



Forty-second Regular Meeting of the Executive Committee

Proposed adjustments to the Medium-term Plan (MTP)-Rev.1

IICA/CE/Doc. 736 (22) - Original: Spanish

San Jose, Costa Rica
19-20 July 2022

MEDIUM-TERM PLAN FOR THE PERIOD 2022-2026

I. INTRODUCTION	4
II. THE MEDIUM-TERM PLAN	4
<i>Achievements resulting from the implementation of the 2018-2022 MTP</i>	6
III. CONTEXT FOR IICA'S ACTIONS	8
<i>The change in agriculture's role in the economy and society</i>	10
<i>Prioritizing climate action in relation to agriculture and agrifood systems</i>	13
<i>Accelerating technological innovation processes</i>	14
<i>Challenges and opportunities for governance and institutional frameworks</i>	15
IV. TECHNICAL COOPERATION PROPOSAL FOR THE PERIOD 2022-2026	17
<i>Strategic statements</i>	17
<i>Business model</i>	18
<i>Technical cooperation proposal</i>	18
<i>Public Policy Observatory for the Agrifood Systems (OPSAA)</i>	20
<i>Coalition for Capacity Building to Transform Agrifood Systems</i>	20
<i>Programs</i>	20
<i>Interdisciplinary technical cooperation initiatives</i>	28
<i>Externally funded projects and external resources</i>	28
V. EXTERNAL RELATIONS STRATEGY	29
VI. INSTITUTIONAL AND SOCIAL COMMUNICATION	31
<i>The communication dimension of cooperation</i>	<i>¡Error! Marcador no definido.</i>
VII. CORPORATE SERVICES	32

I. INTRODUCTION

- 1 The purpose of the medium-term plans (MTPs) of the Inter-American Institute for Cooperation on Agriculture (IICA), proposed by its Director General and approved by its governing bodies, is to provide strategic guidelines for the implementation of the Institute's technical cooperation activities. In this regard, the 2022-2026 MTP has been conceived as an updated, adjusted plan that gives continuity to the 2018-2022 MTP, which has enabled the Institute to adequately respond to countries' requests for cooperation, make significant strides in institutional management, position the agriculture sector of the Americas and IICA in global discussions, and adequately advance towards an institution that achieves more results with fewer resources. The adjustments proposed herein have been made in light of the principles that guide the Institute's cooperation activities, as well as the fact that, in 2022, IICA will be celebrating 80 years of service to agriculture and rural territories in the Americas.
- 2 The MTP for the period 2018-2022 fostered an institutional modernization process aimed at capitalizing on the opportunities afforded by the context at that time, as well as resolving the limitations and difficulties facing the Institute, under a constructive and optimistic vision and through adequate management. In this regard, the plan described IICA as an open and dynamic organization that fosters collective action, that looks outward to the world from the Americas, that sets its sight on the future and that builds bridges to unite stakeholders, issues, countries, regions, subregions and continents.
- 3 It is considered appropriate and relevant to adapt the MTP to the changes that have taken place in the global context in recent years, taking advantage of the lessons learned throughout the implementation of the previous plan, making improvements to consolidate the significant institutional transformation processes underway, and recognizing the fact that, in addition to the goals and objectives achieved during this period, it is necessary, appropriate and convenient to consolidate the gains achieved.
- 4 This document is divided into seven chapters, including this Introduction. The second chapter presents an overview of the 2018-2022 MTP and its main achievements. The third chapter describes the main aspects of the new scenarios that should be considered, while Chapter IV describes the Institute's technical cooperation proposal for the 2022-2026 period. Chapters V, VI and VII address corporate services, external relations and the communication strategy.

II. THE 2018-2022 MEDIUM-TERM PLAN

- 5 The main strategic orientation of the 2018-2022 period was to transform IICA into an institution that focuses on serving its member countries, that manages knowledge, that fosters dialogue between countries and relevant stakeholders involved in agrifood systems, that establishes strategic partnerships and that improves effectiveness and efficiency in the use of available resources.

- 6 The main purpose of the 2018-2022 MTP was to build a renewed vision for technical cooperation, aimed at addressing the opportunities, challenges and commitments of the countries of the Americas. It states that the Institute's 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".
- 7 It also establishes the following vision for IICA: "To be a modern and efficient institution supported by a platform of human resources and processes that are capable of mobilizing the knowledge available in the region and around the world, with the aim of achieving a competitive, inclusive and sustainable agriculture that takes advantage of opportunities to contribute to economic growth and development as well as to foster greater rural well-being and sustainable management of its natural capital".
- 8 The plan establishes the foundation on which the Institute supports the Member States in their quest for sustainable agricultural development and rural well-being. The plan introduces adjustments to the institutional vision, placing special emphasis on technical cooperation to respond to the needs of the member countries, within the framework of the following strategic objectives: i) increase the contributions of the agriculture sector to economic growth and sustainable development; ii) contribute to the well-being of all rural dwellers; iii) improve international and regional trade for countries in the region; and iv) increase the resilience of rural areas and agrifood systems to climate change, through prevention and mitigation efforts.
- 9 To this end, the Institute proposed and implemented the transformation of the technical cooperation model, based on a series of guiding principles for management and under five technical hemispheric action programs: 1) Bioeconomy and Production Development; 2) Territorial Development and Family Farming; 3) International Trade and Regional Integration; 4) Climate Change, Natural Resources and Management of Production Risks; and 5) Agricultural Health, Safety and Food Quality; as well as on two cross-cutting issues: 1) Innovation and technology, and 2) Gender and youth. The MTP also presents the implementation scheme through which IICA provides its cooperation services to the countries: its technical cooperation modalities and instruments, as well as its national, regional and hemispheric cooperation agendas, which are based on the demands of agricultural and rural stakeholders.
- 10 This scheme has been complemented by a strategy for relationships and linkages, divided into three components. The first is aimed at fostering networks and strategic partnerships to strengthen the application of a collaborative approach with other international agencies, with a view to developing a foundation of shared knowledge; strengthening inter-agency, joint technical cooperation activities; and fostering horizontal cooperation. The second component involves the development of institutional capabilities for increasing the attraction and technical execution of external resources to complement the regular fund, by designing development projects and proposals to be presented to governments, international donors, funds and international financial institutions. The third component proposes the organization of technical

networks to mobilize human resources throughout the region to implement specific technical cooperation actions.

- 11 As part of the institutional transformation process driven by the 2018-2022 MTP, an operational framework for corporate services has been created to facilitate the delivery of technical cooperation with greater flexibility and attention to the real needs and demands of the member countries. This framework involves the application of a strategy aimed at improving the Institute's internal structure, administrative processes, human talent management, information and communication technology support services, and the manner in which support is provided for the execution of technical cooperation activities.

Achievements resulting from the implementation of the 2018-2022 MTP

- 12 This section describes some of IICA's achievements as a result of the implementation of the 2018-2022 MTP, which will serve as a starting point for updating the MTP for the 2022-2026 period:
- 13 ***The Institute has become a knowledge management platform*** that assesses and amplifies technical cooperation actions. Since launching the implementation of the MTP in 2018, IICA has developed more than 850 hemispheric, regional or national technical cooperation actions and projects on various topics related to the technical programs and cross-cutting issues. It has also promoted, on its own or together with global institutions and personalities, impactful initiatives that have generated regional public goods, such as the Living Soils of the Americas (LiSAM) initiative, Mission ADA (Digital Agriculture in Action), and the Program to Digitalize Cooperatives in the Americas. The Institute has also established a Network of Goodwill Ambassadors and IICA Chairs to link the Institute and its activities with distinguished individuals from the political, academic and business sectors of agrifood systems of the Americas. The Institute has also launched a human talent capacity-building and training program that includes professional visits and internships, which has allowed for involving 150 young professionals in the agriculture sector; it has held virtual training events on various topics related to agriculture, rural development and natural resources, with more than 100,000 participants from 80 countries, 40,000 of whom received certifications; and it has systematized 67 experiences, lessons learned and best practices that can be transferred to and scaled up in the member countries.
- 14 ***IICA has intensified mechanisms for dialogue on collective action*** by promoting, coordinating and providing support for more than 40 hemispheric and subregional meetings and dialogues among ministries and secretariats of agriculture. The Institute cooperated with, supported and strengthened its commitment to regional agricultural coordination institutions: the Southern Agricultural Council (CAS), the Central American Agricultural Council (CAC), the Caribbean Community (CARICOM), the Organization of Eastern Caribbean States (OECS) and the Andean Community of Nations (CAN). The Institute fostered the participation of, as well as

dialogue and agreement on a joint position among countries of the Americas at global meetings, conferences and summits. Particularly noteworthy were the Institute's efforts related to the Global Food Systems Summit 2021, convened by the United Nations (UN), which allowed for establishing a joint position expressed in the form of 16 key messages from the perspective of agriculture in the Americas. The Institute also supported and joined the 34 member countries of IICA at the meetings of the Conferences of the Parties (COP) on Climate Change and Biodiversity. The Institute has also established platforms and mechanisms to provide consultation and advisory services to the General Directorate of the Institute, made up of experts and leading figures in their fields of work, who amplify the Institute's strategic vision, such as the High-Level Advisory Council for Food Security (CASA) and the Advisory Committee on Communication for Agriculture and Food Security.

- 15 ***IICA has strengthened integration and coordination*** through the establishment of strategic partnerships with more than 210 partners (124 agreements with public institutions in 39 countries, 15 agreements with global or regional financial institutions, 16 agreements with relevant organizations and companies in the private agrifood sector, 16 partnerships with international agencies and international nongovernmental organizations, 16 partnerships with renowned knowledge centers worldwide) and by fostering the strengthening and consolidation of the following subregional technical cooperation mechanisms, among others: the Cooperative Program in Research and Technology for the Northern Region (PROCINORTE), the Cooperative Program for Agrifood and Agroindustrial Technology Development in the Southern Cone (PROCISUR), the Inter-American Commission for Organic Agriculture (ICOA), the Regional Fund for Agricultural Technology (FONTAGRO) and the Regional Forum for Research and Technology Development (FORAGRO).
- 16 ***The Institute is strengthening its administrative and financial management to improve its efficiency.*** Efforts and results in this area have been manifold and are critical to the institutional transformation process that is underway, through results-based management. Furthermore, during this period, the Institute succeeded in stabilizing the institutional cash flow and fostering financial austerity, which made it possible to redirect resources from operating expenditures to institutional cooperation actions. Progress was also made in improving the efficiency of administrative processes by reducing response times (contracts, project approvals, bids, etc.), and a "clean opinion" on audited financial statements was received.
- 17 ***IICA is strengthening its human talent.*** With a view to establishing a system for performance management, training and the development of leadership skills, a periodic institutional survey on the organizational climate and culture has been conducted to gather the necessary information and establish a baseline for the development and implementation of that system.
- 18 ***The Institute has a renewed business model.*** In the wake of the coronavirus disease 2019 (COVID-19) pandemic, which altered IICA's external and internal conditions, institutional transformation was accelerated by means of a new management model whose value proposition focuses on an innovation platform for agricultural development and rural well-being, that aligns

knowledge management with innovative solutions and prioritizes: (i) the need to build institutional capacities to deliver services and offer cooperation products that are timely, relevant, flexible, of a high quality and accessible; (ii) the consolidation of suitable technical teams to integrate knowledge; (iii) the strengthening of the network of offices that provide the Institute with hemispheric presence; (iv) the generation of demonstrable administrative, legal and operational capacity, efficiency and suitability; and (v) the establishment of a network of partnerships with international programs and bodies.

- 19 ***An IICA that communicates more and better***, by means of a strategy that integrates communication and information, which has served as a powerful cooperation tool for agriculture and its stakeholders and has allowed for substantially increasing the number of users of the technical content generated by the Institute, from 1 million to 10 million readers. The Institute's active and dynamic presence on social networks, with informative and educational content, has been significantly strengthened, as has its presence in mass media, where the number of mentions of IICA have tripled. The Institute has also strengthened its influence on and participation in media, which has allowed for positioning agrifood systems as a highly relevant topic (in more than 35 countries and with 2 million views and 60 articles published), with support from the Network of Agricultural Communicators, the Goodwill Ambassadors and the IICA Chairs for agricultural excellence.
- 20 ***The Institute projects itself as a modern organization that looks to the future***, that fosters innovation and technology, that interacts in a responsible manner with the environment and rural society, and that promotes agriculture and rurality as sources of opportunity and progress. To this end, it has established a series of initiatives that have become reference points at the hemispheric level: (i) the Interpretive Center for Tomorrow's Agriculture (CIMAG); (ii) the Typical Rural House (understanding our roots is necessary in order to build a sustainable future); (iii) the Fab-lab for Agriculture, through which digital transformation processes are implemented and technology use is optimized for the benefit of agriculture in the Americas; iv) AgroArt, a virtual art museum that reflects the culture of agriculture in the Americas; v) a popular music tribute to the heroes of agriculture – those who work day to day to put food on our tables; and vi) the We are the Blue Flag initiative, which fosters and establishes an institutional culture of environmental sustainability.

III. CONTEXT FOR IICA'S ACTIONS

- 21 The 2018-2022 MTP highlighted: i) the Sustainable Development Goals (SDGs) adopted in 2015 to guide the development agenda for 2030; ii) weakening multilateralism and rising protectionist trends in a multipolar world, which have impacted agricultural trade exchanges; iii) a reduction in the amount of resources allocated to official development assistance; and iv) the global economy cycle following the global financial crisis of 2008-2009, marked by the emergence of new economies and fluctuations in international commodity prices. It also underscored the exponential growth of digital transformation processes, as evidenced by

advances in digital agriculture and biotechnology as the basis for achieving sustainable intensification and minimizing the risks associated with climate change. The impact of climate change on agriculture, as well as the reduction of greenhouse gas (GHG) emissions as an objective of the COP meetings, were also highlighted.

- 22 These aspects remain key components of the context in which the Institute carries out its activities. However, in outlining the Institute's actions for the period 2022-2026, it is important to bear in mind that certain challenges facing agriculture globally and in the Americas have deepened and become more widespread over the past four years. In this regard, the main issues are the positioning of agriculture in the economy and society, and, particularly, of the bioeconomy and its circular nature as pillars of sustainable development with a focus on agrifood systems; the prioritization of climate action and the acceleration of technological innovation processes, as well as the consequences of these changes on governance and institutional frameworks; and public policies related to agriculture and the strengthening of food and food security in the Americas.
- 23 These issues must be analyzed within the context of new agrifood geopolitics, in which the Americas is consolidating its position in international agricultural trade and its strategic role in achieving global food, nutritional and environmental security. Open, transparent international trade based on multilateral rules is key to achieving food security and an efficient global agrifood system. Two global events have had direct repercussions on agriculture and food: the COVID-19 pandemic and the invasion of Ukraine by the Russian Federation. In the case of the aforementioned pandemic, health containment measures further deepened the global economic downturn; however, policy responses and progress achieved with respect to vaccination enabled the economy to rebound in 2021. The Americas was one of the regions most affected by the pandemic from a health, economic and social standpoint, experiencing a substantial impact on food security and the income of the most vulnerable sectors, in addition to a rise in migration both between and within the countries of the hemisphere. Within this context, the price of the main agricultural commodities recovered rapidly, even exceeded pre-pandemic levels, while agricultural activity exhibited great resilience.
- 24 The Russian Federation's invasion of Ukraine generated a conflict of uncertain development and a new situation of geopolitical instability, with repercussions on the functioning of the global economy, the financial system and international trade, among other areas. Short-term impacts have been felt in agro-industrial trade (price hikes), in the energy markets (oil and gas), in some of the inputs used in food production (fertilizers) and in logistics. At this stage, it is not possible to predict the dynamics of the political, economic and commercial impacts that the current situation will have in the medium term, although it has become increasingly clear that there will be long-lasting effects on global and food geopolitics, as well as on many of the transformation processes currently underway, such as the energy transition and programs aimed at reducing GHG emissions in agricultural production, among others. This situation reinforces the need to establish mechanisms to monitor the situation in order to support rapid and effective

decision-making, both in terms of national policies and the region's joint position in future processes aimed at reorganizing markets.

- 25 In the context of this crisis, IICA's actions will be geared towards supporting the countries and contributing to diversification to reduce vulnerability; increasing the competitiveness of their production strategies to seize emerging opportunities; guaranteeing the inclusion of all stakeholders to foster development and social peace; and increasing the resilience of agrifood systems and the different agricultural stakeholders to climate events and external shocks, with a view to maintaining production and social progress.

The change in agriculture's role in the economy and society

- 26 In recent years, a change in the role of agriculture in the economy and society has taken hold. This trend has been driven by new concerns, demands and questioning on the part of global society. Within this framework, the *bioeconomy and agrifood systems* are the two main linchpins of this change in the role of agriculture in the economy and society.

Consolidating the bioeconomy as a way to capitalize on natural capital in a diversified and sustainable manner

- 27 The bioeconomy, understood to mean the series of sectors that utilize biological resources, processes and/or intelligence to produce goods and services, is a development approach that has garnered increasing attention since the last decades of the previous century¹. This occurred *pari passu* with mounting concern over the degradation of natural and biological resources, the impact of climate change and the need to meet a growing demand for food, materials and energy. At the same time, the emergence of a new technological paradigm, based on advances in biology and its interaction with the hard sciences, data science, robotics and engineering, allows for restructuring production processes to address these concerns and demands. The starting point of the bioeconomy is the sustainable production of plant, animal and microbial biomass by capitalizing on photosynthesis to produce food, energy and a wide range of environmentally friendly biomaterials. By positioning agriculture as part of a broader, more complex network of relationships among economic sectors, the bioeconomy fosters the transformation of rural territories, generating opportunities for income, employment and development. At the same time, it advances the transition towards an economy that is less dependent on fossil resources and more focused on biological and renewable resources², by replacing fossil fuels with renewable sources in the production of a wide range of materials.

¹ OECD (Organisation for Economic Cooperation and Development, Francia). 2009. The Bioeconomy to 2030: Designing a Policy Agenda (online). Paris, France, OECD Publishing. Available at <https://doi.org/10.1787/9789264056886-en>.

² Chavarría, H; Trigo, E; Pray, C; Smyth, SJ; Torroba, A; Wesseler, J; Zilberman, D; Martínez, JF. 2021. Potential of the bioeconomy to transform food systems (online). San Jose, Costa Rica, IICA. Available at <https://repositorio.iica.int/handle/11324/18564>.

The bioeconomy complements and expands the concept of circular economy, with great potential to increase eco-efficiency and reduce the carbon footprint of many production sectors³.

- 28 Given the aforementioned conditions, the bioeconomy has tremendous potential to generate an impact within the framework of the 2022-2026 MTP, given its great capacity to contribute in a positive manner to the fulfillment of the SDGs (further information in ECLAC et al. 2019) and, in particular, to strengthening the competitiveness, sustainability and inclusion of the region's agrifood systems (<https://bit.ly/3qLbLOk>), a topic prioritized by the Institute's member countries and decision-makers at the Food Systems Summit 2021, the Group of Twenty (G20) and COP 26, and expected to be addressed at the upcoming Ministerial Conference of the World Trade Organization (WTO)⁴. In recent times, more than fifty countries around the world, including two in the Americas, have established formal strategies for the development of the bioeconomy at the national level, as a basis for their sustainable development^{5, 6}. Possible scenarios resulting from Russia's invasion of Ukraine will serve to highlight the incentives of making this transition, given the increases in the prices of fossil resources and their impact on fertilizer and other input markets.

The spotlight on agrifood systems

- 29 Historically, food and agriculture have been synonymous, given the fact that the majority of the world's population lived in rural areas and their primary occupations were gathering and producing food for self-consumption, without the intervention of the market or within local market schemes. Over the past 150 years, this situation has undergone profound transformations, as agriculture has become more specialized and logistics, transportation and processing activities have acquired greater importance. This has resulted in the generation of food whose characteristics differ from those of their original components (raw materials), as opposed to what happened previously, when food consumption was largely determined by primary and local production without further processing⁷.

³ De Schoenmakere, M; Hoogeveen, Y; Gillabel, J; Manshoven, S; Martin, J. 2018. The circular economy and the bioeconomy: Partners in sustainability. Copenhagen, Denmark, EEA. EEA Report No 8/2018.

⁴ The WTO Committee on Trade and Environment highlights the manner in which trade can contribute to fostering a circular economy that promotes the reuse of materials and improves efficiency in the use of resources. Refer to WTO (World Trade Organization, Switzerland). 2021. Sustainable trade, circular economy and aid for trade. An issues paper for the 2020-2022 monitoring and evaluation exercise (online). Geneva, Switzerland, WTO and OECD Secretariats. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/COMTD/AFTW87.pdf&Open=True>.

⁵ Teitelbaum, L; Boldt, C; Patermann, C. 2020. Global Bioeconomy Policy Report (IV): A decade of bioeconomy policy development around the world (online). Berlin, Germany, Secretariat of the Global Bioeconomy Summit 2020. Available at https://gbs2020.net/wp-content/uploads/2020/11/GBS-2020_Global-Bioeconomy-Policy-Report_IV_web.pdf.

⁶ Costa Rica and Colombia have formal strategies in place to foster the bioeconomy, while Uruguay, Guatemala, Mexico, Brazil, Argentina and Paraguay have advanced in the process of developing such a strategy.

⁷ Piñeiro Martín; C. Luiselli; A. Ramos; E. Trigo, 2021. El Sistema Alimentario Global: Una Perspectiva desde América Latina y el Caribe, Editorial Teseo, Buenos Aires, República de Argentina.

- 30 Growing urbanization, rising incomes, changes in the job market (particularly greater participation by women), the growth of the international market, deregulation and globalization are the main elements that deepened and accelerated these trends.
- 31 The importance of these processes becomes evident when considering the magnitude of the changes involved. According to data for 2018 by IICA-CAESPA, 35% of food consumed globally is imported⁸. The relevance of these transformations is supported by the fact that, according to estimates by the Food and Agriculture Organization of the United Nations (FAO) and the International Labor Organization (ILO), 1.28 billion people are directly employed by the global food system, while 3.25 billion people depend on it for their livelihood⁹.
- 32 Within this framework, agriculture brings together and depends on a complex system of interacting stakeholders, which determine decisions and behaviors that must be taken into account in planning the future of the sector and related policies. The evolution, over the past few decades, of the share of primary production in the value of the food basket in the United States demonstrates the magnitude of these processes. According to the United States Department of Agriculture (USDA)¹⁰, the share of agricultural products in food expenditure has continuously declined since the 1950s, from 41% in 1950¹¹ to 14.3 % in 2019. That is, out of every dollar spent on food in that country, agriculture had a 14.3% share and the marketing bill was 85.7%. The information available for other countries, both developed and developing, shows similar trends, to a greater or lesser extent¹².
- 33 In late 2020, this perspective began to take center stage in the international agenda and in the development of strategies for agriculture, following the call to hold the United Nations Food Systems Summit, made by the Secretary General of the United Nations based on the conviction that, given the importance of food systems for the global economy, the SDGs can only be met by guaranteeing *sustainable, inclusive and resilient agrifood systems*¹³.
- 34 At the Summit, the Ministers of Agriculture of the Americas presented a joint position, summarized in 16 messages, which, in alignment with the objectives of the Summit,

⁸ Over the past 40 years, the amount of food measured in calories that crosses an international border increased from 12% to more than 19% (Martin and Laborde 2018). According to Hoekstra (2010), international trade would allow for reducing water use in agriculture by 5%, based on a comparison of the amount of water used for global agricultural production with that which would be required in the absence of international trade, i.e., if food were only produced domestically.

⁹ United Nations. 2020. Policy Brief: The Impact of COVID-19 on Food Security and Nutrition. Figure 3. Jobs and risks and livelihoods at risk in the food systems (in millions) (online). New York, United States of America. Available at <https://unsdg.un.org/sites/default/files/2020-06/SG-Policy-Brief-on-COVID-Impact-on-Food-Security.pdf>. p. 11.

¹⁰ ERS (Economic Research Service); USDA (United States Department of Agriculture). 2021. Food Dollar Series, March 2021 (online). Washington D. C., United States of America. Available at <https://www.ers.usda.gov/data-products/food-dollar-series/>.

¹¹ Schnepf, R. 2015. Farm-to-Food Price Dynamics (online). Washington D. C., United States of America, Congressional Research Service. Available at <https://sgp.fas.org/crs/misc/R40621.pdf>.

¹² Nguyen, N; Mobsby, D; Goesch, T. 2016. Farm-to-retail price spread and farm share in food supply chains: Background paper (online). Canberra, Australia, ABARES. Available at https://www.researchgate.net/publication/339972664_Farm-to-retail_price_spread_and_farm_share_in_food_supply_chains_Background_paper.

¹³ United Nations. 2021. Food Systems Summit 2021 (online). New York, United States of America. Available at <https://www.un.org/en/food-systems-summit/summit>.

underscored the region's strategic role in global food and environmental security and proposed certain principles for transforming agrifood systems¹⁴. The messages analyze consumer demands and nutritional aspects, strategies to boost productivity and sustainability, and the need for differentiated actions that reflect the situation of countries of the Northern Triangle of Central America and in the Eastern Caribbean¹⁵.

- 35 These messages, which were duly endorsed by the ministers of Agriculture of the region at the meeting of the Inter-American Board of Agriculture (IABA) in September 2021, underscore the key importance of agrifood systems and the need to take them into consideration in designing cooperation strategies¹⁶. All of these aspects provide a broader framework for IICA's actions, which must be taken into account in its strategy for the period 2022-2026.

Prioritizing climate action in relation to agriculture and agrifood systems

- 36 Environmental sustainability and climate change have gained prominence among the concerns of the international community. Evidence available on the impacts of the rise in average temperature demonstrate the urgent need to accelerate climate action to boost resilience and drive the transition towards a low-emission economy¹⁷. The magnitude of the interactions between natural resources, the environment and climate issues with agriculture and food systems has brought these issues to the forefront in climate negotiations.
- 37 The United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement adopted in 2015 lack a sectoral approach and therefore do not refer to agriculture as such – only in broader terms when describing the impacts of climate change on food security. In fact, the preface of the Paris Agreement recognizes the fundamental priority of safeguarding food security, eradicating hunger and addressing the specific vulnerabilities of food production systems to the adverse impacts of climate change, in order to achieve climate action objectives. In the same vein, 142 of the 164 countries that submitted new or revised nationally determined contributions for consideration up to 2021– including most countries of the Americas – cite agriculture as a key sector in adaptation and mitigation actions.
- 38 The establishment of the Koronivia Joint Work on Agriculture (KJWA) at COP 23 (2017) defines an institutional forum specifically for agricultural issues, providing a platform to drive the transformation of agricultural and agrifood systems, with a view to ensuring that agricultural development contributes to more solid food security in the context of climate change and to mitigation. In its first four-year phase, the KJWA addressed six topics related to soils, nutrient

¹⁴ IABA (Inter-American Board of Agriculture). 2021. Resolution No. 531: The transformation of agrifood systems and the role of agriculture in the Americas (online). San Jose, Costa Rica. Available at <http://repositorio.iica.int/handle/11324/18705>.

¹⁵ Ibid.

¹⁶ IABA. *Loc. cit.*

¹⁷ IPCC (Intergovernmental Panel on Climate Change, Switzerland). 2022. Climate Change 2022: Impacts, Adaptation, and Vulnerability. Summary for Policymakers (online). Geneva, Switzerland. Available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

use, water, livestock farming, methods for evaluating adaptation, and the socioeconomic, food security and climate change dimensions of the agriculture sector.

- 39 Increasingly stronger linkages between agriculture and food systems and environmental issues and climate change have taken center stage in the design and implementation of the agendas of the Food Systems Summit (September 2021) and COP 26 (Glasgow, November 2021). At the Summit, climate issues were explicitly incorporated into the five action tracks proposed as the basis for the preparatory process, and were given prominence in a number of important coalitions of action – including the Coalition of Action 4 Soil Health (CA4SH), the Agroecology Coalition, the Coalition of Action 4 Soil Health and the Coalition on Sustainable Productivity Growth for Food Security and Resource Conservation – and in other initiatives promoted outside of formal negotiations, such as the Agriculture Innovation Mission for Climate (AIM4C), the Global Methane Pledge, the Glasgow Leaders’ Declaration on Forests and Land Use, Climate shot and one of the goals of the Glasgow Breakthrough Agenda: ensuring that “climate-resilient, sustainable agriculture is the most attractive and widely adopted option for farmers everywhere by 2030”.
- 40 The foregoing has highlighted the strategic role of agriculture and agrifood systems in climate action. Consequently, COP 27, to be held in Egypt in November 2022, is expected to shine the spotlight on agriculture as well as drive progress in concrete actions addressed by the aforementioned forums and in means of implementation (funding, capacity building and technology transfer). These conditions will be influential in the coming years, and must therefore be addressed in a comprehensive manner by the Institute’s MTP.

Accelerating technological innovation processes

- 41 Advances in biology, information and communication technologies (ICTs), nanotechnology and engineering have continued to grow, driving significant development across all sectors of the economy. With respect to agriculture and food, the advances driven by the “new biology” (a process that began in the 1950s) have made research and development (R&D) processes more precise and reliable, capable of being applied in virtually all fields of the agrifood activity, which has led to a better understanding of natural resources and ecosystems. This is of undeniable value, as it has made it possible to propose new ways of striking a balance between production, productivity and sustainability in agriculture. It has also allowed for establishing linkages with other sectors through R&D, both in terms of the vertical integration of primary production, as well as in post-harvesting stages, the development of new products, processing and marketing. At the same time, knowledge management is becoming increasingly important for decision-making regarding the management of health risks in all stages of production, marketing and consumption, as well as in national agricultural health, food safety and quality systems.

- 42 The impacts of ICTs, including microelectronics, data science and remote sensing, are evident both at the institutional level and in production technologies. At the procedural level, the efficient management of large databases associated with complex systems, such as biological ones, reduces research costs by facilitating access to information, helping to limit duplicated efforts and facilitating the sharing of results within and outside of institutions themselves. These capabilities also improve interactions with other disciplines, such as genomics and its new methodologies, as part of processes that are interconnected, both in terms of their scope as well as the speed at which new process options emerge to facilitate decision-making at the farm and regional levels.
- 43 At the same time, new technologies are associated with a much broader impact on aspects that define rurality, including agricultural activities. By reducing the transaction costs historically associated with rural areas, connectivity and the availability of mobile devices (the foundation of the new digital economy) contribute to reducing the limitations posed by distance, thereby facilitating the dynamics of population settlements and reducing the gap between territories in terms of quality of life and possibilities for economic and social progress.
- 44 These processes, which have been underway for some time, are expected to accelerate in the coming years, spurred by a sharp reduction in the costs of some of their fundamental components and as a result of the younger generations becoming more familiar with them. However, the region as a whole invests very little in R&D, particularly in smaller and tropical countries, which significantly limits the capacity to capitalize on new technologies. To this end, it is necessary to build up the capacity to apply cutting-edge technology in the specific context of problems to be solved. These capacities are associated with levels of investment, not only by public institutions, but also by the private sector, which are also lacking.
- 45 This is not simply a matter of investment, however. The technologies involved in innovation processes are breakthrough technologies that force us to reassess not only what is done, but also how, when, with what and even with whom. It is therefore not enough to merely address the issues of investment and the application of science- and technology-based solutions. It is also important to consider agricultural organization processes and their linkages with all other economic sectors, as well as the nature of these processes and the manner in which “science is done”. Not only is the “role of production” changing (input-output relationships and use/application methods), but so are the disciplines involved, and, in turn, the requisite institutional frameworks. These advances and transformation processes will determine the present and future of agrifood systems and must therefore be addressed by IICA in its 2022-2026 MTP.

Challenges and opportunities for governance and institutional frameworks

- 46 Agricultural institutions in general, and the public policy agenda in particular, must increasingly focus their attention on emerging scenarios. Specifically, the duties and competencies of

ministries of agriculture must be strengthened to address new demands with respect to nutritional, technological, commercial and environmental processes that go beyond rural areas and production activities themselves. ICTs also have the potential to change the manner in which public policies are drafted and implemented. Specifically, the growing availability of data and increased capacity to process it will make it possible to design and implement policies in an increasingly efficient and effective manner. This will involve new linkages and collaboration with other ministries and state institutions, as well as greater coordination with the private sector and civil society.

- 47 The institutional development and modernization of public systems, at the national and regional levels, are necessary conditions within a changing environment that is becoming increasingly demanding. This will allow for taking advantage of new opportunities for socio-productive development in national and international markets, associated with the bioeconomy, greater inclusion in agrifood systems, climate action and advances in science and technology. The “silo” structures that have historically prevailed as the basis for organizing and implementing public policies are losing efficiency and effectiveness in a world with increasingly complex and dynamic horizontal and vertical linkages.
- 48 In view of the foregoing, the Institute will adjust its MTP to support agriculture and the institutional framework of its member countries, with a view to collaborating in the gradual development of a new generation of public policies and the corresponding institutional framework.
- 49 In order to establish the requisite institutional framework, it is necessary to: i) readjust and simplify the regulatory framework and review the duties assigned to ministries of agriculture; ii) identify means for boosting participation and consensus building among all stakeholders involved in agrifood value chains and systems; iii) recognize the interdependence of all stakeholders in conducting this work; iv) boost quality in the design and implementation of promotion, incentive, investment or regulatory policies, ensuring greater effectiveness and efficiency in their application in the agrifood system; v) strengthen the institutional bodies responsible for applying regulations, boosting technical quality by providing human resources with training and the necessary equipment and budgets; vi) encouraging transparency and accountability, to build trust among consumers, investors, commercial agents and the public; and vii) combat corruption and ensure that the law is applied in an impartial manner and with the highest possible degree of scientific rigor.
- 50 New regulatory requirements, public-private interaction and the role of the private sector within the framework of new strategies underscore the need to foster new institutional schemes and a culture of collaboration through joint work in networks.
- 51 The primary duty of the “*new institutional framework*”, designed to operate in a network, will be to foster the following in a highly coordinated manner: (i) the *investment* policies required to stimulate food systems; (ii) *territorial development* policies in communities that have developed and established competitive agrifood systems that perform well in markets and that

involve all types of farmers and rural dwellers; (iii) the *environmental policies and regulations* required to guarantee the sustainable use of natural resources and, at the same time, the competitive performance of food systems; (iv) *agricultural and agro-industrial policies with a focus on value-adding at the local level*; v) public-private *partnerships* and partnerships between private enterprises to develop competitive systems and attract investment; vi) the *market insertion* of agrifood systems and their subsystems at the national, regional and international levels; and vii) *investment in science, technology and innovation (STI)* to achieve higher levels of productivity, competitiveness and value added, as well as to comply with market regulations and requirements.

- 52 At each of the dialogues, meetings and forums hosted by IICA during the 2018-2022 period, the countries of the Americas requested that these topics be addressed. Consequently, the Institute will adjust its MTP to highlight and prioritize these topics in its institutional activities over the next four years (2022-2026).

IV. TECHNICAL COOPERATION PROPOSAL FOR THE PERIOD 2022-2026

- 53 The proposed adjustments to the current MTP, geared toward its effective implementation in the period 2022-2026, are presented below. The proposal incorporates the concept of strategic statements, the business model and the proposed adjustments to enable IICA to deliver its technical cooperation services more effectively and to make its administrative management more dynamic and modern.

Strategic statements

- 54 In 2019, with a view to modernizing institutional management, planning, programming and evaluation processes, the Institute adopted the “strategic statements”, which have been adjusted as follows for the 2022-2026 MTP:
1. To be an IICA “of open doors” that is environmentally responsible and involved in the community.
 2. To provide technical cooperation of excellence through its network of offices, adopting an interdisciplinary and targeted approach, with special emphasis on the development of a new generation of public policies.
 3. To foster a leadership style that strengthens and transforms agrifood systems and collective action in the countries.
 4. To carry out efficient administrative management based on a process culture, decentralization and results-based continuous improvement.

5. To strengthen the Institute's finances by optimizing operations, utilizing institutional resources in a rational manner, increasing the mobilization of external resources, as well as establishing strategic partnerships that complement development projects and investment

Business model

- 55 As part of the institutional transformation process that IICA has undertaken, the Executive Committee (Resolutions No. 660 and No. 670) and the IABA (Resolution No. 530) have taken notice of and supported the Director General's proposal to define a new business model, design a new financial architecture and mobilize and attract external resources from various funding sources.
- 56 The distinguishing feature of the Institute's business model is the institutional capacity to deliver timely, relevant, flexible, high-quality services while remaining close to the countries. IICA possesses the ideal technical teams to drive knowledge integration; a network of offices that provide the Institute with a hemispheric presence; proven capacity and suitability at the administrative, legal and operational levels; as well as a network of partnerships with organizations, programs and other international institutions.
- 57 In implementing its business model, IICA focuses on three main aspects of institutional management:
 - **Strengthening of human talent.** Seeks to increase staff members' productivity and commitment to achieving skills certifications and successfully meeting the Institute's strategic objectives.
 - **New institutional governance.** Seeks to generate conditions for the operation of IICA's technical units, in accordance with technical cooperation services. The strategy redefines the relationship, delegation and reporting structures of the Institute's operational units.
 - **Strengthening of funding models for cooperation.** Seeks to adopt an effective financial architecture to meet the institutional mission, guaranteeing the Institute's financial sustainability through the creation of new models for attracting, securing and executing resources.

Technical cooperation proposal

- 58 In light of changes in the current context, the strategic statements that guide institutional actions and the business model, the following adjustments to the technical cooperation model for the 2022-2026 period are proposed, with a focus on three strategic actions:

1. Supporting the ***strengthening and transformation of agrifood systems***, in fulfilment of the mandate issued by the IABA in Resolution No. 531, which endorses the 16 messages presented by the Americas at the Food Systems Summit 2021¹⁸;
 2. Providing tools and inputs that contribute to the development of a ***new generation of public policies*** that recognize agriculture’s contribution to agrifood systems and to resolving the climate crisis, and that address the issues of science and innovation, bringing agricultural producers of all conditions and sizes to the forefront; and
 3. Supporting ***collective action*** among the member countries in areas related to the Institute’s mandate.
- 59 To this end, the Institute has reviewed its current programmatic structure and adjusted it for the 2022-2026 period. As a result of this review process, IICA created a new body to integrate the programs: the ***Public Policy Observatory for the Transformation of Agrifood Systems (OPSAA)***. The observatory works in coordination with the ***Coalition for Capacity Building to Transform Agrifood Systems***, incorporating the programmatic areas of this MTP in a cross-cutting manner. The two bodies will facilitate the flow of information and innovative initiatives that contribute to the agriculture sector’s transformation and participation in the economy and society. Additionally, the programs themselves will be expanded, and their areas of focus will be adjusted to adequately address issues resulting from new global scenarios and priorities. A new ***Digitalization of Agrifood Systems Program*** was created in light of the exponential growth of agricultural digitalization processes and the development of societies, as well as the actions that the Institute has been undertaking in this area. Pursuant to IABA Resolution No. 534, the ***Gender Equality and Youth Program***¹⁹ was also created. Lastly, a series of interdisciplinary technical cooperation initiatives have been established to address strategic demands in specific but inter-programmatic areas and to build bridges and strategic actions between countries, the region and the world, as well as between topics and disciplines.
- 60 The purpose of these changes is to continue to consolidate the vision of an IICA that looks outward to the world from the region and that provides its member countries with impactful and exceptional technical cooperation via its network of national delegations and regional and subregional technical cooperation mechanisms, with the ultimate goal of providing real solutions for the benefit of the ministries of agriculture of the Americas and other related public agencies.

¹⁸ Operative paragraph 4 of Resolution No. 531 indicates the request to: “include in the 2022-2026 Medium-term Plan (MTP) of the Institute a strategic and proactive approach to agrifood system transformation in the Americas, which will enhance the contribution of the hemisphere’s agriculture sector to global food and nutrition security, bearing in mind the following principles: a) recognition of the important role of agricultural producers in this process, b) the need to generate solutions to bring about this change, based on the priorities of the countries; and c) the promotion of partnerships and coalitions with all production sectors”.

¹⁹ Specifically in operative paragraph 4 of Resolution No. 534, which states: “To request that the Director General ensure that the strategic vision and technical cooperation actions aimed at reducing gender gaps and inequalities are strengthened in the 2022-2026 Medium-term Plan, with a view to increasing the empowerment and equitable inclusion of rural women in the development of the agrifood systems of the Americas”.

Public Policy Observatory for the Agrifood Systems (OPSAA)

- 61 The OPSAA is digital platform available to countries of the Americas. It seeks to serve as a meeting point to exchange knowledge and foster a new generation of public policies aimed at strengthening and transforming the hemisphere's agrifood systems. To this end, OPSAA will contribute to changing policymaking in the Americas by providing a forum for the analysis of policies and their national and international contexts, as well as for exchanging perspectives and visions for the future. It will also provide documents, data and updated information on public policies in various areas of strategic relevance. OPSAA is also expected to serve as an effective instrument to assist countries of the region in devising responses to specific situations, such as those resulting from the crisis in Eastern Europe.
- 62 This knowledge management platform for public policies is geared towards individuals and organizations in the public, private and academic sectors, as well as public policymakers who are committed to the sustainability of the region's agrifood systems. Through OPSAA, the Institute will provide decision-makers with information, ideas and opportunities for discussion, as well as foster partnerships and increase cooperation and the sharing of experiences among various stakeholders and countries throughout the region.

Coalition for Capacity Building to Transform Agrifood Systems

- 63 Aligned with the OPSAA, the *Coalition for Capacity Building to Transform Agrifood Systems* is being established, as a means of creating and building countries' capacities to strengthen and transform agrifood systems. It will seek to mobilize political, social, financial and technical support among national, regional and global bodies with common and complementary objectives, to contribute to the development of leadership capacities and the promotion and management of the innovation needed to foster the transformation of agrifood systems in the Americas.
- 64 The focus of the coalition will be consistent with the lines of action and discourse developed within the framework of the OPSAA, the hemispheric action programs and the various interdisciplinary initiatives. It will target technical staff and officials, as well as decision-makers (at the very least), who are responsible for or have an influence on public policies or institutional structures related to agrifood system transformation.

Programs

- 65 The five hemispheric programs established in 2018 will remain in effect, with some adjustments. During the last four years, the programs have consolidated their focus, through highly effective technical cooperation activities. Moreover, as mentioned before, two additional hemispheric action programs are being proposed – one in the digitalization of agrifood systems and the other in gender and youth.

Program 1. Innovation and Bioeconomy

- 66 In recent years, the bioeconomy has gained traction in the political, technical and business spheres of the region. Some countries have even devised strategies for its promotion. However, capacities must be strengthened to capitalize on the new frontier of technological innovations. Thus, the name of the Program will change from “Bioeconomy and Production Development” to “Innovation and the Bioeconomy”. There will also be adjustments to place greater focus on the following aspects:
- *Positioning of the bioeconomy’s potential* in discussions and in the major regional and international technical and political spheres, through the generation and dissemination of information, analysis and evidence.
 - Comprehensive and specific *capacity building* in areas that are key to the development of the bioeconomy.
 - *Support for the design of policies, rules and regulations in national and international spheres*, reflecting the characteristics and needs of the bioeconomy sectors.
 - *Development of tools, direct technical support and promotion of South-South cooperation and regional knowledge networks*, best practices and lessons learned, with respect to the formulation, implementation and evaluation of public policies, institutional structures and mechanisms to facilitate market access.
 - *Investment projects for biobusinesses*.
- 67 Given that it is an institutional priority, technological innovation in agrifood systems is being included as a strategic area of the Program. Efforts will focus on technology and production development in agrifood chains and rural territories of the Americas, by supporting the development of strategies to capitalize on the bioeconomy. The Program will also promote the identification, adaptation, development and scaling up of relevant technologies; the strengthening of organizational, business, technological, financial and commercial capacities of chain and sub-sector stakeholders; while advocating for projects and investments to stimulate and energize the biobusiness ecosystem and biobusiness innovation. Moreover, it will encourage the design and implementation of investment projects in sub-sectors and networks in LAC’s agriculture and rural areas; fostering of linkages between technology innovation and financing and investment; and the promotion of public-private partnerships in the area of agrifood research, development and innovation (R+D+i).
- 68 In keeping with this thrust and given the strategic importance of science and technology, the Program will promote and coordinate IICA activities that seek to bolster R+D+i capacities in the countries of the region, to enable them to benefit from the new science and technology frontier, thereby increasing the efficiency, sustainability and inclusion of their agrifood systems. This will call for greater levels of public and private investment in R+D+i in agriculture and food systems, as well as more effective use of investment, ensuring that the products and services generated by R+D+i address the needs and fulfill the potential of users,

by creating public goods or developments that reach the market. The Program will place particular focus on collaboration with technical cooperation mechanisms in which the Institute is involved, as well as with key strategic partners, such as the Tropical Agricultural Research and Higher Education Center (CATIE) and the Consultative Group for International Agricultural Research (CGIAR).

- 69 Another aspect that bears mentioning is the creation of an internal and external platform of partners to guide and manage the creation and acceleration of bioeconomy businesses in Latin America and the Caribbean, as a mechanism to create value and foster innovation in the generation of technology solutions tailored to each country.

Program 2. Territorial Development and Family Farming

- 70 The Program will focus on collaboration with governments and social, economic and entrepreneurial family farming (FF) cooperatives, with a view to promoting the design and application of public policies aimed at fostering systemic competitiveness in rural areas, mid-sized cities, production units and businesses. The Program will also seek to integrate various concepts into cooperation activities, such as the notion of institutional quality, public investment policies and the promotion of private investment and associative efforts.

- 71 To this end, the Program will continue to contribute to the design and implementation of policies, programs and projects to facilitate the inclusion of FF production in agrifood systems, as well the development of a new generation of public policies. There will be a focus on associative strategies that facilitate agricultural competitiveness, ecosystem sustainability, mitigation of and adaptation to climate change, the reduction of depopulation and migration, and coordination and investment in public and private enterprises in rural areas. The Program will work with countries to:

- *Promote and support the development of a new generation of public FF policies* that drive the development of rural territories and agrifood systems. The aim is to ensure the inclusion of family farming production units and to increase their supply and demand capacity, through their promotion and inclusion in effective and efficient cooperative enterprises, by way of public-private partnerships.
- *Facilitate the social and economic inclusion of FF in agrifood systems, through technical cooperation activities.*
- *Contribute to enhancing FF competitiveness* in rural areas and agrifood systems, by developing associative capacities, with a focus on promoting cooperative efforts.
- *Spearhead actions to strengthen the capacities of regional policy integration organizations and institutions* to stimulate discourse on territorial development- and FF-related public policies.

- 72 A key action of the Program will be the consolidation of strategic partnerships with cooperatives in all countries of the region to promote their digitalization.

Program 3. International Trade and Regional Integration

- 73 Open and transparent international agrifood trade, based on multilateral rules, is critical in enabling the Americas to fulfill its pivotal role in food security and agrifood system transformation. Herein lies the importance of strengthening the multilateral trade system to allow the region to capitalize on its production and trade potential. As such, countries must make better use of opportunities afforded by the signing of trade agreements and by integration processes (trade policy, administration of agreements and trade promotion), to spur economic recovery and increased food security.
- 74 Moreover, in the current climate, there is a clear need to link the issues of trade and the environment. The region can capitalize on its wealth of natural resources and the efficiency of its production systems to increase its presence in international markets and to deepen integration processes to contribute to the supply of healthy, nutritious and safe food, produced in an environmentally responsible manner.
- 75 The International Trade and Regional Integration Program will continue to provide support to member countries to improve their access to international markets, deepen their regional integration and increase their contribution to agrifood system transformation. To this end, it will focus on two strategic lines of action:
- *Improving market access and implementing trade policies to promote openness, transparency and the free-flow of international trade, while preventing or reducing trade barriers.* To this end, it will implement actions to strengthen multilateral governance, in order to guarantee open, transparent and predictable international trade and to enable the region to fulfill its role in achieving food security and agrifood system transformation. It will also seek to support the effective participation of countries in international fora; improve regulatory frameworks governing international and regional trade; and increase the capacity of key stakeholders to administer trade agreements. Moreover, it will aim to improve market access and promote intraregional trade, with a view to diversifying trade partners and reducing the negative impact of shocks on international markets, while promoting regulatory convergence and trade facilitation.
 - *Identifying and capitalizing on opportunities afforded by trade agreements and integration processes.* Taking into account changes in trade flows and intraregional trade, the aim is to develop differentiated strategies, specific to markets, chains or products, and to strengthen the export capacities of companies and producer organizations. The Program will also create forums to facilitate trade, through the use of new technologies, such as virtual business roundtables, e-commerce platforms, trade fairs and face-to-face trade missions; and promote linkages at the regional and global levels, as a means of improving access to export markets and contributing to food security and economic and social recovery, in response to markets shocks. As such, it

will also promote rural tourism, in particular in countries in which tourism is a predominant sector, for example, in the Caribbean.

- 76 To this end, it will promote partnerships to strengthen intraregional trade and food security, in view of the new economic and political crisis in the world, and will undertake a joint initiative with the Latin American Integration Association (ALADI). It will also continue to organize virtual business roundtables (strengthening intraregional trade and the use of new technologies, including trade platforms), among other technical cooperation actions.

Program 4. Climate Action and Agricultural Sustainability

- 77 The UNFCCC, the KJWA, the Paris Agreement and the nationally determined contributions (NDCs) provide an opportunity to transform agrifood systems to ensure greater sustainability and resilience and to enhance their contribution to global food and nutritional security and the development of the countries of the Americas in the current climate.
- 78 The name of the Program has been changed to better reflect the areas of emphasis of its activities and the fact that sustainability should be an integral part of a risk-based approach. The Program will foster integrated solutions, based on principles that address the priorities of IICA Member States to achieve a more sustainable, climate resilient and low-carbon sector. It will support the implementation of actions that address the national priorities identified in the NDCs, as well as actions to facilitate greater inclusion of agriculture in future NDCs, thereby enabling it to contribute to the achievement of multiple sustainable development targets. The Program is developing a strategy to build political will to facilitate technical activities, through greater access to climate financing and to strengthen linkages with other programs.
- 79 To this end, it will aim to generate knowledge and develop capacities to:
- *Promote political dialogue that positions the sector and its priorities within climate change- and environment-related processes.* This includes promoting the participation of the agriculture sector in the UNFCCC and its associated commitments, as well as providing opportunities for consensus-building, seeking unifying elements that help to position and increase the visibility of the region and its interests.
 - *Develop strategies and mechanisms to encourage change and to scale up climate action to increase the sustainability of agrifood systems.* This includes facilitating horizontal cooperation and exchange between countries; supporting the development, implementation and monitoring of climate change policies and programs; building capacity; and promoting innovation and digitalization, as a means of contributing to the sector's climate response and its sustainability.
 - *Implement actions in the field to validate, spearhead or demonstrate approaches, practices, tools or perspectives, thereby creating concrete experiences with the potential to be scaled up.* This includes working with producers to drive sustainable soil and water management in the livestock, rice, and coffee chains, among others; promoting the recovery and regeneration of

agroecosystems; encouraging practices that contribute to climate resilience and mitigation; and promoting the circular economy, among other activities.

- 80 To this end, the Program will advocate for more active and informed participation of agrifood systems in climate processes at the national and international levels and aim to bolster the systems' position as a key part of the solution to climate change and environmental degradation.

Program 5. Agricultural Health, Safety and Agrifood Quality

- 81 The COVID-19 pandemic has focused attention on the need to operate within the context of a "One Health" approach and to develop an integrated perspective of the dimensions of agricultural development, agrifood systems and public-private interaction, promoting leadership and a culture of collaboration, through different forms of joint work.

- 82 Based on this conceptual approach, the Program will seek to:

- *Foster technical and institutional improvements in agricultural health and food safety systems (AHFS), incorporating the "One Health" concept and advocating for the use of digital tools and the development of new or improvement of existing methodologies to more efficiently manage the aforementioned systems.*
- *Harmonize, update and implement science-based health, safety and quality standards, promoting the harmonization, updating and implementation of sanitary and phytosanitary measures, within the framework of the Application of Sanitary and Phytosanitary Measures, the Trade Facilitation and the Technical Barriers to Trade agreements, by strengthening technical capacities for decision-making and institutional capacities for the implementation of these agreements.*
- *Develop capacities to adopt best practices and to tackle emerging issues, in a bid to strengthen national and regional capacities in prevention, preparation, management and response to emerging issues and sanitary and phytosanitary emergencies, by promoting the use of new technologies and knowledge management and the development of effective prevention and control programs for zoonotic diseases, to reduce their impact on public health.*

- 83 Thus, the Program will focus on promoting agrifood systems, operating in a productive, competitive and sustainable agriculture sector and supplying safe food to local, regional and global markets, through the development, improvement and implementation of policies on agricultural health, safety and agrifood quality.

- 84 Within this context, the digitalization of AHFS (sanitary intelligence, use of digital technologies to promote a culture of safety and to prevent pests and diseases, electronic certification), science-based decision-making and the "One Health" concept will be priority areas in the work of the Program.

Program 6. Digitalization of Agrifood Systems

- 85 The introduction of digital technologies into agrifood systems involves transforming these systems in response to the growing demands and challenges facing humanity. In this regard, digital transformation entails a series of potential benefits that address the new concerns of global society, including increasing production and resilience, reducing environmental impacts and other negative externalities, improving transparency, facilitating integration and cooperation, and improving living and working conditions in rural areas. Given these benefits, digital technologies will become one of the main tools for climate action and for improving the manner in which agricultural policies are drafted and implemented. On the other hand, however, digital advances could have a negative impact on those who are unable to adapt to the new era and the speed of these changes. Digital transformation requires a series of factors (cybernetic infrastructure, access to technologies, skills to manipulate them, etc.) in which there are considerable gaps; as a result, it could become a contributing factor to inequality, conflict and exclusion.
- 86 The digital transformation of agrifood systems has accelerated due to the growing supply of digital solutions and increased digitalization resulting from the COVID-19 pandemic. Therefore, the time is ripe to *drive the digital transformation of agrifood systems* in order to harness its benefits and mitigate its threats.
- 87 Within this context, the Digitalization of Agrifood Systems Program is being created, based on the understanding that digital agriculture is a key element for the dynamic and inclusive transformation of agrifood systems in the Americas. The program's actions will be aimed at achieving the following objectives:
- *Establish and disseminate the need to drive digital transformation, as well as to support the creation of an institutional framework and the development of policy initiatives.* Actions will be carried out to raise awareness of the benefits and threats of digital transformation, to map out and analyze policy initiatives that foster digital transformation, and to provide support to member countries in the development of initiatives.
 - *Coordinate and provide skills training.* Actions will be geared towards identifying needs or opportunities with respect to skills training, as well as coordinating, together with educational and research institutions and technology providers, the development of concrete skills training initiatives.
 - *Detect and support the implementation of successful digitalization experiences and the development of solutions adapted to specific contexts.* Promising digital technologies will be identified, successful pilot experiences in the digitalization of agrifood systems will be generated, and efforts will be undertaken to foster their replication and adaptation in other contexts.

- 88 Within this framework, the program will seek to draw closer to and collaborate with developers of digital solutions in the sector (also known as startups), as well as to strengthen linkages and coordination with specialized organizations and initiatives in the various areas of digital agriculture (artificial intelligence, robotics, block chain, digital technical assistance, connectivity, etc.).

Program 7. Gender Equality and Youth

- 89 The IABA has emphasized the need to implement policies, programs and affirmative actions with a gender approach, as well as to increase rural women's participation in decision-making processes, particularly in mixed organizations and in the public sector, in order to address gender inequalities and decrease the gaps they face. In Resolution No. 534, the IABA explicitly recognizes the contribution of women in the Americas to agricultural and rural development across all cultural, social and productive sectors, especially given the major constraints that the COVID-19 pandemic has imposed on rural women. Furthermore, the resolution instructs the Director General to strengthen the strategic vision and technical cooperation actions aimed at reducing gender gaps and inequalities in this MTP, with a view to driving the empowerment and equal inclusion of rural women in the development of agrifood systems in the Americas.
- 90 To fulfill this mandate, this program will be aimed at increasing gender mainstreaming and support for rural youth in order to achieve substantial equality in the Americas. Its technical cooperation actions will focus on:
- *Strengthening institutional capacities in the region with a gender approach and increasing support for youth, while promoting regional frameworks that bring them together and give them a leading role in strengthening and transforming agrifood systems.*
 - *Supporting the development of a new generation of public policies and programs to position the region and strengthen its linkages with global agendas.*
 - *Strengthening the gender perspective at the Institute and the role of women in agriculture and rural life in the Americas, capitalizing on innovative capabilities to meet the demands of the Member States.*
 - *Leading an initiative on youth leadership in agriculture in the Americas, involving youth in efforts to develop a new generation of public policies and in decision-making that will contribute to transforming agrifood systems.*
- 91 To this end, the Program's actions will be aimed at driving coordination with public and private stakeholders to foster the inclusion of a gender perspective and the incorporation of youth into technical cooperation processes. Likewise, in light of the current climate and mitigation and reactivation plans in the aftermath of the COVID-19 crisis, it will foster the development of post-pandemic recovery strategies that are gender-sensitive and involve youth.

92 Within this framework, the Program will be strengthened through the generation of information, analyses, opportunities to work in a network, policies and programs with a gender perspective. Additionally, the management of the Hemispheric Platform for Rural Women and the Hemispheric Platform for Rural Youth will be strengthened. Similarly, all institutional activities that contribute to strengthening and establishing new partnerships in the area of gender and youth will be managed, both with Member States and with other key stakeholders in the international community, such as the forums of female ministers and other high-level officials of the Americas.

Interdisciplinary technical cooperation initiatives

93 In light of the highly relevant issues on the global agenda and the emergence of specific demands on the part of countries of the Region, the Institute has established ***interdisciplinary technical cooperation initiatives***. These initiatives propose an inter-programmatic approach to these issues and, in turn, improve the building of bridges between countries, the region and the world, as well as between programmatic/disciplinary topics and areas. Relevant initiatives currently underway include Living Soils of the Americas (LiSAM), the Coalition of Action for Soil Health (CA4SH), the Agriculture Innovation Mission for Climate (AIM4C) and Climate Shot; initiatives that are being discussed or negotiated within the framework of the Food Systems Summit and COP 27 include the Global Methane Pledge, the Glasgow Leaders' Declaration on Forests and Land Use, and the Coalition of Action for Sustainable Productivity Growth for Food Security and Resource Conservation.

Externally funded projects and external resources

94 IICA will continue to develop opportunities for institutional coordination that strengthen management and coordination by seeking and mobilizing external resources to help implement the 2022-2026 MTP. The Institute will therefore seek to utilize part of its institutional resources as pre-investment funds and, in this way, leverage complementary funds and resources that will enable it to successfully deliver innovative technical cooperation that effectively addresses the needs of the member countries and the challenges facing agriculture in the Americas.

95 Consequently, it is of the utmost importance to address the various stages in the design of technical cooperation and development projects. The identification, negotiation, formulation and evaluation of impactful projects are fundamental pillars of institutional cooperation because, in addition to supporting the countries, the projects yield a series of relevant best practices, lessons learned and opportunities for continuous improvement.

96 The following three strategies will be applied to secure and mobilize external resources:

- *Contribute to the effective implementation and management of projects in the countries.* Under this operational strategy, priority will be given to identifying investments for agriculture and

rural areas in IICA's member countries and in international funding agencies. Efforts will be undertaken to support the Member States in designing development programs and projects, strengthening inter-agency relations with national management structures, and improving their capacity to propose key investments in strategic development programs in which the Institute can provide technical cooperation.

- *Development of new projects based on the identification of opportunities.* Actions will focus on opportunities and initiatives that IICA's technical programs can support, that have been agreed upon with the countries and that are aimed at responding to their demands, including the initiatives developed as a follow-up to the Food Systems Summit 2021 and those aimed at addressing the SDGs set out in the 2030 Agenda.
- *International calls for strategic projects in the Americas.* The Institute will organize, facilitate and support the development of public calls for competitive projects and proposals, for which it will seek funding from international donors. The main actions will be the identification of opportunities of strategic interest to the member countries, the technical development of highly impactful projects and the subsequent presentation of such proposals to potential partners and funding agencies for agricultural and rural development.

V. EXTERNAL RELATIONS STRATEGY

- 97 An IICA that “listens, proposes and acts” has symbolized the ideal approach to working with the 34 Member States, as well as with Spain, as an associate country, and with the 19 permanent observers, given that it has generated innovative technical cooperation solutions to address the new challenges that emerge in the productive, socioeconomic and environmental sectors. This, in turn, has enabled the Institute to increase its global presence and become an “IICA from the Americas to the world”.
- 98 As the specialized agency for agriculture and rural life of the Inter-American System, and given its international legal status, political-diplomatic capacity and renowned technical strength, the Institute has the capacity to develop a broad agenda of interactions with public and private partners and allies at the national, regional and hemispheric levels. This gives IICA a significant advantage over other organizations that provide similar or complementary services. Specifically, the Institute fosters dialogues and public-private partnerships, including with leading companies in the agrifood sector.
- 99 Consequently, IICA has a framework for the establishment of strategic intersectoral partnerships which, under the rules of public international law, the principles and protocols of international relations and cooperation for development, seeks to expand its cooperation portfolio with more than 200 partners to achieve the following objectives:
 - a. Foster sustainable, intersectoral relationships.
 - b. Drive efficient, high-quality partnerships to achieve a broader impact.

- c. Expand the Institute's positioning and prestige at the global level.
 - d. Improve the attraction of external resources to increase investment in agriculture.
- 100 The institutional positioning strategy seeks to increase, at the internal level, cohesion within teams, the integrity of the Institute's mission, adherence to principles and the institutional alignment of management through cooperation networks of excellence. At the external level, the strategy serves as a tool to facilitate integration with stakeholders and multisectoral parties interested in agricultural development and rural well-being in the Americas.
- 101 The key factors of this framework include a coordinated and inclusive approach aimed at optimizing IICA's financial and non-financial resources. To this end, it will be necessary to define needs (demands), carry out the necessary planning, establish relationship mechanisms, invest in partnerships, follow up on actions and evaluate results achieved with partners, with a focus on continuous improvement.
- 102 The implementation of this strategy will require the development of a network of collaborators from Headquarters and the Institute's offices, as well as focal points in the Member States.
- 103 Among the priorities of the external relations strategy for the 2022-2026 period are the following:
- a. Achieve development results, manage knowledge and mobilize resources more effectively, by drawing on relationships with the Development Assistance Committee (DAC), donor foundations, international cooperation agencies, multilateral banks, various funds (green, environmental, social and governance), CGIAR institutions, the private sector, civil society, research institutions, and other relevant entities, bearing in mind national, regional or hemispheric agendas.
 - b. Establish institutional linkages with countries and organizations in other continents, with a view to expanding avenues of cooperation for the benefit of IICA's Member States.
 - c. Channel efforts towards implementing a plan for horizontal and triangular cooperation, as well as establishing a framework for South-South and intercontinental cooperation, as key instruments to strengthen the Institute's technical cooperation agenda at the regional level.
 - d. Enhance the competencies and powers of representatives, technical specialists and administrators in the 34 member countries for the signing of highly impactful agreements with the public and private sectors, civil society and research institutions.
 - e. Expand collaborative actions with the private sector, for the benefit of the various stakeholders involved in agricultural and rural development at the national, regional and hemispheric levels, through various forms of participation, collaboration or financing, based on the priorities established by IICA in this MTP.

VI. INSTITUTIONAL COMMUNICATION

- 104 Since 2018, the Institute has expanded its institutional projection, particularly through the generation and mass distribution of newsworthy and high-quality content.
- 105 A key element of the institutional transformation spearheaded by the current MTP was the development of active institutional communication strategies, which contributed to the development of an institutional discourse that highlights the strategic role of the agriculture sector and rural territories, and that recognizes the sector's key role in the global agenda.
- 106 Based on these achievements, and considering the fact that, in the current context, public communication is required to achieve relevant, impactful actions, one of the main proposed objectives of this Plan is to incorporate communication into the daily work of each IICA staff member.
- 107 Recognition of this role provides the Institute with a tremendous opportunity to increase its visibility in major communication media, which, in addition to disseminating information about IICA, serve as a major networking platform, enabling the Institute to reach governments and strategic allies.
- 108 The benefits of this exposure will not be confined to the Institute, as it also enables the dissemination and strengthening of initiatives by the governments to which IICA is accountable, while also facilitating international exposure, collective action and experience- and information-sharing, through public communication.
- 109 The Communication Division proposes and tailors messages, addresses potential crisis situations that could affect the Institute's reputation, and finds ways to make messages more attractive, publish, distribute, negotiate with relevant media and spread publications to take full advantage of opportunities.
- 110 The input used to develop these products comes from the technical and political actions of IICA's staff members, from the Director General to the technical staff, including the representatives, who, in addition to representing the organization, are responsible for promoting the Institute, reporting on its work and negotiating on its behalf with national partners, both at Headquarters and in the Delegations. This, in turn, contributes to transforming IICA into a reliable reference source for the media.
- 111 Successful institutional communication that fully accomplishes its mission must be seen as a shared responsibility involving the dissemination of agendas, milestones and technical and political objectives. This information, in turn, can guide communication planning towards achieving the desired impact.
- 112 This will also require the involvement and proactivity of technical specialists, who must provide timely and flexible responses. These are all basic components to achieve adequate positioning, based on an understanding of the needs of the media, and to respond to their demands in a timely manner and in the required formats.

- 113 IICA also proposes strengthening its Advisory Committee on Communication, a consultation body of the General Directorate and the Communication Division, as a relevant tool to take the pulse of the media industry and to generate media opportunities that facilitate the dissemination and positioning of content that is of interest to the Institute.
- 114 With a view to expanding institutional efforts and contributing to the professional development of content, externally funded projects will allocate a portion of their financial resources to communication efforts, which shall be implemented under the coordination of the corresponding Division.

VII. CORPORATE SERVICES

- 115 In the 2022-2026 period, the Institute will build on the gains that have been achieved since 2018, with a view to making administrative management more efficient, dynamic and modern. The aim is to boost the Institute's productivity and improve its strategic management, economic sustainability and internal conditions to foster partnerships, expand its project portfolio and provide technical cooperation of excellence.
- 116 Given the global economic and financial situation triggered by the COVID-19 pandemic, Member State quota contributions are not expected to increase in the short term, as required by the Institute. Thus, there will be a need to further strengthen the policy of strict, rational, austere and transparent use of institutional resources. As such, as much as possible, IICA will seek to channel resources into its value proposition, which prioritizes an innovation platform for the development of the agriculture sector and rural well-being, and that aligns knowledge management with innovative solutions.
- 117 The principles governing administrative management are as follows:
- a. *Transparency*
 - b. *Decentralization*
 - c. *Innovation*
 - d. *Efficiency and effectiveness*
 - e. *Resilience*
 - f. *Coordination*
 - g. *Team spirit*
- 118 Based on these principles, the strategic statements and the business model, the aim is to achieve the following strategic results:
- 119 ***Decentralized management***, which will entail distributing and delegating responsibilities to the Delegations, thereby optimizing the delivery of services in an integrated, efficient, and transparent manner. To this end, the Institute will continue to:

- a. **Update regulations and improve digital systems** to streamline administrative management. The IICA 4.0 strategy has improved the Institute's management vis-à-vis its clients and strengthened cooperation actions through its hemispheric network, transferring and integrating products and services, knowledge and innovations at the international level.
 - b. Consolidate a **process culture** that fosters efficiency, alignment, coordination and collaborative work, while reducing the time needed to respond to and address internal and external needs. This cultural transformation, which is based on innovation and continuous improvement, includes the promotion of work in networks and collective intelligence, thereby multiplying the Institute's capacity to proactively address demands and to add value to the services it offers.
- 120 **Strategic development** that integrates planning, monitoring and evaluation processes, which are key to driving continuous improvement, effectiveness in the achievement of results, compliance with institutional objectives and accountability. This will call for:
- a. Undertaking **integrated planning** on the basis of this MTP, by analyzing technical cooperation requirements and aligning them with the technical cooperation offered by the Institute, with a view to delivering concrete, tactical responses via units, projects and initiatives, working in networks.
 - b. Conducting **ongoing monitoring and business intelligence** as critical input for decision-making to inform the management strategy and to develop innovative technical cooperation solutions. Along those lines, providing management teams with access to timely information for decision-making remains a priority for the Institute, based on the understanding that up-to-date, accurate and complete information serves as the foundation for transparency and trust.
 - c. Strengthening the **risk management** system, in alignment with planning exercises, which will enable teams to formulate response plans and to act proactively in response to opportunities and challenges arising from cooperation and projects.
 - d. Bolstering the **evaluation²⁰ of management and projects**, based on an objective and constructive methodology aimed at continuously improving our services and restructuring the Institute's delegations in the member countries. This also involves scenario-building and capitalization on experiences to identify good practices and enhance technical cooperation solutions.
 - e. Driving adequate **change management**, which is understood to mean the process through which IICA will transition from its current to its future state, characterized by greater efficiency and effectiveness. It will be implemented through a comprehensive program involving agents of change from all institutional units.
- 121 The **strengthening of human talent** will be a priority in order to enhance the Institute's technical and administrative competencies. Human capital is the true asset and engine of technical cooperation services, facilitating the generation of new opportunities and the

²⁰ The evaluation process is based on an institutional policy and updated work guidelines.

development of innovative projects. Therefore, efforts will be undertaken to foster a high-performance culture that creates a positive work environment. IICA will strengthen its recognition program to increase staff motivation and commitment. The program will include internal initiatives and innovations aimed at providing training in and certification of technical skills, developing professional career plans, and offering incentives associated with performance and productivity. The foregoing will allow for strengthening the institutional capabilities required to implement the business model.

122 The mainstay of *financial sustainability* will be the adjustment of the Institute’s financial architecture to meet the requirements of the business model. IICA’s financial strategy will be geared towards mobilizing increased national public resources, international cooperation resources and private sector resources. The Institute will also work together with its Member States to secure funds to be invested in their food systems and rural areas. The resources that the Institute receives through quota contributions agreed upon with the countries, indirect cost recovery in technical cooperation projects, the sale of services and other funds will be allocated to institutional priorities, guaranteeing stronger linkages between expenditures and investments and the development of technical cooperation projects. On the one hand, the sale of services as a new means of attracting institutional resources must be regulated under a protocol that supports the value proposition of technical cooperation. On the other hand, the establishment of trust funds to deliver technical cooperation will require laying the groundwork for these mechanisms, including: objectives, sources, governance models, administration and execution bodies, operating procedures, etc. A modern financial architecture, as well as the budgetary management of regular resources and new sources of funds, will be key elements for achieving the objectives and results of the MTP, through good administrative practices such as transparency, rationalization and targeting of resources.

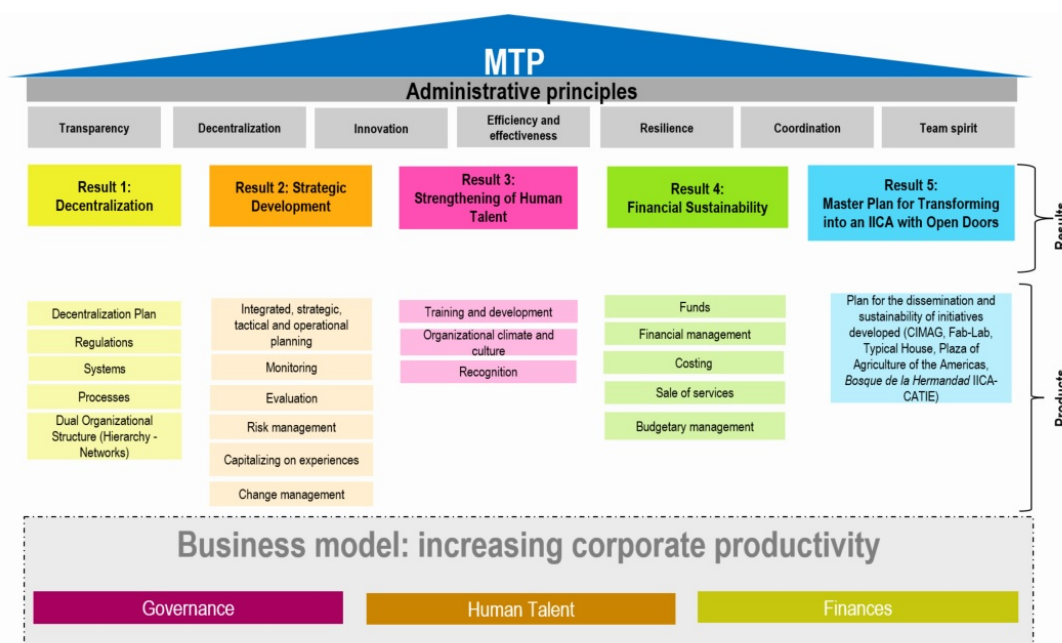


Figure 1: Overview of the administrative management strategy

- 123 Within the framework of corporate services, the Institute will develop a dissemination and sustainability plan for initiatives that are underway as part of its **IICA of Open Doors** initiative and to monitor new projects to be implemented starting in 2022.
- 124 The application of ICTs will intensify in the coming years, as tools that facilitate teleworking, immediate access to information, as well as the digitalization and virtualization of processes to deliver technical cooperation of excellence.

REFERENCES

- Bisang, R; Trigo, E. 2017. Bioeconomía argentina: modelos de negocios para una nueva matriz productiva (online). Buenos Aires, Argentina, Bolsa de Cereales de Buenos Aires. Consulted on May 15 2022. Available at https://www.magyp.gob.ar/sitio/areas/bioeconomia/_archivos//Modelo_de_negocios.pdf.
- Chavarría, H; Trigo, E; Martínez, JF. 2020. Políticas y negocios para la bioeconomía en ALC: Un proceso en marcha (online). C3-Bioeconomy: Circular and Sustainable Bioeconomy (1). Consulted on May 18 2022. Available at <https://www.uco.es/ucopress/ojs/index.php/bioeconomy/article/view/13150/11945>.
- Chavarría, H; Trigo, E; Pray, C; Smyth, SJ; Torroba, A; Wesseler, J; Zilberman, D; Martínez, JF. 2021. Potencial de la bioeconomía para la transformación de los sistemas alimentarios (online). San Jose, Costa Rica, IICA/ICABR. Consulted on May 17 2022. Available at <https://repositorio.iica.int/bitstream/handle/11324/18564/BVE21088315e.pdf?sequence=2&isAllowed=y>.
- D'Amato, D; Droste, N; Allen, B; Kettunen, M; Lähtinen, K; Korhonen, J; Leskinen, P; Matthies, BD; Toppinen, A. 2017. Green, circular, bio economy: A comparative analysis of sustainability avenues. *Journal of Cleaner Production* 168:716-734.
- De Schoenmakere, M; Hoogeveen, Y; Gillabel, J; Manshoven, S; Martin, J. 2018. The circular economy and the bioeconomy: Partners in sustainability. Copenhagen, Denmark, EEA. EEA Report No. 8/2018.
- ECLAC (Economic Commission for Latin America and the Caribbean, Chile), IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica), FAO (Food and Agriculture Organization of the United Nations, Italy). 2019. *The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2019-2020*. San Jose, Costa Rica, IICA.
- ERS (Economic Research Service); USDA (United States Department of Agriculture). 2021. Food Dollar Series, March 2021 (online). Washington D.C., United States of America. Consulted on June 2 2022. Available at <https://www.ers.usda.gov/data-products/food-dollar-series/>.
- Hoekstra, A. 2010. The relation between international trade and freshwater scarcity (online). Geneva, Switzerland, WTO. Consulted on May 25 2022. Available at <https://cutt.ly/wxcopdp>.
- IABA (Inter-American Board of Agriculture). 2021. Resolution No. 531: The Transformation of Agrifood Systems and the Role of Agriculture in the Americas (online). San Jose, Costa Rica. Consulted on March 25 2022. Available at <http://repositorio.iica.int/handle/11324/18705>.

IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2019. Bioeconomy and Production Development Program: Conceptual and methodological approaches for technical cooperation (online). San Jose, Costa Rica. Consulted on May 18 2022. Available at http://www.iica-ecuador.org/sisbio/doc_informacion/IICA-BIOECONOMIA_DOC-ingles.pdf.

IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2021. Towards a more sustainable, climate resilient and low-carbon agriculture sector (online). San Jose, Costa Rica. Consulted on May 22 2022. Available at <http://repositorio.iica.int/bitstream/handle/11324/15304/BVE21031261i.pdf?sequence=2&isAllowed=y>.

IPCC (Intergovernmental Panel on Climate Change, Switzerland). 2022. Climate Change 2022: Impacts, Adaptation, and Vulnerability. Summary for Policymakers (online). Geneva, Switzerland. Consulted on May 25 2022. Available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf.

ISAAA (International Service for the Acquisition of Agri-biotech Applications, United States of America). 2018. Global Status of Commercialized Biotech/GM Crops in 2018: Biotech Crops Continue to Help Meet the Challenges of Increased Population and Climate Change. Ithaca, New York, United States of America. ISAAA Brief No. 54.

Macías, M; Girón, C; Nieto, M; Chavrier, N; Páez, D; Ureña, M; Moreno, JC; García, M; De la Viña, G. 2020. Tecnologías de bioeconomía para valorizar residuos y desperdicios: Oportunidades de negocio para la agricultura familiar (online). San Jose, Costa Rica, IICA. Consulted on June 8 2022. Available at <https://repositorio.iica.int/handle/11324/12942>.

Martin, W; Laborde, D. 2018. The free flow of goods and food security and nutrition (online). *In* IFPRI (International Food Policy Research Institute). 2018 Global food policy report. Washington, D.C., United States of America. 20-29 p. Consulted on May 18 2022. Available at <https://cutt.ly/1z45Tj4>.

Nguyen, N; Mobsby, D; Goesch, T. 2016. Farm-to-retail price spread and farm share in food supply chains: Background paper (online). Canberra, Australia, ABARES. Consulted on May 19 2022. Available at https://www.researchgate.net/publication/339972664_Farm-to-retail_price_spread_and_farm_share_in_food_supply_chains_Background_paper.

OECD (Organisation for Economic Cooperation and Development, France). 2009. The Bioeconomy to 2030: Designing a Policy Agenda (online). Paris, France, OECD Publishing. Consulted on May 15 2022. Available at <https://doi.org/10.1787/9789264056886-en>.

Piñeiro, Martin; C. Luiselli; A. Ramos; E. Trigo, 2021. El Sistema Alimentario Global: Una Perspectiva desde América Latina y el Caribe, Editorial Teseo, Buenos Aires, República Argentina.

Schnepf, R. 2015. Farm-to-Food Price Dynamics (online). Washington D.C., United States of America, Congressional Research Service. Consulted on May 20 2022. Available at <https://sgp.fas.org/crs/misc/R40621.pdf>.

Teitelbaum, L; Boldt, C; Patermann, C. 2020. Global Bioeconomy Policy Report (IV): A decade of bioeconomy policy development around the world (online). Berlin, Germany, Secretariat of the Global

Bioeconomy Summit 2020. Consulted on May 26 2022. Available at https://gbs2020.net/wp-content/uploads/2020/11/GBS-2020_Global-Bioeconomy-Policy-Report_IV_web.pdf.

United Nations. 2020. Policy Brief: The Impact of COVID-19 on Food Security and Nutrition. Figure 3. Jobs and risks and livelihoods at risk in the food systems (in millions) (online). New York, United States of America. Consulted on May 21 2022. Available at <https://unsdg.un.org/sites/default/files/2020-06/SG-Policy-Brief-on-COVID-Impact-on-Food-Security.pdf>. p. 11.

United Nations. 2021. Food Systems Summit 2021 (online, web site). New York, United States of America. Consulted on May 21 2022. Available at <https://www.un.org/en/food-systems-summit/summit>.

World Bank. 2021. World Development Indicators (WDI) (online). Washington, D.C., United States of America. Consulted on 3 March 2022. Available at <https://databank.worldbank.org/source/world-development-indicators>.

WTO (World Trade Organization, Switzerland). 2021. Sustainable trade, circular economy and aid for trade. An issues paper for the 2020-2022 monitoring and evaluation exercise (online). Geneva, Switzerland, WTO and OECD Secretariats. Consulted on May 24 2022. Available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/COMTD/AFTW87.pdf&Open=True>.
