium Oxysporum Tropical Race 4 (FOC TR4) and the Water Resources Network.
- A solidified financial architecture, through better investment of resources, cost reduction for services and the creation of proposals for new forms of financing.
- A monitoring system for the six strategies of the business model.

In the process of modernizing the management of the Institute, a new governance model was also developed, which, based on networking teams and new guidelines, will aim to transform IICA into a dual organization (functional and project-driven) that enhances collaborative work and maximizes the use of its collective intelligence to provide technical cooperation services.

Moreover, IICA sought to promote a change from a hierarchical culture to a process culture, focused on decentralization, effectiveness and efficiency, with a view to

drastically reducing the time and steps to undertake daily tasks, while optimizing resources to ensure first-class service. In keeping with this thrust, the following was achieved:

- Optimization of 88% of the processes included in the institutional macro-processes, which were aligned with the Institute's business model and adapted to changes that have occurred in recent years.
- Implementation of the Procurement and the Electronic Document Management (GED) modules of the Integrated Management System (SIG), based on the experience of the IICA Office in Brazil, which was then adapted to operate by way of a multi-company and multi-currency approach. Substantive changes were also made to the Procedures Manual for the Procurement of Goods and Services.
- Automation and optimization of the main administrative procedures, with a focus on reducing costs and aligning them with best practices, to guarantee efficiency, transparency and traceability of information. Six procedures were automated at Headquarters, three administrative procedures were designed and automated in the Costa Rica Office, and processes associated with the management of externally funded projects were optimized in the Mexico and Guatemala offices.
- The administrative pools at Headquarters were put into operation, which allowed the Institute to make better use of the installed capacity to handle administrative procedures.

With respect to the Green Climate Fund (GCF) accreditation processes, the Institute's various units undertook proactive efforts in the areas of planning, monitoring, evaluation, knowledge management, institutional risk management, finance and administration, among others, to enable the organization to obtain the respective accreditation.

In working towards becoming accredited to the GCF and establishing new work standards, IICA developed its institutional and project risk management system based on three elements: an institutional risk matrix, a risk guide and a decentralized risk management process. A pilot exercise was carried out in seven offices, which were able to develop their own risk matrix. Additionally, a training session was delivered to more than 100 high-level officials of the Bolivian Ministry of Rural Development and Lands.

Monitoring and evaluation

In 2021, in response to the institutional mandate on monitoring and evaluation, the Institutional Evaluation Policy was updated and published, with a view to guiding and regulating all of the Institute's processes in this area. With respect to monitoring, various management reports were prepared for the management team, as were periodic reports on operations and more than 60 business intelligence dashboards that facilitate real-time consultation. These dashboards served as one of the main sources of information for different bodies, such as the Program to Accelerate the Mobilization

and Execution of External Resources (PACE). The continuous information provided by the dashboards has been key to defining, monitoring and meeting resource execution goals, by illustrating institutional trends in this area, based on which timely corrective measures can be adopted. In addition to the efforts undertaken to develop decision-making tools, IICA created a guide on defining results and indicators, a system to evaluate the technical capacity of the offices and a glossary of institutional management concepts.

In support of technical cooperation, IICA led a strategic planning process for the Honduran Coffee Institute (IHCAFE), which culminated with the delivery of a strategic plan to its authorities. IICA also collaborated with the Ministry of Agriculture and Livestock (MAG) of Costa Rica in defining a results-driven strategic framework. Both experiences yielded important lessons that will inform the development of a new way of planning at the Institute.

As part of the efforts to promote IICA as a learning organization, the institutional units evaluated the results achieved in more than 109 cooperation initiatives, which allowed for improving capitalization on experiences and self-evaluation processes. A complete course was delivered on the methodology for capitalizing on experiences, developed by the Food and Agriculture Organization of the United Nations (FAO), the Technical Center for Agricultural and Rural Cooperation (CTA), the International Fund for Agricultural Development (IFAD) and the Institute. The course was completed by researchers of Peru's National Institute for Agricultural Innovation (INIA) and the action coordinators of the Knowledge Management for the Adaptation of Family Farming to Climate Change project (INNOVA-AF), financed by IFAD in Mesoamerica.

Budget and finances

The efforts and support of the Member States enabled the Institute to collect USD 31.75 million, which facilitated funding of the annual quota budget and the recovery of 13% of quotas in arrears. Priority was given to safeguarding the Institute's cash flow and investments were diversified in order to strengthen institutional finances.

For the third consecutive year, the external auditors issued a positive and unqualified opinion on the Institute's financial statements, stating that financial resources had been managed in a reasonable and transparent manner.

IICA's Program Budget is being implemented in close alignment with the management and thematic direction established in the 2018-2022 MTP, as well as with the new business model. This has made it possible to strengthen the response capacity and flexibility of institutional actions aimed at addressing technical cooperation priorities, which have focused on achieving results, strengthening strategic partnerships and applying the criteria of quality, effectiveness, rationality, equity, transparency and accountability.

Within the framework of the institutional strategy geared towards rationality and austerity in the use of resources, a process restructuring plan was implemented to improve operations and, in turn, cushion the impact of price increases. Throughout this process, the Institute took advantage of institutional capabilities and achieved economies of scale. Furthermore, financial viability was fostered by boosting the multiplier effects of low-cost, impactful spending. As part of its efforts to effectively manage its budget, the Institute has promoted better administration, generating more than USD 8 million in savings for the 2020 budget. The efficient use of budgetary allocations for technical cooperation activities and the intensive use of information and communication technologies contributed in this regard. Additionally, the Institute's vehicle fleet was reduced, as were insurance premium payments (by 5.18% on average), saving the Institute USD 110,000. Contracts for goods and services contracts were also renegotiated.

IICA began developing a costing system for technical cooperation initiatives, in order to provide a framework to guide investments and the associated expenses. Furthermore, cooperation activities were increased through the execution of externally funded projects, based on legal instruments signed with partners and counterparts. As part of the administrative support to foster the approval of these initiatives, the programming process was restructured, reducing response times from 45 days to two days.

IICA successfully coordinated the evaluation processes for Pillars 7, 8 and 9 of the European Union, allowing it to verify its compliance with the international standards required for accreditation by the European Commission.

Human talent

The institutional recognition program was reactivated. The updated version will recognize staff members based on their fulfillment of the Institute's strategic indicators, the MTP objectives and previously defined goals, thereby fostering a culture of learning and continuous improvement, in alignment with the plans of each work team.

Additionally, IICA provided training and certification in conscious leadership and effective project negotiation for 34 and 20 IICA staff members, respectively.

Another noteworthy activity was the "Your Voice" organizational climate and culture survey, which is carried out every two years. In 2021, 90% of staff members participated – an increase of more than 7% compared to the previous survey; this, in turn, led to a significant improvement in survey results compared to 2019.

The Institute completed the restructuring of 12 Delegations: The Bahamas, Saint Lucia, the Dominican Republic, El Salvador, Nicaragua, Paraguay, the United States, Panama, Mexico, Peru, Brazil and Uruguay. Additionally, the Institute conducted a salary analysis and adjusted the salaries of local and international professional personnel working in IICA's 35 country offices to account for inflation. Based on the home and flexi-work arrangements that were implemented to protect staff health during the COVID-19

pandemic, a telecommuting guide was prepared for the IICA Costa Rica Delegation, which has served as useful reference material for the other delegations in the member countries.

Information and communication services and technologies

Despite the limitations in face-to-face communication generated by the COVID-19 pandemic, the Institute remained very well connected, through the intensive use of the Teams platform and the organization of more than 350 virtual events held via the Zoom platform, including the IABA and Executive Committee meetings, bilateral meetings with international organizations and more than 100 events for the general public that were carried on the Institute's social media pages.

IICA developed its own digital solutions for the modules of various information systems: the Electronic Document Management System, Procurement, Contracting, Risks, External Resource Management, and Human Talent Performance and Mentoring. The e-mail platforms were strengthened by migrating to Office 365, as were the cloud services and physical servers at Headquarters. Furthermore, the rules and regulations on information and communication technology (ICT) management and data protection were updated.

Support was also provided to develop digital solutions of interest to governments. For instance, IICA also cooperated in the development of a pilot plan for weather stations using the Internet of Things (IoT), as well as in the operation of drones on experimental farms that form part of the AGROINNOVA project. It also developed the Atlas of Agriculture in the Americas and the AgriExtApp application, which are of interest to the 34 Member States.

Together with prestigious academic and research centers, IICA carried out various actions, including:

- implementing the Internet of Things (IoT) Program, together with CENFOTEC University in Costa Rica.
- launching the Master's Program in Digital Agriculture, together with the University of Cordoba (Spain).
- organizing the "NI Challenge 2021- *La hora de la broca*" and the "Gender and Youth" hackathons.
- carrying out the hemispheric forum "Bridging the Digital Divide in Rural Latin America and the Caribbean: Towards a Digital Agricultural Revolution".
- delivering the workshop "Sustainable livestock farming with digital tools and artificial intelligence in Uruguay".
- holding the Seminar on Artificial Intelligence in Agriculture; and

- designing a mobile application to access information on the foreign policy of Costa Rica's Ministry of Foreign Affairs and Worship.

As part of the "IICA of Open Doors" initiative, which seeks to bring the Institute closer to rural communities, contribute to the preservation of urban biodiversity by restoring ecosystems and natural habitats, as well as to showcase IICA's innovation capabilities, the Fab Lab and the Typical Rural House were remodeled and expanded. Additionally, the tree planting project, "Bosque de la hermandad IICA-CATIE", and the Interpretive Center for Tomorrow's Agriculture (CIMAG) were inaugurated. CIMAG benefited from new resources contributed by Microsoft, Lego Robotics and Bayer, totaling more than USD 160,000.

As part of the work leading up to the IABA meeting in October, the United States meeting room and the main building at Headquarters were remodeled. In December, construction began on the Plaza of Agriculture of the Americas, which was declared by the Government of Costa Rica to be a matter of public interest (Executive Decree No. 41917-RE-MAG of 8 August 2019) and of community interest to the Municipality of Vásquez de Coronado.

The Integrated Management System (SIG) and the Travel System were put into operation, which allowed for improving administrative efficiency. Additionally, the amount of time it takes to address and manage contracts was reduced to an average of two days.

As part of the process to achieve Pillars 7 (exclusion from access to funding) and 8 (publication of information on recipients) of the European Union, the Procedures Manual for the Procurement of Goods and Services was updated and closely reviewed together with administrators and staff responsible for procurement.

Annexes

Annex 1

Pre-investment initiatives implemented in 2021

Start date	Name	Country	Amount allocated (USD)
2020	Development of a proposal for the Simplified Approval Process of the Green Climate Fund in Saint Kitts and Nevis	Saint Kitts and Nevis	10,590
Total IICA resources invested: USD 10,590			

Source: Directorate of Corporate Services/PMED.

Annex 2

New partners and allies in IICA's 2021 agricultural and rural agenda

Countries	Organizations
Antigua and Barbuda	Australia Direct Aid Program (DAP), Caribbean Biodiversity Fund (CBF), The Global Environmental Fund (GEF)
Argentina	European Union (EU), Colegio de Nutricionistas de la Provincia de Buenos Aires, Cascos Blancos
The Bahamas	Tourism Development Corporation (TDC), The Bahamas Agricultural and Industrial Corporation (BAIC), GEF
Barbados	West Indies Rum and Spirits Producers' Association (WIRSPA), The World Tourism Organization (UNWTO), EU
Belize	Caribbean Community Climate Change Center, World Organisation for Animal Health (OIE), EU, Canada Fund for Local Initiatives (CFLI)
Bolivia	Energising Development (ENDEV Global), Research Institute for Development (IRD) of France, International Potato Center (CIP), International Fund for Agricultural Development (IFAD), AGRITERRA, Swisscontact, Universidad Tupak Katari
Canada	Canada Agriculture and Food Museum, Université Laval, Dimitra, Forum for International Trade Training (FITT)
Chile	Private company PLANTEC, Production Development Corporation (CORFO)
Colombia	National Federation of Cereal, Legume and Soybean Growers (FENALCE), Sustainable Agriculture Network (SAN), ROOT Capital, Technological University of Pereira (UTP)
Costa Rica	EU, International Organization for Migration (IOM), Central American Agricultural Council (CAC)
Dominica	United Nations Environmental Program (UNEP)
Ecuador	CIP, Euroclima, Proamazonia, Italian-Ecuadorian Fund for Sustainable Development (FIEDS), Funding Centre for Social Welfare and Health Organisations (STEA)
El Salvador	Secretariat of Trade and Investment of El Salvador, National School of Agriculture (ENA)
Grenada	Grenada Tourism Authority (GTA)
Guatemala	RIKOLTO
Guyana	Inter-American Development Bank (IDB), Rotary Club of Georgetown, Guyana Rice Development Board (GRDB), Food and Agriculture Organization of the United Nations (FAO), Caribbean Community (CARICOM)
Jamaica	Inter-American Development Bank (IDB), The Ohio State University (OSU), Compost Council of Canada
Nicaragua	U.S. Agency for International Development (USAID)
Panama	Andean Development Corporation (CAF)
Paraguay	ITAIPU, Korean International Cooperation Agency (KOICA), Spanish Agency for International Development Cooperation (AECID)
Peru	EU, GIZ, AECID, Texas Tech
Dominican Republic	Dominican Coffee Institute (INDOCAFE)
Saint Kitts and Nevis	New Zealand High Commission
Saint Lucia	GEF, United Nations Development Programme (UNDP), Arizona State University (ASU)
Suriname	FAO
Trinidad and Tobago	TCF-IDB Lab Maps, Caribbean Biodiversity Fund (CBF), IAMovement
United States	Bunge, Global Dairy Partnership, International Maize Alliance (MAIZALL), North American Export Grain Association (NAEGA), U.S. Soybean Export Council (USSEC), U.S. Grains Council
Uruguay	IDB, FONPLATA Development Bank, Uruguay XXI Investment Promotion Agency, Uruguayan Federation of Regional Centers of Agricultural Experimentation (FUCREA)
Venezuela	Central University of Venezuela (UCV), Farmer's Service Foundation (FUSAGRI)

Annex 3

Principal IICA knowledge products

<p>IICA virtual campus https://elearning.iica.int/</p>	<p>This consolidated virtual training platform offers 62 courses and has provided training for 113,012 persons since 2018.</p>
<p>Alliance of Agricultural Information Services (SIDALC) http://ww.sidalc.net</p>	<p>A process was launched to modernize and transform the SIDALC platform by improving the information updating and consultation processes. In 2021, a total of 179 institutions participated; 2,274,730 users visited the platform and viewed 11,042,171 pages. An estimated 15,370 scientific articles were exchanged, which represented the mobilization of knowledge resources worth USD 768,000.</p>
<p>AgriPerfiles http://agriperfiles.agri-d.net/</p>	<p>Includes 15,561 profiles of professionals dedicated to agriculture and rural life. A total of 48,111 users viewed 318,628 pages.</p>
<p>Integrated library management system http://biblioteca.iica.int</p>	<p>The IICA and CATIE Integrated Library System (http://biblioteca.iica.int/) includes 147,061 physical and digital documents from both institutions. In 2021, the resources were accessed by 12,814 users, who viewed 90,894 pages.</p>
<p>Institutional repository https://repositorio.iica.int/</p>	<p>Contains 19,091 digital documents – an increase of 131% and 40% compared to 2019 and 2020, respectively. The repository includes 721 audiovisual resources: 313 AgroEnlace programs, 209 videos, virtual forums and webinars. Also available are the Institute's annual reports since 1943 and the country pages since 2020. A total of 3,672,876 users accessed the repository in 2021.</p>
<p>Scientific databases https://acceso.biblioteca.iica.int/</p>	<p>This platform provides access to renowned international databases in the fields of research and development. Thanks to an investment of approximately USD 42,000 in 2021, IICA and CATIE saved more than USD 900,000.</p>
<p>Technical cooperation initiatives http://apps.iica.int/dashboardproyectos/</p>	<p>Provides information about 141 ongoing technical cooperation initiatives and more than 400 initiatives included in the historical archive.</p>

Examples of recent publications:



[Agricultural Digitalization as an Accelerator for Transforming Food Systems: A Perspective from the Americas](#)



[Digital Literacy in Rural Areas: An Indispensable Condition to Bridge the Divide in Latin America and the Caribbean](#)



[The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2021-2022](#)



[Women, Youth and the Transformation of the Agrifood System](#)

Source: Center for Knowledge Management and Horizontal Cooperation Services.

Acronyms

AECID	Spanish Agency for International Development Cooperation
AHFS	Agricultural Health and Food Safety
ALA	Latin American Association of Poultry Farming
ALADI	Latin American Integration Association
AMR	Anti-microbial resistance
ASF	African swine fever
CAC	Central American Agricultural Council
CAN	Andean Community
CARICOM	Caribbean Community
CAS	Southern Agricultural Council
CATIE	Tropical Agricultural Research and Higher Education Center
CCCCC	Caribbean Community Climate Change Center
CCLAC	FAO/ WHO Coordinating Committee for Latin America and the Caribbean
CIP	International Potato Center
COOP	Cooperatives of the Americas
COPROFAM	Confederation of Family Farmer Organizations of the Expanded MERCOSUR Region
COSAVE	Southern Cone Plant Health Committee
COVID-19	Coronavirus 2019 disease
CPAU	Chemical pesticides for agricultural use
CRIA	Regional Agricultural Research Consortia Program
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FAS	Foreign Agricultural Service (United States)
FECAGRO	Central American Federation of Agricultural and Agroindustrial Chambers
FECALAC	Central American Dairy Federation
FF	Family Farming
FIEDS	Italo-Ecuadorian Fund for Sustainable Development
FOC TR4	Fusarium Oxysporum Tropical Race 4
FONTAGRO	Regional Fund for Agricultural Technology
FORAGRO	Forum of the Americas for Agricultural Research and Technology Development
FSMA	U.S. Food Safety Modernization Act
GCF	Green Climate Fund
GEF	Global Environment Facility
GFAR	Global Forum on Agricultural Research and Innovation
GIZ	German Agency for International Cooperation
HLB	Huanglongbing
IABA	Inter-American Board of Agriculture
IBEI	Barcelona Institute for International Studies
ICO	International Coffee Organization

ICOA	Inter-American Commission for Organic Agriculture
ICT	Information and communication technology
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation on Agriculture
INIA	National Institute for Agricultural Innovation
INNOVA-AF	Knowledge Management for the Adaptation of Family Farming to Climate Change
IPPC	International Plant Protection Convention
KJWA	Koronivia Joint Work on Agriculture
LAC	Latin America and the Caribbean
MAG	Ministry of Agriculture and Livestock
MC12	Twelfth Ministerial Conference
MERCOSUR	Southern Common Market
MIOA	Market Information Organization of the Americas
MRL	Maximum Residue Limits
MTP	Medium-term Plan (IICA)
NDC	Nationally determined contributions
NPPO	National Plant Protection Organization
OAS	Organization of American States
OIE	World Organisation for Animal Health
OIRSA	International Regional Organization for Plant and Animal Health
PAD	Precision Agriculture for Development
PMED	Planning Monitoring and Evaluation Division (IICA)
PPI	Prospective Phytosanitary Intelligence
PROCAGICA	Central American Program for Integrated Coffee Rust Management
PROCINORTE	Cooperative Program for the Development of Agrifood and Agroindustrial Technology in the Southern Cone
PROCISUR	Cooperative Program for Agrifood and Agroindustrial Technological Development for the Southern Cone
PROMECAFE	Regional Cooperative Program for the Technological Development and Modernization of Coffee Production
PVC	Permanent Veterinary Committee of the Southern Cone
REAF	Specialized Meeting on Family Farming of Mercosur
RELASER	Latin American Network of Rural Extension Services
SACMI	Special Advisory Commission on Management Issues (IICA)
RTCA	Central American Technical Regulation
SADER	Secretariat of Agriculture and Rural Development (Mexico)
SECAC	Executive Secretariat of the Central American Agricultural Council
SENAVE	National Service for Plant and Seed Quality and Health
SICA	Central American Integration System
SIECA	Secretariat for Central American Economic Integration
SPS	Sanitary and phytosanitary measures
TAP	Tropical Agriculture Platform
TARE	Technical Assistance and Rural Extension
UNDP	United Nations Development Program

UNOSSC	United Nations Office for South-South Cooperation
USDA	United States Department of Agriculture
WCR	World Coffee Research
WTO	World Trade Organization

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