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IICA

INTER-AMERICAN INSTITUTE FOR COOPERATION ON AGRICULTURE
OAS

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Message from the Director General

The main objective of the Inter-American Institute for Cooperation on Agriculture (IICA), as an agency specializing in agricultural and rural development, is to strengthen the agrifood systems of the Americas, recognizing their high level of resilience in the aftermath of the COVID-19 pandemic. This is expressed in the Institute's Medium-term Plan (MTP) for the period 2022-2026, which serves as its updated institutional roadmap.

The health crisis and the war in Eastern Europe have triggered a multifaceted economic crisis that has placed food security, and related issues such as environmental sustainability, poverty eradication and the strengthening of social stability, at the top of the global agenda.

Within this context, we must recognize the strategic role of agriculture and rural areas in resolving and contributing to socioeconomic recovery, peace building, climate action and high-quality diets. In this regard, opportunities exist: one out of every four food products traded in the world comes from Latin America and the Caribbean.

Therefore, we reiterate the message we have been conveying at every international forum: agriculture's time has come, and this is especially true for agriculture in the Americas. In 2022, for instance, we assisted the senior authorities of agriculture and rural development of the Americas in achieving the objectives related to the Ninth Summit of the Americas, where we proposed the establishment of a Hemispheric Partnership for Food Security. Furthermore, at the Twenty-seventh Conference of the Parties (COP27), held in Egypt, we set up the first pavilion dedicated to sustainable agriculture in the Americas, which brought together the hemisphere's agriculture sector and marked a milestone in raising the profile of agriculture in climate negotiations.

Moreover, as part of our Institute's efforts to look outward to the world from the Americas, we established fruitful dialogue with Africa, which allowed for exploring opportunities for collaboration as well as exchanging experiences and solutions for our agriculture sectors and, by extension, for our societies.

Thus, we have built an "IICA of open doors" that listens, proposes and acts through global actions integrated with local achievements, such as the construction and inauguration of the Plaza of Agriculture and the Forest of the Americas at our Headquarters, for the benefit of neighboring communities. Additionally, in recognition of our environmental responsibility, we have been named a carbon-neutral organization by Costa Rica's Country Program on Carbon Neutrality (PPCN) and have maintained our certification by Costa Rica's Blue Flag Ecological Program.

We are a technical cooperation agency of excellence. With more than 300 initiatives in the field and 155 partners worldwide, we assist our member countries and partners in expanding their annual impact on and investment in agriculture and rural life in the Americas.

We offer technical cooperation of excellence through which we support our Member States in their search for solutions and businesses based on the bioeconomy, technological innovation and digital agriculture. We promote and support environmentally friendly agriculture and greater agrifood trade through transparent, science-based rules. We also contribute to fostering good sanitary conditions in the countries of the Americas; addressing emerging issues, such as African swine fever and *Fusarium oxysporum f. sp. cubense* Tropical race 4; and promoting associative undertakings for the benefit of family farming, women and youth.

The entire IICA team is fully committed to providing innovative and relevant cooperation solutions, as set out in our business model, and to driving the Institute's transformation and modernization, to make it more productive and sustainable and to produce more with less.

In 2022, based on these guiding principles and within the aforementioned context, we celebrated 80 years since the creation of IICA. The vision and dreams that led to the Institute's foundation in 1942, in the midst of a world war, are now a reality. We have a modern, up-to-date institution; we have built the Plaza of Agriculture of the Americas, which symbolizes our close ties with rural communities; thousands of people visit the Interpretive Center for Tomorrow's Agriculture (CIMAG) at Headquarters every year; we have been certified as a carbon-neutral organization and have received a clean opinion on our financial statements for the fourth consecutive year. Without a doubt, 2022 was a record year in terms of the quantity, quality and value of our actions and results achieved.

This report serves as an invitation to all public and private agricultural stakeholders to join forces with IICA and its member countries to ensure that agriculture takes center stage, so that we may continue to move forward and make dreams come true.

Manuel Otero
Director General

Executive Summary

Following the approval of the proposed adjustments to its Medium-term Plan (MTP) for the period 2022-2026, the Inter-American Institute for Cooperation on Agriculture (IICA) focused its work on five work strategies geared towards:

1. Being an IICA of open doors.
2. Providing technical cooperation of excellence.
3. Fostering a leadership style that strengthens agrifood systems.
4. Carrying out efficient administrative management.
5. Strengthening the Institute's finances and establishing partnerships.

To that end, its network of 35 offices and Headquarters, together with 155 national and international partners, implemented 313 technical cooperation initiatives, which met 91% of goals and whose annual execution exceeded USD 195 million. The value of the Institute's current project portfolio exceeds that of any other portfolio in recent years. This demonstrates the leadership that the Institute has assumed in providing the public and private sectors, academia and donors with the innovative solutions they require to foster recovery in the aftermath of the coronavirus disease 2019 (COVID-19) pandemic.

It is worth noting that, in 2022, IICA played a leading role at the international level as a meeting point and key player in promoting sustainable agrifood systems in the lead-up to the Twenty-seventh Conference of the Parties (COP27), held in Egypt. At the event, the Institute assisted the ministers and high-level authorities of agriculture in the Americas in presenting a joint position on climate change challenges. In keeping with its "open-door policy", it has generated new opportunities for interaction between society and the agricultural world, such as through the construction and inauguration of the Plaza of Agriculture of the Americas at its Headquarters in Costa Rica. The Institute has also been involved in a large number of environmental projects, including one aimed at fostering efficient water use in Chile and another aimed at promoting renewable energies in the Andean Region, among others.

This report summarizes IICA's main achievements in 2022 within the framework of its seven technical cooperation programs, as well as those resulting from corporate management, which underpins all the Institute's operations.

In the field of technical cooperation, IICA established the Public Policy Observatory for Agrifood Systems (OPSAa) and promoted new public policies in the Caribbean Community (CARICOM), as well as in Honduras, Colombia, Panama, the Dominican Republic, Ecuador, Paraguay, Peru and Uruguay, to name a few countries.

In the same vein, IICA contributed to implementing strategies and regulations related to the **bioeconomy, biofuels and biosafety** in certain Latin American countries, as well as delivering training to more than 2,000 people on the bioeconomy's potential

through courses, workshops, discussions and forums, among other events, which indirectly resulted in new ventures and innovations related to this economic approach.

With respect to **territorial development and family farming (FF)**, IICA developed recommendations for the design of new public policies on FF and the strengthening of partnerships to drive technological innovation in FF and foster socioeconomic development in that subsector. Additionally, virtual courses were carried out to foster leadership and associative undertakings among producers.

In the field of **international trade and regional integration**, IICA assisted its Member States in creating strategies for successful trade integration and published a large amount of information in the form of guides, news, courses and other useful tools to address challenges and opportunities related to agrifood trade, food security and the fertilizer crisis, among other topics.

In the area of **agricultural health and food safety**, IICA supported national programs to preserve the sanitary status of countries interested in increasing safe, science-based trade. Specific issues addressed included dairy product standards, health and safety standards, CODEX and antimicrobial resistance, among others. The Institute also addressed emerging issues, such as those caused by African swine fever, *Fusarium* in bananas and varroa in beekeeping, among others.

On the other hand, the Institute's efforts related to **agricultural climate action and sustainability** were reflected in numerous national training events on irrigation systems, farming techniques, water storage and good land use practices, among others. In addition, at COP27, the Institute set up the first pavilion dedicated to the agriculture sector of the Americas.

With a view to fostering the **digitalization of agrifood systems and bridging the digital gap**, IICA played a leading role in promoting the use of digital technology applied to agriculture (AgTech) and fostering investments and knowledge-sharing in that field. For instance, IICA conducted a review of policies and initiatives aimed at driving agricultural digitalization in the countries of the Southern Region.

With respect to **gender equality and youth**, ministerial dialogues were held and entrepreneurship courses for rural women were delivered. Additionally, inclusion strategies, plans and tools with a gender and youth approach were developed and implemented to foster the governance and participation of collectives. One example of our cooperation in this area was the launch of the Platform for Rural Women of the Southern Common Market (MERCOSUR), which fosters women's empowerment in family farming, permanent support for networks of women producers in the Caribbean, and access to funding mechanisms for their enterprises.

With a view to increasing the efficiency of institutional actions, IICA's **strategic management** continued to focus on results-based planning, administrative decentralization, operational efficiency, modernization of internal rules, automation and capacity building through work in networks.

Improved institutional effectiveness was reflected in the reallocation of USD 6.5 million to the provision of direct technical cooperation, thanks to resource optimization. IICA was also granted accreditation by the European Union (EU) for three new pillars, in recognition of its transparent financial management and its investment plans, which allowed for increasing miscellaneous income to USD 2 million.

The Integrated Management System (SIG) is among the mechanisms that have contributed to administrative improvement, by capitalizing on digital technologies to foster effective and efficient operations. Additionally, the Institute has established new indicators to measure individual performance, as well as a new performance recognition program that has increased staff motivation.

About IICA

The Inter-American Institute for Cooperation on Agriculture (IICA) is the specialized agency of the Inter-American System whose 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".

In 2022, the Institute celebrated 80 years of institutional life filled with technical cooperation experiences for the benefit of the 34 member countries of the Americas. Together with more than 150 international and national partners, the Institute has generated innovative solutions aimed at strengthening agrifood systems in the hemisphere.

These solutions are provided within the framework of seven areas of cooperation defined in the adjusted Medium-term Plan (MTP) for the period 2022-2026:

- Innovation and the Bioeconomy;
- Territorial Development and Family Farming;
- International Trade and Regional Integration;
- Agricultural Climate Action and Sustainability;
- Agricultural Health, Safety and Agrifood Quality;
- Digitalization of Agrifood Systems; and
- Gender Equality and Youth.

In light of the priority areas of cooperation identified by the countries, IICA set out to apply a business model that allows for delivering services that are timely, relevant, flexible, of a high-quality and accessible; that capitalizes on the capabilities of its teams of more than 300 technical professionals in the Northern, Central, Andean, Southern and Caribbean regions; and that fosters the Institute's administrative, legal and operational optimization. This, in turn, will allow for strengthening institutional learning capabilities and improving IICA's relevance, productivity and sustainability so that, through collective action, it can serve as a bridge that connects its member countries with the best knowledge available for agriculture and rural life.

The Institute's main forms of cooperation include the design of development policies and strategies, the mobilization of knowledge resources, conceptual and methodological development, project management, organization of forums and dialogues, and capacity building, among others.

All of IICA's technical cooperation work is supported by a series of modern corporate management processes, regulations and systems, as well as its extensive experience with design, planning, budgeting, finance, monitoring, evaluation, capitalization and automation, which is duly recognized through international accreditations. The Institute is led by Dr. Manuel Otero, a citizen of Argentina.

Further information on the institutional strategy is available at IICA 2022-2026 MTP.

Main results in 2022

The year 2022 marked a period of transition from the 2018-2022 to the 2022-2026 Medium-term Plan (MTP). During this time, the Inter-American Institute for Cooperation on Agriculture (IICA) undertook 313 initiatives (operations, projects and actions) within the framework of the seven technical cooperation programs and other hemispheric initiatives, managing to achieve 91% of the planned results[1].

With respect to the new strategies to be applied up to 2026, during Technical Cooperation Week, which is devoted to the hemispheric programs, the Institute organized five brainstorming sessions to discuss actions on various issues, including initiatives such as the Leadership School for the Transformation of Agrifood Systems of the Americas (ELTSA) and the Public Policy Observatory for Agrifood Systems (OPSAa). The discussions and exchange of ideas among teams at the hemispheric, regional and national levels were instrumental in facilitating greater alignment and in defining the priorities that will guide the efforts of the programs during the next few years. Some of the main conclusions of the sessions were the importance of:

- Strengthening work with strategic partners to increase the impact of international cooperation.
- Establishing networks of specialists to work in a cross-thematic and cross-programmatic way.
- Utilizing innovation and digital technologies as tools to bolster the strategic actions of the programs.
- Developing technical cooperation actions that take into account gender considerations, intersectionality and inclusion, aiming to address the needs and unique qualities of rural women and youth in member countries.
- Improving the response of the programs, national authorities and producers in addressing these challenges.
- Increasing the exchange of knowledge and successful experiences that could be scaled up in regions, communities, sectors or productive activities.

At the hemispheric level, several issues bear mentioning, for example, the Institute's role as the Secretariat of the Forum for the Americas on Agricultural Research and Technology Development (FORAGRO), as well as the multiple activities undertaken to bolster the capacities of countries in the areas of a) agricultural health and agrifood safety and quality (development of standards on dairy products, antimicrobial resistance, animal and plant health standards), CODEX, biopesticides, safety rules, foot-

[1] The Public Policy Observatory for Agrifood Systems (OPSAa), the Capacity-building Coalition for Food System Transformation, the Leadership School for the Transformation of Agrifood Systems of the Americas (ELTSA) and the Living Soils of the Americas initiative, to name a few.

and-mouth disease, African swine fever; b) innovation and the bioeconomy (Cartegena Protocol on Biosafety); c) trade (trade rules and trade-related training); d) climate action (COP27); e) family farming and territorial development (institutional and cooperative strengthening, digital management, production and marketing); and f) agricultural digitalization in agritechs and start-ups, innovation and technology, among others. The OPSAa was also established to support policy transformation in the countries and it continued to provide information and training support, under the leadership of the Center for Knowledge Management and Horizontal Cooperation. Several technical documents and podcasts were produced within the framework of the Living Soils of the Americas initiative, with input from international experts in various areas.

New generation public policies

One of IICA's priorities to support its Member States is to contribute to the design and management of public policies for agrifood systems. Specifically, the Institute worked with authorities in Honduras, Colombia, Panama, the Dominican Republic[2], Ecuador, the Caribbean Community (CARICOM)[3], Paraguay[4], Peru[5] and Uruguay[6].

The Institute strengthened its visiting professionals and internship program, fostering the participation of youth and women in the hemisphere, by providing 136 internships. Additionally, under an agreement with the Ibero-American University Foundation (FUNIBER), scholarships were awarded to 120 people throughout the hemisphere in 2022, thus bringing the number of scholarship recipients between 2019-2022 to 239 individuals overall. Sixty-six courses were offered via the learning platforms, training 18,778 participants, with the number of participants since 2018 now exceeding 130,000.

Of particular note at the regional level was the conclusion of the Central American Program for Integrated Coffee Rust Management (PROCAGICA), which was funded by the European Union (EU). Furthermore, the Regional Fund for Agricultural Technology (FONTAGRO)[7] completed one year of operations, with the Institute serving as the Technical Secretariat. The fund consolidated and managed 68 international projects on science, technology and innovation in the agrifood sector of Latin America and the Caribbean (LAC) and Spain and also mobilized USD 12

[2] Through the Special Fund for Agricultural Research and the strengthening of the Dominican Agricultural Institute (IAD).
[3] Policy for the importation of animals and products of animal origin.
[4] Development of a national bioeconomy strategy to support the Ministry of Industry and Commerce.
[5] Improvement in policy monitoring and evaluation systems and training in public policy innovation for agriculture.
[6] National Agricultural Strategic Development Plan (SENDA).
[7] The starting capital was USD 83.05 million, consisting of contributions from the Southern Cone (36%), the Andean Region (33%), Spain (18%) and Central America and the Caribbean (14%). Today the fund is in excess of USD 102.6 million and USD 138 million has been mobilized in operations.

million – USD 2.5 million from FONTAGRO and the remaining USD 9.5 million from other agencies[8].

The most significant results achieved via IICA's seven technical cooperation programs are described below:

Innovation and Bioeconomy

Through its technical cooperation, the Institute enabled nine countries of the Americas to make headway in formulating and implementing **strategies, policies and regulations** to drive the bioeconomy and its pathways. Specifically, IICA supported the formulation of national bioeconomy-related strategies in Paraguay and Ecuador, bioeconomy plans for the Mexican and Argentinian agriculture sectors, national bioinput strategies in Honduras and Argentina, biofuel mandates in Guatemala (10% blend) and Córdoba, Argentina (strategic plan), and regulatory biosecurity frameworks in Ecuador, Panama and El Salvador. Moreover, IICA supported the implementation of Costa Rica's bioeconomy strategy, through the Biomaterials Hub spearheaded by the Costa Rican Investment Promotion Agency (CINDE).

Bioeconomy: Commercial opportunities

Nine coffee businesses were established in Colombia, specifically in Planadas, Tolima. In Costa Rica, biobusinesses were launched, using agricultural waste to manufacture biomaterials for potential use in more than 40 chains. There were also composting projects in CARICOM countries (Grenada and Jamaica); castor oil production[9] in Jamaica and the introduction of five prototypes of the circular business model in priority value chains in Peru.

Thanks to opportunities created by IICA during 2022, countries in the Americas participated more extensively and were more prominent in discussions and decisions at important global events on the bioeconomy, while also making better use of regional mechanisms to foster South-South cooperation on bioeconomy-related policies, projects and investments. This was evident, given the participation of the Institute and LAC countries in important forums, such as: a) the International Advisory Council on Global Bioeconomy (IACGB); b) the Annual Conference of the International Consortium on Applied Bioeconomy Research (ICABR); c) the European Bioeconomy Conference; d) Bioenergy Week of the Global Bioenergy Partnership (GBEP); e) the Fifteenth Meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity (CBD)/ Tenth Meeting of the Conference of the Parties serving as the meeting of the Parties to the Cartagena Protocol on Biosafety (CP-MOP10)/ Fourth Meeting of the Conference of the Parties serving as the meeting of the Parties to the Nagoya

[8] At the end of 2022, there were 58 active projects, representing a total investment of USD 47.1 million, with 48,824 direct beneficiaries, 81,771 workshop participants, 576 pilot project sites, 709 networks and 165 work teams, 85 scientific articles, 367 publications, 232 knowledge products delivered, 25 theses and 687 workshops undertaken, among others.
[9] The KIKA variety introduced from Brazil.

Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefits Arising from their Utilization (NP-MOP4); f) the Global Science and Innovation Forum; and g) the panel discussion on the Role of Liquid Biofuels in Decarbonizing Transportation, held during the United Nations Climate Change Conference (COP27). Participation in all of these areas enabled the region to improve its ability to engage in dialogue aimed at increasing cooperation in the bioeconomy, in particular in the countries of the Southern Common Market (MERCOSUR), the Amazon region and Central America.

Thanks to increased access to and availability of pre-incubation, incubation and acceleration services, stakeholders in the main agricultural chains and rural communities of LAC are developing new bioeconomy-based ventures, innovations and businesses. Key IICA-led initiatives include: a) the Institute's regional hub for bioeconomy-based innovation and entrepreneurship (https://bio-emprender.iica.int/); b) the Central American initiative to manufacture bioproducts from waste (https://bit.ly/3vy8ROI), which includes the involvement of the Central American Bank for Economic Integration (CABEI), the EU and CINDE; and c) the project implemented with the Sustainable Agricultural Network to promote the bioeconomy in Colombia's coffee chain.

Innovators in El Salvador and Guatemala

Under the "Promoting Reactivation and Agricultural Production for Food Security and Sovereignty in El Salvador" (RECETO) project, coordinated with the Ministry of Agriculture and Livestock (MAG) and the "Enrique Álvarez Córdova" National Center for Agricultural and Forestry Technology (CENTA), 500 greenhouses—each 500 m^2 in area and built using Israeli technology—were acquired, in addition to 1500 m^2 of irrigation systems, seeds and fertilizers for use in vegetable (tomatoes, onions and cabbage) production.

On the other hand, the Regional Agricultural Research Consortia Program (CRIA), implemented jointly with the Ministry of Agriculture, Livestock and Food Supply (MAGA) of Guatemala and funded by the United States Government, assisted more than 4,000 farmers to apply improved technologies and to supply the demand of school programs. It also generated 64 technologies for 16 agrifood chains and completed 98 research projects.

In terms of capacity building, more than 2,762 decision-makers, researchers, producers and businessmen gained a greater understanding of the opportunities offered by the bioeconomy and its pathways, and are now better equipped to make use of it. IICA delivered a hybrid post-graduate course on the bioeconomy in Argentina; two courses on gene editing (Costa Rica and Colombia), two biobusiness courses, two courses on the bioeconomy in Latin American agricultural chains (poultry and coffee sectors), two biofuel courses in Central America (Guatemala and Costa Rica) and four training sessions in partnership with the Network for Biodigesters in Latin America and the Caribbean (RedBioLAC), among others.

Moreover, more than 1 million people in the hemisphere were sensitized about the potential of the bioeconomy as a national and regional development strategy, either through participation in any of the 26 seminars, workshops, lectures, virtual fairs and calls for proposals organized by the Institute or through access to the relevant information disseminated in 25 articles in magazines, blogs, papers and press releases.

On the other hand, stakeholders in agriculture and rural territories in the Americas have been provided with 51 new public assets (documents, platforms, methodologies, tools, catalogues, etc.) that will enable them to access knowledge, guides, best practices and lessons learned that will prove useful in developing their own bioeconomy policies, projects and investments. All of the above is available at: https://repositorio.iica.int/handle/11324/18571.

PROCINORTE

On the emergence of the African swine fever (ASF) in the Caribbean, the Cooperative Program in Research and Technology for the Northern Region (PROCINORTE), for which IICA serves as the Executive Secretariat, collaborated with a network of national agricultural research organizations in Canada, the United States, Mexico and the Caribbean region. This effort, which was funded by the Agricultural Research Service (ARS) of the United States Department of Agriculture (USDA), strengthened capacities to diagnose the disease and promoted collaboration in research throughout the region. Other highlights were PROCINORTE's participation in the 2022 Conference of the Global African Swine Fever Research Alliance (GARA), held in Punta Cana, Dominican Republic; the mitigation of the effects of climate change on wheat, grapes and gene bank operations, through the delivery of three webinars; and the training of two lab technicians from the International Regional Organization for Plant and Animal Health (OIRSA) in Guatemala. The training was provided by the laboratory of the National Centre for Foreign Animal Disease – a division of the Canadian Food Inspection Agency (CFIA) in Winnipeg, Manitoba.

The agenda of the Cooperative Program for Agrifood and Agroindustrial Technology Development in the Southern Cone (PROCISUR) focused on strengthening work in networks and established groups, as well as on discussing and defining a new plan for the upcoming four years. Its main achievements were:

- Development of a joint agenda on digital agriculture by the Institute, in collaboration with the Ibero-American Network for the Digitalization of Agriculture and Livestock Production (RIDAG), PROCISUR and FONTAGRO. Based on information exchange with start-ups in Argentina and Uruguay, business accelerators and other international organizations, a work agenda was developed and discussions were held with FONTAGRO in relation to projects to establish living labs in Brazil, Chile and Uruguay.

- Strengthening of PROCISUR's Network of Young Family Farmers, which increased its linkages with researchers to exchange knowledge on agroecology.

- Organization of the "Impacts of Water Stress on Agricultural Production: a Regional Approach" seminar in Brazil, along with the Ministry of Agriculture, Livestock and Food Supply (MAPA).

- Provision of gender training to fifty-one professionals from the member institutions at science and technology institutions.

- Streamlining of a technical agenda to position the work of PROCISUR and its results at the international level, emphasizing the participation of members of its Steering Committee in international events. For example, Mariano Garmendia, Chairman of the Committee and Celso Moretti, President of the Brazilian Agricultural Research Corporation (EMBRAPA), attended World Agri-Tech, in Sao Paulo, Brazil.

- Fostering the involvement of technical personnel from national agricultural research institutions (NARIs) in IICA's Digital Agriculture Week.

- Strengthening of PROCISUR's positioning with respect to climate change. PROCISUR and the National Agricultural Technology Institute (INTA) of Argentina also contributed financially to the installation of the Home of Sustainable Agriculture in the Americas pavilion at COP27; and projects are being undertaken with the support of FONTAGRO.

Research Center for Controlled Environment Agricultural Production and Vertical Agriculture (CIPAC)

This specialized center has been established in Panama, with the assistance of IICA, CAF- Development Bank of Latin America; the National Secretariat of Science, Technology and Innovation (SENACYT); the Ministry of Agricultural Development (MIDA); Universidad de Panamá and the Foundation for the Development of Controlled Environment Agriculture (FUNDAAC).

Territorial Development and Family Farming

A symposium on public policies for family farming (FF), saw 80 authorities and representatives from family farming (FF) organizations in Argentina, Brazil, Chile, Paraguay, Uruguay and Colombia discussing the advances in and limitations of public policies for FF. Entitled "Analysis of and Potential Scenarios for FF and Public Policies in the Expanded MERCOSUR Region", the session was hosted by the Institute and the

Confederation of Family Farmer Organizations of the Expanded MERCOSUR Region (COPROFAM) at the XXXVI MERCOSUR Specialized Meeting on Family Farming (REAF), under the Pro Tempore Presidency of Paraguay. Moreover, authorities and FF leaders from the Southern, Andean and Central America regions, representing public entities, academia, research centers and civil society organizations, were provided with recommended guidelines for a new generation of public policies to facilitate the production inclusion of family farmers. These were prepared based on the thoughtful and collaborative analysis of various key actors in the Americas.

Honduras' successful experience with subsidies

With funding from the Honduran Government, the Institute assisted the Secretariat of Agriculture and Livestock of Honduras (SAG) and its divisions, by facilitating the execution of technical and administrative management processes for the implementation of the:

- Technological Productive Subsidy (BTP), targeting small farmers of corn, beans, sorghum and rice. This assistance benefitted close to 260,000 small farmers in 17 departments, who were given seeds, fertilizer and phytosanitary kits.
- Coffee Subsidy, aimed at improving the income of small- and medium-scale coffee farming families in 15 of the country's 18 departments, with a view to increasing productivity through capacity building and the provision of fertilizers.
- Livestock Subsidy, which benefitted 5,000 farmers, by providing them with seeds for grasses adaptable to different agroecological conditions; installing and utilizing 270 electric fences and administering 20,000 vaccines for bovine rabies, among other initiatives.

More than 160 leaders, youth and women from six COPROFAM member countries in the Southern and Andean regions successfully completed the course on "Leadership in Public Policy Management for Family Farming" and/or the course on "Associativity and Cooperativism", which equipped them with skills to identify, propose and represent family farming, small farmer and indigenous (AFCI) interests in debates, discussions, and decision making forums on public policies, as well as to strengthen the organizational management of their associations. On average, 50% of the participants in both courses were women. Likewise, a little more than 1,300 people participated in the virtual course on "Rural territories, Family Farming and Climate Change Adaptation", which was offered in Spanish and Portuguese, as part of the activities of the Knowledge Management for the Adaptation of Family Farming to Climate Change (INNOVA-AF) program, led by IICA.

In coordination with the Board of Directors of Cooperatives of the Americas (COOP) and with the support of the Universidad de Córdoba, Spain, the Institute paved the way for the introduction of digital technologies in the cooperative environment, by promoting initiatives to disseminate their use and to strengthen capacities in this area. Some of the most notable achievements of these efforts were: a) the implementation of the COOP-IICA Joint Cooperation Program (PCC) to promote the application of digital technologies

in cooperatives, through knowledge management and experience sharing among cooperatives in the hemisphere, involving 18 cooperatives from the Southern and Central regions; b) the introduction of a digital technology training program for cooperatives, with the support of the Universidad de Córdoba, Spain; and c) the IICA-COOP-ALADI partnership that sought to foster the internationalization of agricultural cooperatives and the training of agricultural cooperative members in digital tools.

Facilitation of rural women enterprises

The XXXVI REAF MERCOSUR, under the Pro Tempore Presidency of Paraguay, featured the launch of the resources and services available on the new website of MERCOSUR's Platform for Rural Female Entrepreneurs, which is co-managed by the REAF. Participants at the meeting included Paraguay's Minister of Women and authorities, technical staff and FF representatives from MERCOSUR member countries. The event included two panel discussions on the expectations and recognition of rural women on the Platform, where it was agreed that the Platform was extremely important for training, dialogue, exchange and the empowerment of women involved in FF.

The Institute forged strategic partnerships with entities such as COOP, COPROFAM, REAF, the World Rural Forum (WRF), the International Cooperative Alliance (ACI), LifeWatch and the Continental Alliance for Food Security and Sustainable Development in the Americas, among others, to consolidate a work plan to strengthen FF and territorial development. Consequently, IICA was invited to become a member of the Network of Agricultural Cooperatives of the Americas (REDACOOP), with a view to strengthening the capacities of the network in areas within IICA's expertise.

Other similar efforts were undertaken with regional policy dialogue mechanisms, for example with the REAF of the Expanded Mercosur region and the Executive Secretariat of the Central American Agricultural Council (SECAC). Specifically, a course of action was developed along with the REAF, to determine countries' contributions to environmental management and to the commitments assumed at COP27, based on the development of new strategies and the replication of successful experiences, such as the INNOVA-AF project. On the other hand, a proposal on technical cooperation actions for FF and rural development was established with SECAC, focusing on policy dialogue, technical capacity building and the joint formulation of projects on FF, the environment, cooperativism and digitalization.

INNOVA-AF Project implemented with the cooperation of IFAD

Under this project, 11 sub-projects and knowledge management initiatives were carried out in eight countries, generating more than 90 products involving technological, methodological and governance innovations to improve FF adaptation to climate change. The project facilitated the implementation of plans to scale up these innovations, through linkages with and support from the initiatives of public-private rural partners, including cooperatives and producer organizations, non-governmental organizations, private companies and public institutions.

A project was successfully negotiated in Haiti to reduce the food vulnerability of Gonave Island. The project, which is scheduled to commence in 2023, will be funded by the United States Agency for International Development (USAID) and will aim to increase the availability of grains and proteins, direct food assistance and the rational use of carbon.

Under a framework agreement signed with ITAIPÚ in Paraguay, 10,904 family farmers from the departments of Concepción, San Pedro, Canindeyú, Caaguazú, Alto Paraná and Caazapá modernized their production systems and were provided with mechanization services for soil preparation and the planting of sesame seed, corn and soybean. Projects were also undertaken with the Korean and Spanish cooperation agencies, and with the private sector, to boost the income of hundreds of Paraguayan producers.

On the other hand, Bolivia was given support in devising its National Family Farming Strategy, primarily in terms of marketing, which the country requires in order to strengthen its family farming units. Likewise, Ecuador received similar assistance in developing a protocol for awarding the Family Farming seal and in improving FF trade with supermarkets, hotels, restaurants and cafeterias on the northern border.

Cultivation of sacha inchi

With assistance from the New Zealand Fund, family farmers from La Paz, Bolivia, built and continue to operate the first sacha inchi *(Plukenetia volubilis)* shelling and extraction machine. Sacha inchi is an indigenous plant of the Andean Region and is used in the cosmetics, culinary and health industries.

International trade and regional integration

The IICA International Trade and Regional Integration program assisted the Member States not only to improve their participation in international agrifood markets and to foster socioeconomic growth, but also to tackle the effects of the coronavirus 2019 (COVID-19) pandemic, extreme climate events and the armed conflict between Russia and the Ukraine.

The Institute participated as an observer in the World Trade Organization (WTO) Committee on Agriculture and thus was privy to the ensuing discussions. This allowed it to keep the countries of the Americas and its partners around the world up to date, sharing information on measures implemented to impede or facilitate agricultural trade, particularly in relation to COVID-19 and agriculture; on the notification commitments undertaken by countries; and on the application of the results of the Twelfth Ministerial Conference (MC12). Moreover, during 2022, IICA's WTO Reference Center published more than 100 social media posts related to agricultural trade; shared eight information capsules about trade flow within the region; conducted 27 technical consultation sessions with the academic, private and governmental sectors on specific

trade policy-related issues; and presented lectures to more than 300 people. Currently, the Center has more than 1,000 social media followers.

After MC12, the meeting of the main decision-making body of the WTO, the Institute disseminated the key topics related to agriculture addressed at the conference, via the IICA Blog. Moreover, it co-published an article with Universidad Nacional de Costa Rica, providing an overview of food security in the Americas and the results of MC12. In preparation for COP27, and in collaboration with the International Food Policy Research Institute (IFPRI), IICA organized a seminar entitled "Agriculture in the Americas on the Road to COP27: Challenges and Opportunities for Public Policy". It also prepared and disseminated a technical note with the same title, highlighting the main challenges that the climate crises pose for the region's agrifood systems, including mitigation, adaptation, financing and the new generation of policies.

During 2022, amidst the slow post-pandemic recovery worldwide and the extreme climate events affecting the region's agrifood systems, armed conflict between Russia and the Ukraine erupted, triggering a spike in food, fertilizer and fuel prices and the destabilization of supply chains. This, in turn, destabilized the food security of millions of people and disrupted agrifood trade flows. IICA monitored the situation, preparing technical notes and documents that analyzed the effects of the conflict on agrifood systems, the impact on food security and trade, as well as the behavior of agrifood exports and imports of chemical fertilizers in the region. Similarly, the Institute's Public Policy Observatory for Agrifood Systems maintained a record of the measures adopted to tackle the crisis and shared information on indicators linked to agrifood and fertilizer trade in the region.

Recognizing that international regulatory cooperation assists in surmounting barriers to economic integration and trade, due to the incompatibility of national regulations, IICA, in collaboration with the Latin American Integration Association (ALADI), organized a high-level meeting in 2022 with ministers of Agriculture and senior officials from 11 ALADI member countries. The participants exchanged ideas on the importance of working on regulatory convergence to promote intraregional trade and food security, as well as to reduce the risk of shocks in third markets.

***Buy Fresh, Buy Local: Buy Bahamian*; *Flavors of the Cerrado* in Brazil and Healthy Diets in Belize**

Among the initiatives highlighting the value of agrifood systems in the Americas was a campaign designed to increase the sustainability and consumption of Bahamian agricultural products to benefit farmers, as well as a cultural-gastronomic project that showcased the sociobiodiversity of the Cerrado region in Brazil. On the other hand, along with health, educational and agricultural authorities in Belize, and with the assistance of the Canada Fund for Local Initiatives (CFLI), the Institute promoted fruit and vegetable consumption and healthy lifestyles.

The Institute assisted the General Secretariat of the Andean Community to prepare, disseminate and approve a project to implement strategic actions for trade and agribusiness development outlined in the Andean Agricultural Agenda. Key objectives included defining and establishing common sanitary and phytosanitary regulations and requirements, in line with international recommendations and in combination with mutual recognition agreements; introducing trade facilitation measures and strengthening regional trade promotion, inter alia.

In partnership with the Central American Dairy Federation (FECALAC), IICA's International Trade and Regional Integration and Agricultural Health, Safety and Agrifood Quality programs conducted national workshops to validate the *Analysis of the Impact of Current Trade Agreements to Capitalize on and Improve the Trade Opportunities and Access of Central American Dairy Products* (in Spanish only), as well as to identify the demand for technical and horizontal cooperation, thus enabling projects to be developed to take advantage of these opportunities. Moreover, the Latin American Poultry Association (ALA) received support in publishing and disseminating the *Guide to the Identification and Systematization of Information on International Trade Regulations for the Poultry Sector*, which collates technical information on international trade in the poultry sector, required by ALA member countries.

Aiming to build the capacities of staff at the ministries of Agriculture and Trade of the region in relation to agrifood trade policy, IICA worked with key partners to provide training for more than 400 individuals at the hemispheric, multi-country and regional levels. Moreover, more than 250 representatives of companies, producer organizations and institutions involved in internationalizing companies in the agrifood sector have improved their export capacities, as a result of the following courses:

- "Short Course on Trade Policy for Member Countries of the Latin American Integration Association", organized with ALADI and the WTO. There were 26 participants from 13 countries.

- "Trade Policy Targeting the SICA Agriculture Sector", which was presented to 53 specialists from the ministries of Agriculture and Trade of countries in the Central American Integration System (SICA). It was jointly organized with the Secretariat for Central American Economic Integration (SIECA), the Food and Agriculture Organization of the United Nations (FAO) and the Secretariat of the Central American Agricultural Council (SECAC).

- "Agricultural Trade Policy" and "Trade and Food Security", which had 320 and 60 participants, respectively, and which were organized in coordination with SIECA, FAO and SECAC.

- "Preparing to Export Agrifood Products", presented in English and Spanish, based on an agreement with the Forum for International Trade Training (FITT) of Canada. Two hundred and fifty (250) people took the course.

In conjunction with various strategic partners, the Institute hosted the fifth and sixth editions of the Virtual Business Roundtable of Agrifood Chains, enabling companies and organizations in the agrifood sector to enhance and diversify their presence in regional markets. The fifth staging, which took place in March, attracted 685 companies and generated USD 53.2 million of expected business; whereas the sixth staging had 470 participating companies that generated more than USD 25.8 million of expected business. These events facilitated the sale of basic commodities and their byproducts, processed foods and production and marketing support services. The subsectors with 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, transportation and logistical services. Moreover, in November, the Second Virtual Business Roundtable to promote intraregional trade within the Caribbean was held, attracting 172 participating companies and achieving expected business of USD 1.2 million.

Organic Agriculture

There was widespread participation by member countries, observers and strategic partners in the XIII Assembly of the Inter-American Commission for Organic Agriculture (ICOA) and in several virtual events, which facilitated coordination in relevant areas, such as certification, bioinputs, animal production and anti-fraud policies, among others. On the other hand, the technical, institutional, policy and trade mission to Europe (Belgium, Italy and Spain), culminating at Organic Food Iberia in Madrid, enabled closer engagement with organic agriculture authorities in the EU.

As the Technical Secretariat of the Market Information Organization of the Americas (MIOA), the Institute contributed to the implementation of key actions of the organization, aimed at promoting the exchange of reliable information and the transparency of agricultural markets in the Americas. More than 580 persons benefitted from technical presentations and the sharing of experiences and best practices, which fostered collaboration among member countries. Additionally, the capacities of 143 persons were strengthened through the virtual courses “Introduction to Price Analysis in Agriculture” and “Techniques for Agricultural Price Analysis”. Moreover, assistance was provided in the preparation of region-specific catalogs and price reports (available on the MIOA website), which facilitated the identification and characterization of the main agricultural products of the Americas via an interactive platform. With the financial support of the Agricultural Marketing Service (AMS) and the Foreign Agriculture Service (FAS) of the USDA, the MIOA conducted specialized diagnostic and reinforcement sessions with local agricultural market information systems (AMIS), focusing on strengthening AMIS management capacities in Ecuador, Paraguay, Guatemala and Peru and on improving capacities in agricultural statistics in the Dominican Republic.

Exporting agrifood products

In partnership with the Forum for International Trade Training (FITT) in Ottawa, Canada, a course for exporters was updated to enable participants to capitalize on opportunities offered by trade agreements and regional integration.

Finally, the technical cooperation provided by IICA to the Program for the Development of Industrial Competitiveness of Panama's Ministry of Trade and Industry, enabled 100 food agroindustries to improve their technical, production and business capacities. Furthermore, aiming to harness the trade potential of agriculture, support was provided for the study "Agroexport Strategies in the Context of Venezuela's Future Development" and for the participation of agroindustry stakeholders in the ALADI-IICA webinar series on agricultural marketing.

Climate action and agricultural sustainability

Addressing the effects of climate change in agriculture is imperative for achieving the 2030 Sustainable Development Goals; maintaining the rise in global temperatures within the 1.5°C threshold and advancing on the path to economic, social and environmental sustainability. This will ensure food and nutritional security for the growing world population, decent livelihoods, climate resilience, poverty reduction, optimal use of natural resources, soil health and the preservation of biodiversity and ecosystem services.

At the same time, the agriculture sector must play a leading role in achieving the objectives of the United Nations Framework Convention on Climate Change (UNFCCC) and its Paris Agreement, as well as in fulfilling the national climate commitments expressed in the Nationally Determined Contributions (NDCs). To this end, the Institute utilized its technical capacities to equip its Member States to bolster their agrifood systems.

Moreover, COP27 signaled an important milestone in the technical and political spheres, as it increased the participation of the agriculture sector in climate negotiation processes. Some of the most important outcomes of this event were as follows:

- A series of monthly virtual forums with agricultural negotiators were organized to strengthen countries' capacities to take part in global discussions on agricultural negotiations. There were also face-to-face workshops in Bonn, Germany and Egypt. The events enjoyed unprecedented attendance by representatives from the countries of the Americas, who improved their ability to participate proactively in the negotiations.

- At the closing session of the 2022 Summit of the Americas, the heads of State and Government adopted a mandate, committing to "strengthen the role of all stakeholders in the agriculture sector in international and national climate

efforts and invite them to present their recommendations at a meeting of ministers of Agriculture of the Americas before COP27".

- In the days leading up to COP27, IICA, along with the FAO, the World Bank and the International Fund for Agricultural Development (IFAD) supported the hosting of a global workshop to assist in advancing efforts in relation to the Koronivia Joint Work on Agriculture (KJWA).

- Prior to COP27, the Institute held the Ministerial Meeting "Challenges of Agriculture in the Americas in Tackling the Climate Crisis". Of the 31 member countries of the Institute present at the meeting, 26 were represented by their ministers, secretaries and deputy ministers of Agriculture, livestock and rural development. Representatives of the Green Climate Fund (GCF), the UNFCCC, the Global Environment Facility (GEF) and the Presidency of COP27 were also present. The discussions addressed how to channel innovation and funding to fuel the transformation of the agriculture sector of the Americas, resulting in agreements on actions to tackle climate change. The meeting also reaffirmed the message that the ministers and secretaries of Agriculture of the Americas wished to communicate at COP27.

- At COP27—the UNFCCC Conference, which enjoyed the greatest participation of ministers of Agriculture of the Americas—IICA installed the first pavilion dedicated to agriculture in the region. This "Home of Sustainable Agriculture in the Americas" was a venue for multiple bilateral meetings and informal discussions. It also hosted 53 formal events, which illustrated the advances that the sector has made in relation to climate change, as well as its challenges, priorities and needs. The ministers or deputy ministers of Agriculture of Brazil, El Salvador, the Dominican Republic, Argentina, Uruguay, The Bahamas and Paraguay were present, along with the IICA Director General, taking part in official events during Adaptation and Agriculture Day in relation to the KJWA; in the Food and Agriculture for Sustainable Transformation (FAST) initiative; and in meetings with negotiators and representatives of the United States Dairy Export Council, aimed at highlighting the importance of the agriculture sector of the Americas as part of the solution to climate change problems.

The mobilization of financial resources is essential to building a climate resilient agriculture sector in the Americas. Thus, technical assistance was provided to implement relevant projects in 25 countries of the region. Similarly, USD 800,000 in additional resources was mobilized to explore the bioeconomy's potential to contribute to the incorporation of a gender perspective into the development of the coffee value chain. The participation of the agriculture sector in UNFCCC processes was also strengthened and new partnerships were forged with countries like New Zealand and with the private sector.

The ministers of Agriculture also developed a greater interest in and awareness of the potential of agriculture as a solution to climate change. As such, they allocated

resources to implement practices and strategies that have helped to build the disaster management capacities of female farmers and that have also sought to protect and rehabilitate coastal and marine environments, by way of ecosystem-based adaptation (EbA) actions and nature-based solutions (NbS). Other measures focused on sustainable management of agricultural land and forests and the strengthening of the foundation of the climate-vulnerable agriculture sector of the Caribbean.

The Institute published technical data sheets and analyses of the NDCs for the agriculture sector of nine countries in the region (Argentina, Uruguay, Colombia, Ecuador, Peru, Guatemala, Honduras, Mexico and the Dominican Republic), which illustrated the evolution of commitments assumed by the countries, as well as advances, gaps and needs in implementing NDCs in the sector. It also published a regional analysis to determine how FF is being incorporated into NDC processes in the eight countries involved in the INNOVA-AF project.

As a means of promoting ongoing training, support material was prepared for extension officers and farmers, including a manual on sustainable land management technologies, two manuals on climate smart agriculture (one for instructors and one for course participants) and training support tools on the importance of farm data collection, which can also assist in developing more precise agricultural greenhouse gas (GHG) inventories. Under the GCF AgReady project, reports and tools were devised to assist senior officers (directors general, ministers, permanent secretaries and heads of unit) in decision making with respect to analysis of stakeholders, obstacles (economic, market- and technology-related), compensation and NDCs. A virtual market was also designed to facilitate the development, approval and contextualization of projects in nine CARICOM countries, along with a knowledge management platform.

Three peer-reviewed articles were published, providing the public with evidence-based information:

- "Multivariate Geospatial Analysis for Predicting Soil Variability along a Toposequence of a Watershed in the Humid Tropics".
- "Integrating Lean Concepts in Smallholder Farming to Catalyze Sustainable Agriculture for Food Security in Trinidad, West Indies".
- "Predicting Soil Depth in a Humid Tropical Watershed: A Comparative Analysis of Best-Fit Regression and Geospatial Models".

The work that IICA carried out on climate action and agricultural sustainability in the hemisphere involved and required the work of many individuals. Thus, a community of practice was established to implement the NDCs in the agriculture sector and seven sessions were held with representatives from the ministries of Agriculture and other organizations (close to 25 people), focusing on community and private sector participation in the NDCs and the funding for their implementation. Along with entities such as FAO and regional integration mechanisms such as SECAC and the Platform for

Agricultural Climate Action in Latin American and Caribbean Agriculture, IICA positioned these efforts as a means of spurring the implementation of actions in the sector within the framework of the NDCs.

IICA has a roadmap to formulate the Institute's strategy in relation to international climate funds, which led it to establish the Institutional Committee on Climate Funds, to guide the process and take the necessary decisions along the way.

In addition to developing and outlining its various work programs to the GCF, sharing knowledge and developing internal capacities to design and develop climate projects, the Institute held a series of ten virtual sessions on various issues relevant to the GEF, the GCF and the Adaptation Fund, all of them targeting communities of practice for resilient and low-emission agriculture. Specialists from 18 Spanish-speaking IICA delegations participated. However, all the events were conducted in English and in Spanish and open to all IICA personnel. There was an average attendance of 65 staff members in each session. Furthermore, through the GCF's AgReady project for CARICOM, Institute staff improved their capacities in areas such as the development of agricultural GHG inventories, farm data collection and compensation models, among others.

Ties were strengthened with the GFC, the GEF, the UNFCCC, FAO, Pegasus Capital, Producers Market, the Agricultural Model Intercomparison and Improvement Project (AgMIP), the United Nations Convention to Combat Desertification (UNCCD), the World Wildlife Fund (WWF) and the Caribbean Cooperative Measurement Reporting and Verification Hub (MRV Hub). A new partnership was forged with New Zealand, as the country requested IICA's collaboration in conducting an analysis of the situation in Central America and the Caribbean, which will serve as input in structuring a USD 10 million investment that the country will make in that region.

On the other hand, actions were implemented in the Caribbean to improve climate resilience, by applying climate smart practices adapted to the local socioeconomic situation and environment. These initiatives, which included EbA, NBSs, climate risk management and management of soil and water health, produced changes with the aim of achieving a more resilient and productive sector that utilizes appropriate management practices.

Eighteen courses were designed and delivered to more than 115 agricultural officers, who were also supplied with materials and technical services, in a bid to encourage the application of best practices in Antigua, Dominica, Saint Lucia and Trinidad and Tobago. This helped to expand the knowledge and improve the ability of the officers to advise farmers on measures and practices to improve the climate intelligence and resilience of their agricultural operations.

As a complement to these training activities, eight farmers received direct cooperation to implement irrigation and water storage systems on their farms, to improve access to high-quality water, especially during dry periods, as well as drainage systems to reduce

flooding and soil erosion. They were also given a partial scholarship to continue agricultural studies that would assist them to make better use of information and to solve climate challenges in agricultural production.

Additionally, four forums were organized to increase the climate resilience of the Caribbean agriculture sector. The subject areas covered were techniques for preparing top-quality compost; efficient, low-cost and water-saving irrigation techniques; experiences in implementing EbA in the Caribbean; and tools for resilient agriculture in the region. There were 1,014 participants from 31 countries. The forums were held in collaboration with the Caribbean Agricultural Research and Development Institute (CARDI) in Antigua; with the Taiwan Mission in Saint Kitts and Nevis, Saint Vincent and the Grenadines and Saint Lucia; with the Jamaican Social Investment Fund; and with INIPSIS Ltd. Moreover, the forums brought about the first tangible collaboration with the French territories of Guadeloupe and Martinique, under a memorandum of understanding signed between the IICA delegations in the Eastern Caribbean States and the Environment and Energy Management Agency (ADEME) of Guadeloupe. An analysis of the results of these forums indicated that 86% of the participants had increased their knowledge, the information shared was immediately usable and 95% of the participants showed an interest in undergoing further training. Moreover, a wide variety of communication products targeting different audiences were developed.

Living Soils

In Chile, the Institute collaborated with the Livestock Agricultural Service (SAG) and with the Agricultural Development Institute (INDAP) to promote the recovery of degraded soil, through the implementation of biofertilizer production systems. In Mexico, under the NAMA for Sustainable and Low-emission Livestock Production, an assessment was undertaken of the potential of soils to sequester carbon, through sustainable production practices for land and livestock in the semi-arid northeastern region.

To underscore the importance of soil health in relationship to climate change, an AgriMan Agventures comic book, entitled “Secrets of the Soil” was written; a spoken word performance was presented and a video campaign, “I am the Soil”, was produced. More than 50 Trinidadian actors, half of them youth, took part in the launch of these knowledge management products, which were warmly received by children and adults. These products helped to raise awareness of the importance of protecting the soil to safeguard food and nutritional security; sensitized children about the value of the soil and the measures that can be used to protect it; and sparked a greater interest in agriculture among children.

In Central America the financial instruments that support climate risk management and facilitate the implementation of agricultural practices to respond more effectively to drought are essential. Under the Financial Protection project of the ARAUCLIMA program, funded by the Spanish Agency for International Development Cooperation (AECID), farmer associations and local partners in three countries in the Central

American Dry Corridor (El Salvador, Honduras and Guatemala) participated in activities aimed at capacity building and the development of financial protection mechanisms for bean and corn systems adapted to local conditions and promoting the participation of women and youth. Moreover, public policy recommendations were devised, aiming to integrate the lessons learned from previous experiences to tackle the effects of climate change in extremely vulnerable zones, thereby supporting the efforts of farmers in that region.

Increased resilience in Antigua and Barbuda

IICA executed three technical cooperation projects to address climate action in the country, seeking to: a) rehabilitate vegetable production in communities; b) foster beekeeping management; and c) promote vetiver businesses and the use of this plant to prevent soil degradation. The projects were executed in collaboration with the Australian High Commission Direct Aid Program, the GEF and the Caribbean Biodiversity Fund, respectively.

Within the framework of national cooperation agendas, the following achievements were particularly noteworthy:

- Colombia: The bioeconomy was used as a mechanism to drive change in waste management practices throughout the coffee value chain, in order to strengthen and consolidate production activity and to reduce pressure on natural resources. The Institute and its partners are working to reduce pressure on water resources on 80 farms, using incentives such as payment for ecosystem services. It is also seeking to identify new sustainable business opportunities for farmers.

- Guatemala: Various actions increased the financial empowerment of female farmers in two rural communities, assisting them to overcome the impact of climate on agriculture and their livelihoods. Forty female rural leaders received 75 hours of training each, as a means of increasing collaborative efforts to enable the women to transition from subsistence farming to more profitable market-oriented agriculture. It sought to develop their capacities, make them more competitive, improve the administration of their cooperatives, empower them as producers, increase their access to services and boost their income. Female farmers in rural areas are agents of change, facilitating the improvement and sustainability of LAC agrifood systems. Thus, improving their conditions and assisting them to overcome the gaps that they face is a matter of priority.

- Bolivia and Paraguay: Within the framework of the "Women and Public Policies" Diploma, two sessions were held on the topic of "women and the environment", for 65 representatives of the public sector and the United Nations Development Program (UNDP).

- Nicaragua, El Salvador, Guatemala and Honduras: The EU-funded Adapted Agroforestry Systems for the Central American Dry Corridor (AGRO-INNOVA) program introduced innovations, through the establishment of multi-strata forestry areas, irrigation systems, field schools and demonstration plots.

- Saint Kitts and Nevis: Thanks to the support of IICA, national and international partners strengthened the climate action capacities of extension officers and farmers. Moreover, new projects were also developed for submission to global environmental funds.

- Caribbean Region: The Institute's office in Belize spearheaded an online training program on climate risk assessment, as part of the "Caribbean Climate Online Risk and Adaptation Tool (CCORAL)" project. The AgReady Project for CARICOM was also implemented, with the support of the GCF, training extension officers, farmers and other key partners in the tools and methods for measurement, reporting and verification applied to agriculture.

- Brazil and Colombia: Assistance was provided to regularize land registration in rural areas in Brazil's Cerrado region, through a project implemented in partnership with the Brazilian Forest Service of the Ministry of Agriculture and Food Supply (MAPA), with funding from the World Bank and the KFW-Development Bank of the Federal Republic of Germany. A similar land use planning initiative took place in Colombia, under the Office of National Natural Parks.

- Chile: IICA provided support to the country in the area of sustainability standards in milk and plum production, enabling producers in both sectors to demonstrate to the world compliance with all market-required sustainability measures.

- Saint Vincent and the Grenadines: With the support of the Canadian Government, 30 farming families were assisted in restoring their production capacities and livelihoods, following the disaster produced by the volcano eruptions on the island in 2021.

- Uruguay: Support was provided to the country to define sustainability indicators, through the Regional Hub on Sustainable Livestock Production and the promotion of agroecology.

Water

In Chile, IICA worked with the Institute of Agricultural Researchers (INIA) to continue to implement the System of Rice Intensification (SRI), thereby reducing water consumption by 50%. It also collaborated with the Universidad de Valparaíso to further the use of the Clay Pot Irrigation System.

The development of all the aforementioned initiatives, aligned with national and regional objectives and with global agreements, such as the Paris Agreement, have improved IICA's reputation as a preferred partner to address issues such as adaptation, climate risk and food security, as a way to improve livelihoods and reduce the overall vulnerability of farmers, stakeholders and agrifood systems to drought and extreme rain and flooding.

Agricultural health and food safety

IICA was recognized by the U.S. Food and Drug Administration (FDA) as an essential partner in the Americas, given its extensive network of contacts in industry, academia and Governments, in addition to its reputation as a regional expert on agriculture and food security, enabling these sectors to achieve better results. Further information can be found at the following link: https://www.fda.gov/international-programs/global-perspective/inter-american-institute-cooperation-agriculture-essential-fda-partner.

In terms of discussions on science-based standards in relation to proposals arising among delegates and official country representatives at international forums, the Institute, in collaboration with the United States, Canada, and the Codex Alimentarius Committee for Latin America and the Caribbean (CCLAC), held three strategic meetings prior to the meetings of the Committee on Sanitary and Phytosanitary Measures (SPS Committee). They also organized three sessions to discuss the rules proposed by the World Organization for Animal Health (WOAH, formerly the OIE) and six colloquiums to discuss standards for the General Session of Codex Alimentarius (funding was provided for the participation of the 24 countries). Moreover, in collaboration with the Codex Alimentarius Commission (CAC) and the USDA, IICA promoted regional harmonization of standards on maximum residue levels (MRLs) in Central America and the Andean Region.

Several partnerships were also forged in this area. For example, IICA participated in the Meeting of the Executive Committee of the Global Burden of Animal Diseases (GBAD) program and mobilized external resources from the University of Liverpool to identify case studies in the Americas. Along with the Permanent Veterinary Committee of the Southern Cone (PVC), it organized virtual meetings that registered 100 participants from nine countries and trained 18 technical officers through the Course-Workshop on "The Economics of Animal Health Programs", which targeted the veterinary services of the PVC. Moreover, 19 countries participated in a conference by the International Atomic Energy Agency (IAEA) on the economics of transboundary diseases and a

publication was prepared to inform the decision making of countries with respect to the final phase of the Hemispheric Program on the Eradication of Foot and Mouth Disease (PHEFA) in the Southern Cone.

The Caribbean Food Safety Information Portal (https://caribbeanfoodsafety.com) was completed and tested in Barbados, Dominica, Guyana, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Saint Lucia and Trinidad and Tobago. This platform, which serves as an archive for updated and easily accessible resources on food safety for micro and small agroprocessors in the region, provides access to the resources of more than 250 websites, on topics such as culture and basic food safety concepts, safety throughout the supply chain, national food safety regulations, safety testing in national and regional laboratories and COVID-19. Between August and November of 2022, close to 1,400 persons had already visited the site.

Twinning Project on Antimicrobial Resistance

Various methodologies were developed in eight countries for antimicrobial resistance (AMR) epidemiological surveillance systems, facilitating laboratory data analysis, with a view to executing science-based actions to prevent and mitigate AMR. In Costa Rica, efforts focused on surveillance in aquaculture and in Honduras, El Salvador and Nicaragua, an AMR surveillance pilot plan was implemented for poultry. Actions in Mexico, Brazil and Chile focused on laboratory data analysis and in Trinidad and Tobago on laboratory certification. Moreover, nine short videos were posted on social media (Facebook, Instagram and LinkedIn), speaking about the impact of the project on the participating countries. The videos attracted 1,616 views and were reproduced 180 times each, on average. A virtual course was also held on AMR diagnostics, in line with standards of the Clinical and Laboratory Standards Institute (CLASI), which promotes the implementation of harmonized diagnostic methodologies among the surveillance systems of countries in the Americas.

Nine webinars on African swine fever (ASF) prevention and response were carried out. Topics covered included compensation mechanisms, implementation of emergency actions following confirmation of ASF, the latest ASF-related actions in the Dominican Republic, standards and regulatory frameworks for transboundary disease prevention and response (two webinars), contingency plans (two webinars) and animal health risk communication (two webinars). The nine webinars were viewed live by a total of 1,393 users (an average of 155 per webinar) via the Zoom platform. The webinars were also subsequently reproduced a total of 11,263 times in four languages, with 8,751 reproductions in Spanish (an average of 972 per event), 1,410 in English (about 157 per webinar), 659 in Portuguese (an average of 73 per event) and 443 in French (about 49 per webinar).

"Support to CARIFORUM States in Furthering the Implementation of their Economic Partnership Agreement (EPA) Commitments" Project

This sanitary and phytosanitary (SPS) measures project is one of the components of the 11th European Development Fund (EDF) Program. It seeks to modernize the region's agricultural health and food safety (AHFS) systems by supporting the Member States of the Forum of the Caribbean Group of African, Caribbean and Pacific States (CARIFORUM) in complying with international sanitary and phytosanitary measures, standards and procedures to expand their access to international and regional markets. With a view to modernizing the current SPS regulatory framework, a regional policy and action plan was developed and subsequently validated by beneficiary countries and approved by the CARICOM Council of Ministers. The policy is currently being applied by the AHFS Regional Thematic Group and a pilot plan of the National AHFS Policy Framework is being implemented. Belize, Guyana and Saint Lucia, in turn, received support to improve their national legislation on this topic.

Work aimed at strengthening the enabling framework for inter-sectoral AHFS coordination was completed. Specific activities included assessments of the performance of AHFS systems in the region and of training needs related to the administration of AHFS services; as well as the delivery of a leadership and management course to senior and mid-level managers who play a role in the implementation of their national system. Thirty-three (33) senior and mid-level public service officials from 11 countries completed the course and have begun to apply the skills acquired to overcome some of the obstacles faced in coordinating SPS systems. As part of efforts to improve the technical capacity of public and private sector partners to implement the requisite processes and procedures for trade, technical assistance in food safety was provided to 12 SMEs in specific value chains (herbs and spices, roots and tubers, and coconut) in 11 countries. Specifically, food safety audits were conducted and action plans were developed to improve each entity's food safety management systems.

Two capacity-building activities were conducted with national plant protection organizations (NPPOs) to assist them in preventing and managing the entry of key plant pests into the Caribbean. The first activity, which outlined an approach to assess the status of national pest outbreak response systems, provided training to 21 plant health professionals from the NPPOs of Antigua and Barbuda, Dominica, Grenada, Jamaica, Saint Lucia, and Trinidad and Tobago. Through the "Virtual Course on Diagnosis, Surveillance and Management of Economically Important Plant Parasitic Nematodes", offered in collaboration with the University of Florida, training was delivered to 30 plant health professionals from Antigua and Barbuda (1), Belize (3), Dominica (3), Grenada (2), Guyana (2), Haiti (2), Cayman Islands (1), Jamaica (3), Saint Kitts and Nevis (4), Saint Lucia (2), Suriname (2), Saint Vincent and the Grenadines (2), and Trinidad and Tobago (3). The course was conducted as part of the Greater Caribbean Safeguarding Initiative (GCSI), in collaboration with the Emergency Response and Safeguarding technical working groups of the Caribbean Plant Health Directors Forum

(CPHD), as well as with the Center for Agriculture Bioscience International (CAB International), the Caribbean Agricultural Research and Development Institute (CARDI) and the Plant Protection and Quarantine (PPQ) Program of the USDA Animal and Plant Health Inspection Service (APHIS).

Within the framework of regional integration mechanisms, several events were organized:

- Two webinars together with the Inter-American Coordinating Group in Plant Protection (GICSV): one entitled "Use of Remote Sensors in Orthoptera Pests", with more than 240 participants, and another entitled "Biocontrol and Climate Forecasting with a Focus on Locusts", with more than 100 participants. GICSV products are published at http://apps.iica.int/GICSV/default.aspx.

- The seminar entitled "Phytosanitary Risks Associated with the Pine Wood Nematode *Bursaphalenchus xylophilous*, and its Vectors, the Pine Sawyer Beetles *Monochamus sp.*" together with the Plant Health Committee (COSAVE), which was attended by international experts from Brazil, Portugal, Spain and Chile and more than 360 specialists from the countries of the region, who had a very positive response to the activity.

Efforts aimed at strengthening the sanitary and phytosanitary capabilities of the fisheries sector yielded the following results:

- Enhanced regional and national coordination and cooperation in the fisheries sector to improve the implementation of hygiene standards for fish and fishery products. Beneficiary countries developed and validated a roadmap/operational framework for sanitary and phytosanitary coordination in the fisheries sector (March 2022), which was approved by the Ministerial Council of the Caribbean Regional Fisheries Mechanism (CRFM).

- The provision of technical assistance in food safety to two fishing operations in Guyana and Suriname to improve their compliance with health regulations. Specifically, more than 100 factory workers received technical training and guidance in the development of safety management systems. Additionally, two 15-minute documentaries were produced to share each operation's approach to improving food safety conditions.

- The development of a training platform that serves as a repository for all sanitary and phytosanitary information related to the fisheries sector.

- Improved capacity to carry out laboratory tests in the fisheries sector, thanks to the provision of training, technical guidance and equipment to two laboratories in Belize and Grenada, to support their residue surveillance and environmental monitoring.

The Institute published the *Guide to Good Practices in Cow's Milk Production,* developed by Central American countries and the Dominican Republic with the support of IICA, SECAC and FECALAC. The guide contributes to guaranteeing safe production of milk and its byproducts, thereby protecting public health, animal welfare and the environment. It seeks to enhance the dairy sector's competitiveness, development and sustainability.

Crop improvement in Guyana

With support from the Tropical Agricultural Research and Higher Education Center (CATIE), EMBRAPA, the Inter-American Development Bank (IDB) and the Basic Needs Trust Fund (BNTF), work is underway to improve coffee and cocoa productivity, introduce commercial wheat cultivation, provide training in production costing, and to build greenhouses, respectively.

With contributions from IICA, SECAC and FECALAC specialists, the Institute validated the study entitled *Analysis of the Impact of Current Trade Agreements to Capitalize on and Improve Opportunities and Access of Central American Dairy Products*, prepared by public and private organizations from the six Central American countries. The study identified trade challenges and opportunities for the region's dairy sector, taking into account the current status of commitments, the level of trade liberalization and actions carried out in Central America.

Additionally, IICA developed an online course and manual on the principles and execution of Good Agricultural Practice (GAP) audits and the objectives of key extension and field officers and producers. The course will be made available on the Institute's online learning platform.

With a view to facilitating food trade and safety, countries such as Costa Rica, Colombia, Ecuador, Panama and Peru have strengthened their capacity to develop studies on the magnitude of pesticide residue. These studies, which are carried out under an agreement with the Minor Use Foundation (MUF), generate scientific information that Codex Alimentarius utilizes to establish MRLs for minor crops. Furthermore, official services enhanced their capacities in animal health economics, specifically the design and evaluation of veterinary services.

With respect to institutional modernization, the Institute assisted Argentina's National Agrifood Health and Quality Service (SENASA) in strengthening its technical capacity and adapting its institutional framework and processes to the local health systems concept promoted by the World Health Organization (WHO). The agreed-upon work plan proposes the development and discussion of a new model for the SENASA of the 21st century, which will enable it to face a challenging and ever-changing context. A strategic analysis was carried out, with a view to addressing the agriculture sector's needs with respect to health protection, the inclusion of family farming in sanitary and phytosanitary projects and programs, as well as the adoption of technology, smart systems and the "One Health" concept, among others. In that regard, SENASA is

preparing to undertake institutional risk management; to that end, IICA provided guidance in the development of a risk matrix and contingency plans.

Mexico's agricultural health: a productive and commercial public asset

With a view to safeguarding Mexico's plant health status, the Institute cooperated with the National Service for Agrifood Health, Safety and Quality (SENASICA) of the Secretariat of Agriculture and Rural Development (SADER) to drive institutional strengthening through five programs implemented with SENASICA: Flies, Diagnostics, Inspections, Substantive Functions and State Coordination. As a result, 1) a network of 34 laboratories remained in operation[10]; 2) verification points for agricultural products and raw materials at ports as well as in airports and highways were strengthened; 3) the entire country remained free of the Mediterranean fruit fly and 52% of the territory remained free of the fruit fly; and 4) the entry of more than 1,000 pests and 56 exotic diseases of economic importance was prevented. This enabled the country to increase its agricultural production by 1.4% compared to 2021, solidifying its standing as the world's 11th largest food producer and the 7th largest exporter of agrifood products to more than 160 countries around the world.

With the cooperation of IICA, health authorities also undertook initiatives to deal with the following emerging pests or diseases:

- the *Varroa destructor*, which attacks bees, in Antigua and Barbuda, Ecuador and Saint Lucia;
- the tomato leafminer (*Tuta absoluta*), in Antigua and Barbuda and Grenada;
- ASF, in Ecuador, Haiti, Jamaica, the Dominican Republic, Saint Kitts and Nevis, Trinidad and Tobago and Venezuela;
- *Fusarium oxysporum f. sp. cubense* Tropical race 4 (FocTR4), which wilts bananas, in Colombia, Ecuador, Peru and Venezuela;
- various diseases, using in vitro disease-tolerant coconut germplasm from Mexico's Yucatan Scientific Research Center (CICY), in Suriname;
- the fruit fly, in the United States; and
- huanglongbing (HLB), in the high valleys of Carabobo and Yaracuy in Venezuela.

Multinational projects with IICA's involvement also addressed cadmium levels in cocoa and AMR in animal production. Lastly, with the support of the USDA and the Institute's cooperation, the following were achieved:

[10] Twenty-seven (27) of which focus on molecular biology

- Technical regulations related to the equivalence of systems in El Salvador were updated (Poultry Admissibility Project).

- Capabilities related to the diagnosis of bovine tuberculosis, immunology, epidemiology, traceability, quarantine and herd management were strengthened in Guatemala through the "*Mycobacterium bovis* Strain Characterization" project.

- Technical and administrative cooperation was provided to the Ministry of Agriculture (MARD) to address ASF in the Dominican Republic in an integrated manner, including compensation for pig producers affected by the disease.

Digitalization of agrifood systems

IICA held Digital Agriculture Week, with the participation of key stakeholders involved in the agricultural digitalization process: seven ministers, deputy ministers and senior government officials, 15 leading AgTechs, two corporations related to agriculture and technology, four leading academic institutions, four innovation mechanisms or NARIs, two exemplary farmers in their fields of work, three investment funds and accelerators, five multilateral agencies and two extra-continental initiatives. There were 56 presentations and more than 30 hours of knowledge-sharing during the week, which strengthened the Institute's standing in this area. The event also facilitated the establishment of linkages with AgTechs, with whom the Institute assessed the possibility of creating an AgTech network and defined guidelines for IICA's technical cooperation to foster agricultural digitalization.

Moreover, at 16 virtual and in-person events held in 14 countries, the Institute delivered presentations on digitalization, specifically concepts, trends, IICA's vision on that topic, the range of technologies it offers and challenges at hand.

The Institute also completed a review of policies aimed at fostering agricultural digitalization in Uruguay, Brazil, Colombia, Costa Rica, Guyana, The Bahamas and Mexico, identifying and describing more than 25 initiatives. Based on the material generated, OPSAa organized a virtual dialogue room with policymakers from the countries analyzed (more than 70 people), who exchanged experiences related to agricultural digitalization policies. IICA also generated reference materials for policymakers and built bridges between countries on this topic.

In partnership with the United Kingdom's Department for International Trade, the Institute conducted a study on the extent of AgTech development in Brazil, with special emphasis on vertical digital solutions. The study provided detailed information on aspects related to potential AgTech supply and demand in Brazil, which is a benchmark country in the field, and generated opportunities to interact with officials from EMBRAPA and MAPA's innovation coordination department.

The Community of Practice on the Digitalization of Agrifood Systems was created as an internal network of more than 30 IICA staff members who are involved or interested in digitalization. It became a forum to share experiences, incubate projects and exchange knowledge in order to coordinate actions and consolidate work teams.

Some examples of agricultural digitalization efforts that the Institute undertook in the countries are as follows:

- Bolivia: As part of the INNOVA-AF project, which seeks to implement climate change adaptation technologies, nanocomputers powered by solar panels facilitated the measurement of climate variables.

- Brazil: A series of dialogues on digital innovation were held with international experts, who discussed topics such as artificial intelligence, blockchain, AgTechs and rural connectivity, among other areas of interest to the Southern Region.

- Costa Rica: A women's technology rally was held, which benefited women from the forest fire brigades of the Chorotega Region.

- Dominica and Saint Lucia: At least ten farmers in Dominica received training in the use and maintenance of drones. Similar efforts to foster the use of this technology were undertaken with the Ministry of Agriculture of Saint Lucia.

- Haiti: With IFAD funding, and as part of an agricultural digitalization project implemented with Agriterra, organizations and individuals received training in digital marketing apps.

- Dominican Republic: Through the Smart Agriculture Skills and Leadership Program (AGROSUR 4.0), IICA encouraged the management of new paradigms for smart and sustainable agricultural development.

- Venezuela: Together with the Confederation of Agricultural Producers' Associations (FEDEAGRO), seminars were held to train 150 leaders in topics related to the fourth industrial revolution, Agriculture 4.0 and start-ups.

Gender equality and youth

IICA created a high-level forum for reflection among ministers and secretaries of Agriculture of the Americas. The initiative was launched as a follow-up to Resolution No. 534 of the Inter-American Board of Agriculture (IABA), which establishes the need to generate opportunities for exchange and knowledge-sharing that will facilitate discussions on the social and political transformations required in the fields of science, technology and innovation, incorporating a gender perspective.

In response to the resolution, and in coordination with the ministries of Agriculture, IICA formally established the forum and held its second and third editions, which focused on "The New Frontier of Knowledge and the Importance of the Role of Women in Science" and "Policies with a Gender Perspective in the Agrifood Systems of the Americas: Priorities for the Region", respectively.

One of the main requests of the ministerial authorities was to develop training courses for rural women. Therefore, IICA launched the first edition of the course "Introduction to Entrepreneurship for Rural Women" in November. The purpose of the course was to a) achieve economic autonomy for rural women, b) foster entrepreneurship to enable them to become leaders in the productive, social, economic and technological spheres, and c) contribute to reducing the gender gap.

Resilient women in the Caribbean

Networks of women producers in The Bahamas, Suriname and Saint Lucia[11] continue to receive technical, logistical and advisory assistance from the Institute to improve their associative, production and marketing efforts. In Dominica, with assistance from the UNDP, funding mechanisms were generated, good agricultural practices were implemented, and market access was expanded to support female-led small and medium-sized enterprises, which allowed them to enhance their livelihood resilience.

Furthermore, on International Youth Day, so designated by the United Nations, the Hemispheric Rural Youth Community was launched. IICA also held a forum on "The Role of Rural Youth and Food Security in the Americas", which allowed for sharing experiences and perspectives on both issues.

The initiative was carried out with the support of Bayer, Creativa and CENFOTEC universities of Costa Rica and El Zamorano of Honduras, the Alliance for Entrepreneurship and Innovation (AEI) of Ecuador, the NextGen Ag Impact Network (NGIN) coalition, I4NATURE and 4-H. Available in Spanish and English, the platform is accessible to people with disabilities and consists of three main sections (Sow, Water and Harvest), in which youth can exchange ideas and advertise their products and services. It also includes additional open-access sections for further interaction.

New generation of agricultural leaders

Youth from Antigua and Barbuda learned about farm management and acquired agribusiness skills through the Institute's Youth Farm Program. On the other hand, 103 rural youth from the Huetar, Caribbean, Cartago and Chorotega regions of Costa Rica graduated from the "New Farmers of the Millennium" School of Agricultural Leaders, launched together with the Ministry of Agriculture and Livestock (MAG) and the National Council of 4S Clubs of Costa Rica.

[11] With resources from Taiwan, 25 women have ventured into mushroom production and marketing.

The aforementioned achievements have enabled IICA to strengthen its work with strategic partners such as NGIN, Bayer, Universidad CENFOTEC, Universidad Creativa, 4-H and the Sustainable Agriculture Network (SAN), among others, and to publicize the Institute's work in this area. As a result, the Institute has contributed to reducing the gaps that affect rural women and youth in the Americas.

Other activities carried out included the following:

- An awareness-raising workshop with an intersectional gender approach, carried out with the support of SAN.
- Various regional events, including the Women Economic Empowerment Forum, held in Saint Kitts and Nevis, and an event held in Canada to celebrate fifty years since the opening of the IICA Office in that country.
- "Course for Rural Women of the South", organized by the Institute in Paraguay as part of the Diploma Program of the Latin American Faculty of Social Sciences (FLACSO).
- General agreement with the NGIN, participation in the World Food Forum, participation in the flagship event in Costa Rica and organization of the side event on regenerative agriculture and youth.

Within the framework of OPSAa, policies related to gender and youth were monitored, namely in Honduras, Guatemala, Chile, Jamaica, Peru, Grenada, Haiti, Costa Rica, Canada and Ecuador, among other countries. This included eleven state policies, five national strategies, four roadmaps, ten laws, nine action plans, and three youth-related documents: a) Rural Youth Program, b) Public Procurement Policy, and c) Civil Service for Graduates in the Agriculture Sector.

Institutional relations and project management

IICA, as an institution based in the Americas with a global outlook, forged ties with various organizations in other regions, for example, with the Alliance for a Green Revolution in Africa (AGRA) and the African Union Development Agency (AUDA-NEPAD), collaborating to host the First Africa-Americas Ministerial Summit on Agrifood Systems: "Building Bridges for Cooperation in Agrifood System Transformation". The event brought together ministers of Food, Agriculture and the Environment of the two regions, along with representatives of more than 40 key public and private agencies, academic institutions, civil society entities, non-governmental organizations and international and regional organizations to discuss and devise joint solutions to foster environmental sustainability, resilient livelihoods and overall agrifood system transformation in their respective regions and countries. In the spirit of co-creation and complementarity, the Institute strengthened its relationships with countries and organizations in the African continent, given that both regions possess a wealth of

natural resources and biodiversity and that their tropical agricultural systems have the potential to drive the transformation of agrifood system in the Americas, Africa and the world.

In Europe, IICA, along with the Director of Casa América in Madrid, organized the symposium "Innovating Agriculture in the Americas", in partnership with the Euroamerica Foundation and the Spanish Agency for International Development Cooperation (AECID). The event was attended by several high-level authorities, including representatives from the embassies of Mexico, Guatemala and Paraguay, and from the Ministry of Agriculture, Food and the Environment (MAGRAMA) of Spain, AECID, the Ibero-American General Secretariat (SEGIB), the Institute's partner organizations in Spain and various agricultural international organizations, such as the Food and Agriculture Organization of the United Nations (FAO) and the World Food Program (WFP).

An IICA-VOGUE exposition was held in Berlin, Germany, to publicize the work of the Institute. Various activities were undertaken with the German Agency for International Cooperation (GIZ) to highlight the Institute's work. A photo exhibit was also installed during "Unidas Week" – an event organized by the Unidas Women's Network of Germany's Federal Foreign Office. This allowed the Institute to share and forge ties with the Network and with a group of outstanding women in politics, society, culture, media, science and business. Moreover, IICA participated in European Development Days (EDD), organized by the European Commission (EC), by displaying a traveling photo exhibit in Brussels, entitled "Rural Women of the Americas: Sowing Tomorrow's Agriculture Today", produced by the Institute and VOGUE Brazil. Finally, IICA supported the Inter-American Commission on Organic Agriculture (ICOA) in establishing a stand at Organic Food Iberia in Madrid and in undertaking a technical mission to the European Union (EU).

In keeping with the Institute's business model, which aims to improve the organization's technical relevance and expand its sources of income, IICA strengthened its linkages with public and private global and regional organizations, such as the Secretariat of the Commonwealth, World Vision, Bayer, Syngenta, the World Farmers' Organization, Microsoft, Agbar Agriculture, S.A., AECID, CAF-Development Bank of Latin America and academic institutions, such as Universidad Complutense de Madrid, Universidad de Córdoba and Universidad Zamorano.

Moreover, IICA continued to modernize its governing bodies, deepening their relationship with various stakeholders in the agrifood sector of the Americas, in particular with the United States Chamber of Commerce, the Agrobiotechnology Institute of the Universidad del Litoral (Argentina) and CAF-Development Bank of Latin America, which all participated in the Forty-second Regular Meeting of the Executive Committee.

On the project side, the Institute mobilized approximately USD 3.7 million of external resources in Haiti and El Salvador, providing technical support for identification of and

negotiation in response to international calls for proposals, as well as for the formulation and timely presentation of proposals to donors to sell services within the framework of the new institutional business model.

With a view to capitalizing on climate fund opportunities, IICA assisted the Ecuador Development Bank to formulate and gain approval for a Green Climate Fund Readiness Proposal, valuing USD 300,000. It also was able to secure approval by the GCF Climate Investment Committee of` its first concept note as an accredited entity to support a request for funds in preparation for the project "Climate Change Mitigation and Adaptation in Cocoa Agroforestry Systems in the Amazon and Atlantic Forest Biomes", to be executed in Brazil.

Moreover, the Institute explored new non-traditional sources of external cooperation, such as UK-AID and the Norwegian Agency for Exchange Cooperation (NOREC), to become acquainted with their cooperation instruments, analyze them and to enable IICA delegations in the member countries to access them. Consequently, during the final three months of the year, two proposals for the Biodiversity Landscape Fund (UK-AD) were developed. One of them, valuing USD 12 million, sought to promote landscape architecture in Mesoamerica, and the other, valuing £ 12.3 million, aimed to improve landscapes and areas in the Amazon.

Institutional relations with representatives of the Inter-American Development Bank (IDB), CAF- Development Bank of Latin America and the International Fund for Agricultural Development (IFAD) were strengthened, resulting in the organization and hosting of regional events on topics of hemispheric interest and the development of a joint work agenda, aiming to mobilize additional external resources and undertake new operations in coming years, primarily in the Central, Caribbean, Andean and Southern regions of the Institute.

IICA expanded its group of strategic, private sector partners to include entities like Equinoccio, OCA-Global, CDP Disclosure Insight Actions, Latin American and Caribbean Air Transport Association (ALTA), National Cooperative Business Association-CLUSA International (NCBA-CLUSA), Asociación Peruana para la Conservación de la Naturaleza (APECO), World Agroforestry-Center for International Forestry Research (CIFOR-ICRAF), Producers Market and World Vision. The Institute has been partnering with them to formulate and submit new, competitive technical proposals from the member countries, in response to international and regional invitations to tender.

IICA generated new technical cooperation opportunities at the hemispheric level, by developing new models for sale of services with international partners, which will enable it to provide technical advice to strategic cooperation programs such as EUROCLIMA+, while supporting the climate agenda in member countries. At the national level, El Salvador was successful in a competitive process, obtaining USD 6,000 from AECID, to formulate a nationally appropriate mitigation action (NAMA) in the livestock sector.

Governance and official meetings

Executive Committee

The Forty-Second Regular Meeting of the Executive Committee[12], which was held on 19-20 July 2022 from IICA Headquarters, adopted a hybrid format. The meeting was chaired by Mrs. Laura Suazo, Secretary of Agriculture and Livestock of Honduras.

The Executive Committee approved the adjustments to the Institute's Medium-term Plan, for implementation in 2022-2026, providing a framework to guide the actions of IICA during the period. It also approved and commended the 2021 Annual Report of the Institute.

The Committee recognized and expressed its wholehearted support for the national and multilateral efforts that would be instrumental in raising the profile of the agriculture sector at the 27th Conference of the Parties (COP27) to the United Nations Framework Convention on Climate Change (UNFCCC). It requested that the Director General have IICA develop key messages to be presented by the ministers of Agriculture of the Americas at that conference, after being submitted for the consideration of the Ministerial Meeting on Climate Change and Agriculture. Moreover, it instructed the Director General to arrange for a pavilion at COP27, to showcase the advances, challenges, priorities and recommendations of the agriculture sector in the fight against climate change, as well as the multiple benefits to be gained by countries in the Americas from the increased resilience of the sector in food and nutritional security, environmental sustainability, water conservation and management, livelihoods, peace and stability, poverty reduction, as well as in decreased land and soil degradation. The governing body tasked the Institute with sending a letter to the then incoming Presidency of COP27, to be held by Egypt, advising that the ministers of Agriculture of the Americas believed that the agriculture sector should feature prominently in the discussions at COP27, as a means of ensuring greater support, action and climate ambition. Finally, it requested that IICA continue to support its Member States in developing capacities to enable the agriculture sector to increase its participation in and influence on national and international climate processes; in developing and implementing nationally determined contributions (NDCs) and national adaptation plans (NAPs) in the sector; as well as in mobilizing the required funding to achieve these objectives.

The Executive Committee also acknowledged that coordinated efforts by the countries of the Americas would be fundamental in tackling the food, nutritional and humanitarian crisis in the region and the world, stemming from the effects of the coronavirus 2019 (COVID-19) pandemic, adverse climate phenomena and armed conflicts in the world, which had disrupted food supply chains and caused costs for agrifood production and food prices to skyrocket.

[12] The Committee was made up of the following Member States: Barbados, Brazil, Canada, Chile, Colombia, Ecuador, El Salvador, Grenada, Guatemala, Honduras, Mexico and Suriname.

The Member States of the Institute were asked to endorse the "Proposals on Strengthening Collective Action in the Americas to Tackle Food Insecurity and Ensure Sustainable Development", presented by the IICA Director General at the IX Summit of the Americas.

The Executive Committee instructed the Director General to lend the support of the Institute to the food and humanitarian aid initiative of the United States Agency for International Development (USAID) for countries in Latin America and the Caribbean, as well as to other initiatives that may arise from the same objective.

It also reiterated the importance of innovation, science and technology to enable the agrifood systems of the Americas to become more productive, sustainable and inclusive, as well as to contribute to achieving a new balance between production, productivity and sustainability in agriculture. On the other hand, it stressed the need to link these systems to other sectors in the economy, through research and development (R+D). IICA member countries were also urged to continue strengthening capacities to further innovation, science and technology in the agriculture sector, promoting increased public and private investment in this strategic area.

The Executive Committee members asked the Director General to redouble the Institute's support for the design of public policies and regulations aimed at fostering and developing innovation, science and technology at the national, regional and hemispheric levels, in line with the specific characteristics and needs of IICA member countries.

Finally, the Institute's financial statements for 2021 and the reports of the external auditors and of the Audit Review Committee (ARC) were presented to the Committee, demonstrating the proper administration of the organization.

Official meetings held in 2022

Official name	Date	Venue	Place and date of publication of the report or proceedings of the event
2022 Regular Meeting of the Special Advisory Commission on Management Issues (SACMI)	17 May 2022	Virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San Jose, Costa Rica, 4 July 2022
Forty-second Regular Meeting of the Executive Committee	19-20 July 2022	In person and virtually from IICA Headquarters in San Jose, Costa Rica	IICA, San Jose, Costa Rica, 30 January 2023

Main results of corporate management

Strategic management and organizational design

As a result of the strategies implemented to increase its corporate productivity and financial soundness, IICA consolidated corporate actions geared towards results-driven integrated planning, process-based management, work in networks, specialized skills development and efficiency in the use of resources. This planning approach, which has been perfected in recent years, has enabled IICA to define its objectives and goals with greater precision, as was demonstrated in 2022 by greater technical and financial achievements[13] for the benefit of the Member States.

By applying the principles of innovation, decentralization, transparency, coordination, resilience, efficiency, effectiveness and team spirit, the various administrative teams exceeded the goals set out in their work plans by more than 90%.

A decentralization plan was approved for the period 2023-2025. Its purpose is to foster efficient, dynamic and modern administrative management through decentralization and by delegating responsibilities to the country offices, in order to optimize the provision of services in an integrated, efficient, responsible and transparent manner.

The Institute continued to undertake efforts to strengthen its process culture within the framework of its business model, which resulted in the following achievements:

- The strategic development macro-process was optimized through the development of new guides on tactical planning, risk management, control and monitoring, experience capitalization and self-evaluation, based primarily on the adjustments presented in the new 2022-2026 MTP.

- Work in networks allowed for improving the integrated project management process, which was enhanced through key tools and procedures such as the use of the platform for the integrated management of external resources, the costing tool for technical cooperation initiatives, risk management in projects, the procedure for identifying and categorizing projects with an environmental impact, and the identification of lessons learned and best practices.

[13] Two hundred and sixty-eight (268) technical cooperation initiatives and USD 195.67 million executed.

- Staff members have recognized the new "process-based and digitalization culture" as a key part of the institutional environment and of the growing relevance of digitalization.

With respect to work in networks, a work modality that is becoming more ingrained at IICA, 21 work teams were established, with the participation of one-third (196 people) of the Institute's technical and administrative staff. The networks are making strides in terms of collaborative work and integration, making full use of internal capabilities.

As part of institutional modernization actions, the Institutional Regulations Advisory Team (IRAT) conducted a comprehensive review of the Institute's internal rules and regulations, to ensure that IICA has a modern, solid, simple and flexible regulatory foundation that will enable it to meet the challenges of the current context. All regulatory instruments were analyzed and Executive Order #36 2022, which lists the 55 instruments currently in force, was published. The Administrative Services Division was restructured to just three departments, which has resulted in a more efficient use of human and financial resources, as well as the fulfillment of tasks in due time, form and quality.

Monitoring and evaluation

The Institute's senior managers, program managers and representatives heading the offices in the 34 Member States have access to up-to-date, timely information through more than 60 business intelligence dashboards. This has facilitated compliance with technical and administrative goals, with an effectiveness rate of over 90% in the various cooperation initiatives, as well as the execution of more than USD 195 million in externally funded projects.

IICA's planning, monitoring and evaluation system enabled its 70 units to conduct monitoring exercises 24/7 and to achieve 91% of quantifiable goals and achievements.

In its quest for excellence in the delivery of technical cooperation services, IICA reactivated the annual evaluation plan for offices in the Member States. Assessment exercises were conducted, and improvement plans were implemented in Jamaica, Peru and Chile. The Institute also followed up on recommendations to strengthen the cooperation it provides in Guyana, Ecuador, Barbados and Uruguay. Additionally, 121 initiatives completed the self-evaluation exercise — a 10% increase compared to 2021. IICA strengthened its impact assessment capabilities with the help of experts from the Green Climate Fund (GCF) and the European Union (EU).

With a view to fostering continuous improvement, IICA published the "Experience Capitalization Guide" which enables the Institute to seek solutions with great potential to be scaled up, capitalize on lessons learned and encourage good practices. Given IICA's experience in institutional modernization, planning and risk management, staff at Headquarters and in the Institute's Office in the United States exchanged ideas with

monitoring and evaluation specialists from various agencies, as well as with the governments of Argentina, Guyana, Costa Rica, the Dominican Republic and Peru.

Budget and finances

In keeping with the financial austerity policy, resources earmarked for traditional operations were optimized, which allowed the Institute to reallocate approximately USD 6.5 million to provide direct technical cooperation in the countries. This attests to IICA's efforts to do more with less, while safeguarding its financial sustainability and ensuring proper functioning.

IICA was granted accreditation for EU Pillars 7, 8 and 9, in recognition of the high level of compliance of the Institute's administrative processes with those standards[14]. Additionally, for the fourth consecutive year, external auditors issued a clean opinion on the Institute's financial statements in their report, confirming the transparency and secure manner with which IICA manages its finances.

IICA also successfully underwent the USAID Organizational Capacity Review (OCR) for international organizations, reaffirming the fact that the Institute meets the highest standards and is able to effectively manage counterpart resources.

IICA maintained its investment plan and diversified its portfolio, which allowed for boosting annual returns and, in turn, contributed to the Institute's finances by increasing its miscellaneous income by USD 2 million.

Human talent

Based on best practices and lessons learned from the work-from-home experience that was effectively carried out during the COVID-19 pandemic, an institutional Telework Policy was implemented in June at the Institute's Headquarters. Starting in September, its application was expanded to all Delegations, based on each country's conditions and characteristics.

IICA developed a recognition program, based on new indicators that demonstrate extra effort and stellar performance in both the technical and administrative areas. Under the program, a performance bonus and an extraordinary bonus were awarded. An integration team comprised of staff members from the country offices and Headquarters analyzed the performance indicators of each unit, as well as the individual results described in staff members' annual performance dialogues. This process was carried out in coordination with the annual performance maps, with the participation of more than 90% of staff members, which allowed achievements to be assessed in an objective and constructive manner.

[14] Personal data protection, through compliance with institutional guidelines on personal data protection, including updating the regulations, monitoring compliance, developing compliance tools on IICA's Intranet and website, and undertaking dissemination and training activities.

An institutional benefits week was successfully carried out once in-person activities had resumed. The 35 member countries were broadly represented in the lectures, presentations and workshops, among other activities that were designed exclusively for staff members.

Based on the information provided in national salary surveys, the Institute conducted salary reviews for Costa Rica, Argentina, Canada, Ecuador, Guyana, Trinidad and Tobago, Barbados, Mexico, Barbados, Brazil and the Eastern Caribbean States (ECS). Close follow-up was also provided to the Member States that reported hyperinflation during the year, namely Suriname, Haiti and Argentina, where extraordinary salary increases were implemented to maintain the purchasing power of personnel.

As part of the strategy to strengthen human talent, 40 staff members received certifications in project negotiation and conflict resolution skills. Additionally, in support of its financial sustainability efforts, three courses were designed on public policy and investment, development projects and business strategy.

Information and communication services and technologies

The Integrated Management System (SIG) represented a new step forward in the Institute's automation process, by integrating electronic document management, project management, and the module for the procurement of goods and services at Headquarters, as well as in the Mexico and Costa Rica delegations. The Institute maintained response times for contract processing and management at an average of two days. Additionally, all recurring suppliers were reviewed in 2022 to verify their compliance with policies on prohibited practices and fraud[15]. Other systems were also put into operation, such as those related to costing, network management and external resource management, as well as the websites for the 2022-2026 MTP, the Plant Health Committee of the Southern Cone (COSAVE), the Public Policy Observatory for Agrifood Systems (OPSAa) and the Rural Youth Community.

Some examples of technical cooperation actions that demonstrate the Institute's leadership in the use of digital technologies and automation are as follows:

- Workshops in science, technology, engineering, the arts and mathematics (STEAM) were organized in commemoration of International Women's Day and Children's Day in Costa Rica.
- The Digigirlz event, which had more than 500 participants, including partners such as NI, Fundación Cedes Don Bosco, professional technical schools in Costa Rica and the International Food and Agribusiness Management Association (IFAMA) - Next Generation Agricultural Impact Network (NGIN).
- The XII Robotics Olympics, in which more than 700 people participated.

[15] In fulfillment of EU Pillar 7- Exclusion from access to funding, under which the status of recipients of institutional resources must be documented and verified.

- Open House Day: Master's Degree in Digital Agriculture, which included the participation of three scholarship recipients of the Master's Degree in Digital Agriculture of Universidad de Córdoba, Spain.

The Institute also undertook logistical and connectivity efforts to guarantee the success of the following activities: a) the 2022 Regular Meeting of the Special Advisory Commission on Management Issues (SACMI), b) the Forty-second Regular Meeting of the Executive Committee, c) the XII National Robotics Olympics, d) the Ministerial Meeting "Challenges for Agriculture in the Americas to Address the Climate Crisis" and e) IICA's 80th Anniversary Week.

Within the framework of the IICA of Open Doors Program, the environmental impact of our cooperation activities is taken very seriously. To that end, the Institute's green areas were used to establish the Forest of the Americas together with CATIE; solar panels were installed to power a part of a building at Headquarters; and the Institute established closer ties with neighboring communities in the canton of Vasquez de Coronado through the Plaza of Agriculture of the Americas, which brings together all elements of sustainable agriculture in a large, public community park. As a result of these actions, among others, the Institute was designated as a carbon neutral organization by the Costa Rican Government's Country Program on Carbon Neutrality. This distinction was granted in recognition of the actions that IICA has adopted to reduce and offset greenhouse gas emissions. Additionally, Costa Rica's Blue Flag Ecological Program once again recognized the Institute as an institution that advocates for environmental protection and the well-being of the population.

Lastly, the Institute enhanced the availability and adequate use of the Interpretive Center for Tomorrow's Agriculture (CIMAG) through the evaluation, implementation, maintenance and continuous improvement of exhibition areas at Headquarters, as well as the preparation of a guide on tours for visitors. Additionally, together with the company Syngenta, a pollinator or functional garden was set up at Headquarters and, in collaboration with the company DISAGRO, digital agriculture and Internet of Things (IoT) devices were installed in the Forest of the Americas to monitor environmental variables and insects.

Annexes

Annex 1
IICA pre-investment initiatives implemented in 2022

Start date	Title	Country	Amount allocated (USD)
2022	Building out Activities with Local Stakeholders for Implementation under Pegasus Capital Advisors (Producers Market)/IICA proposal to be submitted for NOFO Number USDA-FAS-10.606-0700-22-(127) call, under the 2022 Food for Progress (FFPr) program notice of funding opportunity (NOFO)	Jamaica	10,250
2022	Formulation of the project "Educando a jóvenes rurales para generar oportunidades en agronegocios sostenibles", to be presented to the Italian Ecuadorian Fund for Sustainable Development (FIEDS)	Ecuador	20,080
2022	Support for and technical supervision of seed producers and multipliers	Haiti	13,500
2022	Support for the formulation of a project for the Biodiversity Landscape Fund (BLF) for the Amazon region of Ecuador and Peru	Peru	28,100
Total IICA resources invested: USD 71,930			

Source: Directorate of Corporate Services/PMED.

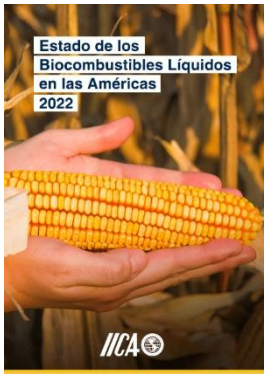
Annex 2
Main partners in IICA's 2022 agricultural and rural agenda

Countries	Organizations
Antigua and Barbuda	Australia Direct Aid Program (DAP) and The Global Environmental Fund (GEF)
Bahamas	The Global Environmental Fund (GEF)
Belize	Caribbean Community Climate Change Center (CCCCC), CARICOM, European Union (EU) and the Canada Fund for Local Initiatives (CFLI)
Bolivia	EnDev Global, New Zealand Fund, Green Climate Fund (GCF), Food and Agriculture Organization of the United Nations (FAO) and Swiss Contact
Brazil	German Development Bank (KfW), International Fund for Agricultural Development (IFAD), Inter-American Development Bank (IDB), International Bank for Reconstruction and Development (IBRD), FAO, UN Women, Organization of Ibero-American States for Education, Science and Culture (OEI), Organization of American States (OAS)
Canada	Genome Quebec, Desjardins International Development, Université Laval, McGill University, International Institute for Sustainable Development (IISD), IFAD and Forum for International Trade Training (FITT)
Chile	Universidad de Valparaíso, Universidad Tecnológica Metropolitana, Palacio de la Moneda, Agencia Chilena para la Inocuidad y Calidad Alimentaria (ACHIPIA) and Red Latinoamericana de Extensión Rural (RELASER)
Colombia	Federación Nacional de Cultivadores de Cereales, Leguminosas y Soya (FENALCE), BAYER, Sustainable Agriculture Network, RELASER, IFAD, GIZ and Gran Tierra Energy Colombia
Costa Rica	European Union, International Organization for Migration (IOM), Central American Agricultural Council (CAC), Spanish Agency for International Development Cooperation (AECID), Coalición Costarricense de Iniciativas para el Desarrollo (CINDE), Central American Bank for Economic Integration (CABEI) and European Union
Dominica	United Nations Development Program (UNDP) and University of Florida
Ecuador	UNDP, GCF and GEF
El Salvador	AECID, Euroclima+ and European Union
Grenada	Caribbean Agriculture Research and Development Institute (CARDI), RELASER and Sandals Foundation
Guatemala	United States Department of Agriculture (USDA), AECID, European Union, Green Climate Fund and the International Center for Tropical Agriculture (CIAT)
Guyana	Caribbean Development Bank, Basic Need Trust Fund, Inter-American Development Bank, Tropical Agricultural Research and Higher Education Center (CATIE), FAO, CARICOM and EMBRAPA
Haiti	Agronomists and Veterinarians without Borders, GCF, IFAD, CATIE and USAID
Honduras	Agencia Mexicana de Cooperación Internacional para el Desarrollo (AMEXCID), HEIFER International, AECID, European Union and IFAD
Jamaica	IDB, Standard and Trade Development Facility, European Union and the International Trade Center (ITC)
Mexico	IFAD, GCF, CATIE, Network for the Management of Innovation in the Agrifood Sector (Red INNOVAGRO) and CAF-Development Bank of Latin America
Panama	CAF–Development Bank of Latin America, IDB, European Union and GIZ
Paraguay	ITAIPU, Korea International Cooperation Agency, AECID and European Union
Peru	European Union, GIZ, AECID, IFAD, USAID and USDA
Dominican Republic	USDA
Saint Kitts and Nevis	Taiwan Technical Mission (TTM), Green Climate Fund (GCF)
Saint Lucia	GEF, UNDP, Taiwan Technical Mission, Caribbean Biodiversity Fund
Saint Vincent and the Grenadines	Canada Fund for Local Initiatives, Australian Government´s Direct Aid, CARICOM, FAO
Suriname	FAO, UNDP and Yucatan Scientific Research Center
Trinidad and Tobago	IDB, CARDI, The Cropper Foundation and GCF
United States	Trust for the Americas, OAS, World Food Prize, AltaSea and Regional Fund for Agricultural Technology (FONTAGRO)
Uruguay	IDB, FONPLATA Development Bank, Southern Agricultural Council (CAS), GCF and the Global Methane Hub
Venezuela	Universidad Central de Venezuela, Universidad Católica Andrés Bello and Latin American Integration Association (ALADI)

Annex 3
Principal IICA knowledge products

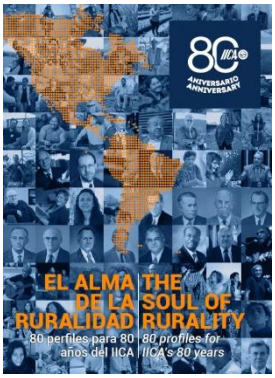
IICA virtual campus https://elearning.iica.int/	This consolidated virtual training platform offered 66 courses in 2022, having trained 131,868 persons since 2018.
Alliance of Agricultural Information Services - SIDALC https://www.sidalc.net	The platform was completely modernized and transformed, enabling greater efficiency in information updating and consultancy processes. It contains 2,276,502 digital documents from institutions in the agriculture sector of the Americas, representing a significant increase of 657%.
AgriPerfiles https://agriperfiles.agri-d.net/	Includes 16,350 professional profiles and 19,879 publications related to the agriculture sector of the Americas. In 2022, there was a 50% increase in users compared to 2021, with 126,739 people accessing the platform, viewing a total of 320,271 pages.
Integrated IICA-CATIE library management system https://opac.biblioteca.iica.int/	The system houses 147,932 physical and digital resources from the offices of both institutions. Throughout the year, 11,295 users accessed the platform and viewed 129,932 pages.
Institutional repository https://repositorio.iica.int/	Contains 21,066 digital documents – a 10% increase compared to 2021. The repository houses 1,065 audiovisual resources: 333 AgroEnlace programs, 482 videos, virtual forums and webinars. Users may also access IICA annual reports dating back to 1943 and country reports from 2010 to 2021. In all, 5,708,313 users accessed the repository, representing a 55% increase over 2021.
Scientific databases https://acceso.biblioteca.iica.int/	This platform facilitates access to renowned international databases in the fields of research and development. Professionals from both IICA and CATIE can access the site from any location. An investment of USD 45,000 was made to the system.
Technical cooperation initiatives http://apps.iica.int/dashboardproyectos/	Provides information on 579 technical cooperation initiatives.

Examples of recent publications:

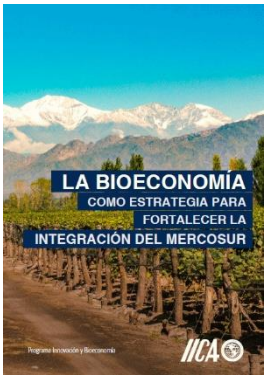


[Estado de los biocombustibles líquidos en las Américas]

[Sustainable Agriculture Milestones in the Americas]



[The Soul of Rurality]



[La bioeconomía como estrategia para fortalecer la integración del Mercosur]

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 Poultry Association
ALADI	Latin American Integration Association
AMR	Anti-microbial resistance
ASF	African swine fever
CAC	Central American Agricultural Council
CAF	Development Bank of Latin America
CARICOM	Caribbean Community
CAS	Southern Agricultural Council
CATIE	Tropical Agricultural Research and Higher Education Center
CINDE	Costa Rican Investment Promotion Agency
COOP	Cooperatives of the Americas
COP27	Twenty-seventh Conference of the Parties to the UNFCCC
COPROFAM	Confederation of Family Farmer Organizations of the Expanded MERCOSUR Region
COVID-19	Coronavirus 2019 disease
CVP	Permanent Veterinary Committee of the Southern Cone
EbA	Ecosystem-based adaptation
EMBRAPA	Brazilian Agricultural Research Corporation
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FECALAC	Central American Dairy Federation
FF	Family farming
FONTAGRO	Regional Fund for Agricultural Technology
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse gas emissions
GICSV	Inter-American Coordinating Group in Plant Protection
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation on Agriculture
INNOVA-AF	Knowledge Management for the Adaptation of Family Farming to Climate Change program
KJWA	Koronivia Joint Work on Agriculture
LAC	Latin America and the Caribbean
MAPA	Ministry of Agriculture, Livestock and Food Supply (Brazil)
MRL	Maximum Residue Limits
MTP	Medium-term Plan (IICA)
NARI	National agricultural research institution
NbS	Nature-based solutions
NDC	Nationally determined contributions
NPPOs	National plant protection organizations

OPSAa	Public Policy Observatory for Agrifood Systems (IICA)
PROCINORTE	Cooperative Program in Research and Technology for the Northern Region
PROCISUR	Program for Agrifood and Agroindustrial Technology Development in the Southern Cone
REAF	MERCOSUR Specialized Meeting on Family Farming
SAN	Sustainable Agriculture Network
SECAC	Executive Secretariat of the Central American Agricultural Council
SENASA	National Agrifood Health and Quality Service (Argentina)
SENASICA	National Service for Agrifood Health, Safety and Quality (Mexico)
SICA	Central American Integration System
SPS	Sanitary and phytosanitary measures
UNDP	United Nations Development Program
UNFCCC	United Nations Framework Convention on Climate Change
USDA	United States Department of Agriculture
WTO	World Trade Organization

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